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Public Meeting

*Western New York Nuclear Service
Center Options Study*

**March 18, 1978
West Valley, New York**

Co-Sponsored by
Congressman Stanley Lundine's Office
39th District - New York
and

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U.S. Department of Energy
Assistant Secretary for Energy Technology

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April 1978



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Washington, D.C. 20545

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CONTENTS

- . Transcript of Proceedings
- . Additional Written Comments Submitted for Inclusion in Transcript
- . Results of Evaluations of the Meeting
- . Fact Sheet

SPEAKERS

1. Honorable Stanley N. Lundine, New York Congressman, 39th District
2. Honorable James T. McFarland, New York State Senate
3. Mr. Peter Skinner, New York State Attorney General's Office
4. Honorable Jess Present, New York State Senate
5. Honorable Daniel Walsh, New York State Assembly
6. Dr. Marvin Resnikoff, Sierra Club
7. Mr. Robert Niver, District Principal, West Valley Central School
8. Mr. Mike Parsons, West Valley Volunteer Hose Co.
9. Mr. William Fleckenstein, West Valley
10. Mr. Fred Horning, Councilman of Ashford, NY
11. Mr. J. Richardson Lippert, Franklinville, NY
12. Mr. Robert Brady, District Representative, Machinists Union, Buffalo, NY
13. Mr. Daniel Salim, Local Lodge 2401, NFS
14. Honorable Theodore Weiss, New York Congressman, 20th District
15. Honorable Jacob Javits, New York Senator (Statement read by Moderator)
16. Honorable Frank Horton, New York Congressman (Statement read by Moderator)
17. Mr. Ken Babcock, West Valley
18. Dr. Virginia Rasmussen, Lundine's Citizen's Advisory Group
19. Mrs. Lorna Salzman, Friends of the Earth
20. Prof. Roger Kasperson, Clark University, Massachusetts
21. Mr. Charles Coutoure, West Valley Chamber of Commerce
22. Mr. George Neudeck, West Valley
23. Mr. Dean Williams, President, West Valley Crystal Water Co.
24. Mr. Glen Bishop, West Valley Chamber of Commerce
25. Mr. Bernard Williams, Supervisor, Town of Ashford
26. Mr. Gerald Taylor, Cattaraugus County Legislature
27. Mr. Charles Hebdon, Cattaraugus County Legislature
28. Mr. J. Burney, Coalition of West Valley Nuclear Waste, Buffalo, NY
29. Ms. Carol Mongerson, Coalition on West Valley Nuclear Wastes
30. Mr. James Lango, Springville Radiation Study Group
31. Dr. Leo Moss, Cattaraugus County Health Department
32. Mr. Mike Finn, Little Valley, New York
33. Mr. Lou Dahlman, Ashford, New York
34. Mr. Lester Fuller, Ashford, New York (Statement read by Mr. Coutoure)
35. Ms. Beth Phillips, Rachael Carson College
36. Mr. Lenny Skrill, Rachael Carson College
37. Mr. Matt Flamm, New York Public Interest Research Group
38. Mr. Steve Vitoff, New York Public Interest Research Group
39. Mr. Cliff Ageloff, New York Public Interest Research Group
40. Mr. Ross Scott, Buffalo, NY
41. Ms. Susan Wendel, NO NUKES
42. Mr. Peter Meinhold, Safe Energy Coalition of New York State
43. Mr. Joe Shiden, Western New York Peace Center (Reading statement of Walter Simpson)
44. Mr. William Sunderlin, Syracuse Peace Council
45. Ms. Janne Sarles, Holland, NY
46. Mr. David Pyles, Springville Radiation Study Group
47. Mrs. Joan P. Schmidt, Erie County Environmental Management Council
48. Dr. Irwin Bross, Roswell Park Memorial Institute (Statement read by J. Burney)

49. Honorable Daniel Moynihan, New York Senator (Statement read by Moderator)
50. Mrs. Stanley Higgins/Mrs. Samuel Arcara, League of Women Voters and Lake Erie Basin Commission (Statement read by Moderator)
51. Mr. Ed Cannon, Lakeshore Alliance
52. Citizens Concerned about Sterling
53. Ms. Ruth Caplon, Ecology Action of Oswego
54. Mr. Tony Ingram, Ecology Action of Tompkins Co.
55. Mr. Edgar Ferrer, New York State People's Power Commission
56. Mr. Andrew Horner, Rochester Safe Energy Alliance
57. Ms. Janet Munsen, Powerline Action Committee
58. Safe Energy for New Haven (Statement read by Moderator)
59. Rev. Leon Dickinson, Citizens Committee for the Protection of the Environment
60. Mrs. Irene Dickinson, National Intervenors
61. Mr. Marvin Lewis, Philadelphia, PA
62. Dr. George Berg, Rochester Committee for Scientific Information
63. Mrs. Virginia Russell

TRANSCRIPT OF PROCEEDINGS

MR. NIVER: I'm Bob Niver, and I'm the District Principal of West Valley Central School. It's my pleasure to welcome you here on behalf of the Board of Education and the residents of our school district.

There are several housekeeping matters that we'd like to take care of at this point. If anyone who is going to make a presentation needs any A.V. equipment, would you please see Kay Palowski immediately after the announcements. Kay is standing in front of the screen to my left.

As you would expect, we do not allow smoking in our gymnasium regularly. Due to the length of the meeting, we're going to allow it today. But we'd ask that you use the ashtrays provided. We're quite sure that cigarette butts will cause damage to the floor. So we ask your cooperation in that matter. Coffee and donuts are available as you leave the gym to the right. The laboratories are also available to the right as you leave the gymnasium.

One other matter. If you wish to eat lunch here, we would ask that you register for lunch by 10 o'clock, so that our people will know how much to prepare. We will not prepare much in excess of those that register. We apologize for our lack of parking, but hope that you find our other facilities adequate. Thank you.

MR. THORNE: Good morning, I'm Bob Thorne, I'm the Acting Assistant Secretary for Energy Technology in the Department of Energy, and I welcome you to this public meeting concerning the West Valley plant.

The Department of Energy is sponsoring this meeting under the auspices of Congressman Lundine. Mr. Lundine has and will continue to play a key role in the review of the West Valley situation. I'm joined by Goetz Oertel from the Department of Energy, Rich Starostecki from the Nuclear Regulatory Commission, Carmine Smedira from the Department of Energy, all representing the Federal Government, and Mary Ann Richardson, the Legislative Assistant to Mr. Lundine, who will moderate this meeting.

The most pressing question and problem in the nuclear power program is what to do with radioactive wastes and shut down facilities. In this regard, Congress has chartered the Department of Energy to study the options for West Valley, the site, and ask for recommendations about existing and future responsibilities amongst the Federal Government, New York State, and Nuclear Fuel Services. We must report the study results to Congress by no later than the end of this calendar year, and to include within that schedule a 90-day period for public comments on preliminary results.

These comments will be factored in the report to Congress.

Separately though, we believe this study cannot be effectively performed without early on input from the interested public as to what the study should include. Consequently, this meeting is being held as close as possible to the site, and we expect considered input from the public. There may be other hearings later which might not be held at this facility.

It is obvious from your response to participate that we will indeed get an early on input, and we appreciate all of you for taking time out to appear, and especially for Congressman Lundine and Congressman Weiss and members of the New York State delegation to speak to us.

Before I get into the order of business, I would like to talk about the administration's commitment to squarely face and deal with the nuclear waste problems. The Department of Energy has just released, as many of you may know, a task force report that suggests the Department accept responsibility for the high-level waste at West Valley, amongst other issues.

This task force did not establish Federal or departmental policy. That is the job of a Federal task force that President Carter established earlier this week. The task force report said that this study will not be prejudged, and that the Department of Energy views on West Valley will be based upon this study and will be incorporated into the President's interagency deliberations. Consequently, stories to the effect that the Federal Government has or is likely to blackmail or hold the state hostage for a geologic waste repository is simply not the case. Despite reports to the contrary, there is no deal.

Now let me introduce Dr. Oertel, who is in charge of waste handling for the Department of Energy, and he will briefly discuss the background of the western New York Nuclear Service Center, and provide kind of the general background information concerning our study. Goetz?

DR. OERTEL: Thank you, Bob. I'm Goetz Oertel, I'm in charge of most of the existing wastes for the Department of Energy. I'd like to start off by making a number of announcements on logistics that I'm sure many of you will be interested in.

First of all, a copy of the transcript of this meeting can be purchased by writing to the address printed in your program. Copies will also be available for reading in Room 2207 in the Federal Energy Regulation Commission, and in Room 3200 in the New York Regional Office

of the Department of Energy, both located at 26 Federal Plaza in New York City.

I would also like to call your attention to DOE fact sheets which may be helpful to you in following the proceedings. They are available at the information desk at the door to this auditorium. Please note the evaluation card attached to the program. Any comments you care to make to assist us in planning any future meetings would be appreciated.

We have 62 requests to speak on the agenda, and if each of the speakers stay within their allotted times, this meeting would go to approximately 8:45 pm today. We will accept additional requests for speaking time if possible. Anybody who would like to speak and who is not on the agenda now should sign the board at the door with his name and request for time.

On the same board at the door we have also posted the schedule for the speakers and for any additional speakers. Please check the board at lunch time to see if time has been reserved for you. We ask your cooperation in complying with the time constraint so that we can get everybody who has requested to speak a chance to do so. And we hope to be able to do that before the end of this meeting. The time constraints will be enforced by our moderator, who will be introduced later.

We have scheduled the presentations by Federal and State governmental representatives first to give everybody here an opportunity to respond to the government presentations, and that's State and Federal, during their speaking time if they're so inclined. There will be a question and answer period which is scheduled for 12:05 p.m. Remaining speakers were grouped into like-interest groups as follows: representatives of environmental concerns, local and regional representatives, university representatives, individual citizens, union representatives, and members of Congressman Lundine's advisory group.

In order to present a balanced approach to the meeting, speakers from each of the above groups were selected on a rotating basis by the order in which the request was received. Written comments will also be accepted by the Department of Energy. Please send one copy to myself, Goetz Oertel, Department of Energy, Mail Stop B-107, in Washington, D.C. 20545. We must receive your statement by March 29 if it is to be included in the published transcript.

I would like to say a few words on the study itself now. The Congress of the United States has requested that the Department of Energy study the available options for the Western New York Nuclear

Services Center near West Valley, including the responsibilities, the institutional options and alternatives for the future use of that site. In short, what can be done, who should make it happen, and who should pay. The product of the study will be a report to Congress and departmental recommendations.

How will we get there from here? The study must get to the Congress within one year of its start, and after public review of the final report. There are three months allotted from the time that we first publish our report to the time we submit it to the Congress along with your comments.

Why are we here today? We are here in West Valley for a public meeting to receive your ideas, your comments, your suggestions or your recommendations on West Valley topics. We have not yet decided on any recommendations on what should happen at West Valley, or who should pay. Rather, we have outlined the framework for the study and for the report. We will explain to you how we expect to arrive at findings and recommendations eventually, but we cannot tell you today where we will come out in the end. We simply have not decided that, and we are here to get your input.

The Federal Government is represented here today by members of Congress, by the Department of Energy, Nuclear Regulatory Commission. What are their roles? Of course, I need not remind you that laws and the authorization and appropriation of any funds are the, are among the responsibilities of the Congress. The Nuclear Regulatory Commission is one of two successor agencies to the Atomic Energy Commission, regulates certain activities here at West Valley through the licensing process.

The Department of Energy is new on the Federal scene, and is also a newcomer in a way to the West Valley issue. Its immediate predecessor, the Energy Research and Development Administration, had no authority with respect to West Valley. In recent years all Federal responsibility for that site rested with the Nuclear Regulatory Commission until the Congress authorized the department to do the study for which we're here today. The programmatic and policy arms of the Energy Research and Development Administration's predecessor, the Atomic Energy Commission, did play a role in the history of West Valley by encouraging its establishment by industry in the State of New York, and by providing spent fuel and paying for its reprocessing.

This accounts for more than half of the spent nuclear fuel that was reprocessed in this plant. The State of New York owns the Western New York Nuclear Service Center, rather the site, and is a co-holder of

the Nuclear Regulatory Commission's license jointly with Nuclear Fuel Services Incorporated, a subsidiary of Getty Oil Corporation, which has leased this site from the State of New York.

The Congress has already received reports and held hearings on the West Valley situation as it developed and exists, and on the roles of the parties involved. Many things have changed since these parties became voluntarily involved in West Valley, and the reports and hearings to the Congress have brought that out.

By contrast, we are here today to help the Congress assess its options, where to go from here. We are looking forward to working with you to develop these options, and to recognize their impact on the people at and near West Valley.

I would like to introduce now the representative of the Nuclear Regulatory Commission, Mr. Starostecki.

MR. STAROSTECKI: Good morning. Can anybody hear me? My name is Richard Starostecki, and I'm representing the Nuclear Regulatory Commission here today. I am chief of the reprocessing and recycle branch in the Nuclear Regulatory Commission, and with me here today is Dr. Thomas Clark, who is one of the licensing project managers assigned to this particular case.

I am here today at the invitation of the Department of Energy to help put into some perspective the role of the Nuclear Regulatory Commission and what we are doing with respect to the West Valley facility. As Dr. Oertel has pointed out, the Nuclear Regulatory Commission is an independent agency that does not work for the Department of Energy, and does not report to the Department of Energy.

We report to a five-member commission, and they are the decision-making authority in our agency. The NRC was created in 1974 and was formed in 1975. We are charged to assure public health and safety in accordance with the Atomic Energy Act of 1954, and to conduct our licensing responsibilities in consideration of environmental impacts in accordance with the National Environmental Policy Act. We therefore have two responsibilities, those towards the environment, those towards public health and safety.

The NRC has no active role in the presently ongoing DOE study. We have been invited to attend here, and we're here with a spirit of cooperation. In order to help you understand, those of you who may not be familiar with the NRC, we have prepared a very brief handout to

include our organization, outline some of our responsibilities, and we have a very short tabulation of some of the technical experts that we have assisting us in our licensing reviews. These handouts are on the table as you come in the door.

In the interest of keeping my talk brief, I will rely to a large extent on those handouts, and I don't intend to duplicate the words up here

As chief of the reprocessing and recycle branch, I work in a group called Fuel Cycle Material and Safety. That group is responsible for licensing and regulatory aspect of fuel cycle facilities other than nuclear power reactors. As such, I have direct responsibility for licensing spent fuel storage activities and assisting in the resolution of the high-level waste tanks, and assuring the safety of the reprocessing facility that exists here.

The licensing process is an open one, and to that end, we have established what is called three public document rooms. One in Buffalo, one in Springville, and one in Washington, D.C. Our communications with other agencies with NFS, our reports are all placed in these public documents rooms, and if somebody wants to have access to them, they are there. The handout includes the hours of operations and the locations of these facilities for your convenience.

The West Valley facility virtually ceased operations in 1972. Activities have been essentially dormant except for the continued storage of the then existing spent fuel, and of course, the continued storage of the high-level wastes. Since 1972, the Nuclear Regulatory Commission staff has been monitoring, has been inspecting, the NFS operations. In August of 1977, the staff had conducted sufficient analyses that we issued an interim safety evaluation report.

This report covered the spent fuel storage, the reprocessing plant, the high-level liquid waste, and the burial grounds. The conclusion in that report was that the current activities at the site posed no short-term hazard to public health and safety.

Additional confirmatory work is continuing. We are using technical assistance from experts around the country and we will be documenting our findings on a continuing and interim basis.

We have in the Nuclear Regulatory Commission, been emphasizing and assuring the safety of the facility. As such, our interest has been primarily in the technical issues. Our approach, for example, in addressing the high-level waste storage, has been to place the emphasis on development of the technical options for the disposal of the high-level waste.

The consideration of the institutional arrangements to us has been a secondary purpose. To that end, a preliminary report on the waste disposal options was issued in 1976. That report was entitled "Alternative Processes for Managing Existing Commercial High-Level Radioactive Wastes", referred to as NUREG 0043. As part of our licensing effort regarding the disposition of high-level wastes, we had originally intended to conduct public meetings on that very specific topic.

These meetings to be arranged by the Nuclear Regulatory Commission staff, have been temporarily deferred pending the outcome of this Department of Energy effort. Today, the Department of Energy is addressing itself to the social, economic and financial aspects of the West Valley site, on a much broader scale than we were working towards the high-level wastes.

We are not directly participating in this Department of Energy study, but we are very interested in what happens here today, and we hope to take the task that's going to be assigned to Nuclear Regulatory Commission and do the follow-on work. Thank you.

MR. SMEDIRA: Since each of the previous speakers has already wished you a good morning, I guess I'll be the first to say "good day". I will be using these flip charts, so if the people at the end would like to see what's on them, feel free to move around.

My name is Carmine Smedira, and I handle waste handling projects in the waste management division of the Department of Energy. I'm excited to be here this morning to discuss the study with you, and from the letters and the phone calls we've received, I suspect I'm not the only one excited to be here today.

West Valley is a historic location. It is here that the first commercial reprocessing center was built and operated. It took a belief in the future and a lot of cooperation on the part of the citizens and officials of the State of New York, working with the industry and the Federal Government, to have this plant built.

The fact that more than 10 years later evolving developments have destroyed the original dreams for the site should in no way diminish the significance of the original accomplishment. The Department of Energy has been charged with the responsibility to produce a study to look at options for both the clean-up and the continued utilization of the site.

To organize the work associated with the study, our first step was to try and determine in our own minds what a reasonable approach

to conducting this study would be. A fundamental principle we accepted early was that we needed to involve as many groups and the general public as soon as we could.

Consequently, we organized this meeting to gauge the acceptability of our approach to the execution of this study. Most of you have seen the draft outline we issued in February. You probably noticed that we are aiming at producing a 30-page summary report backed up by a detailed technical report.

Considering the fact that we have been allocated one million dollars and one year to produce a report, if you chose to ignore the backup report, the summary report will be even more impressive. It will have been produced at an average rate of two or three pages a month, and at an average cost of about \$33,000.00 a page!

Since this summary report is so valuable, we would like to explore it a little further. It will treat each of the major assumptions, each of the problem areas, and it will contain all of the logic for the conclusions and recommendations. We feel the need for a summary report primarily because we have recently issued technical alternative documents. These were reports produced for the Department of Energy, which looked at the alternatives available for disposing of waste at our own sites.

These documents were issued to allow early public input into the decision making process. Unfortunately, they have apparently not fulfilled their goal, at least not yet. We have been informed by several sources that a major reason for this is that they're too technically detailed.

One of the reports is sitting on the information table desk, and you can look at it when you have a chance. It's the one that was written for the Savannah River site. Incidentally, the cost to prepare that report exceeded one million dollars.

Hopefully, our summary report to the West Valley option study will be generally understandable. Our intent is to back up the summary report with a detailed technical report which discusses the problems and issues in depth, and is technically thorough. So if you're inclined to look into it, see how we came to the conclusions, feel free.

As taxpayers, we hope you'll feel a little better about it, at least on a per-page basis, of the cost.

The February announcement that we sent out had a draft outline of the summary report in it. We did receive complaints that our announcements

took more than a week to be delivered. Think about that. The post office only charged us 13 cents. For a handling charge, that's a bargain. Less than a penny a day!

Let me take you through this outline now to cry and present the logic that went into its preparation, and to expand on some of our thinking with respect to each subject.

Chapter One, the Introduction, is relatively self-explanatory. In it we will state the mission we undertook as originated by Congress and as modified to reflect the input we receive from this meeting. Can you hear me when I turn, by the way? OK, I'll stop doing it.

Chapter Two is the technical meat of the document. In it we will examine separately each candidate area for decommissioning and decontamination and each possibility for continued utilization. Six areas for possible decommissioning and decontamination are the high-level waste tanks, the high-level liquid waste, the fuel hardware burial grounds, the low-level burial grounds, the reprocessing plant and the spent fuel storage basin.

If any of you are not familiar with these terms I just used, I'd like to refer you to the fact sheets at the door. We did try and put a little map on there which would give you some idea as to what each of these terms mean. For each of the decommissioning and decontamination problem areas, we will look at two basic approaches, which if you will allow me, I'll call a high option and a low option.

The high option basically represents an approach to attempt to maximize the final isolation of radioactive contamination from the environment. Consequently, it will result in a higher estimated cost. The low option represents an approach that appears feasible from a technical, health, safety and environmental viewpoint, but it minimizes the amount of physical alteration of the site. Consequently, cost estimates for these options should be lower.

As an analogy, if you decide to buy a General Motors car to satisfy your perceived transportation needs, your cost for transportation for satisfying that need will vary depending upon whether or not you choose a Chevrolet or a Cadillac. Both will hopefully get you where you want to go.

The cost of the Chevy and the Cadillac represent respectively lower and upper bounds to satisfy your need. For each case, you can then explore financing approaches. In exploring options for continued use of

the site, we assume that there are no feasible options for continuing to use the fuel hardware burial ground and the high-level waste itself.

The spent fuel storage facility and the high-level waste tanks do have some possibility, as well as the reprocessing plant, and we will examine their feasibility from technical, health, safety, environmental and financial viewpoints.

Chapter Three has the foreboding title of Institutional Aspects. The first part of Chapter Three will discuss the subject of which organization should be responsible for executing the decommissioning and decontamination options. It will also discuss the subject of who should be responsible for the continued utilization options.

The second part of Chapter Three will address the questions of which organization should pay for the execution of each and every decommissioning and decontamination option, and which organizations should receive the benefits from the possible continued utilization options.

In Chapter Four we will present our recommendations.

To summarize at this point, we are planning a short summary report, a detailed backup report. The summary report will be complete and it will discuss all pertinent aspects of this study. Options for both decommissioning and decontamination and continued use of the site will be examined. The financial responsibility question will be explored.

I'd like now to present specific technical options we feel are reasonable. For the disposition of the high-level liquid waste, the high option consists of removing the waste from the tank and processing it into a borosilicate glass. That is, the waste can be transformed from a liquid and made into a stable ceramic material. The glass can then be shipped to a federal repository when it is available.

Samples of borosilicate glass are also on the table by the door. We'd like you to take a look at those, too. It's a black mixture, and it kind of looks like Pyrex.

The low option for the high-level liquid waste is to mix the waste with cement or grout and inject it into the on-site underlying shale formations. This technique is commonly called hydrofracturing or shale fracturing. To dispose of the high-level waste tanks themselves, the high option is complete dismantlement and removal. The low option is to remove a reasonable amount of the waste; that is all of the liquid, and part of the solid at the bottom of the tank, and then to backfill the tank with soil or concrete.

On the information table by the door we also have some sample jars of waste. They're not the real thing, just something to give you a visual image of what we have.

For the fuel hardware burial ground, the Cadillac option is to remove the contents from the ground, package them, and ship them to a federal repository. The Chevrolet option is to stabilize the ground and institute a continuous maintenance and surveillance program.

For the low-level burial ground, the high option is to solidify the contents in place and to institute a surveillance and maintenance program for as long as necessary. The low option is to take whatever remedial actions are necessary to assure long-term stability and to institute a continuous maintenance and surveillance program.

If you are now saying to yourself, "Let me see, the Department of Energy will be looking at high options to dispose of low-level waste and low options to dispose of high-level waste", then you've succeeded in deciphering some of the technical jargon associated with the site. Excuse me? Is that any better? I'm on maximum volume now. I'll just talk louder.

For the plant facilities, the high option is to thoroughly decontaminate the facility and to seal it up. Couple this with a minor maintenance and surveillance program. The low option is to remove loose contamination from the facility and seal it up, coupled with an extended maintenance and surveillance program.

For the spent fuel storage pool, the Cadillac is to remove all the fuel, drain the pool, and then backfill the pool or put a concrete lid over it, something of that nature. The Chevrolet option is to remove the fuel, drain the pool, and lightly decontaminate it.

Those are the decommissioning and decontamination options we've tentatively selected to bracket the magnitude of the problem for each of the areas of concern. The other aspect of the study is to consider alternatives for the continued utilization of the low-level burial ground, the plant facility, the spent fuel basin, and the waste tanks themselves.

The low-level burial ground can be reactivated to accept low-level radioactive wastes for medical research, power plants, etc. The existing burial ground would need some remedial treatment to assure its long-term stability.

It is our understanding that the extensive analyses that have been performed to date continue to indicate the exceptional impermeability of the soil on that site. Apparently it is one of the best areas in the country for preventing the movement of radioactive contamination.

The plant facilities have the potential for use as part of the Department of Energy's waste management research and development program. They might also be adapted to house the equipment that may be used to process the liquid waste into a solid form. The use of the facility to perform research and development on different fuel cycles is also a possibility.

The spent fuel storage pool can be expanded and incorporated into DOE's spent fuel program.

I would like now to shift gears again and expand on the financial responsibility question. You may not be interested in the technical details of the coming models of Cadillacs and Chevrolets. But if you're going to buy one, you will be interested in how much it costs. If a car is purchased, it must be paid. DOE was specifically charged with the task of recommending the allocation of existing and future responsibilities for the site in the legislation that authorized the study. To this end, we propose to use the following three key assumptions: one - our financial responsibility analysis, since it will be of widespread interest, and it may need to be adapted to other options than those that are examined in this study, must be based on a clearly definable and easily reproducible method. A second assumption we propose to use is that a purely legal resolution of the financial responsibility question is not acceptable. A third major assumption is that the responsibility resolution -- which organizations should be paying -- should be separated almost completely from the ultimate disposition of the site.

With these assumptions, our method then will be to determine which organizations have a financial responsibility, and then try to determine the degree to which these organizations are liable. In assessing the degree of liability, an effort will be made to consider past benefits, future benefits, and the present contractual responsibilities. To this end, we will also examine any other situations that may provide precedents for this question.

If at all possible, the capability of an institution to pay an assessment will be examined, as well as methods by which an institution may meet their assessment. Finally, a connection will be made between each technical option explored in the report and the financial

responsibility analysis. Financial liabilities or benefits will be examined for each option.

In summary then, the Department of Energy is proposing to embark upon a study in such a fashion that the questions what can be done with the West Valley site and who should pay, or who should profit, will be explored independently. The questions how much an institution should pay or how much an institution should profit, will be explored in the light of the answer to the question: what can be done.

I hope that I've made the activities of the Department of Energy with respect to this study clear to you. Our goal is to come away from this meeting with an understanding of what you feel. What do you think is the most important thing that we should be addressing in this study? Your thoughts will undoubtedly result in a reorientation of our work. Later this year, we will complete this report, and you will have an opportunity to see if whether or not we treated the concerns you expressed.

Your comments on the final product will be made available to Congress. The accomplishment that's associated with this site is now, it is not those facilities sitting out there. It is this meeting where again officials and citizens of the State of New York are meeting with industry and Federal representatives to determine a course of action. Mrs. Mary Ann Richardson will be the moderator for this meeting. She will attempt to keep all speakers to the time allotted. We really do appreciate any cooperation that you can give her. Mary Ann?

MRS. RICHARDSON: Good morning. We have a very ambitious calendar ahead of us today, so I would ask that you try and stay within the time limits of the prearranged time that is listed on the calendar. When I call your name, please step up to the lectern to make your remarks. Our first speaker today is going to be Congressman Stan Lundine. Congressman Lundine?

MR. LUNDINE: Thank you, Mary Ann, and you shut me off if I go over my time. I have a full written statement that I'd like entered into the record, and I'll just try to summarize it very briefly so that I set an example about staying within the time.

I had a different prepared statement that I thought explained my concerns about this community and took a sort of reasoned and balanced approach to it, which I've thrown out. I am feeling compelled to comment not only about this study, but as I understand the first speaker this morning did, about the Department of Energy interagency task force that was released just three days ago, making overall recommendations for nuclear waste management policy.

I believe that the Department of Energy may have prejudged this study process and made recommendations concerning the future of the West Valley site without first consulting those of us who are interested parties and the public. Proceeding in this manner can only heighten the skepticism regarding the decision making process, and quite frankly it's disturbing to me when Congress issued, or passed a law indicating that there must be a year-long study, to within a week of the time we're coming out here, to hear what people have to say about it, issue a different interagency task force that bears upon the result of this, is quite disturbing.

The DOE, Department of Energy, task force report, specifically recommended that the Federal government assume responsibility for the low-level waste burial ground and the high-level waste here at West Valley. The report also points out that the facilities at West Valley might potentially be used one, for resuming low-level waste burial operations; two, receipt of additional spent fuel for storage; three, the national nuclear fuel cycle project evaluation and waste processing research and development demonstration; and four, the geologic disposal of wastes in shale or other suitable formations.

The report notes that the Department of Energy is evaluating the suitability of the salt beds in western New York for potential siting of a repository for commercial radioactive wastes, including those located here at West Valley.

The beginning of the study period, is not the time to totally endorse or reject any of these proposals. At the same time it's disturbing to me that at no place in the report is the issue of decontaminating and decommissioning the facilities at West Valley, even addressed. DOE is attempting to take advantage, or could be accused of being attempting to take advantage of an unfortunate set of circumstances that lead us here today.

I will oppose any attempt to hold New York State hostage. Whether that was the intent or it was not the intent, I don't think we as residents of this area and citizens of this state, should be over a barrel because of the mistakes that have been made by the State, by the Federal government and others up to this time.

It's of utmost concern to me that no consideration has been given to the people of the West Valley community and the western New York area. In the early 1960's, that land was taken from productive farms and with a promise of unbounding economic growth and productivity, ventured into the nuclear processing business. Now the commercial operation has

ceased, the land cannot revert to farmland, and we still have no real understanding of some of the health and other issues of the operation there. This community has been experimented on long enough.

Both the Federal and State government have a responsibility to help insure the future well-being of this community. That well-being encompasses economic, environmental and social concerns. A major portion of the tax base of this community will be exempted in 1980 when Nuclear Fuel Services leaves the scene. Federal or State government, as a part of the responsibility in this matter, should provide a form of impact aid, or in lieu of taxes, assistance to the local community.

Such aid should be available for as long as the site is exempt, or as long as it's necessary for the community to make a transition to another economic base to replace the lost local revenue.

I'm also deeply concerned that there's not been an objective health analysis conducted in and about the West Valley area. The future of West Valley should not be, in my judgment, made to advance the pro-nuclear cause, or alternatively to advance the anti-nuclear cause. I don't know that it is, what should ultimately be done here. But it's absolutely essential no matter what view you take of nuclear energy, that we learn how to solve this waste disposal problem without delay.

The history of West Valley is replete with Federal and State government irresponsibility. Both played a collaborative role in plunging us into the situation we're in today. I intend, as this study progresses, to try to be an advocate for the best interests of the people in the western New York area.

I think that a strong message should be conveyed to the Department of Energy and to our total national government that we will not accept a closed-end decision process. We will be fair and objective and cooperative in examining those things that were proposed in the inter-agency task force, or those things that have been presented to you as possible options. But we will not be closed out of that process. We should have, we have a great stake in what happens, and we should have a voice in solving this problem. Thank you.

MRS. RICHARDSON: Thank you, Congressman Lundine. Our next speaker will be Congressman Ted Weiss of New York. Congressman Weiss? No? OK, well, maybe the Congressman will show up. Then we'll just move along then in the program. Senator McFarland is the next scheduled speaker. Senator?

SENATOR McFARLAND: Thank you very much, Mary Ann. Ladies and gentlemen, Congressman Lundine, Senator Present, I'm glad to be in your district, and I'm happy that the Department of Energy has seen fit to come here to the people. Let me first identify myself for you. I'm James T. McFarland. I'm a State Senator from the 59th District, which is northern Erie County, all of Genesee County, and part of Monroe.

I'm here because I'm chairman of the New York State Senate committee dealing with energy matters. I'm not anti-nuclear, I'm not pro-nuclear. I'm not pro-fossil fuel, I'm not anti-fossil fuel. I think I've seen enough and studied enough about both of them to feel that both technologies have their problems.

What I am for, and what I think most of us are for, is the safest, cheapest, and most efficient way of producing and distributing the energy that we need. I'm also Vice-Chairman of the Legislative Commission on Energy Systems, and this capacity has given me considerable time to pay attention to better methods of energy conservation, better alternative methods of generating energy, and ways to deal with issues arising from the use of nuclear power.

I am also the State Senate delegate to the Energy Committee of the National Conference of State Legislatures. This has provided me with the opportunity to observe and participate in congressional and federal administration initiatives in the energy field. Frankly, the Federal government's snail's pace handling of obvious problems that must be dealt with has until recently been quite discouraging to me. I've talked to the Nuclear Regulatory Commission people and Federal Energy Research and Development Administration people, and frankly, it was my conclusion that neither wanted to accept responsibility for the developments that have produced some of the problems that bring us here today, or for their solution.

It was sort of an Alphonse Et Gaston routine with apologies to all involved. I'm heartened, however, that we are finally getting some action, and I must pay my compliments to President Carter for pushing ahead in the energy field and dealing with problems like this. I am heartened that these agencies cooperated in talking about Nuclear Regulatory Commission and the Energy Research and Development Authority. I'm heartened that they cooperated in presenting three workshops across the nation this fall to inform the public of the progress they now are making in attempting to deal with the nuclear waste issue, and for involving the public in the decision making process.

Incidentally, if anything came out of these meetings, this has bearing on what Congressman Lundine pointed out about local participation, and I'm referring to the meeting workshop I attended in Philadelphia, it came out loud and clear that the public and their elected officials definitely want a voice in matters dealing with the location and operation of any nuclear waste facilities.

While on that point, let me say that the wrong way for the Department of Energy to pursue the solution to this problem as far as New York and West Valley is concerned, is to make it a bargaining ship with respect to a solution to the nuclear waste situation. Or, excuse me, as a solution to the West Valley situation. I'm referring to the DOE task force report just released, which reportedly took that tack.

Let me say first that I'm heartened by the implicit acceptance of a substantial Federal role in dealing with West Valley's future. Both as a Senator and member of the legislative commission on energy systems, and a delegate to the national conference of State Legislature Energy Committee, this has been, I think properly, a personal and a public goal. But, trying to tie it to a deal for future waste repository just won't work.

The issues may be related, but they must be handled on their respective merits. Now this brings me to what I believe West Valley is. What it's not in my judgment is a monument to the failure of Federal nuclear energy goals, which some would like to believe. What it's not is a symbol of failure of the free enterprise system, where private business tried to enter into this field, which some would like to believe.

What I believe it is, is a colossal and eloquent statement of the failure of the Federal government, our government, to have had in hand a rational and acceptable technology, along with a publicly accepted plan, for dealing with nuclear waste issues, nuclear waste rather, from commercial nuclear power generators, before encouraging New York State and private industry to invest in that technology.

The government in effect seduced private enterprise to enter the business of peacefully harnessing the atom, but then changed the rules in the middle of the game. So private enterprise could no longer participate. The government is still changing the rules. Now President Carter says that spent nuclear fuel rods will not be reprocessed. Tell us, what is the present Federal policy? Tell us, who has to bear the responsibility for enunciating it? The President? The 10 or 12 committees of Congress dealing with nuclear energy matters? Or do the states have any veto power?

Before we go down the road much farther, these questions must be answered. Business entered this field at its peril, and now is threatened with the loss of many millions of dollars. New York State, and you're all New York State taxpayers, is exposed to potential loss of some seven million dollars on this deal. This is to say nothing of the investment of the people of Western New York, and particularly West Valley, who have been affected by this venture to their peril.

I say, and I recommend, that there should be no further participation until we get a clear statement from Congress and the White House that yes, we will have a nuclear energy policy and here are the problems, or no we won't, because we don't want to deal with those problems.

The President can't say we're going to switch to a coal technology and only mention parenthetically that nuclear power will fill the gap. Let's look at the gap. According to some statistics, we could double our coal production, and for the amount of energy we're going to need in 1995, we'd have to have 438 thousand megawatt nuclear power plants at a billion dollars apiece.

The President can't go on TV to push his energy program, which apparently includes this nuclear power which is going to fill the gap, and then make reference only to coal, sun, the wind, geothermal power, and everything but nuclear. This issue must be dealt with frankly. I think we as the public are entitled to have our government say yes, we're going to have a nuclear technology, or no, you won't.

Now as far as what West Valley can be, I agree with some of the things that have been pointed out to in the report, but I think it should be mentioned also, and this could concern you economically in the future, you people are going to be here directly. Of course, there could be a substantial and fairly quick expansion of the pool storage of spent nuclear fuel rods. There could be a pilot plant here to demonstrate the solidification of the high-level liquid waste. There's only 600,000 gallons at West Valley, there's about 80 million gallons across the country, mostly from the nuclear weapons programs of our Federal Government.

There's also 12,000 gallons of acid thorium liquid waste, and it's the only acid thorium liquid waste that exists in the country. The facility could be used as a demonstration project with respect to the so-called thorium cycle. That is a proposal. It could be decontaminated and decommissioned, and you've heard some statements on that. People are curious about the cost and the effectiveness of any technology in this area.

Well, we've got estimates in Washington going from anywhere from 60 million dollars to 600 million dollars to decommission and decontaminate. That's like saying Buffalo is either six miles or 6,000 miles way. It's not much of an estimate. I think we need some facts and figures, and that would be one of the uses for this property. Of course, it would mean that it would spell the end of the facility as a facility to be used in the country's nuclear program.

If so, there might be other uses. There's a rail spur on the property, a natural gas pipeline. There could also be for instance, a training facility. Under the Nuclear Nonproliferation Act, the Department of Energy has the responsibility for training personnel from cooperating governments in the handling of nuclear fuel. There could be a training facility here. So I see at least five possible options in addition to the one that Congressman Lundine made reference to.

And of course, there are others. And these, I think, we should expect our planning people to give their attention to. But we've got to have some protection in New York from our 9 million dollar exposure. We've got outstanding bonds on this facility, and we're all taxpayers, we don't want to see another authority collapse, and I commend the DOE for coming here. It's encouraging that you're helping to highlight the problems, and I'm encouraged that you and the agencies of the Federal Government work cooperatively to bring about a solution.

And I suggest that in dealing with the State of New York, that you consider there's also a legislative branch of government, and we, as a direct representative of the people, intend to have a hand in seeing that their voice and their views are considered in the formulation of any state policy. Thank you.

MRS. RICHARDSON: Thank you, Senator McFarland. Congressman Weiss? OK, we'll go to our next scheduled speaker, Mr. Peter Skinner, New York State Attorney General's Office.

MR. SKINNER: Mr. Thorne, members of the DOE staff, Ms. Richardson, members of Congress and the New York State Legislature, ladies and gentlemen. Good morning. I'm Peter Skinner, Professional Engineer in the office of Louis Lefkowitz, Attorney General of the State of New York.

The Attorney General appreciates the opportunity to address the Department of Energy's plan, outline and approach documents concerning western New York Nuclear Services Center. Those documents were reviewed by the Attorney General's staff with the benefit of many years of experience in the problems of West Valley.

The Attorney General's office has appeared before numerous Congressional committees and regulatory agencies in grappling with the problems at NFS. The following are the comments of the Attorney General:

I feel that the responsibility of government to the public is to first develop an agreed-upon plan to permanently eliminate all radiological hazards at the site. Only then should the cost be allocated for that plan. With this plan, strong efforts must go forward at the site to insure that similar financial and environmental liabilities can never recur there.

In this connection, the site should be decontaminated and decommissioned thoroughly, so that it may be used for labor intensive research and development work on nonnuclear energy technologies. Accordingly, I am greatly concerned by the discussion on pages 22 and 23 of the DOE report of task force for review of nuclear waste management released last Tuesday, regarding the DOE task force proposal for high-level waste management at the West Valley site.

I quote from that report. "Negotiation of appropriate terms for assumption of responsibility should include consideration of other DOE waste management objectives, such as the characterization of promising geological formations in New York as potential sites for a repository." The implication here is chillingly clear. DOE would assume responsibility for West Valley in exchange for New York State's agreement to accept the location of a high-level waste repository in New York.

This is a trade-off we cannot accept. Such a connection between the DOE cleanup of West Valley and a New York State repository is both illogical and unwarranted. The high-level waste, the separations facility, and the high-level hardware burial grounds are primarily used for processing of U.S. Government nuclear materials. Cleanup of this site from these operations should clearly in great part be the responsibility of the U.S. Government.

This responsibility was described in the detailed report presented by Chairman Richard Werthamer of NYSERDA, March 8th, 1977, to the House Subcommittee on Environment Energy and Natural Resources. Why is the linkage of West Valley and the repository wrong? According to the Nuclear Regulatory Commission, selection of the repository should be made on site suitability criteria which will insure that waste disposal will, and I quote, "Minimize the likelihood of harmful release of waste in the short term and during the entire period that the wastes remain potentially hazardous". This is from NUREG 0353. The recent DOE report of the task force states that "The paramount consideration in a

waste management plan is safety." To use New York State as the site of the nation's first commercial nuclear waste repository because of the existence of West Valley is, in the words of James LaRocca, our New York State Commissioner of Energy, tantamount to the "threat of nuclear blackmail from the Federal Government".

We agree wholeheartedly with the Commissioner. As Congressman Lundine said today, New York State cannot be held hostage for West Valley's difficulties, which are already primarily the responsibility of the U.S. Government. I, as Attorney General, New York State ERDA, and many other members of governmental and citizen groups, worked hard last year to obtain the one million dollar study provided for in Public Law 95-96, signed in August of '77.

We all look forward to the production of a report which would provide the basis for rational decision making about this highly controversial issue. Permanent resolution of the West Valley issue would go a long way toward removing the distrust in the public's mind about government's and industry's commitment to protect the public from the enormous financial and environmental liabilities which have characterized nuclear waste management in the United States for the last 20 years.

Success at West Valley will reassure millions of people in the United States and in other countries that nuclear waste is not a problem plaguing wide-scale deployment at nuclear power plants. As Senator McFarland said today, governmental delay in this area must come to an end and decisions made and solutions implemented.

As mentioned before, complete cleanup of the site would provide new short- and long-term economic opportunities for the region, and the State, through its reuse in nonnuclear energy development projects. The health and welfare of New York State citizens are at stake. Nothing less than total decontamination and decommissioning of all components of the site in disposal of its waste is acceptable.

I was pleased with the inclusion of Section 105 in 95-96, allocating money for this study. In late February, the House Subcommittee on the Environment and the Atmosphere of the Committee on Science and Technology released the underlying report on that section of the law. That report fully discusses the purpose of the study, and gives an indication of the scope expected by Congress, and I quote some quotations from that study here. The report states that Section 105 of the appropriations bill was adopted to direct DOE to "Prepare and transmit a plan to Congress within a year on the options for management, ownership, and the ultimate disposition of the radioactive waste disposal operations at the western New York Nuclear Service Center". The report further states that the

study is meant to illuminate the alternative technical solutions to the West Valley situation.

The purpose of the law is to obtain, and I quote, "A comprehensive study of the environmental, health, safety and economic consequences of decommissioning, disposal and decontamination of all elements involved". I must emphasize that that report recognizes prompt dismantling is a feasible alternative.

Indeed, the report notes that entombment and mothballing are not practical decommissioning alternatives. Yet, as was mentioned to you in the letter of March 13, 1978, from my chief engineer, Peter Skinner, the present DOE outline excludes the dismantling option for the separations building.

My office has been told that due to the high cost of that option, the DOE refuses to even consider it. Such a decision is neither in keeping with the congressional directives, nor consistent with findings of the Nuclear Regulatory Commission's own report, New Reg. 0278, which has determined dismantling to be a relatively inexpensive job. It is my opinion that DOE has no legal authority to so restrict the scope of the study mandated by Congress.

Congress wants to know what can be done at NFS, and it has directed DOE to ascertain the answers. It is only after all the technical options are laid out before Congress that an intelligent discussion can be presented as to who should bear what responsibility. Any restrictions on the scope of the study prejudice and predetermine the ultimate decisions as to what is to be done at NFS and who is to do it.

I recognize that a shortage of time and limitations of funding make your work difficult. However, none of these conditions excuse the omission of a list of options for work at NFS, with at least some brief discussion of them. It should be of no concern to DOE what the political ramifications or what the likelihood of acceptance of any particular option may be. Those judgments should be left up to Congress.

From the outset, our office has made strong efforts to guide the development of this report outline. On July 7, 1977, I wrote to the Honorable George Brown, Chairman of the House Subcommittee on Environment and the Atmosphere, in which I set out a variety of important steps for the present DOE study. Later that year, Mr. Skinner of my office wrote John Martin of the Nuclear Regulatory Commission setting out the concerns of my office about the directions of their draft interim safety evaluation. I have appended these letters to my statement for your consideration.

Irrespective of the quality of any DOE report produced, inadequate or untimely involvement of the public in the production of this report would inevitably reduce or destroy its credibility. In this regard, I have learned that not only has significant data based acquisition already gone forward for the report, but also costing out efforts are already underway on numerous options.

I also have been informed that contractors must supply DOE with cost estimates by or in the environs of April 1st for those limited options DOE wishes to discuss. Although promised to my staff a month earlier, the formal outline finally arrived on March 2nd, 1978. We received an updated informal outline a few days later. We are concerned that the study already under way will be too inflexible to permit even small changes in its direction that we and the public indicate are needed at today's hearing.

I would suggest that if this is the case, then DOE reconsider its position, carefully assess what we and others say today, and change its approach to the study accordingly. A study based on a publicly accepted outline and thereby produced somewhat later is preferable to a study the public believes represents only the DOE's ideas.

Without public support, neither the Congress nor the state government will be able to obtain agreement on or appropriations for any plan, to carry out the needed remedial work at the site.

In the future, we will look for more timely and comprehensive communication efforts on the part of DOE in the production of this critical report. I feel DOE is heading in the right direction in making a strong effort to do a good job. But careful monitoring of its study throughout its preparation is vital on everyone's part.

The channels of communication between DOE and New York State citizens and agencies are crucial and must be maintained. Specifically, the state's acceptance and support for your study before Congress will be dependent on timely and useful contact with all concerned agencies and individuals, not empty after the fact displays of concern for public input.

In closing, I wish to re-emphasize the DOE study must include dismantling and nonnuclear job producing reuse of the site as study options. Any linkage of the proposed long-term repository and the West Valley cleanup is unacceptable. The DOE goal and ours alike is the safety and the welfare of the people of New York State. Thank you.

MRS. RICHARDSON: Our next speaker will be State Senator Jess Present.

SENATOR PRESENT: Miss Richardson, thank you. Ladies and gentlemen, I am Jess K. Present, New York State Senator representing the 57th Senatorial District. I reside at 41 Chestnut Street, Jamestown, New York.

I'm pleased that you have arranged this meeting here today to allow me and others the opportunity to express ourselves on the issue.

For the past several months, the question of what should be done with the substantial amount of nuclear waste stored on site at the western New York Nuclear Service Center at West Valley has been in the public eye. The issue has been touched upon in at least one nationally syndicated newspaper column, and has been the topic of several reports of findings of numerous congressional and federal agency hearings and investigations.

As is often the case when an abundance of information is generated on a complex issue, many of us not disposed towards the technical aspects of the issue become confused by the interpretations of fact presented by authorities in the field. In this case, differences of opinion have developed among the experts as to what the outcome should be at West Valley.

Being privileged to represent the residents of the West Valley area in the New York State Senate, it is becoming more and more apparent to me that these people are being barraged by several differing interests concerning who should bear responsibility, financial and otherwise, for disposition of these wastes; while at the same time surprisingly little understanding has been shown for the problems which will be brought on by the announced termination of the largest industry in the area.

I'm pleased that Congress of the United States has made appropriations and has directed the United States Department of Energy to conduct a study, and hope that the fruits of its study will lead to a resolution of the myriad differing opinions as to what should be done. In my judgment, the two issues of primary concern are:

(1) The effect of the presence of these wastes on the health and safety of both present and future generations of employees and residents of the area.

(2) The economic impact the closing of this facility will have on the taxing authorities which have come to rely on the tax proceeds of nuclear fuel services, and the people who depend upon employment at the facility for their livelihood.

A complete and forthright airing of these two questions is of paramount importance in order to arrive at a satisfactory resolution to the problems encountered at West Valley. One fact stands uncontested. Perpetual care of the wastes will be required for centuries, because of the long-lived, highly toxic materials present in the wastes, some of which have half-lives in the order of 250,000 years. In other words, these wastes are inherently dangerous, but as long as these radioactive substances are properly confined, they do not pose a threat to the public safety.

There have, however, been breakdowns in the containment procedures used at West Valley, which have resulted in discharges of radioactivity into the environment. Authorities have certified that they have no evidence that actual harm was done, but the mere fact that such breaches have occurred and could happen in the future, poses a potentially hazardous effect to the surrounding countryside.

While at the present time there appears to be no imminent danger attached to the presence of these substances at West Valley, I am hopeful that the study will confirm the fact. On the other hand, should the study indicate that a danger does exist, tell us. The residents of West Valley area and the employees at the Nuclear Fuel Services have a right to know whether or not their association with this nuclear facility is endangering their health, their safety.

Referring back to the second issue regarding the economic impact, although these figures have been previously provided, it bears repeating what Nuclear Fuel Services has provided in taxes. Results released in March, 1977 reflect that Nuclear Fuel Services paid \$19,089 in county taxes, \$31,104.00 in town taxes, \$2,729.00 in fire protection, and \$64,279.00 in school taxes. There is no question but that the loss of this tax revenue will have an adverse affect on those taxing authorities. The difficulty of making up the deficit in this rural community is compounded by the fact that the town's real property is 32.2% tax exempt.

One fact must be emphasized, which has already been alluded to. Nuclear Fuel Services has announced that it will relinquish contractual responsibility on the site on December 31st, 1980. At that point, Nuclear Fuel Services' duty to pay real property taxes will cease. Title to the site is held by the State of New York, and so the property is exempt from real property tax liability. The question is will Nuclear Fuel Services or another commercial contractor become involved at West Valley?

Today it would appear under current circumstances, this is unlikely. Therefore, my recommendation that the study be conducted with this loss of tax revenue in mind, and that recommendation for future use of the site contain a provision for tax revenue loss relief.

In conclusion, I would like to quote from a document released by the Nuclear Regulatory Commission. "It is intended that all wastes be carefully isolated from man's environment over any period the radio-activity has the potential to affect the health and the safety of the public". Thank you.

MRS. RICHARDSON: Thank you, Senator Present. Our next speaker will be Assemblyman Dan Walsh.

ASSEMBLYMAN WALSH: Thank you. I'm going to be extremely brief and move the program along. Very brief. Ladies and gentlemen, first of all, let me thank you all for coming to West Valley.

It's ironic that had Nuclear Fuels decided to remain in business, we probably would all have enjoyed staying home and shoveling the snow, mowing the lawn or going skiing. But a rather unusual act of private enterprise occurred, and they decided that they were going to get out, and for some strange reason all hell broke loose at West Valley, New York.

I would like to express my gratitude to the representatives of the Department of Energy and the Nuclear Regulatory Commission for allowing the public to express their opinions at this informational meeting.

As the New York State Assemblyman representing this area, I find myself in a situation where if one believes everything that has been broadcast or printed about Nuclear Fuels or West Valley, you would think that Cattaraugus County has suddenly become Nagasaki or Hiroshima.

Nothing could be further from the truth. Nuclear energy is here to stay, and with it a waste disposal dilemma. Those who come here today in hopes that nuclear fuels will go away, and that the West Valleys will go away, and that nuclear energy in New York State is going to go away, and that the waste treatment problem of nuclear energy is going to go away, are not here really in good cause.

Private enterprise should be a partner in this solution, but as demonstrated at West Valley, they have become a pawn in a regulatory nightmare compounded by a lack and a total failure of a national policy on nuclear energy. I realize you have presented various options

for discussion. I'm not here to pass judgment on that technical question, and I hope that no other layman would also.

Nuclear Fuel Services is a reputable and distinguished industry in the nuclear field. The ultimate solution to West Valley should involve them. Many in New York State claim that the Federal government should accept responsibility. The Federal government has obvious reservations. Why not consider a private enterprise partnership as a continuing thing? I'm not convinced in my discussions with Commissioner Larocca that NFS is totally out of the picture on any of your proposed solutions, or options.

I strongly recommend that the West Valley site be considered for whatever reason it can be as a private, regulated effort, and that DOE and the New York State Energy Office do everything within its power to encourage this. Any governmental acquisition of this facility would result in a loss of tax dollars to a local community, which would test its very ability to survive.

The issue is no longer should we establish a nuclear waste facility in West Valley, it's here. And with all due respect to the gentleman who represented the Attorney General of the State of New York, it was that same Attorney General in the early 1960's who signed the document that created West Valley.

As I read the volumes of material as it pertains to West Valley, I draw two conclusions. Technology and experience will provide alternatives to the present storage process. The nuclear experts should make this a top priority. To accept private enterprises, NFS withdrawal unchallenged and undiscussed, should not be a solution. Every possible effort should be made to develop the technology and the experience for the future waste treatment in conjunction with those, if you will, who consider it their business to be in the business.

We are not back in 1961. We are in 1978. The site has been selected. We would not be here today if NFS was a thriving, private enterprise at West Valley. All they did was to say "We want out." Gentlemen, the answer to the West Valley is not the U.S. or the state government's alone. It is in the private sector also, regulated strictly and monitored. I have been a public official for almost a decade, and I can assure you government can't compete with industry on the big issues.

This is one of the biggest issues in this country, and one of the biggest that we'll ever face. You need the NFS's, and we need them. Whatever your technical solutions may bring, should it be in concert,

and I hope so, and then there is a future not only for the villages and the people and the West Valleys and the Oleans and the San Franciscos and the Los Angeles', but also all over the world. But it's got to be done in concert with private enterprise, because the taxpayer cannot accept not only financially, but socially, that government is the sole responsibility for the solutions to our people's problems. Thank you.

MRS. RICHARDSON: Thank you, Assemblyman Walsh. Our next speaker will be Dr. Marvin Resnikoff, Sierra Club.

DR. RESNIKOFF: Good morning. Congressman Lundine, State and Federal officials, concerned citizens. My name is Marvin Resnikoff, I'm chairperson of the nuclear subcommittee of the National Sierra Club, and I live in Buffalo, New York.

We thank the good Congressman and the Department of Energy for making this meeting possible. It's a good turnout, but many more persons would have attended had the arrangements been better handled. The Department of Energy knew of this meeting two months ago.

The Sierra Club is a national environmental and conservation organization with over 190,000 members nationwide, and 500 in western New York. The club has been concerned about Nuclear Fuel Service now since 1970. In '74 when Getty Oil wanted to expand their operations here, we intervened in the Federal proceedings to insure that the health and safety of the public and workers at the plant was protected.

In addition, we were and still are, concerned about a major leak from the high-level waste tank. We believe a major leak would contaminate for years a large portion of western New York and Lakes Erie and Ontario, upon which Buffalo and many cities depend for drinking water.

We were not opposed to a properly designed and operated plant. But as many of you know, the Getty operation was anything but that. In fact, many of us believe the plant was closed down just before Sheriff Hill came. In the spring of '76, when Getty Oil announced to New York State they were leaving all the nuclear wastes to the State of New York, a gift that we will never forget, we were the first to point out the tremendous financial and public health liability of this gift.

I should say many people have said that the demise of NFS is due to the changing regulations. The Sierra Club has often been at loggerheads with the Nuclear Regulatory Commission concerning health and safety matters. But these changing regulations were really to protect

the health and safety of people. So we support the NRC when they protect the health and safety of people.

The purpose of this hearing is to gather citizen input on what should be done with the site, as part of the Department of Energy study funded by Congress. OK, we believe the site should be cleaned up. Those who make the mess should pay to clean it up. No more waste should be brought to this site, and the West Valley site should become the western New York alternate energy center.

A western New York alternate energy center would bring jobs and tax producing environmentally compatible alternate energy R&D industries here. It could become a model for the country, and we could make it happen if we all work together. But, we will never allow this area of the world to become a nuclear garbage dump for the country as it was in the past. Never.

We agree with Congressman Lundine that the Department of Energy has prejudged this issue. Instead of investigating the decommissioning of the site, DOE is now examining how to bring more waste to the site. They have turned the congressional authorization for this study 180 degrees around. When the money was appropriated, the one million dollars, due to an amendment by New York Congressmen Downey, Fish and Ottinger, the primary concerns of the Committee were made, were clear, and I quote from the report.

They asked, "What is the status of plans to dispose of the approximately 600,000 gallons of high-level waste, decommission the facility, provide perpetual care for waste burial grounds? Who will be responsible for accomplishing decommissioning, disposal, and perpetual care of the site? What are the conditions of the waste tanks and the status of waste disposal technologies? And finally, what will be the disposal and decommissioning costs, and who will pay?"

Congress was concerned with decommissioning the site. We suggest that DOE answer those questions in their report, which the Congress directed that they present within one year. That is the law. Congress also went on to say that DOE should examine other uses which may exist for the facility. Now other uses has been turned around, and DOE is investigating how the site may be integrated into the nation's waste disposal plans, and these plans include Federal, now perhaps international management for the fuel reprocessing plant; establishment of a high-level waste repository on or near the site, and so on.

In other words, DOE will be studying bringing more waste to the site. Is this what we want, more waste to the site? This is a

180 degree reversal of the original intent of Congress. It makes you wonder who's running the show here. Is Congress and the people running the show, or is Mr. Schlesinger and the nuclear industry directing funding and energy policy in this country?

The congressional mandate is to decommission and decontaminate the site. We would like the following: Concerning the 600,000 gallons of high-level wastes sitting in two tanks at West Valley, we want the wastes removed from the tanks and put in a form which they can be transported off site. This is a high priority item and must be done before the tank leaks. We want this done as soon as possible. We should not wait years for court action as to who should pay to do the job.

We recommend the waste be solidified and a specific suggestion is in a fluidized bed calcinator, which is operated at Idaho. The equipment is not large and can fit inside the NFS building, and the building can be used for the effluent control systems. We suggest this method because it's a low temperature method and can produce a material which can be transported safely, and it should be included then with the much larger volume of waste in the same form that are at Idaho. Whatever is done with that waste at Idaho can be done with the NFS wastes.

We don't want the high temperature glass made here. The Cadillac suggestion. When the Federal repository is located, we want all the equipment in the reprocessing building, including the solidification equipment, removed and disposed of. We want the high-level waste tanks cut up and transported. We want the reprocessing plant dismantled and removed. Let Getty Oil keep it.

We want the high-level waste solid burial ground disinterred and shipped to a Federal repository. Includes very hot fuel elements. We believe the low-level solid waste burial ground should be stabilized to prevent erosion and water incursion, and it should be asphalted over.

The Department of Energy should investigate these options in their study. It's true, West Valley is caught in the crossfire of a national discussion concerning nuclear power, and the ability of the industry to clean up after itself. Congress and the whole country will be watching this decommissioning. It will test the commitment of the industry to clean up after itself.

If the technology is available for cleaning up, as the nuclear industry wants us to believe, then it's only roll up your sleeves, boys,

and get to work. But if West Valley cannot be cleaned up, then the message will go out, and we will close down the industry. That is a promise.

Who should pay for this cleanup? We believe the cost must be shared. Our general principle is the polluter pays. The Federal Government, the Department of Defense, contributed three-fifths of the waste and licensed the facility. The Federal Government can't go around issuing licenses like pieces of paper. They must protect the health and safety of present and future generations of citizens. That is the law. If necessary, the state should bring the federal agencies in to court for not making the requisite findings when the plant was licensed.

The utilities contributed two-fifths of the waste in the tanks. They should pay. The state also has a responsibility. It enticed this industry to New York State with sweetheart contracts, and it's a co-licensee with Getty Oil's NFS. And Getty Oil and Grace & Company have a responsibility, since they operated this polluter.

A previous speaker said they will judge the capability to pay. That would be one of the criteria. Well, Getty Oil has a lot of money. We will submit a more formal opinion to the State of New York on legal approaches the State of New York can pursue in recovering money from Getty Oil.

Finally, we are sensitive to the plight of West Valley residents who were sold promises and built up a school system and road, and now have bonds to pay off. We would like to work with you in turning this situation around, and locating an alternate energy industry here. On the other hand, as I mentioned, we will not allow this to become a nuclear garbage dump as it was in the past.

We hope that West Valley residents understand that West Valley is not just a local issue, because the wastes go into Cattaraugus Creek watershed and then into the lakes. I have here a headline from the Times Union of only last Thursday. It says, "Nuke Wastes Found in Lakes Erie and Ontario", and it talks about nuclear wastes that have left the plant and are now being found in Lake Ontario. That should illustrate the point that this is not just a local problem.

The radioactive materials don't just disappear. They remain in the environment. In addition, workers are irradiated at the plant, and genetic effects in terms of birth defects, spontaneous abortions, are propagated throughout the population. In addition, the Federal government, which is all of us, will have to put up 500 million dollars.

And finally, these wastes will outlive all of us, and we are making decisions for people who are not here today. We want to work with you in turning this situation around from a nuclear garbage center to the western New York alternate energy center. What will remain after the cleanup suggested above is an asphalted over low-level waste burial ground, and we'll call that a parking lot, and an empty building which formerly served as a plutonium warehouse.

Many suggestions will be forthcoming on possible uses for the site today. Since the Department of Energy and New York State ERDA are devoted to the development of alternate energy renewable resources, only one's imagination limits the possibilities. My suggestion concerns the development of renewable liquid fuels to power autos and trucks. One such renewable fuel is ethynol or wood alcohol.

What can we offer? We can offer a building, a parking lot. We can offer skilled machinist labor in Springville, Buffalo and Olean. We have an auto industry in Buffalo, and dresser industries in Olean, and we have plenty of trees in Cattaraugus County. The western New York alternate energy center could do research and development on alternate fuels and engines.

The country of Brazil, for example, has committed itself to spend 500 million dollars on alcohol type fuels, and to use 20 percent alcohol type fuels mixed with petroleum by 1985. So why not us, and why not here? We think this industry would be more natural and healthier for the area. If we all work together, we can turn the situation around. The choice is ours, though. Is it nuclear garbage or alternate energy?

MRS RICHARDSON: Thank you, Dr. Resnikoff. Our next speaker is Mr. Bob Niver, who is supervising principal of West Valley Central School.

MR. NIVER: Thank you. I'm pleased to present a statement on behalf of the Board of Education, the faculty and the student body of West Valley Central School. There are eight points that we wish to make.

No. 1 - Safety from radiation is our primary concern. In that regard, we speak on behalf of our 520 students and nearly 50 employees. While we do not know of a single student or employee who has suffered from radiation, we want to impress upon you that we expect careful monitoring after Nuclear Fuel Services leaves, and the state or the Federal government, or some private agency, assumes responsibility.

No. 2 - We are concerned with a loss of school taxes. Nuclear Fuel Services paid \$70,125.00 in taxes to the school district this year. That figure represents 16.8% of the revenue that we raised locally. The assessed value of Nuclear Fuel Services is at \$900,000.00, and that figure also represents 16.8% of the assessed value of the school district.

No. 3 - We feel that we have a better school building and facility due to the presence and tax base provided by Nuclear Fuel Services. While we have not built more of a school than we need, and while we do not have empty rooms, we do have indebtedness on two building programs started and/or completed while Nuclear Fuel Services was in our district. We paid \$82,975.00 this year for a 1962 and 1968 additions. We need continued full state aid to make these payments.

No. 4 - We ask the Department of Energy and Congress to encourage private industry to assume responsibility for Nuclear Fuel Services, therefore keeping the facility on the tax roll.

No. 5 - Whoever takes over for NFS should pay more taxes if there is increased activity. The assessment of Nuclear Fuel Services has been at \$900,000.00 for several years. This assessment is only a small portion of the value of the real property and of the buildings. The major portion is exempt because of state ownership.

No. 6 - If the Federal government takes over the facility, we request impact aid to soften the loss of tax revenue due to NFS leaving.

No. 7 - If the State government takes over Nuclear Fuels, we ask for transitional aid, plus an increase in our state aid ratio as the value of property behind our students will be reduced.

No. 8 - We resent the implication in the media and by other groups that Nuclear Fuel Services and the radiation has caused wide-scale mental retardation and birth defects in our area. On the contrary, we have fewer students in special education classes than many neighboring districts. I have some statistics I could share with you, and these should not be taken as a negative fashion in regards to our neighboring districts, but I will name them so that you are aware of the data.

For example, Cattaraugus Central School is less than double our size, but they have three times as many students attending special education classes. Hinsdale has 200 students more than we do, but they have three times the number of special education students than we do. Little Valley has less than 50 students more than we do, but three times the enrollment in special education classes. And finally, Olean is six times larger than we are as a school district, but they have nearly twelve times the number of students enrolled in special education classes.

Some other interesting statistics, and while I do not know the origin and the birthplace of students who attend special classes from other school districts, I can say that most of the students from our district who attend special education were born of parents who did not reside in or near our district at the time of birth. Well over 50 percent of our special ed students have moved in from other districts, frequently from other counties.

As a matter of fact, five of the six students from our school district attending special education classes last September were not residents of this district at or before birth. They all moved into the district. The sixth was born in 1960, at least six years prior to the time radioactive materials were brought to this area.

In closing, the Board of Education would like to thank Congressman Lundine and his staff for all the time that he has spent on this issue. We'd also like to thank the Department of Energy and the WVC for allowing us to be heard. Thank you.

MR. PARSONS: Ladies and gentlemen of West Valley and distinguished guests, my name is Michael Parsons, and I, as the President of the West Valley Volunteer Hose Company, represent them today.

The West Valley Fire Company is a volunteer, incorporated organization of approximately 80 members. We adult male members of the community all live within an eight-mile radius of the fire hall, and consequently in close proximity to the Nuclear Fuel Services site. It is the function of the West Valley Fire Company to provide fire protection and emergency medical services for residents of our fire district.

Our function is bound by two contractual agreements which define our role of fire protection and emergency treatment and/or transportation. One of these contracts is with the Town Board of the Town of Ashford, which provides these services for the residents of the fire district. The other contract is with Nuclear Fuel Services, which covers their facility and their employees.

The relationship between our organization and NFS during the past decade has been mutually beneficial. For example, we are all aware of the tax revenues paid by NFS, as they are no doubt the largest single contributor in our township. They have also given us the opportunity to be educated in the proper procedures and techniques of handling fire and medical emergencies on their site. They have been more than willing to educate any of the townspeople in procedures and plant operations, including tours of their facility.

They have, in fact, encouraged their health and safety director to conduct Red Cross advanced and standard first aid courses, as well as cardio-pulmonary resuscitation classes, and have made this service and their equipment and materials available to the community at no cost to anyone wishing to participate.

We've used this training to prepare members of our emergency rescue squads so they would be better equipped to handle rescue calls. The contributions from Nuclear Fuel Services to the West Valley Fire Company for the purchase of new equipment, new ambulance, and the construction of our new building, have been more than substantial.

I also know from personal experience that NFS has contributed to the Bertrand Chaffee Hospital in Springville, sufficient funds during their building program to construct an entire decontamination and emergency treatment room with all of the intended monitoring equipment to cover the remote possibility that some sort of nuclear accident could ever occur.

Of course they have, while in production, provided a means of gainful employment to several of citizens and members of the fire company. Not only have we found NFS to be a good neighbor, we have also developed a positive attitude concerning their operation, which is based not on emotional conjecture, but upon hard facts learned through personal experience.

Nearly 25% of our membership has at one time or another been personally involved with the conception, construction, maintenance and operation of the entire facility, including the actual burial of waste materials. The history of nuclear energy versus the production and transportation of other forms of energy, has led us to be far more involved with the accidents involving such things as propane carrying railroad cars, coal-carrying semi-trucks, electrical-carrying conductors and poles, and natural gas lines.

We have sadly in the past ten years experienced tragic and brutal deaths directly attributable to these alternate forms of energy and its transportation. We have not experienced even an illness as a result of the operation of the West Valley nuclear site, or any of its attended radiation. Our knowledge of the nuclear industry has led us to approach their operation with the proper amount of respect and safety procedures.

We have come to respect their safeguards and the personnel with whom these safeguards are entrusted. In short, this means that we can approach the nuclear fuel site without fear, but with respect. The fact that our members are not afraid of the nuclear fuel site is

evident by a recent emergency call which we received from an anxious caller in Springville one night. The person told us that there had been an explosion and fire at the nuclear fuel site.

We responded within minutes and discovered that they had installed some new lighting devices that might appear as a fire in the distant darkness. The incident was not consequential, but the main point is that the West Valley Volunteer Hose Company turned out 52 members strong to come to the aid of our neighbor in their reported disaster.

This is indicative of the fact that although we regard nuclear energy with the respect and technology that the source of energy demands, we, the natives of this sleepy little town, have learned through experience not to fear but to live with our neighbors, trusting in the procedures and safeguards of this particular energy source. The West Valley Hose Company supports the continued operation of the nuclear site, and encourage its management to continue their procedures which will protect our environment and our children for the foreseeable future.

We know that they, too, are concerned with our environment and with our future, and trust in their judgment to make provisions based on scientific fact and not emotional exaggerations, in order to facilitate the continued operation. We recognize that there are several options which will be proposed today. We recognize also that in the future a decision must be made regarding these options. We wish to offer our support to Nuclear Fuel Services as we all travel through this difficult time, much as the time we did during the project's first conception, and I wish to thank the Department of Energy on behalf of our members, for this opportunity to speak to you today. Thank you.

MRS RICHARDSON: Our next speaker will be Mr. William Fleckenstein, West Valley Postmaster.

MR. FLECKENSTEIN: Members of the panel, distinguished officials, ladies and gentlemen. I wish to compliment the panel on the thoughtfulness they have shown in expressing consideration of the opinions of the people in this areas in holding this meeting here today.

I also wish to express my appreciation for the opportunity to be heard today. Although the agenda lists me as the West Valley Postmaster, I speak strictly as a private citizen and not as a representative of the Postal Service. I have been a resident of this area most of my life, and including all of the time of the planning, building, operation and present status of the NFS project.

My remarks and opinions are based entirely on personal observations during this period. That the main problem appears to be that a question

exists of what is safe and what is not safe is well known. The plant was built and operated according to technical requirements as they were developed by the Federal government. Until that point was reached where industry could no longer bear the financial load of this progress, under constantly but necessary changing Federal regulations, which has resulted in a now dormant facility.

As stated, the objective of this meeting is to recommend a reasonable allocation of responsibility for the Western New York Nuclear Service Center. It appears that the only logical move is for the Federal government to take over and continue with development until such processes are perfected and standards for operation are established. Or if this is found to be an impossible goal, then acknowledge it as such and accept the responsibility of properly terminating the entire project and leaving the area safe for those who live here.

This project was not brought here by the voters or the residents of this area, but rather was tolerated by the residents in good faith that our government officials were acting with knowledge and integrity in the best interests of those concerned. And may the final outcome prove this to be true. Thank you.

MRS RICHARDSON: Thank you, Mr. Fleckenstein. Our next speaker will be Mr. Fred Horning, Town Board, West Valley.

MR. HORNING: Thank you. I'm Fred Horning, councilman of Ashford, Town of Ashford. I think the thing that we are most concerned about right now is the public safety. So far as I know and believe, there has not been no lives lost at the nuclear plant, and no one hurt.

But let's look at some other things, like 46,700 people killed in one year in car accidents; 2,400 in New York State alone, and 140,000, think of it - 140,000 permanently disabled. Now that's a staggering figure considering that in just one year all these people have been disabled. Do they do away with cars? No. They spend money trying to make them more safe.

We hear so much about moving this waste material, and I would like to ask these people where. Move it in someone else's backyard? That wouldn't solve the problem at all. Even if it was moved, the land it is on now wouldn't be put back into production, so why move it? We have people with the knowhow to put man on the moon and return him safely, so I'm sure if we spend this money, somewhere between six million and 600 million dollars, put this money to use to find a safe way to store this nuclear waste, it would be better for all.

I'm sure if we can put man on the moon, they can find a safe way to contain this material. There has been so much said about, nasty things said about West Valley. I'd like to say I'm proud of our little town, and I'm proud to be a part of it. Thank you.

MRS RICHARDSON: Thank you, Mr. Horning. Our next speaker is Mr. J. Richardson Lippert from Franklinville, New York.

MR. LIPPERT: The Western New York Nuclear Service Center has been a bittersweet experience gone sour for local residents, state government, nuclear industry, and its promoters and regulators. DOE and NRC have briefed us on the background of the facility and some of the problems confronting us today. I will outline my personal views in three categories.

First, what are the competing demands for the future use of the facility? Second, how can we maximize the satisfaction of those competing demands or conversely, minimize dissatisfaction, and finally, who will pay the bill?

There are many demands competing for attention, but generally they can be put into a few pigeonholes. One demand is that of local governments in nearby communities for a tax base and employment. At the same time, in light of its contractual responsibilities and projected costs, the State of New York wants out and would like the Federal Government to take over. The Federal Government, of course, recognizes the problem when it sees one, and is reluctant to assume any financial burden without also receiving some offsetting benefits.

In essence, all levels of government want to minimize their losses. Now intertwined with these governmental concerns are competing demands such as safety and environmental measures versus cost and uncertainty versus delay. But enough on demands. What can be done, and how can the demands be reconciled? My proposal in a sentence is to physically bifurcate the site to satisfy the greatest number of competing demands, and at the same time provide needed flexibility to solve the waste problem. In other words, the 3,345 acre site would be partitioned by isolating the existing nuclear area and freeing the remainder of the site for nonnuclear industrial use to serve as a demonstration energy center.

I will explain this further. First, we determine the area of the site that will be required to contain, clean up and remove the existing wastes in the tanks and the NFS building. This necessarily entails abandoning the further use of the entire site for any further nuclear activities except containment, cleanup and removal. Others have and will be discussing ways to remove the liquid wastes. I would just add

that the wastes here amount to 600,000 gallons. In Hanford, Washington, and at Savannah River, we have about 75 million gallons. Given these numbers, it does not make sense to me to even consider West Valley as a permanent Federal repository.

Let's concentrate, nationally speaking, on placing these dangerous wastes at a few focal points. Indeed, this is NRC policy, and an exception in the case of West Valley cannot be justified. So much for the nuclear area of the site.

I want to focus on the other half of my proposal, namely, the nonnuclear area. You will recall that I suggested that the balance of the site be dedicated as a demonstration energy center. If you're asking what is that, I don't blame you, because a year ago I would have asked the same question. An energy center as such does not exist in the U.S. Conceptually, it is a complex of closely located industries designed to share industry in such a way that energy utilization is maximized.

Co-generation, one of the key words in President Carter's energy message last spring, is the cornerstone of an energy center. While co-generation may be a new word, it is a proved technology with roots dating back to the 1930's. We have the hardware and the knowhow to co-generate today. It is possible, for example, to use some of the energy of burning fuel at high temperatures to operate a kiln, then take the gases from such a process, still at high temperature, and fire a boiler to produce steam, process steam and electricity. This is co-generation, it conserves energy, and we used to do it in this country.

We stopped in the late 40's because fuel was so cheap that co-generation wasn't worth the bother. To summarize this part of my proposal, I am asking state and local agencies to cooperate in establishing a demonstration energy center at West Valley. This may sound a bit grandiose, and candidly I must say that New York State, and to a greater extent, West Valley, are not the first locations that may pop into a businessman's mind when he's looking for a place to grow.

Nevertheless, there are positive attributes to consider. Site acquisition problems don't exist, as the State already owns the property. Because of the great volume of data available, required environmental studies to obtain permits would be expedited, and the center would have a continuous availability of energy at lower cost. Personally, I'm not willing to give up the ship on New York State or this area. I feel that the mechanisms exist to see this through.

That is, New York State Energy Research and Development Authorities to coordinate the technical aspects of the project, and the New York State Department of Commerce to coordinate the development. The need for community and local government cooperation is obvious. Having stated that, I now shift to the third and final category that might be dubbed the 600 million dollar question. First though, please permit me to rise to the macroscopic level of the current state of nuclear development in this country.

I must state for the record that I oppose the further development of nuclear power as it is presently practiced. Nevertheless, I recognize that commitments have been made, and nuclear power will be providing electricity for several years to come. In view of this reality, I feel that it is in the national interest to spare no cost in our cleanup of West Valley. If we make the mistake of cutting corners to save money, a minor human error, equipment failure, or design fault, could be catastrophic.

If anyone feels we can't afford to do this rightly, my response is the opposite. Looking at the big picture for just another moment, I would like to say that I feel today's society has a moral obligation to at least pay for, if not solve the nuclear waste problem. I realize that the tank containing 600,000 gallons of waste might last for one, two or perhaps three generations. That's all well and good when viewed in a narrow perspective. But maintaining those wastes simply to pass them on to our children is so irresponsible as to justify parricide.

I urge you to recognize this responsibility and deal with it now. All of which brings us back to the crux of the problem, dollars. Legal versus moral responsibility, whatever they may be, between NFS, New York State, and the Federal government, has been bandied about like a tennis ball at Wimbledon. We have been distracted to the point where we are frustrated by our inability to point blame. So what do we do?

My suggestion is to adopt a no-fault concept and spread the cost of cleaning up West Valley among the identifiable beneficiaries of its activities. At the outset, we must face the realities that the Federal government is the only institution of society with the technical expertise to cope with the problem on a scale that will be required. That's not to say, however, that the Federal government assumes all costs.

These should be allocated in a more equitable manner that calls for an examination of the facts. Fact No. 1, about 65% of the wastes generated at NFS resulted from the processing of fuel to extract plutonium and other materials for weapons and experimental purposes for the Atomic

Energy Commission. Based on that, 65% of the cleanup costs should be paid by all of the taxpayers of the United States. Presumably, the bombs that were made and the experiments that were done, benefitted all of us, whether residents of New York, Maine or California. Accordingly, these costs should be distributed across the nation.

Fact No. 2, the remaining 35% of the wastes are attributable to the processing of spent fuel elements for commercial power reactors. I propose that these costs be allocated among the beneficiaries of nuclear power by the imposition of a special Federal tax. This nuclear tax would be imposed against those utilities presently generating electricity by nuclear fission and passed through to their consumers.

As more reactors come on line, the mixture will change or the base will spread. I would envision the customer's bill reflecting a nuclear surcharge similar to the fuel cost adjustment that is presently itemized on today's utility bills. I feel the no-fault concept is the most expeditious and realistic way to apportion the cost of West Valley and to begin internalizing the economies of our prior judgments.

In conclusion, the dilemma we face is a bitter pill. Governments at all levels have been volleying for position, while the nuclear industry holds its breath and local citizens wait with anxiety. We must all taste the bitter pill, for each of us in our own way is responsible. When local governments ask for an immediate assurance of a tax base and employment, the pill responds, "Work hard and in a short while you will be rewarded".

When the state asks for a reprieve, the pill says "You must expend your efforts and your citizens must bear their fair share of the costs". When the people of the nation, also known as the Federal government, seek out solutions, the pill demurs, "No, you have contributed significantly and you have cloistered the nuclear priesthood within your realm". And finally, when the nuclear utilities put up their hue and cry over the nuclear surcharge, the pill curtly borrows Clark Gable's famous line and says, "Frankly, my dear, I don't give a damn". Thank you.

MRS RICHARDSON: Thank you, Mr. Lippert. Our next speaker is Mr. Robert Brady, District Representative, Machinists Union, from Buffalo, New York.

MR. BRADY: Thank you, Miss Chairperson. Distinguished members of local, state and the Federal government, ladies and gentlemen. Our international union represents 800,000 people in the United States and Canada.

In this area there are approximately 6,000 members in the Jamestown-Dunkirk area, and there are approximately 6,000 in the Buffalo-Niagara County area. I am the district director of the 6,000 in the Niagara and Erie County area, and we also represent the production and maintenance employees at the West Valley Nuclear Fuel Services.

My statement is relatively brief, approximately four minutes the way I timed it out. I hope that you'll pay attention to it, because it reflects our views and our input into this problem. We urge the Department of Energy to option for continued use of the western New York nuclear service center. We wish to go on record as being in favor of reopening the facility to its full potential, both for research and for reprocessing and storage.

The only way, as we see it, to meet the basic needs of the workers of this nation, both by reduction of unemployment and inflation, and thereby reversing our economic stagnation, is by embracing a national policy that will enable us to resolve both the energy crisis and pollution. The continued use of energy sources that are not reusable such as coal, gas and oil, will continue to rise in price, resulting in eventual economic chaos, with the resultant inflation and erosion of standard of living that will push the poor to the brink of desperation.

All avenues of alternative energy sources such as solar energy should be pursued. The nuclear policy of this country should be reaffirmed, and proper safeguards for protection of the environment, the workers and the community should be maintained by the Federal government. The development of safeguards for nuclear power should be made by our Federal government in a leadership role, or we will be the victims of inadequate standards set by other nations such as West Germany, France, China, India, Russia and many other nations who have already ventured into both nuclear proliferation for peaceful energy sources, and recycling of the waste products for continued use.

The West Valley plant has been proven to be safe environmentally, and the adoption of stringent controls recommended by and paid for by the Federal government will insure that new technological methods will continue to allow the West Valley plant of Nuclear Fuel Services to expand, and thereby further the use of nuclear power as a source of energy to enable the United States to maintain its position as the world leader.

The workers of this country are not disposed to retreat into the status of an underdeveloped nation. We must choose to go forward with any technological advances or be reduced to an impoverished nation, and to us the choice is clear. Thank you.

MRS. RICHARDSON: Our next speaker will be Mr. Daniel Salim.

MR. SALIM: Hi, I'm Daniel Salim, and I'm president of Local Lodge 2401, the union that represents the workers at Nuclear Fuel Services.

The question that lies in front of us is what to do with the West Valley site? The only option that has surfaced recently with any merit, or that has any consideration for the future needs, is the option of a complete federal takeover of the site, and development of a reprocessing and waste handling research facility. This country has no alternate energy supply to take the place of nuclear power. We are quickly running out of fossil fuels, not only in the United States, but throughout the entire world.

That is why the oil exporting countries are using our petrol dollars to develop nuclear power plants for their own future energy needs. Catastrophic was a word that was used here today to describe the situation here at the West Valley site. The only catastrophe to foresee is the wasting of nearly a billion dollars of tax money to completely decommission this facility, and appropriating billions more in expenditures to erect a similar research facility elsewhere, when this facility could be modified to meet the specifications of such a research facility at far less cost.

The buildings and equipment at this site are in perfect condition, some of the buildings having never been used at all. The 600,000 gallons of liquid waste already here would be used to research waste handling techniques, while the reprocessing building could be used to generate more waste for research, and newer processing techniques could be developed and tested, such as the new Civex process, which incorporates a great share of the equipment and design already here at the site.

In the past two years, 25% of the voters in the United States have had the opportunity to vote directly on nuclear questions during various state elections. The people have overwhelmingly chosen nuclear power for our major energy supply by more than a two to one margin. The people have shown clearly that they see the need for nuclear power not only now, but possibly as our only future energy supply.

I'm sure the people of Connecticut could express better how grateful they are to nuclear power plants there, because more than 70% of their electricity was generated by nuclear plants during the blizzard of 1977. As a matter of fact, on February 17, 1977, the entire northeastern part of the United States received 53% of its electrical power from nuclear power generating stations that had absolutely no problems operating during the crippling blizzard.

The future use of this site by the Federal government would be a great economic boost for this area that would rather have a helping hand instead of a handout. We are already experiencing loss of industry at a fantastic rate, not only in this area, but throughout the entire state of New York.

Labor in the United States has already lost tens of thousands of jobs to the rantings and ravings of environmentalists who scream about hurting the beautiful countryside. I, myself, respect and love the natural environment that God has entrusted to our care. But the inspirations of the environmentalists are born from their own unwillingness to perceive proper prospectives of economical industrial development. Instead, their narrowmindedness only sees the death of a few thousand fish being taken into the intakes of hydroelectric plants, or a few hundred trees being cut down to allow passage of an expressway, and does not take into consideration the thousands of people that will directly benefit from these programs.

When it comes down to a choice of whether to feed thousands of families or to save a few thousand fish or a few hundred trees, I guess I'll have to feed families first and let the fate of the fish and trees rest on my conscience. The people of this area have been saturated with a tremendous amount of misinformation and facts that have been twisted and distorted by the environmentalists to further their cause.

In a New York State Health Department study on nuclear plants and their effects on the areas around them published in August of '77, it is stated that from 1962 to 1975, the congenital malformation birth rate for counties with nuclear facilities was consistently lower than the rate for counties without nuclear facilities. It stated further that in all categories there was no significant difference between nonnuclear and nuclear facilitated counties.

And as far as safety records go, the nuclear industry is unquestionably the safest in the nation. According to Mr. Edward Mason, formerly of the Nuclear Regulatory Commission, that there is not enough money in the United States to raise man's other activities to the safety level already achieved by the nuclear power plant.

It is interesting to note that a coal-fired power plant kills more people every few days than a nuclear power plant could in its thirty or so years of existence.

In a 1974 United States Atomic Energy Commission report on risks of nuclear power plants, the probability of being killed by escaping

chlorine gas or being killed by a failure of a dam, is 100 times greater than the possibility of being killed by a nuclear power plant. In the last 13 years, I have worked for Nuclear Fuel Services, the facility operated with safety being foremost and above all other functions, and a perfect safety record was realized.

I feel that this achievement could be easily continued in the future, no matter what type of operation exists. There have always been numerous comments made about the waste stored at the West Valley site. Some people have made statements that radioactive leaks exist in the low-level burial area. These remarks just aren't true. A determination one can make from a recently Federally funded geological study of the burial area is that this burial area is one of the finest spots in the country, posing no environmental problem.

To quote Dixie Lee Ray, Governor of the State of Washington, and former U.S. Atomic Energy Commission Chairwoman, there is lying, misunderstanding and ignorance about what radioactivity is. She goes on to say that now with the technology developed over the years of experience in how to handle the hot stuff and evaporate it into dryness, if we had to store all the radioactive wastes from nuclear power plant programs, and we generated all our electricity by nuclear power, and had one thousand nuclear power plants operating by the year 2000, we could put all the waste in a pit 200 feet wide, 200 feet long, 200 feet deep. That's the size of the problem.

As one could see, if the Federal government researches the tests and tests waste handling here, then the gigantic problem of the stored liquid waste is really no big problem at all.

There have been statements made about the dangerous exposure problems from the site being emitted into the local area. To expose these comments for what they really are, let's look at some facts about radiation in the area.

Our area has a natural background exposure of 110 millirems per year. If you lived within four miles of the main part of the facility, you would receive an additional 4/10ths of a millirem per year, bringing your total to 110.4. In France, some towns have a natural background of 350 millirems per year, while in Brazil, the town that was mentioned earlier today, some towns in this country have a background of as much as 13,000 millirems per year. Denver, Colorado, has 175.

Still the environmentalists talk of malformations in the area and attribute these naturally occurring incidents to excessive

exposure from the site, even though they have no sound basis for their conjectures. The environmentalists opposed to the operation of the West Valley site are attempting to force the people of this area to decide the future of the site without exposing the public to the best information available.

The environmentalists use scare tactics, emotionalism and sensationalism about the subject to cloud and confuse the true issues involved, so that the real facts that should be heard for a good, sensible evaluation of the future of the site are completely overshadowed. Their solutions to problems are impractical, and their methods of problem solving that they are feeding us are such that they wouldn't use it to solve the problems of their own personal lives.

Environmentalists are not only against nuclear plants, but they are also opposed to hydroelectric plants, coal gasification plants, coal mining, offshore oil and gas drilling, highway construction, and practically all types of job-producing industrial projects.

Their solution to our future and present energy needs is solar power, which is technically possible, but as far as a major contributor to the nation's total energy demand, it is absolutely not feasible. If all the electricity needed to heat and light all the houses in the United States was produced by solar power, it would only reduce the demand for electricity by five percent. If we excluded industrial need for electricity completely, and provided all the electrical power for all the homes in the Buffalo area by solar power alone, we would need a solar collecting facility that covers an area of 50 square miles.

I wonder if the environmentalists have thought about the ecological ramifications of that?

I'd like to close with something that Adlai Stevenson said, in that there is no evil in the atom, only in men's souls.

MRS. RICHARDSON: Thank you, Mr. Salim. At this time, I'd like to recognize the Honorable Congressman Ted Weiss from New York.

CONGRESSMAN WEISS: Thank you very much. Let me at the outset express my appreciation to the Department of Energy, and especially to Congressman Stanley Lundine, for making these hearings possible, and again to thank you personally for allowing me to speak here on the future of the nuclear service center here in West Valley.

I've come here to testify for several reasons. First, I am a resident of New York State, and the fate of this facility concerns

every New Yorker. Second, I'm a member of the House Committee on Government Operations, which last year conducted a series of hearings on Nuclear Fuel Service's plant in particular, and the nuclear waste crisis in general.

I've also been involved in New York City and in Washington, with nuclear issues and problems. Last November, I led an effort at New York City to prevent the Federal Department of Transportation from overturning a city prohibition against unlicensed shipments of radioactive wastes throughout the city.

I'm also a co-sponsor of several pieces of legislation involving licensing of commercial nuclear fuel reprocessing plants, and mandated development of effective and reliable methods of nuclear waste disposal.

Here in West Valley, we're witnessing the underside of the nuclear power dream. For more than three decades, ever since the inception of the Atoms for Peace program, the American people have been constantly assured that nuclear energy is completely safe, that it is much cheaper than other sources of electrical power, that the problems associated with radioactive waste disposal would be solved when the time came for solutions.

We have been awakening from this dream in recent years, and the reality now confronting us is not at all reassuring. Scores of near misses and supposedly minor accidents have demonstrated that nuclear energy is far from being a fail-safe technology. The potential for a truly catastrophic meltdown or of massive radiation release is very real, and we are now learning that what had previously been considered acceptable doses of low-level radiation are actually quite unacceptable, and pose a serious threat to the health of this generation and of future generations.

A report prepared by the Government Operations Committee likewise shows that the so-called costs of nuclear power are enormous. Instead of being too cheap to meter, nuclear power is burdening utility customers with excessive costs, and this burden is certain to increase substantially as more and more hidden costs emerge in the coming years.

And now that the time has arrived for solutions, the nuclear waste dilemma, we find that no solutions are forthcoming. Indeed, the Department of Energy conceded this past week that it will be at least a decade before a permanent Federal waste repository becomes operational. In the meantime, the people of western New York, and literally millions of other Americans, will be left sitting in close proximity to a time bomb.

This image, it seems to me, is an appropriate description here at West Valley. All the dreams associated with nuclear power have dissolved here into delusions and nightmares. Encouraged and spurred by what was then the Federal government's advocacy of nuclear power, New York State acquired the 3,400 acre site here in 1961, and designated it the western New York Nuclear Service Center. The state accepted Washington's optimistic appraisal of the nuclear age at face value.

Eager to participate in this new era, and to share in the economic benefits of nuclear technology, the State entered into agreement with Nuclear Fuel Services, Inc. NFS contracted to operate a reprocessing facility here, which it was asserted would place New York at the very crest of nuclear industry development.

Like so many other technological expectations and projections involving nuclear energy, the reprocessing operation did not prove economically feasible. The NFS facility functioned for only six years, leaving a legacy of some 600,000 gallons of high-level liquid radioactive wastes and two million cubic feet of low-level waste. The haste with which government and industry rushed to develop nuclear energy is reflected in the fact that no one is quite sure what to do with this potentially lethal waste.

And the cost for disposing of the waste safely and permanently can be described as completely open-ended, with current estimates ranging up to 600 million dollars.

Amid the guesses and question marks, however, a few points seem unambiguously clear. First, the responsibility for finding a solution to the nuclear waste crisis rests squarely with the Federal government. The Department of Energy's task force report last week is a step toward this solution, and a welcome indication of Federal leadership.

Second, the Federal government must pay the cost of developing and implementing the safest possible disposal method for the West Valley wastes. There would be no Western New York Nuclear Service Center had Washington not encouraged the states and private industry to take investment risks in an unproven technology. Having led the movement which produced this facility, the Federal government must now finance this cleanup operation required in its wake.

It is essential that Federal assumption of responsibility for the West Valley facility not be linked in any way to the development in New York State of a nuclear waste repository. Such a proposed arrangement has been aptly denounced as nuclear blackmail. And to this I would add only that the Department of Energy is acting most irresponsibly in

attempting to hold the people of western New York hostage to a scheme that carries even greater risks of a radiation disaster. It must also be emphasized that Federal payment of the cost of cleaning up the West Valley site should not entail any unilateral decision by Washington to reopen or convert the facility.

When and if New York State takes title to the NFS property, a partnership must be developed between Albany and Washington. The future of the nuclear services center is of great concern to both the state and the nation, and both New York State and the Federal government must agree on uses of the facility consistent with their mutual interests. And while the Department of Energy study goes forward, every precaution must be taken to insure that the wastes here do not endanger public health and the environment.

I question whether the 4.4 million dollar perpetual care fund to be ceded to the state is adequate for these purposes. Leaks of radioactive wastes have already occurred here. Can there be a guarantee that any repetition will be prevented? Is the site fully protected from sabotage or terrorism? Have emergency plans been prepared?

I urge the DOE and the Nuclear Regulatory Commission to begin at once to implement the safeguards at the site. We must not wait until another leak occurs or until some unforeseen eventuality jeopardizes the health and safety of the people of western New York.

If we are fortunate, the safeguards will forestall a calamity until the wastes are safely and forever sealed away. And if we are even more fortunate, this permanent disposal will really be just that. The radioactive debris will remain isolated for the necessary 800,000 to one million years.

But looking to good fortune is not a sound way of making policy. The Western New York Nuclear Services Center should teach us certain lessons about atomic power and radioactive wastes. We should learn, for example, that no more nuclear power plants can be built until there is a proven, effective method for getting rid of the waste that already exists.

I would urge New York State officials to develop legislation similar to that now in effect in California, where radioactive waste disposal has been made a precondition for future nuclear power development. We should also begin a careful reassessment of the costs, benefits and dangers inherent in nuclear power. An essential component of such an examination will be an adequately funded effort to make alternative.

renewable energy sources widely applicable to both residential and industrial purposes.

As I noted earlier, the Western New York Nuclear Service Center is a time bomb. It is ticking away as we search for a method of diffusing it. Hopefully, it will be dismantled and will no longer menace this area. But there are other West Valleys, other nuclear service centers, other time bombs. They should not, and cannot be approached on a piecemeal, ad hoc, crisis-oriented basis. The nation needs a comprehensive policy linking energy security to environmental safety and public health maintenance. I doubt that nuclear power will provide that linkage. Again, thank you very much.

MRS. RICHARDSON: Well, much to our surprise, we are ahead of schedule. We're scheduled to have a question and answer session from 12:05 to 12:45. We have scheduled two of these throughout the day, so that members of the audience will have a chance to question DOE, NRC or anybody else for that matter, and to get responses.

Before we move into that, I would like to read a couple of statements that have been submitted for the record. One is from the Honorable Senator Jacob Javits. He has asked that I read it. The other is from Congressman Frank Horton. I would also like to mention at this time that Congressman Jack Kemp has submitted a statement for the record, and it will be available here today, I believe, on the table.

Now for Senator Javits' statement. A letter dated March 6th, 1978. To the Honorable James Schlesinger, Secretary, Department of Energy, Washington, D.C. Dear Mr. Secretary: On February 28th, 1978, I received a letter from Robert Thorne, the acting Assistant Secretary for Energy Technology, announcing a public hearing on the DOE study of options on the Western New York Nuclear Service Center, and inviting me to make a statement either previous to or at the hearing. As Senate business prevents my attendance at the hearing, I take this opportunity to state my views as follows:

The closing of the West Valley plant has created two problems for the residents of the New York area and for the State of New York as a whole. One financial and the other environmental. Whatever the ultimate disposition of the West Valley site is, and I do not intend to prejudge the outcome of the technical study DOE has undertaken in this regard, the cost will be substantial.

Indeed, estimates range as high as 550 million to dismantle the facility completely. Since the closing of West Valley was due, at least in a part, to the vagaries of Federal regulation, I believe

the Federal government must go beyond simply providing funds. It must include continuing technical assistance as well.

While there does not appear to be any short-term hazard associated with the nuclear waste stored at West Valley, the residents of West Valley must receive absolute and unquestionable assurance that there also is no long-term hazard. The subject of nuclear waste management is very difficult and complex, and indeed the Federal government does not yet have a comprehensive plan for the long-term management of nuclear waste. It is therefore totally unrealistic to expect New York State to undertake management of these wastes by itself.

Thus, I believe that the Federal government must provide on a continuing basis, the technical expertise and supervision necessary to protect the residents of the area from any possible risk associated with the storage of nuclear wastes.

West Valley was the only commercial nuclear reprocessing facility ever operated in the United States. Built in the early 1960's, it operated from 1966 to 1972, when it was shut down pending the necessary Federal approval to expand its capacity. Before the approvals were granted, the Federal government changed the requirements that had to be met in order to operate the reprocessing plant. The cost of meeting the new requirements was so great, that the operator of the facility, Nuclear Fuel Services, decided in 1976 to terminate plant operations and exercise its contractual right to turn the facility over to the State of New York.

There exists, therefore, for this and other reasons, a critical Federal interest. I would like to commend the Department of Energy for holding this hearing and seeking out the views of the local residents in the West Valley question. I look forward to working with this Department to find a satisfactory solution. With best wishes, Sincerely, Jacob K. Javits.

Congressman Horton's statement is as follows: Mr. Chairman, after many years of neglecting its responsibility for leadership in the field of nuclear energy, the Federal government must now assume full responsibility for determining and directing the future of the Western New York Nuclear Service Center at West Valley.

What the Federal government does with West Valley, whether it uses the site as an existing or new reprocessing facility, as a decommissioning facility, as a waste storage facility, as a decontamination facility, or whether it completely and permanently dismantles it, is crucial not only to West Valley, but to the future of our national nuclear energy policy.

Because the West Valley problem cannot be isolated from the national future of nuclear energy, the future of West Valley cannot and should not be placed in the hands of the State of New York. Rather, it clearly is the burden of the Federal government.

A simple review of the history of the West Valley facility will reveal that it was New York, after a decade of Federal inaction, that took the initiative to reprocess spent nuclear fuel that had been accumulating since the Atomic Energy Act of 1954 was enacted. It was New York that took the initiative, fully expecting Federal licensing in the future. Time passed, new and more stringent Federal restrictions were implemented, and West Valley was left holding 600,000 gallons of neutralized liquid waste, most of which is U.S. military waste from weapons production.

In effect, the Federal government changed the rules in the middle of the game. Then, instead of seizing the leadership and forging bold advances in nuclear energy, the government postponed all action again, and again delayed important decisions on both waste disposal and reprocessing.

Because of that acute lack of Federal leadership, the West Valley facility has been unproductive since 1972. Military waste generated by weapons production, continues to accumulate. While West Valley sits idle, scientists continue to explore the vast possibilities of nuclear energy. Only recently we learned that experts are developing a new reprocessing technology that avoids any yields of weapons grade plutonium. If this is indeed developed, the process could be used extensively without the dangers of terrorism and weapons proliferation.

The two fundamental questions which must be answered to determine the future of West Valley site are adequately addressed and deal with these outlined in the proposed study: one, should the site be decontaminated, decommissioned or permanently dismantled, and two, should the site be used as a permanent waste storage repository or as a reprocessing facility? There should be no denying that nuclear power must be objectively considered as a vital energy source, not just for the future, but for today as well.

Our dwindling traditional energy supplies in this world will not last forever. We must consider alternate sources of energy, including the tremendous range of opportunities available through nuclear energy. It wasn't too many years ago that West Valley was considered an essential site for the conclusion of the nuclear cycle, spent fuel was to be reprocessed and valuable plutonium was to be reclaimed for future use. The resulting waste was to be stored here until its ultimate disposal at some permanent Federal repository.

West Valley was a critically important part of the full nuclear cycle. It was not then, and is not now, solely a New York project. As far as its future is concerned, I would be open minded about using this site as a permanent waste storage facility, only if geological and environmental studies that are now in progress support the feasibility of such a facility. Again, depending on the outcome of these studies and the new technologies, I would be open minded about use of the site as a reprocessing facility if proper safeguards are provided.

Mr. Chairman, I appreciate the opportunity to comment on the Department of Energy's proposed study of the western New York Nuclear Service Center at West Valley. It is with great interest and concern that I support and encourage a fair yet painstakingly thorough study of the options available to both the State of New York and the government of the United States.

Finally, Mr. Chairman, I want to underscore once again my firm view that the future of the West Valley site is in the hand of the Federal government. Most of the nuclear wastes that are stored there at West Valley is U.S. military waste, not commercial waste. The New York Nuclear Service Center sits idle today not because of the state of New York, but because of unconscionable Federal delays and timid leadership in Washington.

The problem at West Valley is not an isolated State problem, but rather a Federal problem that is inextricably tied to the future of our national nuclear energy policy. As such, the future of West Valley rests solely with the Federal government.

I also have one other statement that I will try to read later. It's very lengthy. It has been submitted by Miss Helen Caldicott from Boston, Massachusetts. And if time permits, I would like to read it later.

I think we should proceed now into the question and answer period, and it's probably best...Oh, Mr. Babcock, I'm sorry. OK, I guess, for the remaining ten minutes we'll recognize Mr. Babcock.

MR. BABCOCK: Thank you. Chairperson and dignitaries and citizens concerned. As a former employee of Nuclear Fuel Services for a little over eight years, I feel it is too bad to have this industry closed in our community. A few years ago, many local people worked at NFS, but since have either sold their homes and found work elsewhere, or are driving many miles for employment.

We have a pretty little town with many fine people living in it. Therefore, it is too bad, that there are those who have to blacken the name of West Valley with many insinuations in connection with NFS. This reprocessing plant is a new adventure, and like any new plant, it takes time, experience and a lot of hard work and years to perfect it.

I am sure that this plant has no more pitfalls than any other undertaking. To my knowledge, the room supplied by NFS in the Chaffee Hospital has not been used for any serious emergency from that plant. We hear of many casualties in other industries. Therefore, I feel we have had many reliable men managing this plant.

How many people each year are killed in airplane accidents? How many coal miners killed? How many killed from gas fumes just recently? This industry has learned much in the field of nuclear energy in the handling of uranium and the recycling process in a short time. Certainly, there is a need for nuclear energy with a shortage of oil and the present coal crisis in highly commercialized states.

I'm sure the good Lord has given men the knowledge to be used in the development of nuclear power and to increase the safety conditions at the same time. Nuclear Fuels has assumed a large portion of the taxes in the town of Ashford. What will happen in 1980 to our taxes when Nuclear Fuel Services no longer pays their portion?

We have many retired people living in this township that have to budget their money in order to have enough money to live on. If they have to draw more from their savings to pay higher taxes it won't be long when our welfare roll will have to assume this burden. And we all know our welfare is much too high now.

I trust our representatives in Albany and Washington who represent us taxpayers will see to it this tax burden will be picked up by the state and federal government. Let's all work together and come up with a working solution to put people back to work in this plant in the Town of Ashford. If there's work, people can pay their taxes and pay their fair share.

Thank you for these few minutes to express my views, and hope there are enough others in our community that are concerned with a healthful and safe place to live.

MRS RICHARDSON: Thank you, Mr. Babcock. OK, I think now we'll proceed with the question and answer period. There are microphones set up in the center aisle, and if you want to address a question,

please go there so everybody can hear it. Just raise your hand and I'll try and recognize people in that fashion, so does anybody have a question? Please state your name and where you're from so that everyone will know.

A: Am I going to register?

MRS RICHARDSON: No.

A: It's set for people who are taller than I.

DR. JOHNSRUD: Judith Johnsrud, I'm from Pennsylvania. I'm Co-Director of the Environmental Coalition on Nuclear Power and a member of the Pennsylvania Governor's Energy Council Advisory Committee. My question is from the Environmental Coalition on Nuclear Power, however. It is my understanding that as the result of recent Congressional hearings, the proposal has been put forth to transfer all research from DOE that concerns human health to the Department of Health, Education and Welfare in order that there may be more unbiased research into the areas particularly pertaining to low-level radiation.

I am concerned that we have heard nothing thus far in the comments from persons attending concerning these recent findings with respect to workers in the nuclear industry and also the findings over the last several years concerning sensitive groups within the general public with respect to low-level radiation exposure. Particularly, I'm concerned about this with respect to moving ahead here at West Valley for further use of the site either for reprocessing or for other experimental work in the nuclear fuel cycle, or for waste disposal, given the clear inadequacy of the present exposure standards.

At the congressional hearings recently, Dr. Edward Radford, who heads the National Academy of Sciences Committee on the Biological Effects of Ionizing Radiation, raised his very deep concern about the inadequacy particularly of radiation exposure standards for workers. He recommended a ten-fold reduction in those standards.

In view of all of these emergent problems with respect to low-level radiation, I would appreciate comments with respect from the DOE representatives here today, with respect to the transfer of all research on human health pertaining to low-level radiation from DOE to a department of government that is not promotional of nuclear energy.

MRS RICHARDSON: Mr. Thorne?

MR. THORNE: I'm with the Department of Energy. We are familiar with the hearings that are going on in the Congress at this moment. In the Department of Energy, Dr. Liverman has recently expanded studies to follow up on people who have been, who have received exposure. But the hearings are still going on, and the conclusions have not been reached at this time. And we are anxiously awaiting the conclusions of those hearings and certainly will abide by the wishes of Congress.

MR. VITOFF: I just have a question. My name is Steve Vitoff from New York Public Interest Research Group, and I..

MRS RICHARDSON: Excuse me just a minute. Please wait till I recognize you. If we get hands shooting up, we're going to have a mess on our hands. Go ahead.

MR. VITOFF: I'm sorry. The Attorney General's speaker alluded to page 22 and 23 of a DOE report regarding possible plans for high-level waste management repository coming in to New York State. Could we get more details on this possible option, and many of us are concerned as to how ambitious this alternative is to be.

MR. THORNE: I think the paragraph you're referring to is a section on page 22 and 23 of the report entitled "Responsibility for Wastes Involving the Low-Level Burial Site at West Valley", and it goes on then to discuss the high-level wastes at West Valley.

We will make copies of this part of the text available to you, and they'll be out here right after lunch.

MR. VITOFF: It's not that I want something in writing. I'd like to just, if you could amplify on the concerns that were expressed by the Attorney General's office as to a possible incoming of additional waste as part of a, some broader plan. This is apparently some sort of option that's being considered, and that's what I was inquiring about.

MR. THORNE: Well, as I mentioned in my opening remarks, there has been reports in the media which says that a deal had been made between New York State and the Federal government which said, in essence, that if the Federal government takes over West Valley, that commercial waste repository geologic storage would occur in the state. I also said that's not true, and there is no deal that has been made.

MRS RICHARDSON: Anybody else? Sir?

MR. POMERHN: My name is Daniel Pomerhn, and I'm from Pendleton, New York. I'm a member of Local 41 of the International Brotherhood

of Electrical Workers. We were involved with repair work at the facility at Ashford Hollow, and approximately 7 months ago I came down with diagnosed Hodgkins' Disease. Six years prior to that, I was working at the West Valley site.

It's possible that the West Valley, or the low-level radiation that I received at West Valley was a contributing cause to this. My doctors have felt, which they won't make a positive statement to that effect, but they told me off the record that low-level radiation is a possible cause of cancer in the human body. I ask the people here at West Valley that they consider the fact that they should have a good format or a good set of regulations, and a good follow-up study to the people that have worked in the plant.

And I ask them to remember that the effects of low-level radiation might take more time than what they're considering now. Don't look so close to the fact that you're unemployed, which I know is kind of tough to take. Don't let that sway your decisions as to your health and the health of your children. I ask that you do not go ahead with anything without good safety precautions, and that the regulations be put out, and that follow-up studies are taken on the employees that if there are more people, which I don't know if there is, that have cancer or malignancies in the future years, that we can arrest this.

It's not going to do me any good right now, because there hasn't been enough of this type of study in the past. That's all I have to say.

MRS RICHARDSON: One moment, sir. Dr. Oertel would like to respond to the last gentleman.

DR. OERTEL: We appreciate everybody's concern about environment and health and safety obviously. I wasn't aware of your case, and as you know, the responsibility for the health monitoring is not with the Department of Energy. However, the Department of Energy in its environment and safety programs is currently expanding their studies to follow up on people who have received exposure, or may have received exposures in the past to see if there might be any health effects, and I would recommend that you write to the Department, care of Dr. James Liverman, who is in charge of these programs, and make him aware of your case.

MR. GEORGE POMERHN: May I speak?

MRS RICHARDSON: Yes.

MR. GEORGE POMERHN: I'm his dad, and he's probably going to get provoked because I got up here. I'm a paster of a church, and I

promise I wouldn't lie to you. We came all the way out from both his town and our town. I live in Cheektowaga, and in October, August, October, we were confronted, our whole family, with a family that we thought was healthy.

This is my only son, he's only 32. He has two small children. And the reason I'm here today, both to keep him company, but to help you people, to think as we do on Sunday morning from the pulpit. I can't teach you anything, but I can make you think. Sometimes you worry about your job, sometimes you worry about money. But the biggest concern is to have to live with Hodgkins' the rest of your life, and keep going back continually to be treated, which we have been doing since October. Five times a week to the hospital.

I couldn't help but notice a little baby right behind here, other little children. The Principal what he said, we have only so many special children. Without care and without thought on your part, and without the help of God to guide you, maybe he and a lot more of you will need special classes some day. And don't laugh. Cancer is a horrible thing, because I think I suffered as much as my son. And through the help of prayer and faith, we might have it licked. I hope.

And all these speakers that speak with false tongue are distant cousins of the Scribes and the Pharisees that nailed a friend of ours to the cross in a few short weeks. Have a nice Easter.

MR. HOERNER: My name's Andy Hoerner. I'm representing the Rochester Safe Energy Alliance, which is a Rochester based citizen's group of about 200 members. I'm not sure whether I want to address this question to the Department of Energy or some of the other speakers who spoke.

A number of people have raised concerns about jobs, and several of the speakers proposed alternative constructions other than a nuclear waste facility on the site. There were at least two proposals for setting up alternative energy facilities on the site that I heard. I wondered how those alternative proposals, first of all, whether anything like that has been considered by the Department of Energy. And secondly, how those alternative energy proposals would compare with the DOE proposal in terms of both tax base and jobs provided?

MRS RICHARDSON: Would anybody from the DOE like to comment on that?

DR. OERTEL: There's really no reason why the study should be limited to looking at only nuclear options for the use of the site, and

clearly a nonnuclear option is something that can be looked at and will be.

MRS RICHARDSON: How about any of the other speakers we had this morning? Would you like to discuss that point a little further? Mr. Lippert?

MR. LIPPERT: The Department of Energy, for those of you who aren't familiar, is like an octopus..it was just created last year. It was put together. It has 13 separate buildings in Washington, D.C. By 1980 hopefully it will be centralized. However, there is information available on at least the proposal I made, this so-called energy center concept, done through contract by DOE. Now, I don't know the gentlemen who are here today. I suspect they are from the, what used to be the Atomic Energy Commission, then ERDA, now a branch of DOE.

However, I have turned in a complete statement for the transcript. It cites the studies that have been done by ERDA, the Federal Energy Administration, and some of the other predecessors. It's available in the transcript.

MRS RICHARDSON: Are we done with that one point, or is there anybody else that would like to comment on that? OK, we'll take another question. Sir?

DR. KEPFORD: My name is Chauncey Kepford, and I'm also from Pennsylvania. I have a question for the representative from the Department of Energy. DOE has a large number of programs which will have the net result of increasing the radioactive contamination of the earth. Does DOE have any programs which will lessen the radioactive contamination of the earth?

DR. OERTEL: Well, people can be of different opinions about this, but for one, Bernie Cohen, who is also from Pennsylvania and recently completed an analysis which points that the net very long-term result of fission of uranium is an actual reduction in the amount of radioactivity. However, we will not live to see that.

DR. KEPFORD: We're talking about credible answers.

DR. OERTEL: I'm afraid it is a credible answer, sir.

DR. KEPFORD: Have you examined the uranium milltailings problem? Have you examined the problems from every step of the uranium fuel cycle which results in increased contamination. What Cohen is talking about is uranium which presently occurs far below the surface of the earth, and without man's intervention will stay there.

DR. OERTEL: The recent task force has looked at all aspects of nuclear waste management, including the milltailings. If you take a look at the report, there is a table in there which summarizes that. I think you rightly pointed out that that is activity which is there anyhow and is not created by an act of man. It is moved to a different location. The concern about stabilization is shared by the Department and is being looked at.

MRS RICHARDSON: Sir?

MR. AGELOFF: My name is Clifford Ageloff, I'm from New York Public Interest and Research Group. I'd like to quote some things out of the West Valley and the Nuclear Waste Plan. This is the twelfth report by the Committee on Government Operations, and, excuse me for a second.

I'm trying to find a reference to a specific dumping of 100,000 gallons of high-level wastes. Excuse me for a second. Here it is. OK, this is a quote from the report. "From 1966 to 1972, NFS buried 100,000 cubic feet of spent fuel hulls and other solid wastes at the high-level burial site at West Valley. This waste, contaminated with fission products and transuranic elements, was packed in 30-gallon drums and then buried 30 feet deep. Remotely operated equipment was required for handling of these wastes due to high radiation levels which created personnel hazards.

Also at this site are 42 ruptured spent fuel elements from Hanford that could not be processed in 1969. This fuel was packed in three drums and placed in a 50-foot deep hole, and encased in concrete. These elements contain the complete complement of fission products and transuranic elements removed from the reactor. This action was not specifically permitted by the AEC license, but AEC was aware of it and apparently approved it by acquiescence."

My question is, what has DOE done since AEC is now dissolved, and what has been done with the specific burial site, and is there leakage?

DR OERTEL: The responsibility for licensing the operations at West Valley is with the Nuclear Regulatory Commission, and in some parts under Section 274 of the Atomic Energy Act that is delegated to the State of New York. We are obviously aware of what you just mentioned, and I think Mr. Smedira mentioned today that that problem is being addressed as part of the DOE study.

MR. AGELOFF: How does one address this problem?

DR. OERTEL: How it is going to be addressed?

MR. AGELOFF: Yes.

DR. OERTEL: I Think Carmine, you said that.

MR. SMEDIRA: What we intend to do is to look at the facts of what can be done with this stuff. I mentioned, the fuel hardware burial ground is not something that we can see any continued use for. The problem as you probably know, is that the materials in that burial ground is transuranic contaminated; that is, it has a long-lived aspect to it. We have no plans whatsoever of any kind of disposal of that kind of material anywhere in the country yet. That's the subject of the geological work that's going on. That is a special problem that is unique here. We'll look at removing it from the site completely. We have not done anything yet. That's what we're proposing to do in this study.

MR. AGELOFF: And I'd also like to ask you something about the monitoring on the north trenches that has been documented by the EPA as transporting some radionuclides into nearby streams. Has that been monitored?

MR. SMEDIRA: The trenches are being very actively monitored as I understand it, by both the New York Geological Service, the U.S. Geological Service, the Environmental Protection Agency, and I'm sure NRC is aware of exactly of what's going on there also. I have had several Federal and State representatives inform me that the burial grounds at West Valley are the most highly characterized burial grounds in the United States. And that's not just nuclear.

MR. AGELOFF: Is there still leakage into the stream?

MR. SMEDIRA: There's no leakage that I know of.

MR. AGELOFF: Just stopped by itself?

MR. SMEDIRA: I'm not sure there was leakage in the first place, but I'm not familiar with the facts.

MR. AGELOFF: Well, it says so in this report.

MR. SMEDIRA: OK, I'm not familiar with the facts, I can't address that.

MR. AGELOFF: Thank you very much.

MRS RICHARDSON: Mrs. Duckworth in the back, is that your name? Oh, I'm sorry.

Response not picked up - poor microphone ..

MRS VIRGINIA RUSSELL: I'm also a research consultant for Dr. Joseph Hoffman, who took the first radiation measurements after the atom bomb and who died of cancer not too long ago. I wanted to answer the question. This is a little bit confusing here, if you'll forgive me.

I wanted to answer the question that somebody raised, is there anything that can be done to stop the nuclear waste problem? Is there anything positive that can be done? And I wish somebody would pay some attention to this pamphlet. There is something that can be done. Radiation is like lightning in one sense. You can't stop lightning, but you can take the charge and the energy from the lightning and conduct it through lightning rods safely down into the ground. And you can't stop radioactivity. It's going to go on and on and on. These people that are saying they're healthy now, if we die from radioactivity, it won't be with a bang, it will be with a whimper. Over years and years, it will be the whole group of us that would die.

But I don't feel it's hopeless. We have done many things, and what we can do as this radioactivity continues to be emitted at a regular period, there are ways which I have mentioned in here of drawing that radioactivity into electrical cycles. Some of this I gathered from the work that was done in NASA. Some of the work that has been done in NASA can be applied to the treatment of nuclear wastes here on earth.

And it can be, the energy goes into the electrical cycles, it has to be used up. It may not be possible to use it up, although I think it is, because we have to figure that the disposal of extra radioactivity is the cost of producing nuclear energy. And then, as you draw it off, you keep it safe. You control it. It's like a safety valve. It will go on and on, but all you have to do is monitor it with a passive system, and you won't have the problem of corrosion that you now do. And you won't have the extreme danger to our health and you're buying time also, where we can learn more about radioactivity. So much in the field of nuclear physics is just guesses. I mean, so many times the predictions are made, and they don't come true.

So I'm asking that these that have been made which will cost practically nothing, be tried. That's all I ask.

DR. OERTEL: Ma'am, as a civil servant who spent most of his career with NASA, I'm very interested in your ideas obviously, and I'd appreciate getting a copy of whatever reports you have in your little pamphlet, and we'll certainly look at it. Thank you.

MRS RICHARDSON: Don't put your hands down.

MS. NACHBAR: My name is Holly Nachbar, and I received your letter announcing the public hearing. It was sent on very short notice, but I immediately replied asking for time. Wednesday evening, Mr. Schmiroff called, Smedira called, pardon me. We discussed the time, I also added there would be some more input from other community leaders, and I would perhaps like additional time for them. He assured me that this would be covered.

I came in this morning. In other words, I was in their time guides and early, although he claims the letter was very late. That I can't explain. I am approximately second from the end at 8:30 this evening, and I feel this is very unfair, and I would like to be put in about 2:30 after the Chamber of Commerce. Because I did get my request in time, and I know others who were sent behind, and I feel it should be addressed fairly, as promised on the telephone.

MR. SMEDIRA: I spoke to you on the phone. We have other people, we are running ahead of schedule, and we're going to just keep going. All I can ask is you bear with us and stay. Please stay and make your statement. We are going to try to accommodate every single speaker. And if we have to stay here all night, we will.

MS. NACHBAR: The audience probably won't stay all night, and since I have been involved for over three years, I would like earlier time, because I requested it fairly within your time slot.

MR. SMEDIRA: At this point in time, I cannot guarantee you earlier time.

MRS RICHARDSON: Alright, there'll be order in this room. Now, we're really going to try and get to everybody. I have been involved in the scheduling of these people. I know that there has been a serious effort to be made, but we're going to hear everybody, and I'm sorry Ms. Nachbar, if you don't feel that you were given your right, but Mr. Babcock did not speak out of turn. His name was admitted off the scheduling list. His request was in earlier, and the audience will stay, I believe.

MS. NACHBAR: I'm not referring to anyone else who was set in.

MR. SMEDIRA: Holly, we have a gentleman who is willing to give you his spot, and that's fine with us. 4:10 OK? We're taking up the time of everyone.

MS. NACHBAR: Why were we..I have another question. That's a pre-printed schedule. You and I spoke on the phone last week. All this was in print. I'm not even on the pre-printed schedule.

MR. SMEDIRA: We received your letter on March 13th. I can't do anything about that.

MS. NACHBAR: I mailed it, approximately February 29th. I mailed it about Febuary 29th.

MR. SMEDIRA: I know you did. I saw the postmark, but it was received in Washington on March 13th.

MS. NACHBAR: But other people, another gentleman, James Lango, has the same problem, and he mailed in time. Now the pattern..

MR. SMEDIRA: I'm sorry, I can't hear you.

MS. NACHBAR: There's another gentleman named James Lango, who mailed in time, and there appears to be a pattern here. You've spoken with us on the phone, and those you've spoken with are not pre-printed.

MRS. RICHARDSON: Alright, this gentleman has been kind enough to give you a slot at 4:10. If that's OK, we'll move you up from 8:30 to 4:10. OK?

MS. NACHBAR: I'll accept the compromise.

MRS. RICHARDSON: OK. In the back.

SPEAKER: I was wondering if people are worried about the number of people in the audience staying; well, if the audience is going to stay until the end of the meeting, then it can proceed. But if not, is there a possibility to reschedule another time when the second half of these hearings could take place so the audience would be, sit through, and give everyone a chance to be heard?

MR. SMEDIRA: This entire meeting is being taped. Everything anyone wants to contribute will be heard. We came here to try and collect as much information as we can. We're willing to stay and listen to what people want to say. Whether or not an audience is here is not the main issue. The main issue is whether or not we get everybody's views. And that's what we're trying to do.

MRS. RICHARDSON: Sir?

MR. MEYERS: My name is Bill Meyers, and I'm a resident of the Town of Ashford. I live approximately one mile from the nuclear fuel plant. My question refers to radiation and something that Mr. Salim brought up. If I'm correct, he said that at four miles, there's an increase of approximately .4 millirems in a year? Is that correct?

Well, he said also that the normal dosage for a year is 110 millirems. Now with my knowledge of physics, which is a little on a high school level and some on a college level, that irradiation deals or acts with the inverse square law. That is, if you are at half the distance, you increase your dosage by 4 times. Now just through a little mathematics here, I figure it approximately at say a 16th of a mile, which is about 110 yards, you would receive approximately 1,638 millirems in a year, based on Mr. Salim's statistics that he announced here before.

Now that's 15 times the irradiation that you would normally receive of 110 a year. And that's at 110 yards, and that's not saying that the stuff is in your back yard. Now my question is, basically am I correct in this assumption and was Mr. Salim's statistics correct?

DR. OERTEL: I would have to be somewhat speculative on this, but I think I'm giving you the right answer. If that's not the case, we'll get you the correct answer.

The .4 millirem, and that's his number, I'm not sure that that is the correct one, is the maximum that can be given at that distance from the site, that can be received this distance from the site. Now that does not mean that what you're looking at is a radiation field coming out of the plant itself. Rather, what that number represents is the site limit effects of allowable emissions of radioactive effluents that might come from the plant, such as would be the case during reprocessing operations, which of course are not taking place there now, talking about such things as Krypton 85.

So since that is a material transport rather than an inverse square law type of distribution of radiation, your analogy which would otherwise be correct, does not apply in this case.

MR. MEYERS: Then an inverse square law does not go in this case?

DR. OERTEL: It would apply if all the radioactivity were located entirely inside the plant and you were looking at the effects of that. If you look at the actual effects of the radioactivity from the plant, they are unmeasurable at that distance, and even they're unmeasurable at the distance of 1/16th of a mile, or so I understand.

MR. MEYERS: Well, I don't understand how you, you know, you talk about your limits or your established .4 millirems, and then you more or less call them now insignificant, that they don't exist. I don't understand that.

DR. OERTEL: From the plant itself, from the radioactivity that is confined in it, you get nothing, or essentially nothing that is measurable. From radioactive effluents such as might come out of the plant while it is operating, you could be getting a dose, and my understanding is that dose from transport of radioactivity through the air or whatever, could be as high as the number you were given.

MR. MEYERS: Then you'r talking about particle movement through the air, and not necessarily irradiation from a single source, point source.

DR. OERTEL: That's correct. It may not be particles, but by whatever mechanism. It could be a gas.

MR. MEYERS: And if that gas or these particles came in contact with people, you would then again, you would go back to the inverse square law, would you not?

DR. OERTEL: The amount of radiation that's coming our of that is so small that, in fact, if you were anywhere near it, it would, you would only see an event every so often. Some time period apart, I don't want to speculate what that time period would be, the inverse square law you could apply when you have a radiation source that's radiating continuously. This is not a continuously radiation source.

MR. MEYERS: OK, thank you.

MRS RICHARDSON: I'd just like to make one announcement before we proceed. As you were coming in, you may have noticed that there was a table set up, to purchase a coupon for lunch if you intend to stay here and eat your lunch. Lunch is now being served, and Mr. Niver has asked that we accommodate those people who have already obtained coupons first. So, for your information, if you decide that you want to go on over and eat now, you can go ahead and do so. Marvin?

DR. RESNIKOFF: I have a question for the Department of Energy. There has been a lot of interest in this meeting in spite of the short notice. A lot of interest in other parts of the state, too. When the report finally is circulated at the end of September or October, will there be meetings in Buffalo and in Albany in addition to West Valley? It's just a "yes" or "no" question. Yes, there will be, or no, there won't be meetings.

DR. OERTEL: In answer to Dr. Resnikoff's question, we certainly have not decided on whether there would be another meeting or not, pending the outcome of today's discussion. So we're interested in hearing your views on that. I'll also make you all aware again that we have attached a questionnaire-type sheet to the program that you can fill in, and we would really like to have you express your thoughts on this issue as well.

MRS. RICHARDSON: Ma'am?

MS. GERWITZ: My name is Henriette Gerwitz. I am a resident here in West Valley. I am not a member of an environmentalist group. My husband did work over at Nuclear Fuels and quit. I'm not happy about it being there. We in no way can overlook the fact that nuclear energy is needed to some respect. Nuclear research for medical reasons and for defense reasons is needed. I don't like to be cynical of government, but I would like to know, and I think you can't answer it, but I'd like to know why there has never been a thorough study around any nuclear facility of the population and the effects. And I realize that we are not going to profit by this.

It's going to be something that maybe three or four or five generations from now will profit. Because we do worry about our children, and with all the carcinogens that they say are around now that cause cancer and have caused cancer for centuries. I can't understand why our government has never had a study and why they haven't admitted their failure and done something about it. There are a lot of other facilities besides nuclear that have a lot higher radioactivity. And I think the people of West Valley and the people of the nation should take this into account.

DR. OERTEL: Ma'am, I can assure you that the Department of Energy is not disinterested in the subject you have brought up. We, the Department and its predecessor agencies have carried out a considerable program to look at the effects of radiation on the human body. The National Academy of Sciences has studied the issue in considerable detail. It is not really quite correct that the Department is not paying any attention to it.

With regards to studies around a specific facility, such a study has been carried out for the Hanford nuclear reservation in the State of Washington, and is undergoing continuing analysis at Battelle. The Department has recently announced a considerable expansion in this study. I believe I mentioned that before, in the study of any possible health effects that might have resulted from exposure to radiation at nuclear facilities.

MRS RICHARDSON: The gentleman in the maroon scarf.

MR. POMISIL: Thank you. My name is Sid Pomisil, and I live in Springville, New York. And several of the speakers have noted about the safe geological location for the repository for the nuclear waste at this time in West Valley and Nuclear Fuels.

It has come to my attention through several sources that western New York is indeed on a major fault area, and the potential for earthquake, a major earthquake is substantial, and I would like to know if this is true, and if not, or if so, has this very sensitive variable been into consideration for any future studies? Thank you.

DR. OERTEL: First of all, it's already been mentioned that as far as we are concerned, the issues are not linked. The geologic repositories are not in my program, but I'm close enough to it to be able to answer your question.

The Department of Energy is looking for geologic repositories in a number of states, including the State of New York, and is working extremely closely with the State, and it's my understanding that a full report on the geologic implications is going to be handed in to the State of New York in the near future. The State will be the first to look at that, and I can assure you that the fault and earthquake potential will be, to the extent that it exists, and I don't know about that, will be addressed in full in that report.

MRS RICHARDSON: Sir?

MRS SCHMIDT: Can I just quick answer? Thank you. I just thought I would tell you, the gentleman, I don't believe you answered his question. Yes, this is an earthquake zone because we are situated just west of the Clarendon Linden earth fault. I live just north of here, and I can tell you there was an earthquake which was not noticed by many people, because it occurred in, I believe, 1965, at 8 o'clock on New Year's morning.

We are also, and I know this from recently completing a Federal environment impact statement for a government agency, that we are on the outer edges of another earth fault in the St. Lawrence area. Thank you.

MRS RICHARDSON: Ma'am could you state your name and where you're from, please?

My name is Joan Schmidt, I'm from the town of Wales in Erie County.

MRS RICHARDSON: Thank you. Sir?

MR. CUMMINGS: I'm Mitch Cummings from West Seneca, and I'd like to ask the DOE who is responsible for the scheduling of the guest speakers and stuff. Because it seems there's such big questions about radiation, low-level radiation and stuff, that Dr. Irwin Bross, I think he's the one with the X-rays and stuff, last summer, he should have maybe been one of the first few speakers that talked, so we might get a little better understanding of the stuff.

MR. SMEDIRA: I'm the culprit. I'm the person responsible for the scheduling of the speakers. We sent in our announcements, we asked people to respond by March 3rd, we extended the deadline because people kept calling in, and then because we had to print the agendas and everything else. We just had to draw a line. We drew a line, but anyone else who wanted to speak, we said that we will do everything in our power to make him speak, and we are going to do that. They are going to speak today.

You know, Dr. Bross's letter came in on March 13th as I remember. I can't do anything about the postal system. I said, at a penny a day for handling, it really isn't so bad.

MR. CUMMINGS: It still seems pretty sneaky, though.

MR. SMEDIRA: Well, I can't change your opinion. I'm sorry. All I can do is tell you it wasn't sneaky, it was above board. That's all I can say.

MRS RICHARDSON: I would just also like to comment on that. I had talked with, I have talked with Dr. Bross several times in the past. I'm aware of his work, I talked with him and notified him of this even before the DOE announcement went out. I asked him if he wanted to be a speaker, and at that time he said no. And I asked him to contact me if he indeed changed his mind that he wanted to come down. He never phoned me, and the first I heard of his interest was when the letter was received at DOE.

So we did try to help and facilitate those people who did want to speak, and I'm sorry that, you know we do have a large number of people, but I just wanted to make that comment on this specific instance. Sir, in the back?

MR INKUPWE: My name is Mohammad Kalet Inkupwe, and I represent the West Valley Islamic Association. What we are basically saying here is that we appreciate the concern for eliminating the nuclear type of problem, which is related to unbirths. We had one man here stating about the facts of lack of concern in the terms of the spiritualization factor, and where the material factor is following in with line in some areas where it destroys the aspect of spiritual growth.

We are, of course, a people orientated towards spiritual growth. So quite naturally, anything that's going to disrupt anyone or any people is going to be against that type of growth, we're naturally concerned about that. So quite naturally we're concerned about those people who are against any type of proliferation in the community. We are in the community, and therefore we wanted to express our opinion in that we are part of that. Thank you.

MRS. RICHARDSON: Sir, in the white shirt in the back there. Just one moment, please. This will have to be our last question. We're scheduled to break for lunch at 12:45 to 1:45 and will resume at 1:45. There will be another question and answer period later on in the afternoon.

MR FILIAN: Thank you for recognizing me. I'm Bill Filian from West Valley. I don't have any degrees other than a B.S. degree right here locally from the school of hard knocks. My concern, I can appreciate the big turnout of the crowds, and I realize that there are organizations that have flags to wave, songs to sing, but do it in your own town.

My concern here is what about the taxpayer? They, I would think, would have priority, top priority, the West Valley taxpayers, and I'll direct it to the Board, to the panel, what priority does West Valley have? The taxpayers themselves, will they have a final say, or is somebody from Buffalo going to come out and say, Hey, man, this is the way it's gonna be. We've got concerned citizens here that are a quiet majority, so I thought I'd just get up and rattle my cage. Now I'd like to direct another question to Dr. Marvin Resnikoff from the Sierra Club.

There seems to be an awful lot of stimulated interest here now. But where were you and your clubs 20 years ago when we were organizing, the whole think was organizing? It seems to me that there's an awful lot of concern from outside residents, and that the local residents are being pushed aside. So I think it's only justifiably so that we ask for a little more stomping grounds for the West Valley residents.

MRS. RICHARDSON: Dr. Resnikoff?

MR. FILIAN: Well, you're here with us today, and you can drink and eat with us, you know what we go through. As far as sicknesses go, my wife's grandmother died..

MRS RICHARDSON: One question at a time, please. I think Dr. Resnikoff has the floor right now.

MR. FILIAN: She had the same disease as the young gentleman.

DR. RESNIKOFF: When the club, when Nuclear Fuel Services, when the land was bought by the office of Atomic Development in '61, the club didn't have a chapter here. OK? The club was formed around 1970 in this area, and that's when we were concerned about it. I would say, however, and George Berg is raising his hand there, there has been concern about many other people in the Sierra Club who are in the area, too, as far back as 1968 concerning what was in the drinking water. Before I pass the floor over to George, I want to say that I think this an important local problem. OK? But West Valley does not have the only interest in this matter. OK? There's interest..

MR. FILIAN: Neither do you, sir.

DR. RESNIKOFF: Wait, let me just, I didn't interrupt you when you spoke. There's interest in this matter from other sides because radioactive materials have entered the stream and in the lake, and they enter the Buffalo water supply.

Workers are irradiated at the plant, and those genetic effects are propagated throughout the population. You are asking the Federal government to put up a large amount of money, a half a billion dollars, and that money comes from all of us. OK? And let me just pass the floor over to George, who wants to speak about where we were in 1961.

MRS. RICHARDSON: OK, this will be the last before the lunch break.

DR. BERG: This is just a brief answer to a question that was asked. The first hearing on West Valley, the first official hearing, when the whole enterprise was just a project on paper, was held in Olean in 1963. I am George Berg, the Rochester Committee for Scientific Information in Rochester sent me here through a howling blizzard to appear on behalf of the public, and we hope also on behalf of the local people. We found ourselves the only representatives of public interest at that hearing.

We have been in touch since. If there is anything at all I can do for this gentleman or any other representative of the local interests at

this meeting or outside from my experience with this case, which I have followed, I will be glad to be of help. I think his case has merit, and I would like to help.

MRS RICHARDSON: Would you state your name, sir, and where you're from, please?

George Berg, Rochester Committee for Scientific Information. If you look at the proceedings of the very first hearing, we are there.

MRS RICHARDSON: OK. I have one further announcement before we break for lunch. I've been informed that we have a missing wallet. We're not quite sure what happened to it, but I would just, please keep your eyes peeled for a wallet, and keep your personal belongings close to you. Thank you.

Our first speaker this afternoon will be Dr. Virginia Rasmussen. Dr. Rasmussen is from Alfred University, and she is the head of an advisory group, a citizen's advisory group, that has been organized in the 39th Congressional District by Congressman Lundine. Dr. Rasmussen?

DR. RASMUSSEN: We have witnessed in this nation's programs involving nuclear power, nuclear reprocessing, and nuclear waste management, a supreme and unsettling example of decisions without adequate data, actions without adequate assessment; a form of standards and enforcement with fingers crossed; a kind of policy by premonition.

It was, we believed, the intent of the current administration, to right this course to move us in a direction of thorough assessment and improved security as regards this energy technology. The Department of Energy study commissioned by the Congress, was to be unbiased examination of options for the future of the West Valley Nuclear Fuel Services Center. It was presumably to consider with an open mind assisted by existing and additional data, the nuclear and nonnuclear futures of this area.

Yet the most recent pronouncements from high-placed offices in the Department of Energy imply that a permanent nuclear waste repository in Western New York might be a reasonable exchange for Federal assistance in the State, with the financial burdens imposed by this nuclear trash can.

Is the public again to be witness to negotiation for convenience? Rather than to a process of decision making which is valued for itself, for the genuine participatory quality of its structure, and for its

openly arrived at means and ends. Contained in the Department's preliminary statement of work in regard to the Nuclear Fuel Services study, is a description of major information procurement the staff considered necessary for knowledgeable deliberation. It includes contracting to experienced firms in such fields as societal attitudes, radiological assessments, hydrology, geology, fuel reprocessing, waste treatment and management, and others.

Nevertheless, before these reports are in, certain mindsets appear evident. Certain lines of advance seem ready for the march. We hope these pre-orientations do not exist, but if they do, that they be dismantled, clearing the way for open decision making for policy by more than premonition.

This Congressional District Science Advisory Committee on West Valley finds positive elements and approaches in the Department of Energy's proposed study. There are, however, a number of specific concerns. These are (1) the time frame in which all this deliberation and consensus is to occur seem miraculously brief, considering the complexity of the technologies, the multi-faceted nature of the surrounding issues, and the far reaching implications of this study for the nation's nuclear waste management plan.

In no way do we mean to encourage sloth or undue delay, but we are dealing with a quality and quantity of waste which haste must not be allowed to enlarge.

(2) It is absolutely necessary that the terminology used in the Department of Energy's forthcoming report be clearly defined. It is time to eliminate fakeries and misleading phrases from our nuclear dialogue. Terms such as "acceptable level of radiation", "insignificant degree of decay", "very little risk", must be accompanied by quantitative values and the rationale used to obtain them. Only with this sort of clarity will we be able to proceed beyond this study on common ground and in a mutually informed manner.

(3) The wisdom of using at this time any disposal method which results in a state of irretrievability of these wastes is seriously questioned. With the best technology for permanent disposal not yet determined, a decision now for irretrievability seems ill-timed and unwise. And we suggest that for all options put forth relating to decontamination, decommissioning or continued site use, a degree of accompanying risk be indicated.

This risk factor would be based on a scale of relative risks to the human and natural environments of all the technological options.

(4) The need to transport nuclear waste materials en route to reprocessing or disposal should be kept to the minimum possible. The more time these wastes spend in transit, the greater the danger of mishap and tragedy from a variety of external events.

(5) It is the Federal government's expressed wish to limit the number of nuclear waste repositories. Since the chemical nature of the 600,000 gallons of West Valley waste is very similar to the much greater volume of military waste stored at the Savannah River and Richland locations, it seems prudent to treat these as one problem.

Should a procedurally safe method be found, to remove the liquid and sludge from the West Valley tanks, that procedure should be carried out and the toxic wastes added to those awaiting safe disposal at other storage facilities. Such action would conform with the goal of minimum repository sites and promote the nation's search for a sound nuclear waste management program. Thank you.

MRS. RICHARDSON: Thank you, Dr. Rasmussen. I have one announcement before we proceed. And that is that anybody wishing to relinquish their time that has already been reserved for somebody else who may have some difficulty in staying for the length of the meeting, if that arrangement can be made, please notify Joanne Passaglia or Rob Woolley, who are sitting over here at the table, and we will see that the proper person is then recognized.

The next speaker is Ms. Lorna Salzman from Friends of the Earth. Ms. Salzman?

MS. SALZMAN: I'm Lorna Salzmänn, and I'm the mid-Atlantic representative of Friends of the Earth, a national environmental organization with approximately 3,400 members in New York State.

Since 1972, when Nuclear Fuel Services was closed down due to contamination and failure to meet state and federal seismic and water quality criteria, State residents have been led to believe that the site would be fully decontaminated and restored to a condition fit for human habitation. But recent events and documents relating to today's meeting and DOE's plans indicate that the Federal government has been less than candid.

Indeed, it appears that despite a congressional authorization to study all options for West Valley, nowhere on the DOE's agenda is there any recommendation for a study of the full costs and technical problems associated with complete dismantling of the NFS reprocessing plant.

Briefly, what this means is that the outcome of this meeting has been predetermined by DOE, and that public participation and choosing options is no more than a charade.

DOE also does not seem aware of the fact that the Nuclear Regulatory Commission has just served notice on Nuclear Fuel Services that it expects a plan from them shortly for the decommissioning of the reprocessing plant. In examining the reprocessing options proposed by DOE in today's outline, it is clear that this option is completely at odds with stated national policy that indefinitely defers reprocessing of spent fuel. There is substantial evidence that the government's priority is, in fact, not a cleanup of West Valley, or even a definitive solution to the high-level waste disposal problem, but rather an expansion of interim spent fuel storage capacity at West Valley and use of the facility as a multi-national fuel cycle center to service domestic and foreign waste, with the hope that national policy may eventually be reversed in order to extract and reuse plutonium.

For these reasons we have written to President Carter and Secretary of Energy James Schlesinger, requesting that reprocessing be removed from the list of DOE options, and that New York State be removed from consideration as a terminal waste storage site until such time as the West Valley plant is completely cleaned up.

Regarding the terminal waste facility being considered for western New York, including the West Valley site, we wondered why DOE is not now funding or investigating alternative sites for the first two proposed repositories apart from those in salt formations. Especially since the National Environmental Policy Act requires the study of all alternatives.

The U.S. Geological Survey in 1976 in letters sent by its Director to ERDA, stated unequivocally that "The Nevada test site has several major geological advantages, as well as the obvious logistical, political and economical advantages as a high-level radioactive waste repository." And that the test site "deserves a high priority in ERDA's search for high-level waste sites". The USGS refers to the test site's major assets. Its exclusionary zone of 30 by 45 miles adjoined by weapons test ranges several times larger than the site, ready public acceptance due to existing uses, a variety of geological media available for potential disposal sites, including granite, shale and tuff, existing logistical support facilities, and low potential for radionuclide migration.

The USGS also stated that this site deserves a higher priority for comprehensive evaluation than medias such as shale, granite or salt in

other regions, and that the probability of an acceptable repository there by the late 1970's is higher than anywhere else in the country. To our knowledge, DOE shows no signs of heeding the USGS, but rather of heeding the cries of New York State, eager to absolve itself of the legal and financial responsibilities at West Valley, bequeathed to it by former Governor Nelson Rockefeller, and the calls from the nuclear establishment to help resuscitate the faltering nuclear industry by providing desperately needed interim fuel storage, consolidation of fuel cycle activities, and stockpiling spent fuel for future use.

We insist that existing high-level and low-level wastes be treated and expeditiously removed from the State. We will not permit West Valley to become an open-ended waste demonstration or storage facility. But it seems that the Federal government is holding out both carrot and stick, the promise of a Federal bailout in exchange for State approval of spent fuel storage and/or demonstration and/or terminal waste disposal.

The implications for the environment, economy and welfare of western New York State and indeed the entire State are horrendous, not only in light of the disastrous contamination that has already taken place on the site in nearby waterways, and now Lakes Erie and Ontario, and the irreversible exposure of former West Valley employees to whole body and ingested radioactivity, but also in light of the huge number of spent fuel shipments that would traverse the major arteries of the northeastern U.S., as well as the country roads of the Finger Lakes Region and Cattaraugus County.

Not to mention the possibility of foreign fuel entering the ports of New York and New Jersey to be trucked upstate. As the U.S. Controller General and the California Energy Resources Commission have pointed out, since there are presently no technical, geological, seismic or siting criteria for treating, solidifying, containing and placing or isolating high-level waste, it is clear that West Valley is envisioned for the short term as an interim nuclear dump to relieve the pressure on rapidly filling spent fuel pools across the country.

The government must implement the only sane and rational alternative. A phase-out of all operating reactors in the country, so that no more waste is produced until a publicly accepted means of isolating high-level waste is operative. Friends of the Earth is organizing a statewide citizens' project on radioactive waste to convey to the public its facts about West Valley and radioactive wastes.

While the Federal government has substantial responsibility for existing wastes there, inasmuch as they provided military spent fuel for

reprocessing, it is important that Nuclear Fuel Services not be permitted to shirk its responsibility for decommissioning and dismantling the plant, as the Nuclear Regulatory Commission has pointed out.

If public monies are to be spent on West Valley, they must be spent on cleanup, not on continued use of the site. The citizens' project position is as follows: No. (1) - preparation by the DOE of a comprehensive technical and economic plan for dismantling and removing all existing reprocessing and storage facilities at West Valley.

(2) Elimination of New York State as a potential high-level waste repository or spent fuel storage site until all the West Valley wastes have been removed and the site cleaned up.

(3) Full environmental, technical and economic studies of alternative spent fuel and high-level waste disposal sites at existing military and Federal facilities and elsewhere, including the Nevada test site and Hanford, Washington site, as required under the National Environmental Policy Act.

(4) Permanent prohibition against the importing of any out-of-state or foreign spent fuel or waste to West Valley or anywhere else in New York State.

(5) Halt in licensing, construction and operation of all nuclear plants until technical, geological, environmental and health criteria have been fully accepted by the public, until a proven operative waste isolation technology is demonstrated.

(6) Rejection of the proposed one-time fee to utilities for radioactive waste storage, since this would be an unquantified financial burden on taxpayers. We favor the nuclear surcharge mentioned previously to be taxed onto our bills to cover all costs of waste disposal, decommissioning and West Valley cleanup.

(7) Adherence to the concept of zero release, zero dose, for radioactive waste storage and disposal. Any proposal for additional amounts of so-called permissible radiation exposure above the present 25 millirems per person per year for the nuclear fuel cycle is unacceptable.

I would like to point out in response to an earlier statement that the citizens do not favor nuclear power plants in their area, and do not favor them in the State, and do not favor a high-level waste repository. On March 9th, a Harris Poll was released by the Long Island Farm Bureau, a poll of all New York State residents. The poll was 46.4% opposed to nuclear power plants in New York State, 35% in favor. It was

2 to 1 against nuclear power plants in the area of the people polled, and as far as waste is concerned, people in this state opposed the location of a high-level waste storage facility anywhere in the state by 4 to 1.

We don't think that the Federal government is blackmailing the state. In fact, we believe that there is an implicit deal. Until the state itself states unequivocally that it rejects high-level waste storage, until it utilizes the options granted to it publicly by Secretary of Energy Schlesinger, that DOE will not force high-level waste storage on any state that rejects it. Until the state insists on a cleanup, we have to assume that New York, of West Valley, we have to assume that New York State is an accomplice in a deal to further the use of western New York State as a nuclear garbage dump.

And finally, in a commentary to those who have expressed what I think is genuine concern for the tax base and the jobs in this area, we want jobs and we want your tax base to go up, too, but don't do it over other peoples graves. Thank you.

MRS. RICHARDSON: My next speaker will be Professor Roger Kasperon from Clark University in Massachusetts.

PROF. KASPERSON: I wish to express my appreciation to the Department of Energy and Congressman Lundine for the opportunity to address you today.

Specifically, I wish to address the second major assumption of the task force report. Namely, that the policy and programs must be credible to and accepted by the American public. I take that at face value, not as an example of lip service by the Department of Energy, but reflecting serious resolve.

I'm impressed by the magnitude of that task, and I wonder if it has been carefully thought out by the representatives of the Department of Energy. Let me first identify myself and give you some idea of why I speak to that particular issue.

My colleagues and I have for the last four years with grants from Ford Foundation, and presently from the National Science Foundation, been addressing questions of the public acceptance of nuclear energy. We are presently involved in a study of equity issues in radioactive waste management, and we participated in a variety of appeal reviews for the Nuclear Regulatory Commission documents and for Battelle studies for the Department of Energy.

Let it begin by noting that I think, in contrary to the tone and the orientation of this meeting, that I think most experts in the area of nuclear waste management, at least as I understand it, are convinced that nuclear waste management is primarily a social and a value issue and not a technical issue. I subscribe to that point of view, and will cite four reasons why I think that to be the case.

(1) That the experimental psychological research conducted in this country on the subject so far and buttressed by polls such as that which the previous speaker just mentioned, have I think indicated that the risks of nuclear energy, and of nuclear wastes in particular, have attributes particularly feared by the public, such as its catastrophic nature, such as the type of death which results from radiation, radiation itself as an invisible form of hazard. This suggests to me that numerical risk, as it's usually calculated in backed-up technical studies for regulations are likely to be a rather poor guide, to fear, which is what the public experiences as the risk.

Second, that in no area of nuclear energy is there a greater departure of risk as it is simulated by the experts, as in WASH-1400, the Rasmussen report, for example, and risk as it is perceived by the public. This suggests to me that experts conducting technical studies backing up public policy, are likely to be rather poor guides to what the likely public response is going to be.

This would further suggest to me that as compared with other areas of technological policy, there is a very particular need in policy for this area for extraordinary measures to be taken for public participation.

Third, that the waste problem is beset by a number of difficult equity of value issues which intrude upon simply the safety and economic questions. One of them not fully discussed here but referred to is the future generation versus present generation. How do you make that kind of tradeoff? How do we represent in a process such as we're experiencing today, the rights and prerogatives not of the present people here in the area, but those who are not born yet, but who will eventually live here. Or those who will be born along the transportation corridors in which this waste at some future time might be moved.

How do we compensate then, if there is some risk to be taken? These are difficult problems, but not irresolvable problems, and I think there are steps that can be taken. Or, to take another one, how do we deal with the problem of the dissociation of benefits and risks that occur geographically? If the plant is dismantled, for example, what are the rights and prerogatives, and what hearings will be held for the people who fall on the transportation corridors between here and Hanford?

Or to take an issue that I'm growing particularly interested in, is I wonder how the Department of Energy will analyze fully for each of the technical options which have been described this morning, the very direct tradeoffs that are present between occupational health and public health in arriving at one perspective solution. And how do we anticipate such uncertainties as not that the linear hypothesis will be decided in some future way after low radiation debate comes to some resolution? What happens with the uncertainty if, as many of us expect, a rather different approach is taken in this country in future years on acceptability of occupational risk, so if the standard is lowered by a factor of ten, and how is that going to bear upon the technical options that we're talking about?

Despite this current, despite the kind of problem that I've tried to outline, and why I think that it's rather different than technical problem, the current efforts of the Federal government, both for the problem we're addressing today, and the waste management generally as I understand it, is one which really defines the problem primarily as a technical problem. And if you have doubts about that, after you've picked up that NRC organizational chart and you look on the second or third page, you'll find a list of consultants there and a list of tasks that are being performed by the NRC.

They are all almost without exception, technical tasks that define the problem in technical terms. Now, the argument that I'm trying to make is that the process as I see it unfolding on a national basis, and in this particular problem as well, is one which is poorly designed to achieve the credibility with the public that is being hoped for, and which is specifically cited as the major assumption of the task force report.

I would offer as evidence for that, that I think that this hearing is itself a poor example to recognize, good example to recognize, that extraordinary measures are needed for public participation. I don't think a one-day session which allocates its speakers ten minutes of non-stop performance from 9 o'clock in the morning to 9 o'clock at night to deal with difficult problems of how do you trade off a life in the future for a life now, what does it matter for the people who are going to be exposed to a rather ill-defined transportation risk between here and Richland if that proves to be the case. How are we going to deal with those problems? How are we going to help people think about these problems?

The difficulty with the radioactive waste management problem is very frankly, is that we don't even know to conceptualize a lot of that

problem. Well, suggest to me if you're really serious, about trying to have effective public participation. I'm trying to make a case and I think it's crucial, and it seems to me you have to develop a format with people in which you help people to think about the problem.

Now I'm concerned about all the people who are not here today, because many of us who are here today, people who turn up at public hearings and who are effective at public hearings, are people who have a particular interest, a particular axe to grind, particular point that they want to make, as I'm doing.

But I'm wondering about all the other people who are interested who don't really know how to grapple with those tradeoffs, who really don't understand the nature of those trade-offs. Now I think the Department of Energy has the responsibility in future hearings to do this in a different way. And I would provide as an example that at the end of this month, the Environmental Protection Agency is holding a public meeting in which they're going to try to think about some of these problems, and if you look at the contrast in the format of those meetings, it's rather remarkable.

There's a major effort, I think, being made to try to do something different. We've recognized that this is just not another problem. Let me just conclude by saying that I think that my concern is also evident and a variety of other bits of evidence coming out of the Federal government at the present time, I think the draft generic environmental impact statement primarily defines the waste problem as a technical problem. I think that from what I understand of the site suitability criteria forthcoming from the NRC, and what kinds of backup studies are being performed, there's not a recognition that we're dealing with serious social and value kinds of problems involved with that.

I don't think we have a good understanding of what the equity issues are, and I'm concerned if that work is not being done, how are we as members of the public going to be able to deal with that in some reasonable way. If you want public input, you have to make a context in which meaningful public input can occur. And I think that has not happened. I will make no prejudgment on the DOE study and future efforts to be made in this regard, but I will enter a plea that there is a need for high quality, scientific research on many of these problems.

I'm concerned that it be done, and I'm concerned that we recognize that extraordinary measures have to be taken with the public, that this my plea that this effort will be forthcoming by the Department of Energy.

MRS. RICHARDSON: Thank you, Dr. Kasperson. Our next speaker will be Mr. Charles Coutoure from the West Valley Chamber of Commerce.

MR. COUTOURE: Thank you. I represent the West Valley Chamber of Commerce, and we'd like to express these seven points.

No. 1. We want a guarantee that the health and safety of the people of West Valley and the surrounding communities will be the prime concern.

No. 2. Impact aid should be paid to replace loss in tax revenue if the plant is decommissioned. Such aid should be paid on the taxes for the year decommissioning occurs. The present tax for 1978 amounts to county tax \$20,682.00, town tax \$28,386.00, school tax \$70,125.00, fire district \$3,556.00. Future impact aid or any tax income generated from the NFS property should not be anything less than the amounts presently paid.

No. 3. For any increase in plant or site activity there shall be a proportional increase in assessment.

No. 4. If the site is narrowed in scope or decommissioned, one of our prime concerns is how soon the property can be returned to economic productivity.

No. 5. We ask the Federal government to explore the possibility of having the facility taken over by a private industry for nuclear or nonnuclear purposes. Private industry would be supervised by DOE and encouraged to meet environmental and safety standards.

No. 6. Removing the waste and simply transporting it to another community for burial is not solving the state or national nuclear waste problem. We encourage the reopening of the facility for demonstrating the solidification of liquid wastes and other nuclear research. This will increase employment at the present facility, and should be done within limits of safety and environmental standards now or to be developed.

No. 7. We strenuously object to all the negative publicity being given to the West Valley by various groups and news media. Much of their information is based on untruths and unproved theories. I will make as part of my statement one letter that was received by me from a science teacher at Springville Griffith Institute considering a 13 year old girl's science project which recently made TV news.

I quote: "To Whom it May Concern: I happen to be Amy Rube's science teacher, and I listened to her lecture demonstration in science class. Amy implies that the death and malformed rate of

newborns in the Springville Hospital is three times the state average, due only to radiation from the nuclear fuel plant at West Valley, New York. Her statistics are probably true about the death rate in the hospital, but she in no way came up with the results indicating that the plant was the major offender. She just assumed this. There are many variables she failed to eliminate. Any one or a combination of which could cause this. John A. Baldwin, Science Teacher". Thank you.

MRS. RICHARDSON: Next we'll hear from Mr. George Neudeck, who's also from the West Valley Chamber of Commerce.

NR. NEUDECK: I'm George Neudeck, I'm previous, former owner of the local hardware store, and I'm currently employed as a ceramic engineer for Farrell Corporation in Buffalo, and I'd like to tell the DOE that if anybody has the answers to this problem, it's the ceramic engineers, their borosilicate glass, and so on.

The following comments are more or less not on behalf of the Chamber, but on my own behalf; and like all speakers today, these are basically my views. And I'm speaking as a local resident. I believe the following three items are of vital concern to this community, and should be given every consideration in making the Federal decision as to the future of the Nuclear Fuel Services reprocessing plant and burial grounds.

Our first concern, radiation hazards. Our first concern, should the government take over and operate the plant at previous or even higher levels, or even decommission it, is the health, safety and welfare of our area residents of the full time plant employees, of the casual employee who works in highly contaminated areas for a limited time, receiving a large dosage. And for our future generations of above individuals, we must demand that a radiation level be maintained both within and outside the plant limits that is safe for everyone concerned.

And I question if anyone could tell us what is safe based on the present state of the art of nuclear technology. We must demand that the entire operation be safe, both from a normal operational radiation level, and from the possibility of accidental spills or the more remote possibility of some sort of natural disaster.

We are also concerned for the youth of our community, who, upon reaching working age, accept work in this facility for a few hours a year cleaning up hot spots, not knowing how the dose they receive may affect their health 15, 20 years hence. Or for that matter, the effect it may have on their offspring.

I ask you, does nuclear technology know, and can it inform us of the hazards involved, and what is and what is not safe? If not, why should we want area residents living near or working in this nuclear facility? When the plant ceased operation in 1971, it had very little effect on this community. Local businesses did not notice a drop in sales. Homes were not left vacant, and only a few were unemployed, most of whom, if not all, have since found employment.

Why should we accept an unknown risk? What have we to gain? You should supply us with these answers before the government decides to reopen and operate this plant at previous or increased levels of activity. And I would like to emphasize that when I refer to the word "safe", I would welcome the plant if nuclear experts were in accord that the operation of this facility is as safe as the average other industry.

The second point I'd like to make is that of village impact. I live in West Valley because it is a small, well-kept, rural village located in these beautiful foothills of the Allegheny Mountains. We are proud of our community and of our school, and I want my children to attend a small school and to be brought up in this rural atmosphere. I really do not want this land in question to become a large industrial complex, centered around a large Federally owned reprocessing plant and burial ground.

I challenge the local residents to express their desires regardless of how their neighbor feels, and I trust that our elected officials, at all levels of government, will seek and will hear their voice. I would prefer that the plant be shut down and as much of the nuclear waste as possible be removed from the site, and that perhaps, or perhaps it could be operated at low radiation levels as a research center. Consideration should also be given to other business ventures, using as much of the present facilities as possible. Such as was mentioned earlier today, a Federal alternate energy research center.

One advantage West Valley has is everybody is getting to know where we are anyway. We're on the map, so if it's a Federal energy research center, they know where to find us now.

Our third item I'm concerned about are the local taxes. In 1961, the State came in to our locale with much fanfare and many promises and removed much of our land and many of our farms from the tax rolls. A 35 million dollar facility was built and placed on our tax rolls assessed at less than one million dollars. The current facility pays about 17% of our school and property taxes, which means the area residents would face a 21% tax increase should private industry be forced to turn the plant over to the government in 1980, as we anticipate.

Since the government took our land, burned our farms, forced private industry to abandon the facility, we feel the government faces a moral obligation to provide the area with funds on a continuous basis to offset this loss in tax revenue. Also, if the site is decommissioned, we would like to see as much of the outlying land as possible returned to the public and to the tax rolls, with their original owner receiving first option to the land. If activity on the site, likewise if activity on the site increases, the assessment should also be increased, thereby increasing our tax revenues.

In the near future, we are looking forward to the 219 Expressway being extended southward to within a few miles of our village. This will greatly increase the value of our property, providing prospects are not scared off by a nuclear plant and waste storage burial grounds, or scared off by biased and inaccurate press reports.

In summary, safety, village impact and taxes are our concern, and we request that you consider them when making your recommendation. And as a comment to the press, most of the village residents are a little upset about bad press and inaccurate press accounts, and probably this has done more harm to West Valley than NFS ever has. You speak to people in Buffalo, Springville or way outside of town, and West Valley is getting a bad image. A lot of people have come to me at work, said I'd never move out there or buy land out there, and the press has hurt this community.

And I think the press ought to take a second look at our community because I feel they missed the real West Valley. Look at our school. We've fought off centralization to keep it here, we have a local school, the school which we are proud of. We have our churches, our volunteer fire department with their new building and equipment, our historical society, and so on. And we're proud of this town and we do not like it referred to as the country's nuclear garbage dump or the village with the deformed babies, of which I to this day don't know of any that really can be attributed to that. So I'd like to tell the press to wake up and find out what West Valley's all about. Thank you.

MRS. RICHARDSON: We'll next hear from Mr. Dean Williams of West Valley.

MR. WILLIAMS: I am the President of the West Valley Crystal Water Company, and we are a stock corporation formed in 1913. Our stock is owned by about 25 families living in West Valley. We are the only tax-paying water company in Cattaraugus County.

We supply all the homes in West Valley, with the exception of one apartment house and West High school. Last year we paid \$1,544.00 in

real estate taxes. So a high percentage of our income goes back into the community in the form of taxes. If the Federal government takes over Nuclear Fuel Services and pays no taxes, our taxes will rise about \$350.00 a year. Such an added expense could put the future of our company in jeopardy.

We do not want the government to take over our small enterprise, because we believe that it would lead to more bureaucracy. Governmental employees will not always work without pay as many of us do. We are also concerned with the bad publicity given our water company through false and misleading statements made by the media.

Statements that were made by the press and over TV indicating radiation in our water supply. Our water is constantly tested, and readings of radiation levels are no higher than those produced by background radiation that is present all over the earth's surface.

I would like to speak now in my own behalf. Being a businessman, I operate a poultry farm directly south of the school, and would like to share with you a few occasions in my life which are somewhat relevant to that of NFS. About 10 years ago, the New York state Department of Agriculture and Markets told me that my facilities for breaking eggs would not meet sanitary regulations. I built a new plant in accordance with their recommendations in order to continue to break eggs.

About two years later, a New York State law was passed requiring pasteurization of these breaking eggs. I then had to remodel my facilities and truck my liquid eggs to a distant point for pasteurization. The following year, the New York State Department of Agriculture and Markets told me that I would be under USDA regulations. This meant that I would have to build a new plant at a cost of over \$200,000, equipped to the specification, and I would be under continuous USDA inspection. At that time I closed down my plant. That left only two egg breaking plants in New York State.

I believe that my case is somewhat similar to other businesses, including that of NFS. I believe NFS showed good faith trying to stay in business by constantly making changes to comply with new regulations. I think consideration should be given that NFS stands to lose an investment of about 50 million dollars, whereby the Federal government has no investment, and the State's only investment is in that of the land.

The people of this area resented the fact that the State condemned their property and forced many farmers out of business. I knew most of these people who lived on that land, because I was then working at the

local feed mill, and we delivered feed to many of these farmers. Some of these people were forced to leave even before the state paid them for their property. Being a member of the fire department, we were then ordered to burn down their homes.

I think some people are demanding more and more governmental controls, and some governmental employees want to protect their jobs. This is forcing many firms to go out of business. I think we should encourage NFS to operate the plant as they did in the past by eliminating these impossible regulations that forced NFS to decide not to renew their contract. This would stimulate our economy, make more jobs available, and also maintain our tax structure. This could also save taxpayers millions of dollars. Thank you.

MRS. RICHARDSON: Mr. Alan Bishop?

MR. BISHOP: I'd like to make a request, and I'm sure the environmentalists would agree with this, and that is that everybody stop smoking in this auditorium.

My name is Glen Bishop, not Alan. It's been misprinted a couple of times on different letters. I am married and have two children, ages 12 and 9. I've been a resident of West Valley for 25 years. I am here on behalf of the people of this community and those of the United States who want to save and use our country's natural resources sparingly. With the help of nuclear power generation of electricity, this can be done.

I have worked in the nuclear industry for the past 13 years, 12 of which was spent as an employee of Nuclear Fuel Services. With the reduction in the work force a year and a half ago, I was laid off. I still work in the nuclear industry, but with a different firm. It is my feeling that facilities such as Nuclear Fuel Services are needed as part of the nuclear industry to recycle nuclear fuel for future nuclear reactors that will be needed to meet the demands for electricity for the people of the United States.

It is my belief that the Department of Energy's approach to the option of continued use of the western New York Nuclear Service Center would be a benefit to the economics of this country. Thank you.

MRS. RICHARDSON: Thank you, Mr. Bishop, and we apologize for the misprint on your name. Mr. Bernard Williams?

MR. WILLIAMS: I guess I'm the only one here today that hasn't prepared a statement. I don't read too well, I don't write too well.

Seventeen years ago this started in the same school up in the other gymnasium. They sold us a bill of goods. I, neither pro nor con, it's happened, we've got nuclear. I think maybe we should stay with it, but if we do, it's got to be checked.

I appreciate the watchdog service from the other concerns. I think it's a must, a necessity. I am not an expert, and I question the credibility of many people in this room as being experts. I don't think they want to hear many statistics. Our big concern is the old tax dollar. Taxes are something we do understand. We don't understand nuclear, at least the average layman in this room.

New York State must come across. They've taken a tenth of our town with no tax revenue. The town of Redhouse, New York State, is the biggest taxpayer. When the Federal government takes over this building, if the Federal government takes over this building, they should pay a tax. They should pay a tax. I have one statistic, and that's cancer. That's been brought up. I looked into the oldest book the town has on vital statistics. Dated 1896 to 1913.

There were older books in town that had been destroyed in a fire. In this book there were 317 deaths, 33 of them were cancer. That's over 10 percent. That is in the days of when diphtheria was wiping our families, tuberculosis was popular, and smallpox. Thank you.

MRS. RICHARDSON: We'll next hear from Mr. Gerald Taylor from the Cattaraugus County Legislature.

MR. TAYLOR: Chairperson Mary Ann Richardson, members of the Nuclear Regulatory Commission, and also the Department of Energy.

I am a county legislator. I am also chairman of the Nuclear Waste Committee of the Legislature. But moreover, I'm a legislator elected from District 4, which includes, among others, the towns of Ashford, the Ashford fire department, and the West Valley school. So you see, I have a vested interest being here this afternoon. I guess most of them that spoke had had some kind of an interest.

I am concerned, as most everybody else is, about the environment, about the health and safety for the people of the community. I also am concerned about the financial impact that we are trying to address ourselves to this afternoon. The loss of the financial taxes. Also, to a lesser extent, I am concerned about employment in the future.

Let us quickly review some history relative to this problem. In 1960 or '61, when the State appropriated this section of farm and

residential land to build a repository for nuclear waste, we were told that it was important that we do this. It was necessary that we do this. that we were entering a so-called nuclear age. Ladies and gentlemen, if it was important and necessary in 1961, how much more important and necessary is it in 1981, 20 years later, when we have now more nuclear devices, more generators powered by nuclear fuel, and more government using nuclear fuel, and moving into the nuclear age? How much more important is it now that a facility to reprocess and to deposit this waste be maintained throughout the country? And it seems like it could be done here.

These lands were appropriated from farmers and residences, and when this was done, these were homes of people. They were living on the land, sometimes for many generations. You know, a man's home is his castle. Also, each farm and farm family were producing crops and adding to the economy that way, and paying taxes to the town of Ashford, to the Ashford fire district, and to the West Valley central school. And of course, to a lesser extent, to Cattaraugus County.

Fortunately, after the State took the land, there was built, constructed on the site, a building by private industry, so it put the property back on the tax rolls, which of course, didn't mean the tax loss that could have occurred if the state had only kept the property. The building and the improvements of the land around it was assessed at \$900,000.00, which of course was a considerable amount on the tax roll, and also helped the economic, and some employment was evolved, but not as much employment ever developed as was projected.

At this point, Mr. Niver, the chief school officer of the school district here, pointed out the problems that have evolved because of the lack of building and lack of more employment. You are being told this afternoon by the local supervisor and fire department representatives and so forth, of the terrific impact if the private industry was to pull out of this area.

It has already been pointed out that they pay up to 17% of the taxes locally, particularly in the school district, I guess. The county, of course, derives \$20,628.00, which isn't, of course, an excessively large amount when you consider we have the wide tax base. I'm sure that you gentlemen of the commission this afternoon are getting all kinds of testimony here, but I think one thread will follow through that we are all universally concerned with number one, the environment, and the health and safety of the community. And that's important, and I think we all are.

But to me, the environmental protection and the protection of health and safety is being adequately taken care of now, and will be even more so in the future. So I think instead of number one priority the health and safety, since I believe that's being adequately handled, I would suggest that the financial impact is what we are concerned about today. And It's been pointed out that that is really a serious matter to these people.

The Nuclear Waste Commission of the County Legislature toiled with this problem. We met many times on it, and we finally came up with a resolution which we presented to the Cattaraugus County legislature on March 8th, and which was passed unanimously. And I have two copies to deliver to you this afternoon for your consideration.

I would also like to read the resolution as passed by the legislature. It was Act No. 81. Requesting governmental operation of nuclear waste treatment facilities and impact aid for the municipalities affected thereby.

Whereas, in June, 1961, New York State appropriated residential and farm lands in Cattaraugus County, town of Ashford, State of New York, consisting of Lots No. 556 and 557 as noted in the deed recorded in the Cattaraugus County Clerk's office in Liber 615 of Deeds, Page 189, and

Whereas, the said parcels of land were dropped from the tax roll of Cattaraugus County, town of Ashford, town of Ashford fire district and the Ashford Central School District, with loss of revenue to said municipalities involved, and

Whereas, a building was constructed for the purpose of processing and storing nuclear waste, and an area outside the building was constructed for the burial of low-level nuclear waste, and

Whereas, in 1972, the operation of the plant was suspended in order to upgrade the operation to conform to said new safety standards and regulations of the Federal government, and

Whereas, the so-called modification was deemed too costly by Nuclear Fuel Services, causing them to announce that they would terminate their lease in 1980, and

Whereas, we believe that this, that we are in the so-called nuclear age, and that nuclear processing must be done in the foreseeable future, and

Whereas, the Federal government has invoked certain standards, to protect the environment and the health and safety of the citizens of the United States, therefore,

Be It Resolved, that the Governor of the State of New York, or the Federal government, or a combination of the two, operate, continue to operate, the facilities at Ashford, thereby providing employment for the people of the area and for the tax relief of the municipalities involved, and be it further

Resolved, that in the event that the plant operation is terminated, impact aid be given Cattaraugus County, the town of Ashford, the Ashford fire district, the Central School District, and be it further

Resolved, that the Clerk of the Legislature be and is hereby authorized and directed to forward two certified copies of this resolution to be presented at this hearing this afternoon.

MRS..RICHARDSON: Mr. Charles Hebdon?

MR. HEBDON: Ladies and gentlemen, press, village, town, taxpayers, I would like to speak to you today as a taxpayer, as a county legislator, and on behalf of the NFS employees. I was born and raised in the town of Ashford Hollow.

My family and I live but four miles south of this facility. I run a small beef farm, besides, I am an iron worker, and a local volunteer fireman. So naturally, I am deeply concerned about what will happen to this plant. If this plant and the land remain off the tax roll if NFS was to pull out, the town of Ashford would not be able to function.

Someone must be responsible. I believe that the Federal government should pay these taxes if NFS is to be pulled out, or is to pull out. I am concerned for the health and the safety of the people in Ashford and surrounding areas. I want to be assured of the safety that will be met in the high standards of health and safety.

I believe that since the Federal government has set these standards and issued these regulations regarding nuclear plants, they must be responsible for it now. The majority of the people in this area did not want this plant some 17 years ago, but since we are stuck with it, we must try to do what is best for everyone. Technology is striving every day to solve the problems of nuclear waste.

The problem facing us now is to keep this material stored safely till then. We must keep trained personnel on the job at all times to

assure this safety. With the trained personnel, it has been suggested that the plant be used for some sort of research. That doesn't necessarily mean dangerous materials. That's why we are here today, to keep an open mind and work together from all walks of life to solve the problems of this plant for the good of everyone. Thank you.

MRS. RICHARDSON: Our next speaker will be Mr. J. Burney from the Coalition of West Valley Nuclear Waste, Buffalo, New York.

MR. BURNEY: As Assemblyman Walsh indicated at the beginning of his lecture this morning, that he would attempt to be brief, I am also going to attempt brevity. But unlike Assemblyman Walsh, who chose only to address the gentlemen in this audience, I'd like to address all of you.

I've come here today for a thousand different reasons, or maybe in recognition of the spirit of the Department of Energy and some of the political representatives here today, I should say that I've come here for an unknown and uncertain number of reasons.

Throughout the profusely dark and bleary history of this seething radioactive garbage dump, we have constantly involved ourselves when unraveling the facts, generating new interpretations and official pronouncements, and formulating new strategies to deal with the political and scientific rhetoric spewing from every corner of every issue representing this terrible controversy.

We have all received an education. We've all been compelled to receive in a widely desolate way, the cumulative education of the sickening facts of life of living in the darkening shadow of a nuclear economy. In the beginning, before the then Governor Rockefeller expeditioned to this remote edge of his kingdom to officially proclaim West Valley a cornerstone of his dream to prevent a riskless society, we were told of the great technological and scientific beatitudes that would soon come to canonize our democratically elected lifestyles

We were told that this new nuclear park, as it was called, this symbol of imagination and foresight, would bring untold prestige and esteem to western New York. We would receive national and international recognition. It would be us, with our courageous and pragmatic support of Nuclear Fuel Services, that would allow our nation to survive the impending energy crisis; and of course the bottom line of the argument was that we would attract the unwavering attention of millions upon millions of good old-fashioned American, good old-fashioned American dollars.

Some of us bought the argument, some of us didn't. But now as we choke back the emetic impulse of our very unsettled and dismayed digestive apparatus, we wish that we all knew back then what we all seem to know now. If we only knew that the eloquent, albeit slippery sounding nuclear park, was in fact what it is today, a radioactive garbage dump, and I don't mean that West Valley is a radioactive garbage dump. West Valley is a very beautiful little village.

This radioactive garbage dump is filled with enough deadly poison to require a body of water comparable to eight Lake Ontarios to dilute it to what most knowledgeable scientists consider safe for human beings. If we'd only known back then that the national and international attention focused on this radioactive garbage dump was going to be laced with such verbal pyrotechnics and utterances as waste tank decay, radioactive leakage, accidental plutonium inhalation, body banks, dosage miscalculation, seismological miscalculation, seepage, and now from James Larocca, in responding to the energy task force's recommendations, we've been told that there is nuclear blackmail from the Federal government occurring relative to West Valley.

Esteem and prestige indeed. Millions of dollars indeed. I am reasonably sure that most of you wouldn't be here if you weren't painfully aware of just how we have attracted the attention, the unwavering attention, of millions upon millions of good old-fashioned American dollars.

I don't know who's going to pay for this mess, I know that I've been paying for it since I've been old enough to pay taxes. I know that some people have paid for it with their lives. And I know that unless we do something about this horrible situation very soon, people are going to be paying for this mess for generations, for centuries. And they will be paying with their pocketbooks, and I think there is reasonable evidence to assume that people will continue to pay for nuclear power with their lives.

I'm here today to focus on three major issues. My first question is relative to the recent task force proclamation that I referred to earlier. Considering this, I am very curious about the validity of the list of options presented to us by the Department of Energy. The report from the energy task force that I spoke of indicates that there are several phony options being presented to the people of New York. I realize that I'm not the first to charge the Department of Energy with deceptive tactics, but I insist in raising my voice in protest.

I'd like this issue cleared up immediately, so there be no misunderstanding about the real scope of the study. The next area that concerns me is relative to the geological implications at the site.

For instance, as many of you may recall, dangerous radiation got to a lot of places that it wasn't supposed to get to. How did it get there? Why did that happen? What will become of Buttermilk Creek in 10 or 20 years? What about Cattaraugus Creek? Are you aware that the watershed of these two creeks encompasses both Lake Erie and Lake Ontario? Do you realize that potentially six million people in western New York alone are directly affected by this huge watershed.

Now also peculiarly enough, there's a geological fault line very near here. Although it hasn't been active for 50,000 years, we must realize that permanent storage in West Valley would encompass as much as 100,000 more years or more. How can we be sure that this fault won't shift in that period of time? My question is relatively complex. Whose fault is this?

The final topic that I wish to approach is an area that has been the focus of a very courageous individual, whose hard and diligent work has brought considerable respect and awareness to the various implications of health-related elements involved with human exposure to low-levels of radiation. His perspective is both frightening and sobering. He is Dr. Irwin Bross, Director of Biostatistics at Roswell Memorial Institute in Buffalo.

I'm going to read a very brief statement given to me by the Doctor. And this statement was given to me in the form of a cover letter to the testimony that he had hoped to give here today, but he won't be here. Later on there's going to be some time seceded to me so I can read his testimony, but now I'm just going to read you the cover letter to his testimony.

"When Congress gave the Department of Energy a mandate to develop a plan to deal with the hazardous nuclear wastes at West Valley, New York, it clearly wanted something more than a rehash of old DOE schemes or options that have previously failed to cope with the waste disposal problems. What was wanted was some guarantee that the serious potential health hazards at West Valley, particularly the 600,000 gallons of high-level liquid wastes, would be cleaned up and would not stay as a threat to the public health for thousands of years. Instead of following this mandate DOE scheduled a meeting on March 18th to push a document called the DOE approach with the same old options, most of which have no factual basis for any guarantee that the option will clean up the health problem. Indeed, in most cases there is not even a guarantee that the option would work in practice.

"The actual purpose of the DOE approach was revealed by Deutch of DOE's Office of Energy Research just before the hearing. It was not a

plan for a cleanup. It was put forward as the basis for negotiation of appropriate terms for assumption of fiscal responsibility in return for the use of West Valley and other areas of New York as a nuclear garbage dump.

"In other words, DOE has disregarded the mandate to protect the public health and safety, and instead is trying to protect its constituency in the nuclear industry. DOE is offering to help New York get Federal funds if they're willing to accept nuclear wastes in addition to those already present, and of course to accept the health cost of these wastes, the birth defects, the leukemias, the cancers, and other serious health problems among western New Yorkers.

"For DOE to push for options which would make the public health problems of West Valley wastes worse is, in my view, an act of reckless endangerment under the laws of the State of New York. I enclose a document laying the groundwork for such a charge. I had intended.."

This is what he wrote at the end of the letter. "I had intended to present this at the March 18th meeting, but on March 14th I received a phone call from DOE informing me that my letter requesting time at the meeting, logged and mailed February 28th, had arrived too late to put me on the agenda", and he says "I have found actions has occurred with some regularity in my correspondence with the Department of Energy and the Nuclear Regulatory Commission."

There is some confusion as to exactly what did occur, but I'm not sure we can clear that up today. So anyway, later on I will be reading this testimony. Thank you.

MRS. RICHARDSON: We'll now hear from Ms. Carol Mongerson from the Coalition on West Valley Nuclear Wastes.

MS. MONGERSON: We would like to reserve the right to comment on the latest study options, which we received just two days ago. We would like to send you a written comment on that.

I'm Carol Mongerson, and I represent the Coalition on West Valley Nuclear Wastes. This is a newly formed coalition of groups and individuals whose concern is the health and safety of the public in this matter. We have already collected thousands of signatures on a petition. Here are some examples. And we believe that the overwhelming number of people in western New York feel as we do about what should be done in West Valley. We appreciate the opportunity to speak to you today. Democracy is meaningless if the people who have a deep personal interest in a public decision are not allowed a voice in the decision making process.

We want to be kept informed as the study goes on, and about what options you're considering, as well as the priorities that are given. This information that you feed to us should be kept as nontechnical as possible, and be well publicized if there's to be any meaningful public input. The Coalition on West Valley Nuclear Wastes offers its services to you in translating technical language or dispensing information to the public, whatever we can do.

We believe that the study should concentrate on disposal solutions which will lead to a nonnuclear use for the site. The 600,000 gallons of high-level liquid radioactive waste should be solidified in the safest possible manner and shipped out. We advocate the solidification method known as calcination because it's a relatively low temperature process with a correspondingly lower risk to the population from radioactive releases into the air and water.

Such solidification would make it possible to ship the wastes safely to a place where they can be stored with the country's other wastes. It makes no sense to keep nuclear wastes here in an area where it can endanger a lot of people and productive farmland, when it could be stored with the much larger volume of wastes out in Idaho or Washington. This is an isolated, unproductive, semi-arid part of the country out there.

Now we are aware of the technical difficulties involved. We believe that solidifying the wastes and shipping them out is both realistic and responsible. We are aware, too, that there are enormous difficulties in pumping the wastes out of the tanks because of the sludge which has settled in the bottoms. But the truth of the matter is that the tanks will last only another 30 years or so if we're lucky, and the wastes would be lethal for hundreds of thousands of years.

So this is our first point. The high-level wastes should be solidified and shipped out. Our second point is that we don't want to see a permanent Federal nuclear waste repository in West Valley or anywhere in New York State. This is not a suitable place for permanent disposal. Salt bed disposal is risky in New York because of all the old uncapped oil and gas wells which could allow water to reach the waste. Can you be sure that you have located all the old wells? A geologist has told me that there are literally thousands of uncapped wells that we know of. How many are there that we don't know of?

Deep well disposal, called shale fracturing, and in-tank solidification, while not technically called repositories, would make the wastes just as permanent and just as irretrievable. This means that if

anything goes wrong, there would be nothing we could do about it. Now I know that there are a lot of non-scientists in this crowd who don't know shale fracturing from a hole in the ground. Well, that's what it is, a hole in the ground.

Shale fracturing is just a technical name for drilling holes in the ground and pouring wastes in. In-tank solidification is just a technical name for leaving it where it is in the tank.

I would like to spend a few minutes discussing shale fracturing, which is one of the options that's listed on the study outline. We're especially nervous about deep-well disposal, that is shale fracturing, because it's the cheapest method, and may be chosen by whoever for that reason without regard to health. In the ERDA Study NUREG 0043, there are a lot of questions left unanswered about deep-well disposal, and we are specifically concerned about the following:

(1) If the adaptation of the method to wastes which have a specific radioactivity of five times greater than the wastes at Oak Ridge.

(2) The problem about what to do with the sludge. Whether to try to adapt the process in some way that can possibly handle it in the same manner as the supernate, or to use some other method to dispose of the sludge. The question of whatever method would be suitable is not discussed in the study.

(3) The test for suitability of West Valley shale made in 1969 to 1971 left some doubt about horizontal fracturing, yet no further site testing is suggested as necessary if the same site is used.

(4) The method of determining whether a vertical crack develops during the pumping is described, but no suggestion is made about what could possibly be done about a vertical crack hundreds of feet underneath the surface full of settling grout.

(5) The requirement that a whole new facility be built with a mile of connecting pipeline and more tanks, more buildings, more pumps, etc. It's not very appealing to those of us who are worried about having one such white elephant in our neighborhood already. A mile of pipeline? And the word pipeline is reminiscent of Alaska, and not too comforting.

(6) We have seen the evidence of earthquakes in Zoar Valley, and most of us remember past earthquakes around here. Not all that long ago and not that infrequent. No mention is made in this study of earthquakes potential. What would happen to the deposited wastes if there were an earthquake again and vertical cracks developed?

And, can we be sure that deep-well disposal would not trigger an earthquake? New York is far too populated and too productive to run such a risk. Permanent disposal in New York of any kind is unsafe and absolutely unacceptable.

Those of us who live here want the safest thing done, not just the cheapest. We know that radiation causes birth defects, cancer, and less well-known effects. And I know that this is a very complicated issue, and time doesn't permit a full discussion of it here. The claims that low levels of radiation are just as damaging as high levels, if not more, are beginning to be borne out in this area. We have reason to believe that the rates here are significantly higher than other places, and we have asked and asked for a health study to be done.

But we're told that these tragedies can't be proved to be the result of the low-level radiation from NFS, and we're told that the sampling isn't large enough to be statistically significant. Well, how many more cases do we have to have before someone listens? By the time the full cost in human life and tragedy are obvious, it will be too late. Especially if we keep on getting more and more nuclear exposure from activities in West Valley. I mean the West Valley site, not the village of West Valley.

Finally, we want to make sure no more wastes are brought in. We already have 600,000 gallons of liquid waste, a leaking solid waste burial ground, a contaminated building and lagoons, and a storage pool full of spent nuclear fuel. Enough is enough. And now Nuclear Fuel Services expresses an interest in building another storage pool to store nuclear fuels from other parts of the country or the world. And we understand that the DOE is considering reprocessing again.

Now, of course it's true that the promise of a few jobs will convince some people that bringing in more waste would be desirable. We do need jobs in this area, but most of us realize that this is no answer to our problem, that it will simply compound it. We are opposed to any kind of Federal nuclear facility here. There would be too few jobs for local people to justify the increased radiation doses and health risks. Eventually, property values would fall. The price is just too high.

We want the liquid wastes shipped out, the site cleaned up and put to a safe, nonnuclear use. There are all kinds of other things that could be done here, other uses for this beautiful state-owned piece of land. If the part of it that's already contaminated was cleaned up and isolated, the rest of it could be used for a solar or wind research center. How about co-generation or wood methane demonstration? We

suggest that you concentrate your efforts in this study on looking into these possibilities. We are fully aware that it is not going to be an easy job to get rid of the wastes and clean the site up.

We know that solidification technology is only just being developed, and that decommissioning the plant is going to be difficult. But we have faith in science. Possible? Of course it's possible, and we will not rest until it's accomplished. We're tired of having other people's garbage in our backyard. Thank you.

MRS. RICHARDSON: Thank you, Ms. Mongerson. Mr. David Pyles of the Springville Radiation Group has yielded his spot to Jim Lango, who is not able to stay with us for the rest of the day. We will try to hear from Mr. Pyles later on in the day when we've completed the rest of our scheduled people who wish to give statements. Mr. Lango?

MR. LANGO: I want to thank all the officials and everybody who made this meeting possible. My name is Jim Lango, and I live at 76 Mill Street, Springville, New York. I have lived in this area all my life, and been a resident of Springville for 29 years.

Most citizens are here today to find out if the Nuclear Fuel Services plant has a future. I'm here today to find if we, the citizens, have a future. I have the feeling that we are all here making plans, offering our suggestions, to no avail. It looks like our dependable government has already made decisions without our vote.

The medical records in our area prove that a prompt and very thorough health study is necessary. I am asking that this be done in a number one priority. It must be established just what health effects, if any, the reprocessing of nuclear fuels has had on the local population. These records may not have any connection with the plant's operation whatsoever. But now is the time to find out. The results of this study must be our guide as to what should be done in the future. We must know the truth.

My second request deals with the words "alternative use". According to the officials of the Department of Energy, alternative use means more of the same. I was under the impression that alternative to nuclear would be nonnuclear. Here are my suggestions for nonnuclear use of the site.

(1) We live in a highly-concentrated milk producing area. I suggest the site be used for a large scale methane gas production from milk producing products.

(2) Dr. Daniel Schneider from Irving, Texas, has invented and patented two very promising energy producing devices. The first, hydro power lifting foil translators. They can produce energy from low head, slow-moving waters, such as rivers and irrigation channels. It does not require the construction of a dam. The wind-powered air foil translator has many advantages over the rotary windmill. It eliminates the problems of centrifugal force and vibrations, plus it has many other advantages.

To best describe this device, you may say they are like an oversized venetian blind on an endless belt. I understand Dr. Schneider is already working with the Department of Energy on these projects. With some Federal assistance, the manufacturing of these devices could be introduced into this area. In the northeast, the hydro unit may require some extra precautions in the winter months, but the air translator would be no problem either winter or summer.

We have the water and the wind, free and clean, to power these units.

(3) Western New York is the fastest growing timber producing area in the country. We have an almost unlimited supply of waste wood that rots in the forest every year. With modern equipment, this wood could be converted into wood chips and used as fuel to power generators. This could be an additional income to local farmers and wood lot owners.

(4) There are solar panel heating units and many other energy related projects that could be manufactured right here in West Valley. We must have Federal promotion and financial assistance, such as the nuclear industry has enjoyed in the past. We must remove the atomic flash that has blinded the eyes of our state and Federal Department of Energies from seeing the practical energy sources.

Jobs. We all need employment, but do we need the kind of jobs Nuclear Fuel Services has provided in the past? Many of the construction workers were from out of town, so this money was not spent in West Valley. But let's say that the total wages for construction, operation, supervision from the first day of construction until today amounted to a total of 35 million dollars. This is purposely a high estimate. This is a very impressive amount. Estimated costs of high-level waste removal decommissioning could run as high as 500 million dollars. Subtract the 35 million from the 500 leaves a loss of 465 million dollars in taxes.

At the rate of \$130,000.00 a year that Nuclear Fuel Services pay in taxes, this would take over 3,000 years to make up this loss. Somehow, this doesn't impress me as being a very sound financial

arrangement. I am opposed to the Nuclear Fuel Services site being used for any additional nuclear related experimental, demonstrations, research or storage. I request the removal of all hazardous nuclear waste from this site. This must be done in the safest possible way.

Health and safety must come first, not dollars and cents, as the rule has been in the past. The future use of these state properties will govern the future values of privately owned homes and acreage. If we become known as the nation's first nuclear garbage disposal, our property values will be reduced. I ask you now, will the Federal government reimburse our losses?

Permanent or short-term nuclear waste storage in an earthquake prone region is the most insane decision ever heard of. We are gambling with the contamination of ground waters, Cattaraugus Creek, Lake Erie, and the fresh water supply for most people in western New York. I thank you.

MRS. RICHARDSON: We're going to now take a five-minute break to stretch our legs and so forth, so we'll reconvene at about 3:35.

Would you please take your seats? We have a lot more people to hear from, and we don't want anybody left out. Our next scheduled speaker is Dr. Leo Moss from the Cattaraugus County Health Department. Dr. Moss.

DR. MOSS: Ladies and gentlemen, I am, my name is Leo D. Moss, I am the Commissioner of Health for Cattaraugus County Health Department. Our Department has been somewhat involved in the environmental aspects of the Nuclear Fuel Services operation since before its inception until 1970, when environmental responsibilities were transferred from the Health Department to the State Department of Environmental Conservation.

During that time, and in conjunction with the State Health Department, what was regarded as the world's most comprehensive program, was operated in the environment around Nuclear Fuel Services. Surveillance was provided for all environmental vectors, and facilities near the plant site were compared with controls established at locations beyond possible influence. Investigations were carried out to monitor radioactivity in milk at dairy farms and vegetation, crops, streams, fish, stream bottoms, public water supplies, current waters, air, soils and wild life.

In practically all of the observations, there were no significant differences from their count radiation except for minor increases in several vectors within and near the plant site. All of these fluctuations noted were reported to be within permitted levels.

Our responsibilities did not allow us to monitor radioactivity within the plant itself, and our department has little, if any, knowledge of any in-plant problems which were actually the responsibility of the Atomic Energy Commission and the State Department of Labor at the time. In the light of the new technology on which the plant was based, problems at our department were, as I have been advised, relatively minor and caused no serious environmental damage to the best of our knowledge.

These problems occurred a few years ago and consisted of minor radioactive leaks into the sewer system, and periodic pumpings of water from the low-level waste burial area trenches, both of which have been corrected to some degree and will require continued observation.

Although our Department cannot speak beyond its period of involvement with the facility, it is our impression that the environmental effect of the radioactive releases from the plant site have been of minor concern. It does not seem that they have done significant or irreparable damage to the environment, and our department is not aware of serious health problems.

It is obvious that one must continue human health surveillance for years to come, particularly in regard to congenital malformations and cancer. However, I believe that any such cases ought to be investigated on an individual basis. For instance, congenital malformations may also be due to certain virus diseases during pregnancy such as German Measles, and in cases of cancer one must also consider the actual extent of exposure to excessive radiation, if it is or was present, as well as family history of cancer and other possible etiological factors that are known or suspected to cause cancer.

Our Department's main concern is the future disposition of the high-level radioactive waste currently being stored in tanks at the site. There appears to be a lack of established technology for taking care of this problem, and it is our understanding that numerous alternative solutions need to be further developed and studied. It is our feeling that this problem is beyond the capabilities of the State of New York; since the development and operation of the plant was stimulated by the Federal government and in fact, operation was based on reprocessing nuclear waste from without the state, we strongly recommend that the Federal government assume responsibility for the facility and resolution of the high-level waste problem and any other problem associated with the facility.

A nation that was able to send a man to the moon ought to be capable to mobilize the resources for solving the problem of dealing with nuclear waste material. It is my personal considered opinion that the future energy needs of our great country cannot continue to depend on fossil fuels. We must mount a concerted national effort to expeditiously investigate and develop alternative sources of energy, including nuclear, solar, geothermal and others.

The techniques that we have developed at the Nuclear Fuel Services and the future knowledge to be gained from possibly continued activity of this facility could very well be greatly important to our future involvement with nuclear energy. We strongly recommend that the importance of this facility as a research and development institution be recognized, at the very least in dealing with the problems that now confront us.

It is understood, of course, that any future activities of the facility will be conducted with the most modern techniques and operated under the most strictest safety standards of the Federal and New York State Atomic Energy Commission. I'm very grateful for the opportunity to speak to you. Thank you.

MRS. RICHARDSON: We'll next hear from Mr. Mike Finn of Glen Cove, New York.

MR. FINN: I'd first like to say thank you everybody for coming here. My name is Mike Finn, with an "I", and I'm listed as coming from Glen Cove, but that's only where I was at the time. I pay taxes and live in Little Valley, Cattaraugus County, not too far from here.

Dear fellow human beings. Pinch yourself, I think we're all alive here. As a lifelong inhabitant and lover of New York State, I oppose and refuse to allow any more nuclear wastes to be buried, stored, or transported across this breathing ground and water course we call our home. If the State does not care about our well-being, then how can we care about the State?

How can we feel at home when the State government will sell out our health, safety and self-determination to a hydra with many smiling high-level and low-level heads? Why do we live? Not to be food for the appetites of multi-national greed. I will be forced to either leave this state or try and change the state government if no acceptable nuclear solution is reached. But I must say that before I leave this state, I will fight mentally, emotionally, and let me say that the founders of our country were necessarily emotional, and physically. And if it goes through over our public outcry, there will be a civil

war like 10 Viet Nams in this state and country, and I believe that though I hope it doesn't happen.

We, the people, will not allow ourselves to be poisoned. This repository siting and reprocessing issue are crucial to the future of the nuclear industry, nationally and internationally. We're running out of uranium. These are cataclysmically lethal substances. Leukemia, lung cancer, Hodgkins Disease, are not for the fish and trees, as someone thought. Something is going to die here. Some will hope and pray. I will hope and push that it's the nuclear genie that dies here and not the family of humanity.

Nuclear power is the least labor intensive form of energy. The fewest jobs are created. We can implement sources that create more jobs, de-centralize power production, thereby giving people more say in connection with their power sources; all deference to DOE, and minimize therefore, mass disasters through mass power failures or contamination. The wind blows strong off the lake throughout the western New York area. And a series of wind generators could generate enormous amounts of power.

Let's opt for life and continuity. Let's begin a new renaissance of photosynthesis, reciprocal maintenance, and nurture that most exciting, sensitive and sinewy art, the art of surviving. I just have a, just a couple of little tailers to end, this is just a little tune.. Cattaraugus Creek is burning, you don't swim there, I'm advised. The water in the gorge is churning so with radioactive lies.

This from an old talking blues. It's up to the people because the atom don't care. You can't fence him in, he's just like air, he don't give a damn about politics or who got who in whichever fix. He just wants to sit around, have his nucleus bombarded by neutrons. So let's go lightly into the future as human beings and care about what's coming after us, OK? Bless us all.

MRS. RICHARDSON: Thank you, Mike, and we'll make sure that it's corrected for the record, with an "I". Mr. Mel Cook, who was scheduled to speak next, from Ashford, New York, has donated his time to Lou Dahlman.

MR. DAHLMAN: Thank you all for letting me address you this afternoon. I've learned an awful lot this afternoon and this morning. I don't mean to be too facetious about some of the things that I've heard, but they have just hit me so between the eyes that I've got to bring them out.

The first thing I've learned, that anyone, I've learned this today. That anyone that is in the least bit not negative about nuclear power is

against motherhood. This is what we've learned today. This is bunk. This is bunk.

We've heard our county medical examiner testify before all of us right here this afternoon, that he cannot verify any of these claims that these people have been making today. And what bothers me is that we allow people to come at an open meeting like this and make unsubstantiated claims about this plant causing cancer, the fact that all the, or the great percentage of the malformed births are caused by a plant three miles down the road. These are unconfirmed rumors.

This is the thing, these are the type of rumors, that were repeated and repeated and repeated in the late thirties that caused the second world war. Unconfirmed, unsubstantiated rumors. We also heard a few minutes ago, that the farmers in the area are going to take their, the word was used, "by-products of the milk production industry". I'm going to use the word "manure". It's going to be taken down to a plant perhaps and made into alcohol. I don't know whether a load of manure is going to make five gallons of gasoline or alcohol for use of gasoline or ten gallons. I don't know.

I don't know if it's going to take eight gallons to get the tractor down there and three gallons of imported oil to make the neoprene rubber that he's going to use to burn off on his tractor tire. I don't know that. But I do think that the next thing we'll see, and this is coming about, and many of you have known it, have seen indications of it. That if we continue to allow unsubstantiated rumors to spread, the next thing we're going to know is that Farmer Brown can no longer put his manure on the field. He's going to have to do something else with it.

I don't know what we're going to do with it. We're going to make alcohol out of part of it, we're going to have some waste products from there. We haven't been explained to us what we're going to do with that. Then we're going to buy chemical fertilizer and put back on the field. If that doesn't pollute somebody's stream someplace, we'll be alright.

I think the position I'd like to leave with you today, not whether I personally am in favor of nuclear energy to create electricity or not. The fact is we have here a particular situation that has to be solved. Whether we're in favor of nuclear power plants or not is not the issue at here. Not in the slightest. We have some material that has to be taken of. The suggestion has been made that we cart this to Idaho, Washington, Louisiana, New Mexico, someplace else. Get it out of New York State. We don't want it. What the hell do they want it for if we don't want it?

And, however, there's one good, logical reasoning in that, If we haul it to Washington, for example, that's about as far as I can think in the continental United States from here, just think of all the new railroad cars we could make because we gotta bury all those railroad cars we take it out there in.

This type of comment to me is asinine. If we've got a problem, let's face it right here. Let's solve it right here. We're talking about figures that I don't understand, 500 million dollars. I don't understand what that is. Would it fill this room? I have no idea. Let's take a part of that, a small part of that, and develop the technology that is required to solve the problem here. And let's do this with the private enterprise structure.

This can do it the best, not only the most economically, but it can do it the best. I propose to the Department of Energy that they spend much of their time in talking with the General Electrics, General Dynamics, the Westinghouses. Put this program on the road, and let's solve it and let's solve it here, and let's not contaminate someplace else. If we don't have the solution to do it here, why contaminate someplace else? Thank you, ladies and gentlemen.

MRS. RICHARDSON: Mr. Lester Fuller from Ashford, New York.

MR. FULLER: (Charles Coutoure, substitute) I'm back up here again, but Lester Fuller has left a statement that I'd like to read for him.

My attitude on this controversial subject is that our scientific people should do a better job of educating our public. They should explain in an easy to read and in an easily understood manner, all of the ramifications of atomic power, its good points and its liabilities. I believe that atomic power in 1978 is at the same point as the automobile was in 1918.

And now I request to the media, when you intend to do a project on atomic radiation, get all the facts, and I mean all the facts, before you present your story to the public. Your idea of presenting a headliner without the proper research is dishonest. A well-known doctor from Roswell Park Memorial Institute recently made this remark. Statements that create scare and panic should be based on something more than inconclusive and possible irrelevant studies. Thank you, Lester N. Fuller.

MRS. RICHARDSON: The time that has been requested by Rachel Carson College will be split between Beth Phillips from Rachel Carson College, and Lenny Skrill from Western New York People's Power Coalition. Beth?

MS. PHILLIPS: Good afternoon, ladies and gentlemen, my name is Beth Phillips, and I'm from Rachel Carson College, a unit out of the State University of New York at Buffalo.

Our goals at Rachel Carson College are to study and explore all aspects of environmental problems to gain a balanced perspective on political and economic and environmental issues in society. Our concern as a college and as earth citizens is for the health and environment of the present and future generations. We think the West Valley site affects all of us in the Erie and Ontario basin, since radionuclides from the NFS site have been traced to Lake Erie and Lake Ontario, which is where our drinking water comes from.

If the DOE plans to transport more waste to the site, all of us near the routes of transport will also be endangered. The danger presented to us by nuclear power is unlike any danger we faced before. The implications for ourselves and future generations have not been fully assessed. The effects are not immediately obvious as an automobile accident's. A better analogy would be the chemicals marketed and distributed without adequate testing beforehand.

The serious consequences of this practice has been to turn consumers into guinea pigs, and the government solution to that problem is to remove the chemical from the market after those serious side effects have developed. But this solution hasn't removed substances in the ecosystem and the food chain. As we discover more of the hazards of nuclear waste storage, it should be obvious to us that we are now the guinea pigs; since radioactivity causes genetic damage, it may take several generations to determine the full range of the effects. But the wastes will remain radioactive for more generations.

The government and the nuclear industry have no right to produce and store more wastes before they know how to deal with this waste safely. By doing so, they are dooming future generations to perilous hazards to health associated with radiation. We believe that the government should be responsible to its citizens and concentrate their efforts on limiting nuclear power generation and researching effective methods of waste disposal and radiation's effects on health.

The financial responsibility for the waste at the site should belong to Getty Oil, considering they would have reaped the economic benefits had the reprocessing center been successful. The 4.4 million which they are required to turn over in 1980 is barely adequate to cover the cost of up to 600 million needed to treat the high-level liquid waste.

The taxpayers of New York State should not have to bail out Getty Oil. It was a deal made by Rockefeller, not by those of us who will have to pay for it. By delegating the cost of waste managing and waste management and decommissioning to government, the real cost of the nuclear power generation is not being paid for by utility customers. We're being led down a path of illusion as to the relatively low cost of nuclear power generation, as long as we don't include all of the government spending in the cost. We believe that our taxpayer's money would be more productive if invested in alternative renewable power sources, such as solar and wind generation.

This change needs to be made now, before we invest all our resources in a dead end technology. We support Marvin Resnikoff's proposal to establish a western New York alternative energy center, providing jobs for skilled and unskilled laborers in addition to the benefits of safe, clean energy.

The problem of where to put the West Valley waste should be of utmost concern to the government. We don't want it here, but no one else wants it in their backyard. If the DOE really wants to establish a Federal waste repository, they could consider placing it in Washington. The answer is to stop producing waste and deal with what we have now. The only safe ways of dealing with waste currently under consideration, glass conversion, placing it in the seduction zones between the continental plates, are going to require a lot of time, research and money, and I think that that's where all the nuclear research should go into now. Let's find out what we can do with what we have before we make more. Thank you.

MR. SKRILL: My name is Leonard Skrill, and I represent the Western New York People's Power Coalition. The Western New York People's Power Coalition is part of a state wide utility activist group committed to energy conservation and clean, safe and affordable energy.

Coalition members across the state work against dangerous energy sources and transmission, as the 765 KV power lines and nuclear power. In Buffalo we are working for a public takeover of the utility companies, so public welfare and pocketbooks would be considered a priority.

Western New York homes count over one million..wait. Western New York homes over one million people. We live in a rich agricultural and scenic area and within the heartland. Nuclear power poses a threat to this. There have been no adequate studies of the health effects of low-level radiation from the West Valley reprocessing plant.

It is known that the Great Lakes have radiation coming from this area. It has been reported that Leukemia rates in this area are high.

Utility workers in the nuclear field have experienced genetic defects. People in New York, do you want to threaten the lives of your children by allowing this area to become a nuclear toilet?

We are angered at the Department of Energy recommendations. The Chevrolet and Cadillac options are simplistic. Only a Cadillac is a luxury. Dealing with the wastes is not a luxury, but a necessity. The recommendations do not at all address non-nuclear alternatives. If a similar amount of money was spent upon solar power or wind power, that has been spent on nuclear, there would be possible forms of these energies.

I guess it's not to be expected from the department of government which is headed by an ex-Secretary of Defense, James Schlesinger, with his pro-nuclear stance, to consider non-nuclear alternatives. When dealing with the health impact, the Department of Environment is dealing with middle-aged men. What about women bearing children? The aged? And the sickly?

Many local residents of this area believe that the reopening of the plant will create more jobs. No doubt it will, but looking at the nuclear power industry as a whole, you will find it is the lowest labor intensive way of producing electricity. Alternative energy sources, sun and wind power, have proved to be labor intensive instead of capitally intensive. We strongly favor jobs in this area by making Nuclear Fuel Service an alternative energy center.

A lot of people misunderstand the attempts of our environmentalists. Of course, we're for protection of streams and forests, hopefully so are you. We are also for full employment. I firmly recommend that those skeptical read The Environmentalists for Full Employment, Jobs and Energy. The people's Power Coalition supports Dr. Resnikoff's evaluation of "who should pay for the cleanup of Nuclear Fuel Services". It is the responsibility of all parties concerned. The Federal government, the State and Getty Oil are the owner of Nuclear Fuel Services.

But we should not wait for the money situation to be decided before action takes place. We need to clean up the mess now. We won't allow West Valley to become Waste Valley. Thank you.

MRS. RICHARDSON: Next we'll hear from the New York Public Interest Research Group. I'd like to correct a mis-statement in the agenda for the record. It is not SUNY at Buffalo, it is Buffalo State College. We will hear in order from Mr. Matt Flamm, Steve Vitoff, Mr. Cliff Ageloff, and part of their time has been donated to Holly Nachbar.

Good afternoon. My name is Matthew Flamm, and I'm a student at Buffalo State College. I'm also a member of the New York Public Interest Research Group, Inc. NYPIRG. NYPIRG is a non-partisan, student directed research and advocacy organization with chapters at over a dozen campuses across New York State, and with a membership of over 100,000 college students.

One of NYPIRG's prime areas of concern is the development of a safe energy source. Safe energy sources. In order to achieve a viable, more efficient and safe nuclear industry, the spent fuels and wastes produced in commercial nuclear reactors must be reprocessed. The recovered uranium and plutonium can be recycled back into reactors. Reprocessing has always been envisioned as an integral part of the uranium fuel cycle and for nuclear plants.

Nuclear Fuel Services is distinguished as one of the only commercial nuclear reprocessing plants to have operated in the country. During its operational lifetime, it reprocessed 624 tons of spent fuel, 480 tons of it being supplied by the Atomic Energy Commission, from its Hanford, Washington reactor and Dresden and the Yankee Rowe reactors.

With the abandonment of the reprocessing plant by Nuclear Fuel Services, the high- and low-level waste storage facilities have legally become the sole responsibility of the State of New York, which now must operate, maintain insure and survey the waste facilities in perpetuity. More than 600,000 gallons of highly-toxic and intensely radioactive wastes and two million cubic feet of low-level wastes is stored on the site, plus facilities which are themselves contaminated with radioactivity.

Radioactivity is invisible and odorless. Cancer, leukemia and mutations won't show up perhaps 20 to 30 years, if not over generations. The reprocessing, oh, these materials certainly cannot be left in their present condition indefinitely, as the carbon steel tanks will corrode, and the ground over the low-level trenches is corroding.

Waste storage and reprocessing problems are not new. In Hanford, Washington, approximately 430,000 gallons of wastes have escaped, 115,000 gallons in one accident. West Valley is no stranger to accidents, mistakes and mismanagements. The reprocessing and waste disposal dilemma may be the most complex problem facing a nuclear industry beset with economical and technological problems.

Expert studies on the subject of reprocessing all seem to agree on one point. Most of the technological information that is needed to site emplace and contain radioactive wastes is not yet available, and the

technological answers will not be available in the near future. There are literally tens of millions of gallons of military waste, and hundreds of thousands of gallons of commercial wastes in temporary storage across the country.

There are also no demonstrated final answers on what steps the nation will take to safely guard and store the deadly wastes over the many centuries ahead. The collapse of Nuclear Fuel Services clearly indicates that a key component of the nuclear industry not only will not be here to care for the radioactive waste for centuries to come, but also is unwilling to accept its present financial responsibility. An examination of the legal and financial agreements between Nuclear Fuel Services and New York State leaves one with the uneasy feeling that from the outset, NFS thought it might become necessary to cut and run, and decided to design the agreements accordingly.

And where is the representative of NFS? Where are they? They never had to deal with the public, and apparently they don't plan to start now. It is apparent that the advocates of nuclear power initially believed that the problems of waste reprocessing and ultimate disposal would be answered simply engineering around the problem. Technology taking care of technology. That there is plenty of time to come up with workable solutions.

Now, however, it is apparent that there is not much time left. The so-called solutions are still being studied and challenged, and the problem is compounded by the fact that the end of dependency on fossil fuel which run our economy is in sight. The situation is fragile, and Federal problem-solvers will surely be forced to return to the drawing board again and again.

The costs and dangers of the back end of the nuclear fuel cycle must be carefully weighed before blindly forging ahead, even for a moment. It would be folly to limit ourselves only to nuclear fission. NYPIRG is deeply distressed that western New York is being considered as a potential site for the disposal of high-level radioactive wastes. There is a possibility that the state may agree to accept the waste depository in exchange for Federal assumption of responsibility for the Nuclear Fuel Services site.

Such a trade-off is contrary to the wishes of the public and to the wishes of the citizens of West Valley. We strongly oppose the siting of a high-level waste repository in this state, and certainly in West Valley. The state should not even consider accepting high-level waste for storage until there is a complete decommissioning and decontamination of the West Valley site, solidification of existing wastes there and removal of them from the state.

We cannot accept the Department of Energy option which calls for any continued use of the site, such as high-level waste storage, spent fuel storage, reprocessing or low-level waste burial. We vehemently oppose any attempt to reactivate or expand the site. We will not sit idly by and allow our State to become a radioactive dumping grounds.

Nuclear energy and certainly reprocessing and waste disposal, are not isolated state responsibilities. These are questions of a national nature. Most of the wastes reprocessed in West Valley are from out of state, and most are military wastes. The Federal government and the nuclear industry should sympathize with the problem now facing New Yorkers because of the West Valley facility.

Students at Buffalo State College and across New York State are extremely concerned about the continued development of nuclear power without proper safeguards. We are aware that nuclear electricity has entailed tremendous research and development costs. The total cost of the back end of the nuclear cycle is clearly open-ended. West Valley is an experiment that enjoys no precedent, and it must be dealt with carefully, step by step.

West Valley teaches us that there are no easy choices, just correct ones. Thank you.

My name is Steve Vitoff, and I'm a staff person for the New York Public Interest Research Group, NYPIRG, at Buffalo State College. And it was at Buffalo State College where I first met young people from Springville and from this region, this region of the state, who expressed their concern about the problem of the West Valley radioactive site, and it's because of the concern of these students from this region in particular that the student state Board of Directors of NYPIRG has recently decided to oppose the, any consideration of further location of radioactive waste anywhere in New York State.

And basically I'm just here to reaffirm that message and send you that message to the DOE from the state board of NYPIRG. As has been mentioned before, numerous times, one consideration in this draft report, and if you ask nicely, I'm sure you can find it for yourself, pick up a copy, is that negotiation of the various terms and how to dispose of the West Valley radioactive wastes include consideration of other DOE waste management objectives, such as the characterization of promising geologic formations in New York State as potential sites for a repository.

Similarly, other possible applications of the West Valley site to meet future national and state needs should be considered. Now,

clearly NYPIRG and numerous other parties opposes this, oppose this. In the words of James L. LaRocca of New York State ERDA, as far as New York is concerned, the creation of a permanent national or regional waste repository in this state will not occur.

We agree with that position, and since I have been here and you've all been here all day today, you've heard members of the Chamber of Commerce of West Valley and members of the, a spokesperson for the Board of Education of West Valley that is responsible for our host school, and individuals like Mr. Neudeck and others from this very town, who have continually stressed the point of health and safety as one of the prime considerations. It's been at the top of their list for almost every single spokesperson from this very town.

And why is the health and safety of West Valley residents and people from our region at stake? It was well expressed by the spokesperson for your Congressperson here, Stanley Lundine, Ms. Rasmussen from Congressman Lundine's Scientific Committee. The government has been leading us through a policy by premonition, and they've just been going along by hunches instead of being able to really guarantee the health and safety of the citizens of this land.

Earlier today, I was standing in the hallway there and speaking to some of the students who attend this school, and students who are perhaps members of the volleyball team or the girls' sports clubs here. And we were just having a conversation, and one young woman said "didn't they know it was dangerous when they started?" Such a simple question. And it reflects that whole idea of policy by premonition. They knew that it could have been some problems, but they didn't really pay it enough consideration, and meanwhile, our own health and safety is threatened.

In conclusion, we believe that students like the college students in NYPIRG, that oppose locating radioactive wastes anywhere in this state, and like the West Valley High School students who asked the simple question, "Didn't they know it was dangerous?". These students refuse to take chances with their health and with the health of their parents and their sisters and their brothers and their friends. Thank you very much.

Good afternoon, people. My name is Cliff Ageloff, and I'm here through the courtesy of NYPIRG, but my statements today, however, reflect my sentiments as a citizen of the country and New York State, and they aren't necessarily those opinions of NYPIRG.

Basic reason I believe we have nuclear power in this country, and the basic reason why West Valleys exist, is because in our society we

have certain organizations like the Federal Energy Regulatory Commission, Illuminating Engineering Society, and American National Standards Institute, which set all these standards for our electrical consumption. When you turn on the light switch in this room, you don't determine the voltage that goes through these lamps. There is someone who sat in an office a few years ago and determined how much light was going to be in this room.

Some interesting facts that I found through my research have been that about 20 years ago, the lighting level set by the Illuminating Engineering Society for your average classroom was 32 foot candles. In 1978, almost 26 years later, that same foot candles rating is up to 71. Now obviously the human eye has not decreased in any efficiency. And I don't see any reason for this increase.

This increase I can link directly to the need we supposedly have for nuclear power. Also, the Federal Energy Regulatory Commission, which was disbursed from the SPC, projected that we would have 12 million all electric, 12 million additional all-electric homes by 1990. This makes 45% of all housing in this country electric. Also another need for nuclear power. Nuclear power is great for making lots of electricity. Do we need all this electricity? I really don't think so.

Electricity is also used to replace manpower. More electricity does not necessarily mean more employment. The Bell System intends to replace 33,000 operators by installing energy intensive computerized and mechanical switching and billing systems, with an annual energy savings of \$390,000,000 to the Bell System. This is in progress. But we're a growing nation, and we are told we need more electricity.

In my opinion, conservation in conjunction with alternatives is our nation's safest and most economically stimulating and quickest means of securing an energy independent society. Way back in 1952, there was a commission called the Paley Commission, that told the President if we had an aggressive effort towards solar energy, we could have 13 million homes heated and cooled by solar energy. We're way behind schedule.

In 1975, the Atomic Energy Commission again made similar projections. This year, President Carter is hailed as a progressive, along with the DOE, by saying we'll have 2.5 million solar homes by 1985. This is a drop in the bucket. Solar energy is not our only viable alternative. William Heronimus of MIT proposed a Windgrid system that has a potential of producing 189,000 megawatts of power. This would be one-third of all our, again, projected needs in the year 2000. One third.

Here's a technology that's time has come. Solar energy is not only going to be used for air space heating, hot water systems, etc. Last weekend I had the privilege of being at the National Conference of Solar Energy in Washington, D.C., and everybody was moaning and groaning that our photovoltaics happen to be the process which turns sunlight directly into electricity. Our photovoltaics systems weren't being, aren't efficient enough. An efficiency conversion factor of 10% or 9% or 11%, somewhere in that region, has often hampered what is called commercial viability.

Well, in the latest NASA technical brief research, this is published quarterly by NASA, there's a new process, it's even a simpler process than the conventional crystal growth technology, that these new solar cells, you may be soon the first people in the nation to find out about this. These new solar cells have an 18.5% efficiency. And that's quite a breakthrough. We may see this coming soon, two or three years.

A swing of industrial priorities into alternative energy hardware would both manufacture insulation, would provide jobs for sheet metal workers, welders, plumbers, electricians, engineers, carpenters, construction workers, and even provide summer jobs for unskilled high school and college students. Moving towards a safe, clean energy source could turn the tides of unemployment, and the dreadful economic situation in our nation to be reversed.

Sure, nuclear power will provide jobs. At what cost? Right now there are only 80,000 people employed in nuclear related industries. Dictated by health and safety standards, repairs on nuclear facilities are costly, dangerous and almost comical in one instance. Recently, Con Ed employed 1,500 welders to locate, repair and insulate six 4-1/2 inch hot water pipes inside a reactor. Each welder was allowed to work for 15 minutes until he received his permissible dose of radiation. Permissible dose of radiation.

The bill? \$1,200,000.00 to repair six 4-1/2 inch water pipes.

You mustn't allow a nuclear powered society to achieve a sizeable percentage in our energy consumption grid. Once we become dependent on one particular energy source, we have to maintain it, irregardless of social, technical or political ramifications. Diversification will present, will prevent extinction. Ask Charles Darwin.

Soft or new alternative technologies seek to put men before machines, people before governments and practice before theory. The student before the teacher, the country before the city, smallness before bigness. Wholeness before reductionism, organic materials before synthetic ones, and plants before animals. Craftmanship before expertise, and quality

before quantity. The appropriate technology movement is in no way a soft option intellectually, nor is it a regressive movement which lowers convenience, comfort or quality of our lives.

A new technology is far from the easy way out, and certainly requires a fiendish amount of scientific ingenuity. Thank you.

MRS. NACHBAR: Ladies and Gentlemen, after reading Thursday night's coverage on the DOE Energy Task Force Report, I wonder if our sincere efforts to offer you our opinions are worthwhile, or is everything already settled and decided for this site without our respectful wishes being considered.

I'm giving my energies and time today for my children and all the other youngsters I see constantly in our schools, our activity programs, scouting, and so on. I'm concerned with their health and their futures, as they are now too young, uninformed and unable to speak for themselves. I hopefully wish to protect their interests in these proceedings.

As parents, my husband and I want to be able to encourage our children when they grow up, perhaps to go away to school but to return here if they wish, to settle down to a safe environment where they can have their own offspring without fear of genetic defects. I do not want to push them away as soon as physically possible for safety's sake. We have the deepest responsibility to them. We musn't be fooled and sell our health and future short. We could educate, raise and love them, but if they do not have health, all is lost.

Great sums of money are now being spent on research studies of our area. Nowhere in these documents have I seen any mention of money allotted for genuine, in-depth health studies and factual presentation. There is a deep reason for this. Perhaps the same reason publicity is so sparse, unless private citizens desperately try to alert the unsuspecting public. I want to see health studies done.

In recent weeks, some disturbing health defects figures have surfaced for our Springville-West Valley areas, and these were not voluntarily searched out and published by any of our expensive government programs. A diligent student on a school project with the help of her mother, finally obtained figures for comparison, figures which demand attention and further research by our government to tell all, not bury all, I might add.

As Mr. Cook stated earlier, there is much talk of various things, but we should be constructive and pull together and say spend some of these monies to determine whether or not these are facts. A local physician helped obtain the figures for Springville Chaffee Hospital,

but their personal experience in obtaining the entire New York State figures from the Birth Defects Institute in Albany was very difficult and impossible, until the promise of a telephone call to her Congressman succeeded in bringing forth the requested information.

This took three to four weeks of pursuit. Should we, the public, have to go to such extremes, and does our government truly serve us as we pay our taxes, or are higher interests served? This youngster's research showed birth defects recorded in the Springville area for 1976 was approximately 4 times higher than figures for New York State. Now this was founded information based on records. This was not rumor.

A 4 to 1 ratio, along with the institute's warning not to imply any company. A reporter's follow-up call revealed that the supervisor, Dr. Porter, didn't know there was a waste burial site here, or past reprocessing. And he expressed interest in conducting greater studies. These studies and others must be initiated and the facts made public with no information kept secret. Known information will tell us just how serious this unseen risk is, and the toll it is now taking and may take in the future.

As a resident, I request the health effect studies for all of the past 15 or more years of exposure we have had here. This research should be done on all death records in all of the health departments of the state and the counties, because West Valley is not considered alone. This travels in air patterns as well as water. This information, we should also have figures on death causes as well as people living in the western New York area, and the past employees who have moved on.

Do a search of all the records by year for (1) the number of birth defects, (2) the deaths resulting from defects, and/or individual cancers of the young and older, (3) the number of cancer surgeries and other irregularities abnormalities and mysterious diseases we have, another of which I've learned unhappily today.

This information should be taken from many sources, including the following hospitals: Chaffee, Salamanca, Cuba, Gowanda Tri-county, Olean, Roswell Park Cancer Institute, and especially Children's Hospital in Buffalo, where the severely deformed infants are usually accepted to be observed, treated if possible, and allowed to die quietly. While spending some time there last year, I noted many brave and sad parents visiting their terminally ill child, and a comment was made to me that so many youngsters with tumors seemed to come from the southern tier.

This needs to be documented. This is why we need studies to find out what is fact, what is not, so we here know the truth. Data from

Dr. Bertelle's research at Roswell Park Cancer Institute on low-level radiation and its resultant leukemia among the young should be brought forward and examined.

The Springville radiation study group and the Coalition on West Valley have several thousand signed petitions calling for full health studies and no further nuclear activity here. Clean up the site is their message. I request this deep decision be left to the people by vote on ballots in our counties and the entire state. I would also like to feel secure in knowing that the DOE and the NRC will no longer squelch and remove from positions, the scientists and persons who come forward with research which proves undesirable effects exist and should be dealt with, as the newspapers often note.

The government has already condemned and taken over 3,000 acres in the past. Do we wish to have more land taken from us? Possibly 16,000 acres? This possible plan exists in a diagram from NRC document No. 0326 dated September, 1977 entitled "Preliminary Site Suitability Criteria for High Level Waste Repositories." Described under typical land areas for Federal repository depending on local geological conditions, a picture shows in the center of a sheet of paper place an X and 200 acreage circles fenced in around it. This area would be the visible site of the repository. Then draw a larger scale around this to represent 2,000 acres where underground excavation and storage would occur. And believe it or not, the government could plan to lease these areas for general use. Evidently as long as you didn't dig and hope that we'd never have an earthquake rumble.

Then draw a very large circle around this to represent 16,000 acres for continued control, and I quote: "It should be added here that the site should not offer an attractive target for future generations who might be seeking natural resources. If the possibility exists that some valuable natural resources are present, it is necessary to show that credible attempts to recover these resources won't in some way release from isolation these high-level radioactive wastes into the environment."

I take strong objection to this concept, being considered for West Valley or any other western or central New York counties. And I beg the DOE and our legislators to research the facts regarding our present generations, encouraging finds of oil and gas in these exact areas. A person I am acquainted with and other firms are right now very actively leasing land all throughout these counties and the West Valley area.

The drilled wells so far are of high quality at Cheetowaga, in Cheetowago, and even better producing in Cattaraugus County. This is our natural and safe resource and must not be cancelled out in any

manner to supply radioactive burial ground. In my estimation, when our nation is searching for energy, only fools would seal off one energy source in the name of providing a garbage dump for the results of another less wise energy source.

I wish to be secure in knowing that our government agencies are not holding hands under the table with industry as in the past. Why, with big money spent and useless documents, didn't the geological firm of Dames and Moore reveal the major fault in the Cattaraugus gorge for consideration during the past enlargement. An anonymous tip provided the most important lead in West Valley history. This tip was followed up by university geologists and submitted to NRC so it could not be overlooked.

Then NRC had to require a new seismic requirement of NFS, resulting in an end to intended enlargement of the reprocessing facility. If this was so critical then, why on earth is anything but closing the place being considered now? Again, only public intervention saved the people before. Mistrust is a very common feeling regarding the entire, by many people nationwide.

Legislators, please, your first obligation is to the people you serve. Among the rest of the lists of alternatives by the DOE, if appropriate, will be to develop the center into our nation's and possibly other nations' dump for storage, processing and possible disposal of commercial fuel and military nuclear waste.

Second, the NFS proposal to enlarge their storage pool from 250 tons to 900 tons. Third, Federal government operation of facilities to support their management goals. Fourth establishment of high-level radioactive waste repository at or near the site. Five, use of facilities to demonstrate, which I call experiment again, improved safeguards equipment and procedures and proliferation prevention measures to mention a few.

Do you recall the many past failures whereby we residents and the workers took the risk? Multiply this. Stack releases, late notification of the Health Department warning, leaking cargo buried, drinking, drugs, thefts, sleeping on the job, poor monitoring, releasing of radioactive tools to the public auction, high burnout of often young, temporary employees, contamination of homes, and trucking through our towns.

Taken from another research description that states the customary procedure is to make selections primarily according to efficiency criteria. "Such a policy would place risks disproportionately on rural, economically depressed and politically powerless persons."

That is you and me. I feel that it's time that research changed its customary procedure to adopt, to adapt honestly to the unique issue of radioactivity and its effects.

In a past NFS sponsored public meeting, a featured radiologist conceded that certain numbers of human beings were expendable for progress. Who wishes to be the first to present themselves or their child as expendable? Our youngsters of today are going to be on the receiving end of whatever we as adults decide about this Western New York Nuclear Center.

To develop these unbelievable plans for western New York just to cover the giant sins of the past mismanagement and the broken promises of removal of liquids in five years of temporary storage, and the legal snafus in guiding the responsibilities for payment is ridiculous. Instead, why not proceed as men of good conscience, and as Scouting throughout this country teaches its young, be responsible, and if you make a mistake, clean it up, don't make the second mistake again or an even bigger one for someone else to take care of.

Remember all the unfulfilled promises. Now all those officials are silent. Let's not open our arms again. This special area of western New York is just beginning to arrive at its greatest potential. Everywhere you drive, new homes are sprouting up with the now popular appeal of country living. Our southern tier expressway, due for completion soon, will now speed that development of the area as predicted by the Erie County and the Niagara County regional planning boards a few years ago. South is the only land left for population expansion.

We are on the brink of becoming a very popular residential, as well as an already popular recreational area. This will bring the tax base and the economic growth and light industry that we all need, and in a constructive and long-lasting way, complementing this beautiful area. To allow this nuclear waste and reprocessing idea to become rooted here is to cancel all the real growth of quality over all of western New York. Other industries will not come, not being able to attract their families to support their labor needs. The people won't settle here. This will be the hottest risk area in the eastern United States, especially with the health effects beginning to surface.

I personally have very little faith in the DOE and the NRC, and cannot help this feeling from the past years of involvement. The anonymous fault finding, no health study attempts or worker follow ups, coziness with the industry they are supposed to be monitoring

on our behalf, and now even greater plans so illogical for this area. When will clear and honest assessment come out by our government on its own?

This country was founded on truths and freedoms, and we don't have those truths right now. It's time to come back to them, and will our legislators make it happen? Thank you.

I want to read just briefly, about one minute each, two letters that were sent to me by two doctors in the area late yesterday.

MRS. RICHARDSON: I will read those later.

MRS. NACHBAR: Well, just let me read the one. This is to Dr. Oertel. Dear Dr. Oertel, I wish you to know that a significant number of citizens in this area who understand the environmental and medical ramifications of nuclear waste storage, would like the government to conduct tests and experiments with some other community. I feel that developing nuclear fission for energy production is unnecessary and ecologically dangerous without knowledge of long-range health problems, or the technical capability of storing waste for thousands of years. We love our land and our children.

If the government, under direction of the all-powerful energy industry, continues to threaten these things we love, it will meet stiff resistance. Sincerely, Dr. Timothy Stanford.

It is hard to express in short and simple terms feelings as complex and long standing an issue as the nuclear industry in general, and the nuclear facility at West Valley which is of immediate concern to us in the western New York area. The health and safety of the people in this area would be best protected by closing the West Valley facility and keeping it closed. To touch on the broader issues of nuclear energy, our commitment to nuclear energy with its production of dangerous, untouchable and unmanageable wastes is irresponsible. I cannot consider putting radioactive wastes into containers and hiding it somewhere for a fraction of its lifetime as being intelligent management.

We can't hide these wastes or hide from them forever. Close the facility and keep it closed. Dr. Thomas Sabuda, Springville. Thank you.

MRS. RICHARDSON: Thank you. Our next speaker is Mr. Ross Scott from Buffalo, New York. Ross?

MR. SCOTT: Good afternoon. I'm here as a private citizen. I'll be brief, and there are two areas that I wish to just say something about.

I think that the Congress has made a wise and bold move in establishing requirements for a study that involves in such a total way. The public is not just asked for input into the ultimate fate of this site. It is made a co-equal with the Nuclear Regulatory Commission with the State of New York.

Just how we are to function as co-equals is not spelled out, and from the outline of the study that DOE has given us, it hardly looks like they expect to treat us as co-equals. I hope that can be remedied, and I hope that they'll apply their fine intelligence and creativity to establishing some kind of mechanisms. For one thing, if we're to really co-operate as co-equals throughout the year, it's going to take more than just getting our spirits up for public meetings.

I really don't know what it's going to take. One suggestion, for instance, might be to put the progress reports, weekly progress reports, for the entire year into a computer databank, and allow people from terminals wherever they may be in the state or outside the state to simply dial in and get an update of what's happened during that week, or to put in suggestions. Something like that.

Taking the same technology that's given us our problem here and somehow putting it to work for us. Some of that million dollars I think should also be used as direct payments to facilitate our involvement, whether it be travel expenses to sit in at meetings in Washington or collect phone calls to Washington. Who knows what? But DOE is going to have to come up with some kind of firm guidelines for making us co-equals. Now if DOE fails to carry out its mandate, we have the Federal courts, and I'm the last one to want to have to spend my resources or our resources collectively to sue the Secretary of the Department of Energy to make this study right. But I'm sure DOE is aware that that's a possibility.

The second area that I just wish to touch on is that in allocating financial responsibility for the site which Congress has also mandated as part of the study, I think a very careful legal analysis of the contract between the state and NFS has to be done, and if this has been done, I haven't seen it. And part of that million dollars has to be to employ the DOE's lawyers, and I'm sure they have many fine lawyers on their staff, as our lawyers. And whatever went wrong in the councils of state government that allowed this atrocious agreement to be signed has got to be unravelled.

It may have been pure mistake, it may have been something that falls into the, I don't want to say area of fraud, but perhaps negligence, on the part of the state, and if we don't find out what went wrong, if we don't look at the letters and correspondence that went back and forth between Nuclear Fuel Services and the state, we're not going to be able effectively to stop something like this, this debacle, from happening in the future. Maybe in some other state.

So I think the study should also look not just to help us out of our mess, us being the citizens of the state, citizens of localities, but should find out administratively what went wrong, so that the rest of the people in the country are protected. That's all I have to say.

MRS. RICHARDSON: Thank you, Ross. Our next speaker is Ms. Susan Wendel from NO NUKES. Susan?

MS. WENDEL: I'm Susan Wendel. I'm representing a Buffalo group that took part in the occupation of the Seabrook Nuclear Power Plant in New Hampshire last spring. Today everybody's been talking about two things, jobs and the safe environment, and it's been implied that we have to choose, have to choose one or the other. We can either have employment and a sound tax base, or else we can have a safe environment but we can't have both.

There's doubts as to whether having a nuclear facility in the neighborhood is really harmless, but what I want to ask is what kind of future is there for a community based on a nuclear facility? The nuclear industry is in terrible financial shape. Domestic reactor sales have dropped, the industry has lost a couple of billion dollars here, and now has turned to selling reactors abroad.

To convince foreign buyers, President Carter has talked about the United States taking and reprocessing wastes used by other countries. I guess it was just a couple of weeks ago that two reactors planned for Jamesport on Long Island were cancelled because there, they had projected a demand for electricity that just isn't there.

It's becoming clear that the necessary precautions to make nuclear energy safe is making it too expensive to build and run nuclear facilities. The cost of safe waste disposal makes it even more expensive. It's questionable that a nuclear future for the NFS site would mean steady jobs and long-term growth in the area.

This hearing that we're having here today is a good example of how little community control there is when nuclear energy is involved. People from West Valley are complaining about outsiders from Buffalo. I'm from Buffalo, and I feel like the guys in Washington are in a position to play games and cut corners with my air and drinking water. This has always happened when you have nuclear energy. Ultimately, the local people have very little say.

Some people today are talking about alternative energy. I want to point out that alternative energy, solar power, wind power, hydroelectricity, and even wood alcohol for automobiles, these are technologies that could be controlled by the community. You don't have to go to 20 years of school to understand how a windmill works. Alternative energies would employ carpenters and pipe fitters, and roofers and truckers. You don't need a police force to protect your solar collector from terrorists either.

Opponents of alternate energy say that these ideas are unproven or they're too expensive, or else they say that you know they won't work. They say that people that talk about alternative energies are a little bit nuts. Well, last week the DOE sent me a paper talking all about how they were going to turn those radioactive wastes into borosilicate, or else pour it into a magic hole in the ground.

The technologies for alternative energies exist today. What's lacking right now is the funding. We demand a dismantling and cleanup of the NFS site, with the main priority being the safety of the residents and the workers, but we also want the Federal government to provide funding for locally controlled alternate energy industry on the site. All people deserve both health and safe jobs. Western New York deserves a non-nuclear future. Thank you.

MRS. RICHARDSON: The Safe Energy Coalition of New York State has reserved some time. We were not given a name, so I'm sorry, I can't make an introduction.

MR. MEINHOLD: Good afternoon. My name is Peter Meinhold, I'm from Rochester. I hope it doesn't make me an outsider. I still feel like this is my state, and I know that what happens here influences whatever happens in the water and the air we use in Rochester.

I'm speaking for the Safe Energy Coalition of New York State, which is a federation of environmental worker and consumer organizations throughout the State of New York. The coalition opposes continued use of

nuclear power as an energy source. New Yorkers are perhaps more aware than residents of other states of the failure of the attempt to commercialize on nuclear power. As Dr. Richard Werthamer, former chairman of the New York State Energy Research and Development Authority has stated, the entire program at West Valley was encouraged and promoted by the Atomic Energy Commission under a set of policies that are now obsolete, and a set of Atomic Energy Commission assurances that are now proven incorrect.

In the opinion of the Coalition, the entire nuclear program has been fostered and promoted by obsolete and incorrect policies and assurances. After three decades of nuclear power, the promoters and the regulators of the nuclear energy have yet to demonstrate the problem of the century, nuclear waste management, can be safely dealt with.

We in New York not only have the proof of this failure right here in West Valley, but we have experienced the bitter fact that those responsible for nuclear power and its failures are able to escape accountability. The Coalition's position on West Valley can be stated very briefly. One, the Federal government should pay for the decommissioning and decontamination of the site and facilities. Two, the cost must eventually be passed on to those who generated the waste, primarily the nuclear weapons program and the utilities.

Three, the reprocessing facility must be decontaminated and dismantled, never to be used again for the reprocessing of nuclear fuel.

Four, the low-level burial ground must not be reopened, and all necessary steps must be taken to prevent any further leakage of radioactivity from the trenches.

Five, the high-level nuclear waste must be solidified as soon as the optimum technology is available. And the economics of the solidification process must be completely subordinated to the prevention of present and future health costs and penalties.

Six, that the technological solutions applied to the various radioactive problems at West Valley be based on the concept of zero release of radioactivity to the environment.

It is our understanding that work on the West Valley study was actually done some five months ago. If the citizens of New York invited

to speak at this meeting are provided with precious little notice and skimpy information. At the beginning of the Carter administration, the American public was hastily urged to provide input for an already formulated national energy plan. We cannot help but wonder if once again Federal energy officials are going through meaningless motions after the decisions have already been made.

According to a document dated October 14, 1977, "It is contemplated that a Board of Consultants will be established to advise the project director as to the various interests in the Western New York Nuclear Center. This Board will include representatives of industry, academia and government." We would like to know if this Board has been appointed, and if so, who are the members and what are their affiliations? We will protest a failure to include representatives of public interest and environmental and health organizations.

In addition, we hope that the government representation includes New York and local officials. As for the proposed outline, our initial reaction and concern is that it seems to emphasize continued use of the site for nuclear energy purposes, something we strongly oppose, and in our view an option that public opinion in New York State will not tolerate.

Section 2.1 does not specifically mention removal of waste material from the site. This is a vitally important option in the view of New Yorkers and must be given serious consideration. Section 2.1 does not make any reference to the employment potential that would be created by decommissioning, decontaminating and perhaps removal from the site. As hazardous as they are sure to be, jobs will obviously be created by these options included in 2.1. We object to the insinuation that the best way to get and keep jobs is through nuclear work.

We believe that the outline for Section 2.1 is far too sketchy, and we only hope that it includes comparative health effects. Also, we cannot be certain that the seismic issues and the design criteria which were so instrumental in the NFS decision to abandon this operation here, are going to be adequately considered under 2.2. Although much of the study seems to center on continued uses of the site, we must question the validity of the proposed study on this point, because it does not provide the required comparison with all other existing or potential sites for these activities.

The fact that the nuclear industry and its governmental promoters have already irreparably damaged the West Valley site is not a valid

basis for proposing continued use which has proven to be of questionable merit. We object to the fact that the outline excludes consideration of non-nuclear uses for the site once the area is safely decontaminated and suitable for utilization.

Finally, we suggest that one section of the outline be reserved for the State of New York to state its preferred options. Thank you.

MRS. RICHARDSON: The Western New York Peace Center has also reserved some time, and I again do not have a name.

MR. SHIDEN: My name is Joe Shiden. I'm representing the Western New York Peace Center. I'll be reading a statement that was written by Walter Simpson, co-ordinator of the Peace Center, who is not here today.

The question before us is what to do with the radioactive wastes at West Valley. Where should they go? Who is responsible for them? Who is going to pay the astronomically high cleanup bill of half a billion dollars or more? Before addressing these questions, I would like to place the problem in context, so that its full magnitude can be appreciated and understood.

Since World War II, when the awesome power of atomic fission was unleashed on the world, the human race has been cut off from the future. Turning toward the development of nuclear power and the so-called peaceful atom, may have salved consciences guilty over Hiroshima and Nagasaki, but it did not extend the future of the endangered human species. In fact, the peaceful atom was mythical, a further threat to life and limb.

West Valley, a nuclear graveyard, is part of the sordid tale of the nuclear fuel cycle, a process that threatens life at every step. Environmentalists and other lovers of life have rightly maintained that new technologies should be considered guilty until proven innocent. That is, that new technologies should not be used until they are proven safe.

Anyone who cares about public health and safety accepts and respects this principle. In order to protect the public from ingesting harmful drugs, this principle has been applied to the pharmaceutical industry among others. But unbelievably, our government, charged with the responsibility of protecting our rights to life, liberty and the

pursuit of happiness, has not acted in accordance with this sound principle and regulated the development of energy resources.

The Carter administration, like administrations before it, has been recklessly pushing nuclear power, even though nuclear power has not by any stretch of the imagination, been shown to be safe. In fact, glaring unsolved problems like that of nuclear waste disposal, make nuclear power the most life-threatening technology on the face of the earth. Excluding, of course, its parent technology, that of atomic weaponry.

The Western New York Peace Center believes that responsibility for nuclear waste disposal belongs to the Federal government and the nuclear industry. These are the partners that teamed up to sell the American public on nuclear power. These then are the parties that should pay for their mistakes. The Federal government can easily raise its share of the expenses by curtailing its investment in the technologies of death, namely nuclear weapons and nuclear power.

Getty Oil can reduce its profit margin to pay the costs of cleanup for Nuclear Fuel Services. We are tired of paying for somebody else's gain. New York taxpayers should not have to pay the price, nor can we afford to. While no known safe way of disposing of nuclear wastes exists, the Department of Energy apparently wants us to consider having a permanent nuclear waste repository here in western New York State. This suggestion is outrageous.

General Electric, Westinghouse, Exxon, Getty Oil, and Mr. Schlesinger, take your cancerous wastes with you. Get them out of New York. We don't want them. The question arises what to do with the wastes, where to put them. The answer is really quite obvious. We suggest that you bury them in the White House lawn, and on top of the burial site an apartment building should be built to house the decision makers from the Department of Energy, the executives of the nuclear industry, and the Dr. Strangelove's of the Pentagon and the U.S. State Department.

This way, the President and his nuclear cohorts will be constantly reminded of what it means to go nuclear. So far, it's been much too easy because the common citizen has had to pay the price. The problem here is not just a pile of radioactive junk, but human survival itself.

Our lives and rights as human beings are now at stake. Our rights to life, liberty and the pursuit of happiness are being replaced by the right to die in a nuclear holocaust. The right to be threatened by

terrorists with atom bombs, the right to die of leukemia, the right to genetic mutations, and the right to guard radioactive reactors and waste dumps to eternity.

This subversion of our rights is the most sinister we've ever faced. No greater conspiracy threatens us. Thank you.

MRS. RICHARDSON: We'll now hear from representatives from the Syracuse Peace Council.

MR. SUNDERLIN: My name is William Sunderlin. I'm here to speak on behalf of the Syracuse Peace Council. The Syracuse Peace Council is a non-profit community-based, autonomous, anti-war, social justice organization, which has been in operation for 42 years. I'm here to say I feel that the West Valley site should be decontaminated and decommissioned. The site should be restored for use for any other purpose than as a nuclear waste disposal or storage site, or as a nuclear waste reprocessing center.

The history of the use of the West Valley site as a nuclear reprocessing center, as well as the history of the nuclear industry, shows that citizens cannot afford not to be involved in the nuclear controversy. The histories show that large corporations and the government have lacked judgment, honesty and fairness in shaping our energy future.

One need not search very far to find examples to support this conclusion. It was once claimed that nuclear power would provide us with energy that is too cheap to meter. We now find ourselves paying dearly for energy, in large measure because the costs of building nuclear facilities are climbing out of sight. And who is shouldering the financial burden of this grievous error? Consumers are, and they are being forced to shoulder an even bigger chunk of the burden as we dig ourselves deeper into the nuclear boondoggle.

In New York State, plans are being made to have one big corporation build and operate all future power plants. Most of these plants, it seems, will be nuclear. The declared purpose of this giant corporation, called the Empire State Power Resources, Inc., or ESPRI for short, is to assure low interest rates for investment. How would these low interest rates be assured? By guaranteeing a high rate of return to investors. And how would these returns be guaranteed? By limiting and maybe even eliminating public intervention in rate hike hearings.

Rate hike hearings for ESPRI would be held in Washington, D.C. This would be a giant sidestep away from contention with consumer

advocates. The net effect of this corporation would be to shift risk and burden from the investors to the consumers. The pattern is all too familiar. The forces that are shaping the sinister plan for ESPRI are the same forces that have left the public holding the bag for the cost of cleaning up West Valley.

In both cases, the government has midwived a plan which imposes a crushing burden on a largely unknowing public in order to guarantee the profits of investors. In nuclear America, the investors get the plums and the public gets the lemons. And what about the health costs that the nuclear industry is imposing on us? We were once told that our nuclear program could be carried out safely, and yet in 1960 it was acknowledged that the meager benefits that accrue from our use of nuclear energy are bought with a cost called "health effects", or more honestly, deaths, cancer, mutations and other illnesses.

Just how many deaths, and mutations and cancers and other illnesses do we pay as costs for the benefit of nuclear power? No one knows for sure. One thing is known for sure, however. Cancer and genetic disease rates are climbing year by year. And who are we to believe when we ask the questions, how are these cancers and other illnesses caused, and are existing standards strict enough to protect us from chronic releases of radiation?

The record shows that the presumption of validity rests with the maverick, the doctor who has defied conventional wisdom and comfortable assumptions. The case of Drs. John Gofman and Arthur Tamplin demonstrates the truth of this assumption. In 1969, Drs. Gofman and Tamplin declared that if the public were exposed to the legal limit of radiological emissions from the nuclear fuel cycle, there would be 3,200 deaths per year and 100,000 to a million genetic illnesses per year in future generations.

The Atomic Energy Commission and the nuclear industry ridiculed Gofman and Tamplin for three years, until a study conducted by the National Academy of Sciences showed that the doctors were right in their claim that present danger thresholds were set too high. Largely on the basis of Gofman and Tamplin's findings, the recommended upper limit for exposure to radiation from nuclear power plant operations was revised downward drastically.

Recent findings by Dr. Thomas Mancuso have shown that radiological standards for workers at nuclear facilities may be too high. Dr. Mancuso

claims to have found a correlation between high cancer rates and current radiological standards at the Hanford nuclear facility in Washington State.

In the early phase of Dr. Mancuso's study, he had found a negative correlation between the standards and the rate of cancers. At that time, the Energy Research and Development Administration, which was the government sponsor of the study, tried to persuade Dr. Mancuso to publish his findings in order to rebut positive findings by Dr. Samuel Millam. Dr. Mancuso refused to publish his findings on the grounds that his study was not complete.

Now that Dr. Mancuso has come up with positive findings, the government is challenging these findings and impugning Dr. Mancuso's scientific integrity. Still another example which attests to the credibility of the defiant, independent expert, and to the lack of credibility of the armies of experts on the side of the government and industry is the case of Drs. Andrew Marino and Robert Becker.

Drs. Marino and Becker have testified for the last three years before the State Public Service Commission in New York that an operating 765 kilovolt power line would cause adverse biological effects in people living within 600 feet of the line. Drs. Marino and Becker have withstood rugged cross-examination and harassment from lawyers and hired experts, so-called experts, of the utilities wishing to build the power line.

They have stood firm by their conclusion that the line would produce biological effects, and their findings have been validated by a review board within the Public Service Commission. A problem remains, however. It appears that the Public Service Commission might be energizing the line with the right of way for the line expanded only 100 feet. This expansion is much smaller than the one recommended by Drs. Marino and Becker.

Once more it appears the powers that we have determined that people who have not had a meaningful say in the decision making process will bear the cost of the purported public benefit. The tragedy is all the larger when it is considered that there are alternatives to the centralized power station and nuclear route that are not being taken. Conservation and energy efficiency are probably our greatest untapped resources. The public is more serious than the utilities in New York in its commitment to apply conservation as a solution.

The public is certainly more adept in its conservation efforts than the utilities are willing to give it credit for. Nuclear power plant's

plan for Jamesport, Long Island, has been delayed from the initial operating date of 1981 to 1982, then 1983, then 1984, and now 1988. Similarly, the completion date for the recently licensed Sterling nuclear power plant in Sterling, New York, has been pushed back from 1982 to 1984, and finally to 1986.

A study carried out by an energy consulting firm hired by the Long Island Lighting Company, or LILCO for short, to study the need for the Jamesport plant, concluded that the plant would never be needed with or without a concerted conservation campaign. The firm's findings are being challenged by LILCO. In 1977, the customers in the service territory of Niagara-Mohawk conserved almost half of the power that Niagara-Mohawk claimed it would need from its share in the Sterling plant.

At the present rate of conservation, it is conceivable that the claimed need for the Sterling project will be erased by the time it's supposed to come on line. Clearly, the utilities have not shown the willingness to believe that conservation can work, and the public is teaching them a lesson. Why should we believe their claim that they are doing all they can to produce energy efficiently when it appears that this is not in their interests to do so.

If the utilities are as serious about conservation as they claim, why isn't cogeneration being implemented with great dispatch? It has been said that if solar power could be used as an instrument of war, we would have developed solar power for domestic use long ago. It can be said with equal force that there is no peaceful atom.

The atom that masquerades as a benign resource in reactors across the country is the same atom that is found in nuclear warheads. It's the same atom that could kill thousands of us if the containment of a reactor were breached. Just as a bomb could kill thousands of us in one fell swoop. It's the same atom for which we have an exemption clause in our homeowners insurance contracts, saying that we can't collect in the event of a major release of radioactivity, be it from a reactor or a bomb.

It's the same atom that is causing cancer and genetic disease, be it from releases in the mining process, fuel enrichment, transportation of fuels and waste, routine discharge from plants, or from bomb test fallout. It's the military atom and domestic atom alike that mingle indiscriminately in the hundreds of thousands of gallons of high-level wastes at the West Valley site.

The more people know about nuclear power, the less they will be willing to put up with the risks that are imposed on them. This is the reality of public input in the decision making process. You, the Department of Energy, and the NRC, have acknowledged this, that this is the trend, and that this is a trend you fear by giving such short and dim notice for this public hearing.

It is my belief that informed public opinion will not let you pursue the option of building a repository at West Valley, much less a reprocessing center. From here on in, you will encounter terrific resistance wherever you try to build any kind of nuclear facility.

As Dr. John Gofman put it so well, "It's not a question of making nuclear power safe for people. The insurmountable obstacle is that we cannot envision any way to make people safe for nuclear power". Time and again, the governmental authorities and commissions, the utilities and vested interests, have been proven wrong in their evaluations of the costs and dangers of nuclear power.

Just as consistently, the independent scientists and the anti-nuclear movement have been right. Historically, the presumption of validity is on the side of all those who will have no part in your calamitous design. The safe energy movement can no longer afford to give authority the benefit of the doubt, nor industry the profit of the doubt. The price of our being right is too costly. We refuse to have to pay with our dollars, our health and our lives.

An increasing portion of our utility bills and taxes is the ransom for our future. We pay the utilities and the government to allow them to try to save face, to try to prove to us they can get us out of the energy crisis by running the nuclear industry safely. Our dollars are being used as medicine for bruised and broken egos. The only way to cure a damaged and misdirected ego is to admit you're wrong or to have yourself proven wrong.

As I have pointed out, the latter might prove to be too costly for all of us. Informed public input would not have allowed us to get into the deep rut that we now find ourselves in, because of fiascos like the one that's happened at the West Valley site. I am equally convinced that only expanded public input can rescue us from this rut.

Utilities and government bodies alike have demonstrated a reluctance to turn to the decentralized, safe, efficient route for our energy future. If they can't be persuaded that this is the right route, then they will be forced in that direction. Increasingly, the answers to our

energy problems are not technical, but political, philosophical, institutional and moral. It's about time the common sense of common people was listened to. It's about time you cleaned up your act.

Toward this end, the Syracuse Peace Council demands: (1) That the nuclear industry pay the cost of cleaning up West Valley. (2) That we desist in our use of nuclear power in view of our lack of a proven, safe and perpetual means of disposing of nuclear wastes. (3) That an open participatory process be instituted for considering what is to be done with the nuclear wastes which now exist, and (4) That no repository be sited anywhere until the above conditions are met. Thank you.

MRS. RICHARDSON: We'll hear next from Janne Sarles from Holland, New York.

MS. SARLES: My name is Janne Sarles, and I live in Holland, New York, and I have lived in West Valley for a time, and I grew up in Buffalo, and I'd like to give half my time to Dave Pyles so that he could present his talk.

First of all, I'd like to say that I've attended a number of these meetings, and I've also attended hearings for the licensing of nuclear power plants, and I get the feeling repeatedly when I deal with the NRC and the DOE that I'm talking to people of a different breed or something. Either they go back to Washington saying we were in this silly little town in western New York, and a couple of people came out and ranted and raved and we come back here to Washington in our closed little rooms, we can just try to forget what they said.

And, you know, I don't, I just hope that you realize when the people who are sitting over here come to these hearings, they're not paid people. It takes a lot of time to study these issues to become knowledgeable enough to present a decent presentation, to talk to people, and there's no vested interest over there other than the few people who, or one person who worked for Nuclear Fuel Services.

You know, there's nobody who's got a job on the line over there. They're talking from the depths of their heart when they get up there, and I think they deserve a lot of credit, and I hope that you guys can find in your heart that when you know that these people come out here that, you know, you guys are here on paid time, but it's different when people come out and talk. And it's not often enough that we get to get up here and say what we think.

I've got three points. My first point is about the health study again, which a number of people have mentioned. This Nuclear Fuel Services ran and an employee there for the, no one else in the nuclear industry had routinely received as much exposure as Nuclear Fuel Service employees. Now Irwin Bross out of Roswell has studied these to do different studies, I know, on radiation exposure to workers. And somehow his findings got cancelled. It wasn't on NFS but a similar study, and it seems to me that maybe there's somebody who's trying to suppress these studies.

They did one out at Hanford, there's no reason they can't do one here on Nuclear Fuel Service workers who worked there, who are working there now, and then when they bring the solidification, and we hope it's calcination on line, it's going to be a filthy process. They're going to have to get that stuff out of there, they're going to have to tear those big tanks apart. They've got all kinds of stuff in the ground there. It's going to be filthy work. They're lucky if they can find people, they're going to have to pay a lot if they'll be lucky if they can find people who'll want to come in and do the filthy work after the stories that have gone around.

They have those 1,400 temporary workers that they brought in, and when they were doing their decon work, and as far as I heard they were never sufficiently briefed on the hazards to them. And I hope, I call for the DOE so when they bring the solidification calcination process on line that these workers are properly briefed so they know that they're going into a dangerous environment when they go in there, and that there's a follow-up on these temporary and permanent employees, so that they know what radiation they receive, they know why these men die, or what kind of birth, you know, through their children and things like that. Those are the two first ones.

And then my other thing, which hasn't been brought up, is evacuation plans. Now, Nuclear Fuel Service claims they have an evacuation plan. They have a list of telephone numbers to call in the event of an emergency. It's never been tried. I would suggest that whoever ends up bringing this process on line, that they have, go through, get a decent evacuation plan on line, know what they're going to do, know who they're going to call, how they're going to move, the fire department. The fire department here is wonderful, and they're right. They have worked beautifully with NFS.

But they've never been put to the test. And there was a place in Russia, somebody here was telling me today, it's a serious accident. Now you can look it up and read into it. It's just coming to light and it's being published around here. But it's not a reactor over there, it's a reprocessing plant, but they do have serious accidents. And I would call

for them to have a workable evacuation plan for the people of West Valley within a certain radius, however they work it out, and to perform a drill.

Perform a drill so that people know which way to get out, how to do it, whether they should go in their basements, or what. They've never done it, and it's about time it was done. They're lucky they haven't had an accident yet. Now, I'd just like to say in closing that we've got a lot of problems here today. People are mad at other people, but one thing is sure, that we're living in a day and age where we're getting more into using energy. We're living lifestyles and a lot of people don't know exactly where we're going.

It's time we looked at our lives, decided whether we want to use more energy, whether it's the environment we want to preserve, whether we want to..how expensive is it to have a child with birth defects? Is it worth, you know, Nuclear Fuel Service wouldn't put their iodine scrubbers on because they were too cheap. They were too cheap to fix the hot vents, and when the guys worked in the labs they had radiation, they they put the lead on the floor.

They did a number of things to save money. When they go in there and they start to solidify this stuff, I hope they don't spare any expense, because it's not worth the damage to human life.

MR. PYLES: Thank you, Janne, for giving part of your time. My name is David Pyles. I had a prepared statement here. I'm speaking for the Springville Radiation Study Group. I'm also speaking for myself. I had a prepared statement here, but most of the things that I wanted to say have been said, so I just want to make a few comments.

OK, first of all, to introduce myself. I worked for Nuclear Fuel Services for 4 1/2 years. I started out there as a laboratory technician. I left, I was shift supervisor in the laboratory. I left for safety reasons.

When I went to work there, the first two years I worked, I got within the minimum limits of radiation exposure. I got about 4 to 5 rad. in the first two years I was there. After 4 1/2 years, I had 25 rads. of exposure. Now that's a lot of exposure. It was within the law. NFS always operated within the letter of the law. They never operated within the spirit of the law.

I'm really afraid of whatever happens in this plant, if private industry does it, the same thing is going to happen. That they're going to cut corners, as Janne said, to save money. There have been comments made about turning the area into an alternative energy research center. I agree with that idea. I think that's the best thing that could

possibly happen. It would provide a lot of jobs. It would provide technical jobs for the people that are being displaced by NFS when, if they close the place up. It's the best thing that could possibly happen there.

As far as the tax base in Cattaraugus County, a lot of people have mentioned that the taxes are going to go. If the Federal government operates that plant, for sure they're going to go, and if the State operates and owns the site, for sure. When NFS moves out, the taxes are going to go. And unless the site is deconned and cleaned up and put to some alternative non-nuclear use, there's going to be no tax base here. If they put a Federal repository in, the way it's envisioned right now, I know NFS isn't considered a prime site for a repository. But it is a site on the salt basin that they're studying, and it hasn't been ruled out as a site.

And in the configuration that they're studying now, if they build a repository there, not 1/16th of the town of Ashford will be restricted, but all of it. The surrounding area there'll be no well drilling in the town of Ashford if NFS becomes a site for a repository. If anyplace else becomes a site for a repository in the State, it's going to be another large chunk of taxable land gone.

So I don't think that there should be a Federal repository anywhere in New York State. Also, President Carter has suggested, and I don't think this has been brought up too much, that any foreign country who purchases uranium from us, be required to return their spent fuel to this country for reprocessing. Now that means that if there is a repository in the State, that we'll get not only the waste from the United States, but we'll also get the wastes from Europe, Africa, Asia and all of our other "friends" who buy uranium from us.

Now already we've got our Adirondack Mountains being really messed up from Canada's tall stacked coal-fired power plants, and the most likely place to put a Federal repository, from what I've read, is down around the Finger Lakes area. And you know, we may have our Finger Lakes really messed up from the world's nuclear wastes.

Let's see. What else have I got here? Another problem, and I think it was mentioned once, was a salt bed repository in this part of the State, is that the wells, the test wells for gas and oil have been drilled. There have been thousands of them drilled. There are thousands of uncapped ones known, and God knows how many unrecorded ones; routinely contractors doing excavations uncover these wells. When they uncover them, they record them and cap them.

But if they don't know where they are, then it's going to be very difficult for the Department of Energy to study a salt area and say that it's safe from water getting into it or whatever because of these wells.

A couple of other things. I think Dan Salim mentioned earlier that the, all environmentalists were interested in were fish and trees. Well, I also happen to be interested in having breatheable air and drinkable water. I really think that that's important. And I don't care if I'm fed, because as long as I'm fed by this, these people who want to feed people instead of fish, if I'm fed by them, and they take my water and air away, food doesn't mean a damn thing to me, because I'm dead.

I just want to conclude here with a position of the Springville Radiation Study Group. It is our position that the nuclear waste stored at West Valley should be removed from the tanks and calcined on the site, using the best available technology for the control of effluence from the process and the radiation, and for control of the radiation to the workers, the general public, the natural environment. The waste should be removed from the site after calcination and placed with the military wastes.

It would increase at best 10% of the wastes already stored. I believe all the physical structures placed on the site for the purpose of reprocessing or storage of spent fuel and/or for the storage and cooling of the waste produced in the reprocessing process should be decontaminated, dismantled and removed from the site. And all spent fuel, including the ruptured fuel rods buried on that site, should be removed.

The cost of removal of the wastes and the physical structure should be borne by Nuclear Fuel Services, Inc., Getty Oil Company, or the Federal government. That no permanent nuclear waste terminal storage site should be placed in New York State, and that the western New York nuclear services center should be dedicated to use as a job producing non-nuclear, and I want to stress non-nuclear, energy research center. Thank you.

MRS. RICHARDSON: Our next speaker will be Joan P. Schmidt from Erie County Environmental Management Council.

MS. SCHMIDT: I am speaking also for the following two listed speakers: On behalf of Erie County and the Erie County Legislature. My name is Joan Schmidt, and I am speaking on behalf of the Erie County Environmental Management Council. I have also been authorized to note that both branches of Erie County government, that is, the legislative

and executive branches, and its Department of Environment and Planning, concur with this statement.

The matter before this hearing is of great concern in Erie County, as evidenced by the county's status as an intervenor in the presumably now dormant application of Nuclear Fuel Services for relicensing and expansion. Regrettably, our county officials are unable to participate personally in today's proceeding, due to the minimal notice given them of this hearing. Incidentally there was no notice at all given to Erie County. And the unusual time scheduled for our representatives to speak.

Erie County's concerns were expressed in a March 21st, 1977 letter from Erie County Executive Edward V. Regan to the Sub-committee on Environment, Energy and Natural Resources of the United States Congress. This communication is part of the hearing record of that committee, and is quoted in the following resolution passed March 2nd, 1978, by the Erie County Legislature and certified sent March 7th to the U.S. Department of Energy. I am informed by these people that as of yesterday, this communication somehow had not arrived at the Department of Energy. There seems to be a severe postal problem between here and the Department of Energy. I quote the resolution of the County Legislature.

"Whereas, the County of Erie, through both branches of its government, has maintained a continuing interest in the situation presented by Nuclear Fuel Services, Inc., in West Valley, New York, for several years, and

Whereas, some of the reasons for this concern are (1) Radioactive materials stored at said facility include over a half million gallons of high-level wastes inadequately stored in terms of their half life spans, and (2) Low-level radioactive wastes buried on this site present a potential for runoff contamination of waters tributary to Lake Erie, the major source of drinking water for Erie County, and (3) Present facilities at said site do not meet current seismic criteria of the Federal Nuclear Regulatory Commission, posing a further hazard to area waters in the event of earthquake, and (4) The site in question was geologically unsuitable for the permanent disposal of radioactive wastes according to standards promulgated by the Federal Energy Research and Development Agency, and

Whereas, for the second year in a row, the Erie County Environmental Management Council regards energy conservation as a top environmental priority of this legislative session, and has urged members of both the New York State Assembly and Senate to support actively legislation intended to reduce energy consumption and to promote the use of alternate, renewable energy sources, such as solar, wind power and biomass conversion, and

Whereas, the U.S. Department of Energy has scheduled a public hearing in the West Valley High School March 18th, 1978, to receive views on the disposition of the NFS site,

Now, therefore, be it RESOLVED, that the Erie County Legislature immediately requests that the Department of Energy also schedule a hearing in Erie County at a time convenient to the general public, in view of strong interest in this matter in the Buffalo area, and participate actively in the presently scheduled hearings as well as any others, on behalf of the citizens of Erie County".

I therefore request that the U.S. Department of Energy recognize the legitimate interest of Erie County in the West Valley situation and immediately schedule a hearing in the Buffalo area. One which gives genuine consideration for public convenience. This is dated March 18th, 1978. A copy of the official resolution is attached, as well an editorial from a local Western New York paper that is headlined, "Will one nuclear waste hearing suffice?"

I would like to add just a couple of brief comments of my own. I have heard the remarks directed at environmentalists and made the mistake of taking the wrong chair, and I'm sorry I offended you, sir. I have been made to feel like an outsider. And that crazy person who came here to annoy the nice citizens of West Valley. I came here for one reason and one reason only with a very bad cold and a lot of other things I would much rather be doing. I came here because I have three children, because I have spent four years studying the nuclear question. I find it very, very distressing.

I am not a stupid person and I think that maybe everybody ought to take a very good look and remember how things have been won historically. The American colonies did not win their independence from the British Empire on nice words or participation in public hearings. They won it through violent revolution.

Civil rights in this country were not won by the peaceful marches, they were won by the riots in Watts, and that tore up our cities.

You are dealing now with people who have spent a great deal of time and effort trying to be reasonable and to research the issues and to play even by these crazy "Alice in Wonderland" rules. Those who come after us may well be the bombers. You had best deal with us. Thank you, very much.

Briefly, I have also been asked to say that the Environmental Planning Lobby of New York State, which also because of scheduling times could not present a statement will enter a written statement for the record. Also the remainder of my time I am ceding for Dr. Irwin Bross' statement to be read.

MR. JAY BERNIE: I am not Dr. Irwin Bross, my name is Jay Bernie and I talked here briefly earlier today. I am going to read Dr. Bross' statement.

When the West Valley Reprocessing Plant was originally offered as an option to New York, much was said about the huge benefits that would result to those in the area, the region and the entire state. Little was said about the hazards to public health and safety other than bland assurances from alleged experts that there was nothing to worry about.

Although the glowing promises were supposed to be backed by careful scientific and economic calculations, as it has turned out, there were no huge profits for the corporations, no big savings for the taxpayers and no great economic benefits for this area.

The glowing promises have led only to the grim reality of the major potential hazard to the public health now, in the immediate future and possibly for thousands of years.

In my view, those responsible for bringing nuclear fuel services under false pretenses could legitimately be charged with reckless endangerment of the health and safety of New Yorkers. The trouble is that this happened so long ago that it would be hard to bring these people to book.

The Department of Energy has scheduled a meeting on March 18 which was supposed to consider what could be done to eliminate the serious potential health hazards that now exist in West Valley.

Instead of following its mandate, the DOE has produced a document entitled "DOE Approach" which proposes options which would perpetrate the existing health hazards and in some cases would actually increase the danger to the health and safety of Western New Yorkers.

It is apparently during testimony to the House Subcommittee on Health & Environment on February 8 and 9, 1978, that the Department of Energy has been covering up the hazards of low-level ionizing radiation from reprocessing installations, such as Hanford, for a long time.

The DOE approach is simply one more effort to cover up these hazards. As a technical document the DOE approach is scientifically worthless for decision making. However, it well might succeed in

producing an unnecessary and pointless controversy that would indefinitely delay any effective effort to clean up the grave health hazards that now exist at West Valley.

In my telephone conversation of March 14, 1978, with Carmine Smedira of the DOE Waste Management Division, I raised the question as to whether the options in the DOE approach carried any guarantee that the health and safety of Western New Yorkers would be protected. He insisted that they would be safe.

If the DOE were required to immediately produce documentation of the safety of these options, this claim would quickly be exploded.

To illustrate this point a series of ten questions have been prepared which will serve to establish that the DOE staff has fobbed off on the public a defective and deceptive document, the DOE Approach. In this way I would hope to lay the basis for a charge of reckless endangerment which can be presented to an appropriate New York State Investigative Committee for their consideration and action.

Hopefully, it might be made clear to the DOE and other Federal agencies that they will now be held accountable to the public for any claims that could adversely-affect the health and safety of the public.

Question #1. The crucial problem posed by the operations of the NFS plant and by the cessation of these operations is a very serious potential hazard to the public health and safety of the citizens of Western New York that has resulted. My first question is, does the document, which I will hereafter refer to as the DOE Approach, present the public or its representatives with any clear and realistic statement of the potential hazards to the public health, past, present and future, of the West Valley installation, either as it now exists or in the various options presented in the document? Does it discuss the dimensions or scope of the public health problem? Does it deal with the urgency of the problem? I say no.

Question #2. To appreciate both the scope of the public health problem of West Valley and the actual difficulties in developing an effective cleanup operation without reckless endangerment of the health of the workers, it is important for the public to be informed of the current scientific knowledge of the hazards of low-level ionizing radiation, such as was presented at the Congressional Seminar in February, 1978, under Senate auspices. Particularly pertinent would be the study on the hazards to workers at the Hanford Reprocessing Plant by Mancuso, Stewart & Kneale. According to a March 6, 1978 Jack Anderson column the DOE tried to suppress this study.

Also pertinent is the work of my research team, of Natarajan, Ball and Bertell, on diagnostic X-rays.

My question is, does the DOE approach present to the public any statement of, or even a warning of the recent findings that the health hazards are far worse than was previously realized? Indeed, is there any discussion of hazards to the workers or to the general population, hazards which are crucial to any decision for the cleanup operation at West Valley? The answer is, no.

Question 3. Another area of information essential to the public consideration of the problem of West Valley is the time scale of the problem and what could happen in the next year or in ten or in twenty or in fifty years.

For instance, the storage of liquid nuclear waste is recognized as the most dangerous form of storage for radioactive material. Spillage can go directly into the regional water system. We also know that the storage tanks are deteriorating but we don't know how fast. The guarantee time, such as twenty years are just guesses when we know so little about what happens to metals in radioactive environments. For example, about the swelling of fuel rods.

My next question is, does the DOE approach make provision for emergency containment in the event that the tanks are breached by an act of God, such as an earthquake or an act of man, such as a terrorist attack or simply deterioration of the containers over the next decade or two? In other words, does the DOE approach provide for immediate hazards to the public health and safety due to the failure of containment to the high liquid wastes? The answer is, no.

Question 4. When DOE or the NRC or any other Federal agency presents options for consideration by the persons whose health and safety would be directly affected by these options or by the failure of these options there is something like implied warranty involved.

In other words, it is a reasonable presumption by the public and its representatives that the safety and efficacy of options which are being presented to it have been carefully evaluated and that the only options presented are those with some kind of guarantee that they are, in fact, viable. That is to say that the public does not expect the DOE to present it with options which won't work or which might jeopardize the health and safety of Western New York citizens.

So, my next question is, is the DOE prepared to provide factual evidence that would guarantee that all the options presented here will work and will not jeopardize the health and safety of Western New Yorkers? The answer to that one is no.

Question 5. Let me consider some specific options and particularly the question of hazard to the population of any options that involve dumping of the waste, particularly the dumping of waste down wells or other procedures to get the problem out of sight quickly and cheaply.

AEC has a long record of various ways of dumping wastes which got them out of sight for awhile. These disposal procedures have been advertised as safe. However, it has subsequently been found that there is a hazardous leakage and the resulting hazard is much harder to control than the original one. In some cases the hazardous procedure for disposal has supposedly been proved safe by the Mickey Mouse arithmetic used by the DOE - NRC health physicists or engineers, but there is no factual basis for the claims of safety.

The next question is with respect to all options involving dumping of the radioactive wastes, particularly dumping it down wells, is the DOE prepared to present factual evidence which can guarantee that these options will not jeopardize the health and safety of Western New Yorkers? The answer is no.

Question 6. Now let us consider the options that are supposed to provide a solution for the problem of high level liquid wastes, the most critical area of the public health problem presented by NFS operations. These wastes are in some kind of sludge and clean up of these wastes means dealing with the sludge. Yet according to the Buffalo Courier Express on Sunday, March 5, 1978, Dr. Goetz Oertel, who is identified as DOE's manager of Nuclear Waste Handling, states that the sludge is a problem without a solution at this point.

One might wonder why the DOE approach doesn't frankly acknowledge this instead of presenting options which are not solutions, and why it didn't propose some plan for finding out how to do the clean up. Obviously, the DOE can't do the job and the full resources of the scientific community should be enlisted in a large scale program for this purpose.

So, my question is, other than to mislead, confuse and misinform the public and its representatives, is there any reason for DOE to force the public to choose between so-called viable options and high level liquid wastes, which are not viable options, an action which can only delay and hamper efforts to get an effective clean-up of the public health hazards at West Valley underway? The answer to that one is no.

Question 7. Let us now consider all of the options for continued use, which involve bringing in additional radioactive materials for storage in West Valley. It is certainly not prudent management to bring in more wastes when we do not know how to cope with those we already have.

Importation of additional radioactive materials can only increase the potential hazards to the health and safety of Western New Yorkers. Presenting such an option here or elsewhere without a full evaluation of the health effects of that option and without a clear warning of the adverse health effects is in my view sufficient basis in and of itself for a charge of reckless endangerment.

So, let me ask, in presenting options involving storage of additional radioactive materials, have you in hand documentation based on hard facts that would guarantee that there will be no added risk to the public health and safety from any of the options presented? No.

Question 8. There is an entirely different area addressed by the DOE approach that concerns allocation of responsibilities to the nuclear installation and presumably for the creation and elimination of what now stands as a major potential threat to the public health and safety.

It is not difficult to identify the individuals, corporations and state agencies which are responsible for the creation of this potential health hazard, starting with Governor Rockefeller, proceeding through Getty Oil and other corporate managements to ERDA, NRC, DOE and NYSERDA, all those I have just named and others share some responsibility for the creation of the hazards and possible fiscal responsibility for the clean-up operations.

So, my question is, does the DOE approach identify those responsible, discuss the extent of the responsibility and offer a reasonable allocation of responsibilities for the creation of the hazard or for its elimination? No.

Question 9. From the answers to Question 1 through 8, it seems clear that the DOE approach is badly defective and a seriously deceptive document that does not address the real issues and problems of the West Valley installation.

Since the DOE approach does not offer real solutions to the crucial public health problems, we have to consider the reasons for presenting this audience with this defective document. One possibility is that when the DOE was unable to come up with genuine solutions, the DOE approach was fabricated as a way of covering this up. Another possibility is the document was designed to protect a nuclear industry which is now threatened by a moratorium unless it comes up with some solutions for the problems of nuclear wastes. In either case, the effect would be to mislead and confuse the public.

So, my question is, can a presentation of the defective and deceptive document of the DOE approach do anything other than confuse or mislead the citizens of Western New York on an issue of immediate and vital importance to them, their health and safety? The answer is no.

There is just one more question. Until the public is told frankly that the DOE does not know what to do about the high level liquid waste, efforts to learn how to cope with these health hazards will be delayed, hampered and possibly even blocked. What we obviously need is an all out effort to mobilize our scientific resources, particularly our best brains in an effort to find out what to do with these problems. Deliberately creating debate or controversy over options which are not safe or which won't work can only delay and hamper the actual clean up of nuclear wastes at West Valley.

So, my final question is, is there any reason why the DOE staff that has presented this defective and deceptive DOE approach and any others aiding and abetting this effort to mislead and misinform the public should not be charged with reckless endangerment of the health and safety of New York State citizens under the laws of the state of New York? No.

MRS. RICHARDSON: Scheduled until 6:45 is our second question and answer period of the day but before beginning that, I have a statement here that I would like to read from Senator Daniel Patrick Moynihan. He regrets that he couldn't be here today, due to scheduling difficulties he could not make it.

Submitted to the Department of Energy Hearing in the Western New York Nuclear Service Center, West Valley Central School, West Valley, New York, March 18, 1978.

On March 15th the DOE released its report of the Task Force for Review of Nuclear Waste Management, which suggested that the Federal role in the disposition of the Western, New York Nuclear Service Center of West Valley be expanded in exchange for a regional nuclear waste depository in the salt formations of the Salina Basin in Western New York.

The bargain that DOE has offered is entirely inappropriate. Certainly the disposition of the facility at West Valley should be determined in conjunction with the formulation of a National Nuclear Waste Management policy. It would make little sense to approach the question in any other way. But, to make a solution at West Valley contingent on future favors from the people of New York is a most insensitive and offensive way of making policy.

The final disposal of nuclear wastes is a critical issue that must be resolved before the country can expand its use of a conventional nuclear technology and energy alternative that I favor.

The resolution of the disposal issue may require the identification of the disposal sites far from power plant reactors, but even this is not certain.

No one can say at this time and the DOE should not presume to say where disposal sites should be located before we have even considered the most basic questions of a national nuclear waste policy.

The solution of the West Valley problem cannot be linked to the selection of a national waste disposal site, for we cannot wait that long. The West Valley problem must be addressed and solved now, not five years from now or ten years from now as the Task Force report suggests. The issues of West Valley must be resolved before the suitability of a Western New York waste depository is determined.

It does seem that the Department of Energy understands and acknowledges the problem. Deputy Secretary John O'Leary spoke with Governor Carey on Thursday and assured him that there would be no linkage between Federal aid in West Valley and nuclear repositories in New York State. He further stated that no decisions in this matter would be made without New York's concurrence.

Similar statements were also made by Assistant Secretary John Deutch in his testimony of March 16 before the sub-committee on Energy of the House Commerce Committee.

The case of a significant Federal role in the final disposition of the West Valley site is, I think, a strong one. It is a case that stands on its merit without the quid pro quo of a large portion of Western New York as a nuclear waste disposal site.

The Federal government has a responsibility for the ultimate disposal of high level wastes and the decontamination and decommissioning of the facility at West Valley. It was the United States Atomic Energy Commission that pointed the Nuclear Fuel Services and the State of New York toward a promising future of nuclear energy and it was the AEC which supplied 75% of the material to the Nuclear Fuel Services at West Valley.

In the early 1960's nuclear energy and its associated technology offered jobs, economic development and clean, cheap energy, all the things that New York sought then and seeks today. Today nuclear energy is still an important energy source, particularly for the Northeast, but we now must look at it in a more realistic light.

The President has put a moratorium on nuclear reprocessing, the disposal of nuclear waste is an unresolved issue, the fuel costs of nuclear energy are higher than we anticipated and the licensing and siting process is so protracted and uncertain as to stymie even well conceived attempts for nuclear power plants.

It is the Federal government which has historically played the key role in the development of nuclear energy that should now assume responsibility for the final disposition of West Valley facility.

MRS. RICHARDSON: I would like to begin with a question that was submitted to me earlier today by a gentleman who had to leave. He wasn't recognized in the earlier session and I assured him that I would ask this question of the DOE and have their response and anybody else who wishes to comment, placed on record.

The gentleman who submitted it is Dr. Arnold Altman, 46 North Chapel Street, Gowanda, New York. The question is, are there any non-governmental representatives participating in the DOE study who do not have political or economic interests in the outcome of this study other than it being objective and impartial in its design? More specifically what I am asking is, whether there are one or more scientifically trained members of the community who may be associated with reputable, non-profit organizations, such as the Sierra Club or Friends of the Earth, who would have an opportunity to be full participating members of DOE research teams?

DR. OERTEL: The non-DOE people who are participating in this study, or who were participating in the study until today are the people from the Argonne National Laboratory and a number of subcontractors of that organization. We are proceeding to set up a group which is going to look particularly at the decommissioning of the high level waste tanks here in West Valley and that group will have outside representation. I am not at liberty to tell you today who they will be because I understand the arrangements have not been made. We have to publish that in the Federal Register before we do, but I can assure you that our plans call for rather massive involvement of people who are outside of the Federal government and the nuclear industry.

MRS. RICHARDSON: Okay, I will take questions from the floor.

MR. LEWIS: My name is Vin Lewis, 6504 Bradford Terrace, Philadelphia. I have got two very short ones. One, isn't the term health effects really a euphemism for premature deaths of human beings and two, on the Cadillac versus the Chevrolet options described this morning, aren't the Chevrolet options actually more expensive but merely dumping the costs on future generations?

DR. OERTEL: I'm not aware of anybody who has lost his life through the NFS operation and the health effect that you are referring to, as far as I know, I'm not a physician, is defined as any adverse impact on the health of an individual, which, of course, could include his death. Fortunately we have not had any such event.

Your second question on the Cadillac and Chevrolet options, I think should be made clear that our number 1 priority is for these options to be safe ones. After three months of our study we cannot make a final determination of all aspects of the safety of all of the options which are there. We believe them to be perfectly safe, but this is a subject which will ultimately not be decided by us, but decided by the regulatory agencies which will overview what we will be carrying out, if indeed we will be the ones to do those jobs.

Whether or not then the Chevrolet or the Cadillac options, as they were described to you, will turn out to be cheaper or more expensive in the end is something which is best answered by saying, if the option turns out to be safe, then indeed the Chevrolet option would be the less expensive and safe option.

MS. MARGARET: I'm Margaret, a concerned person, and I just want to ask of DOE, how you plan on making the information of the progress of your report readily available to the public?

DR. OERTEL: We are certainly planning to publish the report that we will be coming up with. This is a minimum of what we will inform you with. Second, the thing that I can assure you today will happen is that a complete record of today's public meeting will be published and made available. And, I think I did mention that beforehand.

We have not made any decisions on any additional progress reports along the line but I can again invite you to make use of the recommendation cards which are attached to your program and we will certainly state for the record your recommending additional means of communication as interim reports.

MRS. RICHARDSON: Dave Pyles

MR. PYLES: Yes, I just want to clarify something I made in my statement. I stated that the waste of West Valley should be calcined on the site and shipped out. A couple of people questioned me on that. I want to emphasize that there should be calcination only for the purpose of shipment. They should then be glassified with the military wastes and put into storage somewhere. Thank you.

MRS. RICHARDSON: Marvin?

DR. RESNIKOFF: I just don't understand how you can say you know of no one who has been injured by Nuclear Fuel Services. Until you have done a study of all the workers in the area, I believe it is an irresponsible

remark to say that no one has been injured. There are people who have had birth defects, okay, there are people who have died of lung cancer. So there are some instances of that.

Now, whether that occurred due to Nuclear Fuel Services is another question. One has to do an entire study of all the workers at the plant and follow them through time before you can say that the plant has not injured workers. Is that correct or not?

DR. OERTEL: I think you are perfectly right. I don't think I said that nobody had been injured but I don't know of anybody who has as a result of the operation of the plant. What you say may be quite true. It may be that further studies would show that some of the effects we are talking about could be traced to the plant in one way or another.

I think, not being a medical expert, I cannot comment on that. You have heard from the local health officials who have expressed their opinion.

I think this brings up a point that many speakers have made. Many of you have asked for some sort of a study to follow up on health effects in this area. I should mention that the scope of the study that the Department of Energy has been authorized to do for West Valley could be construed as including that, but not the funds that were given, and it was clearly not envisioned at the time.

However, I will definitely inform the environment and safety people in the department, who are carrying out such studies, of the interest expressed at this meeting and I will -- well, I don't have to inform the people in the Nuclear Regulatory Commission, they are here and they have heard the same concerns.

I think the Federal government is, I think I have said it before, expanding its studies to follow up on adverse health effects that may have occurred as a result of exposure at various installations, and this could be part of it.

MRS. RICHARDSON: It might bear repeating for those of you who were not here earlier today that Rick Starostecki and Tom Clark from NRC are sitting in front here and have been with us all day and would be willing to address a question.

MR. BERG: I'm George Berg, Rochester Committee for Scientific Information. The request that has been made formerly by Dr. Bross and now by Dr. Resnikoff for a followup on the epidermiological study of people in any way associated with West Valley calls, I hope, for a responsible and properly conducted study of an industrial hazard.

Now, I just want to warn, speaking as somewhat of a professional in the field, and after consulting my colleagues in Norway just recently who have this problem, they have a problem of tracing industrial hazards in a country in which they can trace very workman, not only to the factory where he works but to the shop in the factory where he works, where they know what he ate, they know his dietary habits and they know his family. And, they have a very hard time parcelling out the contributions of one industry or another from the background hazards of life. That's in a country where people are as alike as peas in a pod compared to people out here.

So, if you construct a study for the expressed purposes of some of Dr. Bross' statistics have done, of seeing if there couldn't be a correlation between exposures from an atomic power plant and a fraction of increase in leukemia. Odds are that you will find a correlation and if you constructed a study to see whether there is a correlation between heavy and odd number of your telephone and an increase in leukemia there would be a 50% chance that you would find such a correlation too, or at least a 20% chance.

So, it is a bad way to make a study. You can make a study that will intrude on workers privacy, that will subject people to being traced through their lives when they would rather not be, that will get into people's work records, that will use social security numbers as tracers. You can run into all kinds of problems.

Now, in countries where this is being seriously considered, these problems are being taken care of, workers privacy is respected, these studies are difficult. They don't expect to find correlations.

Now, I want to say this, that when the spokesman for the Agency, who is standing there facing, he says he does not know, that wasn't a strong enough statement. It would be most unusual if the kind of a study that is being proposed here showed any significant correlation because we are in a world in which many hazards cause the same kinds of problems and it is difficult to unravel.

The study should be conducted on a chance that it will show something, but I should be very careful not to milk the numbers from such a study for irresponsible and irrational notions that somehow somebody's leukemia or Hodgkin's Disease, which is a tragedy was associated with his exposure at work in West Valley and not, for example, with the X-rays he got as a baby.

I caution against misuse of epidemiological studies for political ends.

MR. PHEFFER: My name is John Pheffer, I was born in Springville, raised in West Valley and live in West Valley. I can understand the concern for an increase in taxes, I don't want to pay anymore taxes either. What I can't understand is the priority that is given. I believe the priority should be health and safety. My question then would be, do you have any calculated odds on a nuclear disaster per se in West Valley?

DR. OERTEL: We have not calculated any such odds. The safety of the plant is the responsibility of the Nuclear Regulatory Commission and they have continuing safety analysis efforts. Would you like to comment on that?

MR. STAROSTECKI: If you are referring to the type of study that was done for power reactors by Dr. Rasmussen of MIT, and that's the principal way that you are going to get a number. We haven't done that. We have started to collect data and find out what difficulties we would encounter if we did start such a study. And, so the decision hasn't been made. We have started to get the data, we haven't made a judgment on whether or not it would be worthwhile.

DR. OERTEL: I should perhaps add to that that of course there is no nuclear reactor at West Valley, so that kind of event couldn't happen there anyhow.

MR. PHEFFER: In reply to your reply, let me say that the calculated odds, as I understand them, concerning two 747's colliding on the ground were calculated at three million to one of it happening. It was a human error. Unfortunate, yes, but it is also inevitable that sometime that same type of accident will happen.

What I am hearing is that we are willing to continue with NFS for economic reasons, for our taxes. I for one, am not. If the plant is closed and never reopened, I would be glad to pay my 21% increase, I'd consider it a bargain.

SPEAKER: I'd like to pose a question about the accident possibility for the West Valley site. I had a conversation with Dr. Helen Caldicott yesterday, she is a pediatrician from Boston who has been doing work in nuclear power for a good number of years, and she said that the accident that happened in the Urals in the 50's I believe, and I have read something on this, I don't know whether it was a reprocessing facility or a waste facility, she said that somehow some materials had reached critical mass there that were being stored and I would like to ask if

there has been any assessment of the possibility of the wastes at West Valley reaching critical mass, in the sludge, the plutonium precipitating down into the sludge? And, also, I would like to know if there has been any assessment of an accident at West Valley in comparison at what happened in Windscale in England?

DR. OERTEL: With regard to the Russian accident I'm not exactly familiar with what did happen at that location. The fact seems to be that the waste management practices there are not quite up to the standards that are required in this country.

With respect to your specific question of whether there could be criticality in the waste storage tank in West Valley, I believe the answer is an unqualified no, and I hope the NRC people would contradict me if that is not so.

SPEAKER: Could you explain why that is so?

DR. OERTEL: There just isn't enough material there and what is there is highly diluted and is mixed with elements which effectively work as poisons, because they absorb neutrons.

MR. CLARK: I'm Tom Clark of the Nuclear Regulatory Commission. When the plant was first licensed there was a complete criticality analysis done of every feature in the plant and that also was included in the analysis, calculations on possibility of criticality and waste tanks, and the conclusion was that a criticality could not occur in a waste tank because there is plutonium in the waste tank and that is a "fissile" material, but it does not collect in the proper concentrations, cannot collect in the proper concentrations to become critical.

SPEAKER: This has been a very long public hearing and we have heard a lot of points of view. Conspicuously absent from the points of view are those of the New York State Energy Research and Development Authority, the actual owner of the 3,345 acre site. I understand that Mr. Wolf, the general counsel of NYSERDA is here and I wonder if he could state for the record what the New York State land owner, so to speak, of this facility has in mind and what their views are.

MR. WOLF: I'm Dick Wolf, General Counsel of NYSERDA. I want to say at the outset I cannot speak for the Authority, I'll give you some aspects of what Jim Larocca said at a press conference. Jim is the Chairman of the Authority as well as State Energy Commissioner. He said one thing that I think was publicly quoted, and which I think was repeated here, that he on behalf of the Authority and the State Energy Commissioner finds unacceptable for New York for a permanent deep level waste storage disposal site.

Now, we, like you, are evaluating, developing our position, watching the studies, trying to come to a reasonable and effective conclusion. What that is going to be, I don't know yet myself, but we are going to state something for the record before March 29th, which we are working on now.

I just want to represent to you that, we unlike other states, as you all well know, have an existing problem here at West Valley. What are we going to do about it? There are many possible solutions. And, realistically and truthfully, that's all I can say to you now. A digestive decision with formal position has not in fact been made.

MS. DICKINSON: I'm Irene Dickinson from the Indian Point area. We have been working on the emergency plans that the state has and that our county has, and I wonder if you can tell me or the people here where the emergency evacuation or emergency prepared center is for the Western Region of New York State?

MR. WOLF: I cannot tell you that because I don't know.

MS. DICKINSON: Well, there are six regions, and I'm embarrassed to say I can't say what town it is in, but there are six underground shelters that were built during the Rockefeller regime, in case of nuclear attack. Now we met in Hudson Valley in the shelter that is in the Southeast Region at Poughkeepsie and they have their own generating facility there, and 100 people can go in there, in case there is a nuclear accident.

Every nuclear facility is supposed to have, or the county where that facility is located is supposed to have, a disaster preparedness plan. Has anybody seen Cattaraugus County's plan. Is there one?

MR. WOLF: My answer to you is I don't know. Perhaps others can answer specifically your question. I can also direct your attention to Jim Larocca and have an answer for you.

MS. DICKINSON: All right. I would say that one of the people that you would go to find out more information, the Bureau of Radiological Health in Albany and Warren Check is the person involved with all of these plans. And, New York State, the Bureau of Radiological Health does have a New York State plan, but what I am concerned about, and haven't thought about it until today is where are the plans for the West Valley Nuclear Center?

MRS. RICHARDSON: I'd like to interject something, just real quickly, it is totally off the subject, I noticed Mr. Niver was on his way out with his coat. I just wondered if I could catch him to thank him for his hospitality. I think we all should do that.

MR. CLARK: There is an emergency plan for the West Valley site prepared by NFS and reviewed by the NRC. This plan is available in the public document room that Mr. Starostecki mentioned to you in Springville and in Buffalo and, of course, in Washington, D.C.

MS. DICKINSON: Could I ask where is the official public document room for West Valley Center?

MR. CLARK: To tell you the truth, I was trying to think of where it is, there is an emergency preparedness center, but I don't know where it is.

SPEAKER: There is an official place to keep all the records for a facility and that's in Washington. The local public document room are places that the industry establishes in conjunction with the local government to provide information to the people. The official plan is maintained in Washington.

MS. DICKINSON: I'm sorry, but I have been through this for ten years with Con Ed at the Indian Point Plants and you have to have a public document room that is located locally at that facility, and the facility here must have a library or a spot for the public to go and find out what is going on. And, if they don't, then under the Freedom of Information Act, everybody that lives here should make you put it there.

MRS. RICHARDSON: Rich?

MR. STAROSTECKI: I mentioned earlier, maybe you didn't hear me, there are two official public document rooms in the vicinity, one is in Buffalo, one is in Springville. There was a third one and we were forwarding material to a third one. The material through a variety of reasons wasn't being kept updated.

We have had people from Washington, on trips up here inspect these and make sure they are being maintained and make sure information is getting to the people. So, if there are comments on the local public document room, we'd appreciate it. They are there to serve you and they are, in my opinion, local and we do the best we can with the limited time that we spend going among various sites.

MS. DICKINSON: I appreciate that. I realize what a tremendous job it is, and also there should be established a fund in New York State for a librarian just to take care of this particular document room or any other document room, even if they have to rotate, because it is a sad sight to go in and find these documents, whether they are there or not. And one time the Indian Point documents were all removed and we said, where are they. They said they sent them down to Washington to get them straightened out. In two days time they were back there simply because I asked for them.

And, it counts, it pays, because if something did happen, you are the ones who are going to be embarrassed if they are not there, and the public cannot find out what is going on.

MR. WOLF: Let me just respond briefly. One, you are absolutely right. Two, any request you have for information, at least as far as NYSERDA is concerned, will be honored, unless it obviously falls in a strict confidentiality, exception to the Freedom of Information Act. We interpret the law liberally. We will give you anything you want. You should ask.

MS. DICKINSON: I didn't realize that NYSERDA is responsible for this public document room. I believe that NRC is.

MR. WOLF: We're not. I'm making a general comment about information that we have in our files that is publicly available, we would be happy to give it to you.

MS. DICKINSON: Anyway, I would like to make one comment, I thought that two years ago we created NYSERDA with a lot of work on the part of the citizens, that we were getting an organization, an agency that was going to develop alternate sources of energy with that money and that is the kind of thing that I would rather see you do, and I'd like to see the NRC take care of the nuclear. Thank you.

HOLLY NACHBAR: I feel compelled to make a comment about my personal experience when the gentleman stood from the NRC and explained very securely that the evacuation plans and so on are in the document. I'm not sure as to the time, it might have been two summers ago that I was in my yard and I heard in the afternoon the siren and I thought that was strange and it came from the West Valley area, and because I was interested and involved in it and it was repeated and continual, I called the Springville Police Department. They knew nothing. They suggested, well, why don't you call. I said, It is coming from the area of West Valley,

and why don't you call the Cattarugus County Sheriff's office. The lines were busy. I did this, it took quite a bit of time and Springville said they would check. They could get through to no lines. This took, I have this documented, for anyone who says it doesn't exist, but I don't remember specifically, it took almost 45 minutes of trying. The Springville police could offer nothing. Though they tried through channels, we never could get through to Cattarugus County, any of the law enforcement agencies. And, I have read in the specific documents, the great elaborate plans, the chain of command for notification, etc. It is all listed there.

Finally, I thought, well, and I know the Nuclear Fuels certainly isn't happy I'm around, but I called. First a long series of ringing, unusual for a place of industry or business. Just a small voice came on the phone, just a hello, and I asked if this was the correct place, and I said is there anything unusual happening at this time. Just wait a minute and there was another long pause.

Then, what I would imagine, a secretary came on and said, "Could I help you?" I said the same thing, "I'm just curious, I hear sirens, is there anything going on at the company." Well, she just insisted who I was and I said, that's not important, because I felt I would get no information. So, little by little nothing happened. So, I gave her my name, there was another long pause, finally Mr. Oldham came to the phone and I politely asked him the same question. I at no time was anything but tactful, just a concerned person, and he said, "Well, we are just going through an on-site emergency drill." And, I said, "Oh, that reassures me, that's fine. I just wanted to be sure. I found no results from the various agencies." And, he said, "Rest assured, there is nothing going on, we are going through this with our own employees." And he was surprised that I could hear the siren so far away.

So, I said to him "Isn't it customary," and I remember this from past experience in other companies and agencies, be it schools or business or whatever, "if you have a plan, you use it when you have an emergency practice session or a dry run, you go through the entire procedure, you have your plan on the site, you also lock into the police department, the fire department, the state people and all the people supposedly that would be listed on these documents." I mentioned this to him and he said that we don't feel this is necessary.

Now, me as a resident feels then, if they don't feel that is necessary, then it is their obligation to do this. And, I had trouble getting through to these various agencies who had no comments. How could they ever be sure when there was a real disaster that anything would ever happen.

And, when I mentioned before in my report about insecurities, in reams of papers and books, this is just one small example of what I mean and why I will never be secure and relax if there is anything other than a cleanup and ending. Thank you.

SPEAKER: I have two questions, both of them brief. Is Mr. Gerald Taylor still here?

MRS. RICHARDSON: I don't believe so.

SPEAKER: I take that as a no. I have a question which I would like to have entered into the record because I feel that it is important that the Department of Energy ask it of Mr. Taylor. I don't know if that is an acceptable procedure. I think you might have to hear the question first.

What I want to know, Mr. Taylor presented a resolution from the County Legislature from his town, I don't recall which, stating that they felt that the nuclear facility should be reopened so that it would provide adequate tax revenues. What I am wondering is, several other people have proposed an alternative facility. I think the Department of Energy should address a question to Mr. Taylor asking if that resolution would -- asking whether the body that would pass that resolution would find it acceptable to have an alternative energy facility on that site, which would provide the same kind of revenues and so forth, the same kind of job opportunities that Mr. Taylor was concerned about.

Is that a question that you might pass on to Mr. Taylor, because I think the answer to it would be important to your considerations about the opinions of the people in Cattaraugus County.

DR. OERTEL: We can make sure that Mr. Taylor is made aware of your question, and it will be up to him how he responds. We will have to accept the resolutions and contributions on the merits in which they are made. But, as you know, this is only the first opportunity of several to make such comments. So I would expect considerable refinement in consensus development as we go along.

SPEAKER: Okay, the second question, hopefully brief. I would like to extend a question of Mr. Williams, who asked about the possibility of a critical mass in the tanks. Given that there is not possibility for a critical mass kind of situation, just as there is not possibility for a critical mass kind of situation in a normal reactor, I was under the impression that there was nevertheless the possibility of a melt down kind of situation, more like what would happen in a normal reactor where if the liquid, which is keeping the stuff in suspension would leak out and the stuff would melt through the tanks and get out into the environment and contact ground water and get steam explosions and spreading

the material about and that kind of thing. I wonder if they have also studied this possibility and assign some sort of probability, have some sort of assurance that will not take place?

DR. OERTEL: Again you are talking about a safety aspect of the present situation and the Regulatory Commission would probably want to address this. And, as far as the heat of the waste tank is concerned, there is no chance that this would happen, there is just not enough heat there for a melt down to occur. Would you like to address this point with respect to the fuel basin?

MR. STAROSTECKI: I would only support what Dr. Oertel has said about the possibility of having a melt down of the waste. I just want to clarify one thing he said, you have a critical mass in the reactor, that's the way they operate.

SPEAKER: Okay, when I say critical mass, I mean explosion critical.

MR. STAROSTECKI: There is no possibility of that.

SPEAKER: Possibly an improper use of the term. Is that study that studied the amount of heat that is being generated and so forth, is that available to the public, could you give me a study name?

MR. STAROSTECKI: No, I can't give you a study, no.

SPEAKER: Thank you.

MR. STAROSTECKI: Excuse me, I'm reminded of the Interim Safety Evaluation Report, although that did not specifically address the point you raise about the melting of the waste.

SPEAKER: Okay, can I get a study name or a national technical information service number or something like that from you at some later point?

MR. STAROSTECKI: If you can see me after the meeting I can give you a copy of it.

SPEAKER: Before you leave, this is a continuation, I guess, of the other question, because the information that Williams had spoken of before, that Dr. Caldicott had spoken of, the situation that she said was that the storage tanks themselves had used carbon steel rather than stainless steel and that they were corroding, so that an alkaline substance was added to the tank to reduce the acidity, and that this chemical process had precipitated out the plutonium

so that despite the fact that the supposedly the plutonium was diluted because of the precipitation that it was highly concentrated on the bottom. I don't know if anybody else knows anything else about this, but that was just what we had heard.

MR. STAROSTECKI: I'm speaking roughly from memory, just having read the reports. I haven't done these calculations myself, but the process is a neutralization prior to putting the stuff in the tank. And, you are right, the stuff then does precipitate out. The liquid is more than a saturated solution and the transuranics come out. But remember, this is a reprocessing plant. The whole objective of the plant was to get the uranium plutonium out and put it back into a fuel cycle somewhere. So the amount of uranium plutonium that actually came in the waste stream was low. I'm not quite sure of the numbers but it is in the neighborhood of like 5% or 3% of the uranium or plutonium that was in the original fuel, actually wound up in the waste stream.

If memory serves me right, the amount of plutonium that is in the bottom of the tank, precipitated down into the sludge is in the neighborhood of 30 kilograms. 30 kilograms, if you put it all together, could of course go critical and it could, of course, make a bomb if that were to happen. But, this tank is 75 foot in diameter and it is a solid form in the sludge at the bottom. It would be nice if it generated some heat so the sludge wouldn't be as solid, but obviously it is not doing anything because the sludge is exactly that, solid.

REV. DICKINSON: I'm Reverend Leon Dickinson, an executive of the United Church of Christ, Secretary for Religion and Health and Chaplaincy Services for some 17 years. The Pastor whose son reported earlier that he was suffering from Hodgkin's Disease is one of our Pastors.

Last week I was sitting with, because I relate to military chaplains among institutional chaplains and prison chaplains, with the chief of chaplains of the United States Army, Navy and Air Force and their staffs. They are telling me that they are sitting around with leading generals and others discussing the ethics of war and the fact that the whole era in which we are in in the way of ethics is no longer the ethic that we have known. And, the decisions that we are having to make are serious ones and they don't understand what it is all about.

You have been dealing in the matter of morality and ethics all day and I don't think you have realized it. You have been dealing in human kind and human areas and there has been a cynicism that has been all the way through this in the way of self interest and all of that.

The last few speakers have been talking about a condition that has caused chaplains to resign from the services lately because they

do not want to be referees for life boat ethics, and that's where we are at, life boat ethics.

The six underground areas that you have in this state are an element and an expression of life boat ethics. If you don't know what that is, life boat ethics is purely and simply this; a ship sinks, there is a life boat and twenty people get in the life boat and it is about to sink because it could only hold ten. Someone decides to throw ten others out. That's where we are at.

Now, my question is in making that preface to you is to who I am, where I have been and what I am about, on behalf of the United Church of Christ, The General Commission on Chaplains and others, which takes me in and out of Army, Navy and Air Force establishments, so I know a little bit about what is going on. What are you doing and what are your resources and expertise in the area of ethics and morality? And, I ask that not only of you, but of all of us in terms of the involvement of the clerical and laity leadership in your churches and in your communities. To my knowledge, I am the only Pastor, along with the Pastor that had a concern because of his son, who is here.

Where are we as a nation in regard to the ethical issues? I find that by and large those who are alienated from the church are raising those issues and they are the ones largely that are here apparently. Do you have such resources for Alvin Weinberg, former AEC Director, says of this whole area, we have bought a Faustian bargain - that's a bargain with the devil in regard to nuclear power, and he was the head of the AEC, the first head. I bring that up because this is what we are dealing with.

DR. OERTEL: Thank you, sir, for saying that so clearly. It has been running through many of the contributions that were made here today. And, you are really expressing, if I may say so, as an individual, an age old concern that has been with us ever since man invented weapons and man invented technology. They have had to live with byproducts and with misuse of these inventions.

You ask specifically what resources we have. We have held in Chicago and maybe my public affairs people can remind me when that was, a workshop, particularly about the non-technical, the ethical aspects of nuclear waste management. The proceedings of that workshop have been published.

In addition, we have carried out as part of the development of a generic environmental impact statement for the commercial nuclear wastes and a study of the non-technical issues which really amounts to tracing different positions that people will take on the waste management, on the nuclear issues, to a different set of values.

And, the people who have carried out this study are competent in that area. They have published it and it is -- well, I cannot say for sure that it is actually already published. I have seen a final draft recently and it will be published as a Battelle report in the fairly near future. It attempts to address these points in the best way we know how.

I should also mention that the Academy of Sciences advises the Department of Energy on nuclear waste management, and it is conceiving its role of advice in the broadest possible way. We do not tell them what to look at. They largely decide that themselves and they themselves select the members of that group. These members include relatively few scientists from the nuclear area and relatively large contingent of people from what you might call fringe areas: biology, medicine, sociology and what you might call ethics.

MRS. RICHARDSON: We are at the end of our question and answer period. I will take one more question and that's it. Sir.

MR. SCHARF: I spoke with this gentleman here with the green jacket on and I told him I had this picture of a deer that was taken up by my place eleven years ago. The state didn't know what was the matter. They took it up to Albany, it has growths all over it, which are very evident and I'll let you see it. They were supposed to get back to me right away because I have cattle down there, and eleven years ago and I haven't heard a word from them today. Is there any way that anybody here could straighten this out, if nuclear had anything to do with it?

DR. OERTEL: Well, the Department of Energy certainly did not have anything to do with it eleven years ago. However, as we discussed earlier, I am interested in what you have and I would suggest that we attempt to find the local or state officials who may be able to answer your question.

If I understood you correctly, the animal was transported to a state hospital or institute of some sort for tests, and that you have never heard back, is that correct?

MR. SCHARF: That is correct. It was taken to Albany, to the state laboratory. It was trooper Bud Muzick at the time, he was the one that was down there and then they sent a truck from the state laboratory to come right down and pick it up.

DR. OERTEL: Well, I hope we can find a way to trace that down for you.

MR. SCHARF: Do you want me to bring this up so you can see what I am talking about.

MRS. RICHARDSON: I was going to suggest submitting the picture in the record. Why doesn't he send a Xerox into the record.

DR. OERTEL: Well, the picture is very difficult to make out and it is relatively small and maybe it is my eyes, but it is difficult to see. Now, the gentleman tells me that he is having it blown up to an 8 x 10 size and I think that may be easier to describe and to make available to people.

The suggestion is that we put into the record a picture which would be blown up from this one and that would be adequate for people to recognize what is involved.

MRS. RICHARDSON: Would you state your name and address for the record?

DR. OERTEL: The name of the gentleman was Delonne Scharf from West Valley.

SPEAKER: Could I elaborate on that?

MRS. RICHARDSON: Okay.

SPEAKER: In November of 1975, I heard rumors of other deer hunters that found young deer which seemingly were mutated. I was also standing at one time next to Buttermilk Creek, and saw all types of fish dead along the shores. So I wrote a letter to the Nuclear Regulatory Commission stating this and wanting some information back on it. I received a reply letter which states here that throughout these studies an environmental monitoring of the program, there has been no evidence of death or mutation of an animal, fish or fowl due to the effluent release of the NFS plant operations. This was two years ago, nine years after that man submitted his findings.

DR. OERTEL: May I ask for clarification, if the gentlemen had provided some sort of evidence of what had caused the fish kill that you are talking about?

MR. EMKEE: As long as I am here at the mike I have a question I would like answered. My name is George Emkee, I'm a well driller with Emkee Well Drillers, Inc., I own land in the town of Ashford. I should hope to live here some day. I don't know, I think it depends a lot on what happens here and in the future. I have heard a rumor of a plot of land being prospectively looked at by the DOE near Ripley, New York, approximately ten miles long, a few miles wide, within the boundaries of either New York Route 5 or Route 20 of the thruway, and I have heard that those that know about this, I believe a few farms have already

been purchased, those that know about it have been told that is for a coal gasification plant prospectively, or some type of coal energy producing plant.

Now I think anybody who knows anything about those type of plants knows that it doesn't take ten miles of land, a strip that big to set up a coal energy plant. That sounds more to me like possibly a nuclear producing plant, nuclear power producing plant, which would also be very, be quite close to I think a 60 - 70 miles from here.

DR. OERTEL: I can assure you there is no site acquisition of any kind going on in the State of New York for any such purpose as you have described. I mean, I cannot rule out the possibility of a coal fired plant or a coal gasification plant being planned there because I'm not in that area, but certainly there is no nuclear site acquisition going on.

MRS. RICHARDSON: We are at the end of our question and answer period. There are a number of other people who do wish to be heard from and have requested time, so I think we should proceed in that manner. Mr. William King from Chaffee Hospital has requested some time and is scheduled next. Is Mr. King here? Is Mr. King present anywhere? Well, I guess we will move on then.

Mrs. Higgins, from the League of Women Voters and Lake Erie Basin Commission had to leave. She requested that I read her statement, which I will do.

The Lake Erie Basin Commission and the League of Women Voters represents 7800 members and 65 local leagues in the Lake Erie - Waterford areas of Michigan, Indiana, Ohio, Pennsylvania and New York. Since its inception in 1963 this committee and its component leagues have worked to protect and restore Lake Erie and its tributaries through pollution abatement and prevention and to improve planning and management of water related land resources.

This statement should not be interpreted as a position for or against nuclear power generation. We do, however, believe that it is unwise to permit proliferation of nuclear wastes because present technology has not assured either short term or long term environmental safety.

The Albany/Washington decision to locate the Nuclear Fuel Services, Inc. operation at West Valley failed to consider several environmental factors and appears to be based solely on supposed isolation from the major population centers. A number of other factors of equal importance or greater importance were obviously not given adequate consideration.

For example, even a cursory examination of geographic, geologic conditions will indicate how unsuitable the West Valley site is for an operation of this kind.

Western New York is experiencing repeated glacial action with resulting unconsolidated materials filling the valleys. At one period the ancestral Allegheny River flowed north and entered Lake Erie near where Cattaraugus Creek does today. One of the present day surface water divides between the Lake Erie, Lake Ontario, St. Lawrence system and the Allegheny, Ohio, Mississippi system lies less than five miles from the NFS site.

Ground water divides and ground water flows do not always coincide with surface water divides and surface water flows as ground water moves in or out of the basin. Radioactive contamination of Erdman Brook, Buttermilk Creek, Cattaraugus Creek and its mouth and contamination of Lake Erie have been documented.

Lake Erie receives radioactive wastes from the first commercial fuel processing plant. As a result, problems identified by the State Environmental Monitoring Program, the reprocessing plant was required to build a low level liquid waste treatment plant to minimize discharges of Cs-137 and SR-90.

Ru-106 and I-129 are not sufficiently reduced and these isotopes may be a problem in the near future.

The foregoing comment relates to 1972 when the plant was in operation. Lake Erie showed no effect of the nuclear fuel reprocessing plant on Cattaraugus Creek and only weapons fallout and natural radionuclides were present during 1974.

The data available from monitoring programs in Great Lakes during 1976 suggests that far from weapons testing is the predominant source of all man made radionuclides in the aquatic ecosystem. However, these monitoring programs are considered to be inadequate in light of the Great Lakes surveillance plan.

Question: has there been monitoring of the area ground water for all radionuclides present in NFS wastes? Have the head waters of the Alleghany, Great Valley Creek and Ischua Creek, which originate in this general area been monitored? The Western New York region is rated 3 for seismic risk by the U.S. Geological Survey in 1976. The West Valley site is located 23 miles from the Clarendon/Linden Fault, according to the New York State Geological Survey sub-surface map, July-August 1971.

Regarding the high level waste storage, the GAO has reservations about tank safety and does not feel that it has assurance that wastes would be contained if the tank failed. GAO specifically found that tank life is unpredictable and therefore the tank might fail at any time. Tanks might not need NRC seismic criteria. Ground water floated the tanks out of the ground during construction and damaged both vaults. The vaults were inspected and repaired following the incident but the tanks were not.

Question, considering the foregoing geographic/geologic and seismic data from official sources, can any believable assurance be given that there is "no immediate danger?"

Question, in view of the proximity of the NFS site to two major drainage basins, each supporting populations in the millions, has any assessment been made of the extent of the endangered area in the event of a major disruption or continued undetected escape of lesser amounts of radioactive effluent? What official plans have been made to protect people?

Precipitation allows nutrients and pollutants from land to enter water courses via run off and percolation. Recently a number of studies have demonstrated that sediments not only constitute a physical problem but also can exert a significant water quality impact.

Sediments, especially the smaller sized fractions, i.e. clay, absorb a wide variety of pollutants including nutrients, pesticides and toxic substances. In some instances these materials form strongly cohesive bonds with the sediments and are unavailable to the aquatic environment, while in other cases the sediments merely act as a transport mechanism for these materials, carrying them from upland areas to the Great Lakes, where they become available to the biological system.

The soil types found in Cattaraugus Creek watershed also contribute greatly to rapid run off and surface erosion. The silt loam soil types, which are prevalent in the watershed have low water absorption and retention. Consequently, sheet run-off tends to occur during periods of heavy rainfall.

Past studies of stream bottom silt showed deposition of radio-nuclides in high concentrations. Dr. Hopke's studies indicated that some low levels of fission fragments or long-lived radioactive species were being discharged to Lake Erie.

Generally a sand bar is formed extending in a northeasterly direction from the westerly bank of the stream at its mouth. This is an indication of a predominantly easterly littoral current as it enters the lake. In the past years quite extensive sand and gravel beaches extended in both directions from the mouth of the creek with the beaches wider and extending for greater distances easterly of the creek mouth.

At present because of the existing higher lake levels the beaches are narrower and less extensive and subject to severe erosion, especially west of the creek's mouth.

The sand bar at the mouth in the past years was dug through in the interests of flood control and this fill was site casted downdrift in the fall of the year. No tests were made for radionuclides. None are required if fill looks clean.

This is the principal swimming recreational area for Erie County residents from the creek mouth to the Sturgeon Point area, location of the Erie County Water Authority Water intakes.

Radionuclides are not only absorbed by tiny silt particles in the water but also can be concentrated in algae where they enter the food chain. Dead cholera cells showed a similar concentrating ability. The fact that algae might retain high radionuclides, even after death, and settling has a particular significance when Lake Erie's phosphorous and related algae problems are considered.

It is appalling to us that these areas were open to the public at all while the plant was operating and dead algae were covering our beaches. When we asked if these areas were monitored we were told all the testing was done in the creek watershed. There is or has been no effective near-shore monitoring program in Lake Erie to evaluate water quality and assess the effectiveness of pollution abatement programs.

The Lake Erie bibliography showed studies on thermal discharges and studies on atmospheric plumes from power plants. However, no studies of the effects of low-level radioactive discharges.

The IJC Great Lakes Research Advisory Board listed as a critical need ecology 8.

The operation of nuclear facilities, such as reactors and fuel processing plants involves the regular release of small quantities of radionuclides and the finite probability that major releases of radioactivity may enter the environment as a result of catastrophic accident.

Real effects of present actions are not clear nor can the effects be predicted of major releases on drinking water supplies and those segments of aquatic food chains directly affecting man for a time equal to the lifetime of each radionuclide.

The Great Lakes provide the drinking water for a significant portion of the population of the U.S. and Canada. This information will be important to develop site-by-site contingency plans for water treatment and long-term usage of the water body.

I believe that is it. She is also submitting for the record a number of articles, maps, charts, geologic maps which will be available to everybody.

Lakeshore Alliance is next.

MR. CANNAN: My name is Ed Cannan, I'm speaking on behalf of the Lakeshore Alliance. The Lakeshore Alliance is a coalition of some 12 same energy groups for rural and urban areas between Oswego and Ithaca, Syracuse and Rochester.

At the end of my remarks, spokespersons or members of the Alliance, will also comment.

To the best of our knowledge, there was no publication, public notice regarding this meeting in our part of the state. We have traveled this far because what happens in West Valley does affect us.

First of all, let me say that the notion of a nuclear service center is offensive. While it is very important that there continue to be some project at West Valley that provides local employment, local taxes, there is no reason whatsoever why West Valley should continue to serve the nuclear industry. That has been tried and it has failed miserably.

There is no reason whatsoever why the people of West Valley should be faced with the choice of joblessness or cancer. We propose that the West Valley site be renamed as the Conservation Solar Energy Research Center, or perhaps as the Center for Sane and Decentralized Energy.

The nuclear waste crises exemplifies the way an overly industrial society tends to deal with its problems. First, such a society avoids facing up to the problem and so forced to do so by multiplying and recurring crises, then it chooses only those solutions which promise to provide windfall profits for large corporations, eliminating all

other approaches. It solves the problem by transferring it from one time and place and segment of population to another, one less visible and with less political clout, often from urban to rural people.

This solution not only displaces the problem but by treating symptoms only, in obscuring root causes, in fact perpetuates it. And not only does the solution perpetuate the problem, but the solution itself spawns entirely new kinds of problems, irreversible and often of a complex and unfamiliar kind.

The problem that we are discussing today is not that of West Valley, nor is it that of New York State, nor is it just a problem of the back end of the fuel cycle. It is the problem of the nuclear disease, which rages vehemently, spreading its cancer throughout the land. It is a national problem requiring a national solution. It was created by the Federal government and the MEGA corporations, not by the people of West Valley or the people of New York State.

The first, the essential step of the national solution is very simple, no more nukes, no more civilian nukes, no more military nukes. The reasons for putting an end to the nuclear menace are numerous and cogent. They are moral, medical, genetic, ecological, political, economic. They apply to our own community, our state, the entire nation, the entire world. They apply to this generation and every succeeding generation.

The question of what to do with nuclear waste cannot even begin to be solved until the sheer volume of waste comes to a halt. As long as nuclear energy proliferates, dangerous waste will proliferate and conversely as long as the nation's waste storage capacity increases its capacity to generate more nuclear energy will also increase. The spiral is deadly.

Until nuclear energy is outlawed, any increase in waste storage capacity, as for example that proposed for West Valley, they actually help spread the nuclear disease. It is like fighting fire with oil.

The solution to the waste crisis, therefore, lies not in the direction of creating more space for waste but in reducing that space. This is simply a common sense corollary of Parkinson's Law, waste multiplies to fill the space allotted to it.

If the power structure is genuinely concerned with solving the nuclear waste problem, it will stop manufacturing the problem. Until nuclear energy is outlawed, the people can have no confidence that the power structure has the least concern for their well being.

Only when no more waste is being produced will the people have reason to be less skeptical of the government that has betrayed them by irresponsibly, recklessly forcing nuclear energy on them.

Only when no more waste is being produced can we cope with the past accumulation of waste. However, until the state and Federal government outlaws nukes, the people must act to protect themselves. They will have to say, no transporting wastes through our community. No transporting waste through our state. No dumping wastes on our community. No dumping wastes on our state. The nuc disease must be quarantined.

The struggle of the Lakeshore Alliance to protect our communities and our land against nuclear dumping is part and parcel of our struggle against the 765KG electrical transmission line. Both the 765's and the nuclear dumping spread, speed the spread of nuclear disease. With both, rural people are sacrificed for the needs of urban load centers. In both, people in upstate New York must fight the MEGA corporations and the MEGA agencies to keep from having technology as unwanted and unneeded and unsafe crammed down their throats.

Just as energy should be generated near the point of consumption, thus avoiding the discrimination, the diseconomy and the danger of transmission, so too waste should be contained near the point of generation. If nuke waste can't be contained safely and permanently, where it is generated, it shouldn't be generated in the first place.

The notion of safe, permanent waste disposal which so easily rolls off the tongues of Agency and industry PR men, is sheer deceit. There is no evidence whatsoever that there is now even the capability to contain dangerous radioactive wastes for a few years, let alone for generations or centuries.

To dispose of waste permanently requires an infallible and reversible technology and an infallible and accountable technocracy. It requires enduring social and political institutions immune from political and military upheaval. It requires a respect for and a thorough understanding of the inter-connections and cycles of nature, and it requires the ability to predict cataclysmic events years into the future.

We must insist that the MEGA powers prove that such fabulous technologies and technocrats and institutions and knowledge exist before they can be permitted to spawn any more radioactive wastes.

At no time in the history of the human species have government and industry been more heedless and more blatantly contemptuous of nature as in this century, nor has there ever been a century with less stability and less continuity.

We live in an age when human institutions, human customs and human governments are inherently unstable and short lived, not only our institutions are inherently unstable and short lived but they are acceleratingly so. Our customs, ideas, values, perceptions, politics, priorities and even our budgets change, reverse themselves, turn themselves inside out with a speed of darkness.

To glibly talk of containing massive, unending amounts of nuclear waste for tens or hundreds or thousand of years, as if it were even remotely possible, is madness. Thank you.

MRS. RICHARDSON: Next is spokesperson for Citizens Concerned about Sterling.

SPEAKER: At the beginning of my comments I want to respond to a gentleman in the back who earlier had asked what other people from other parts of the state were doing here, trying to tell West Valley what to do, and I would like to explain what Citizens Concerned about Sterling is doing here.

Sterling residents and the entire Lake Shore Alliance have a definite interest in what happens here for on December 7th of 1977, a day which is usually connected with another tragedy, citizens of Sterling and the area around Sterling, were handed Sterling Nuclear Unit #1 by our friends in the NRC and by the the New York State Deciding Board. While we have been successful in putting that decision into jeopardy, we are all too aware of what the future can bring us. With two nuclear plants already in operation, another under construction, and as many as seven more planned for our backyards, we see Sterling and West Valley as being directly connected.

The utilities want to turn our State into a nuclear generating transmitting and dumping grounds for the entire Northeast. It is for this reason that we came today.

One of the first points we would like to make today is something that has become obvious to me and to us through the process of this hearing. That point is that it is crucial that there be a two-fold reordering of priorities within the Department of Energy.

The first reordering that needs to be done is for the DOE to no longer see itself as the protector and promoter of the nuclear industry. We need an Energy department whose priorities are to the consumers, rate payers, taxpayers of this country and to the health and safety of all citizens, not to the health and safety and the financial well being of the nuclear industry.

The second reordering would seem to follow logically, where the DOE could begin to reorder their priorities towards safe, clean, decentralized and economical energy sources, like hydro, solar, wind, wood and a serious conservation effort.

Concerning West Valley, it seems to us that the DOE wants to throw away good money after bad, through nuclear blackmail. As Mr. Larocca said, they seem intent on keeping this nightmare alive. It seems that a solution offered earlier here today could satisfy everybody involved. The construction of an alternative energy center would maintain the tax base, provide greater employment and not threaten property values.

It is the height of irony that the DOE along with the nuclear industry and the utilities can tell us that the solution to a virtually forever problem is in sight, and at the same time they turn around and tell us that already existing technologies, such as solar, wind, wood are a long way off.

Citizens concerned about Sterling implores the DOE to clean up West Valley and to take the waste to a more suitable, safe site. We also implore the DOE to clean itself up and bring back to West Valley the reputation it truly deserves by demonstrating its commitment to alternative energy sources.

Thank you.

MRS. RICHARDSON: Representative from the Coalition for Safe Power. Is anybody here representing that group? Okay, we will move on. Community Energy Alliance? How about the Ecology Action of Oswego.

MS. CAPLAN: My name is Ruth Caplan and I am speaking on behalf of the Ecology Action of Oswego. You may wonder why we have come almost two hundred miles from Oswego to West Valley to voice our concerns about what happens here. One reason is that Cattaraugus Creek flows into Lake Erie, which flows into Lake Ontario. We drink water from Lake Ontario.

Two days ago the Syracuse paper reported that radioactive wastes from a mothballed atomic junkyard, and this is their words, near Buffalo, has leaked into two Great Lakes in small but detectable amounts, according to a paper delivered at the American Chemical Society. So now we know definitely that we have curium 244 in our water.

The other reason is that Oswego is a dump for the nuclear industry just like West Valley. In West Valley they dump nuclear trash, in Oswego they dump nuclear power plants. We have two nuclear power plants operating just to the east of us, another under construction,

and three more being planned. Just to our west a 7th plant is in the hearing stage on a site with room for many more.

When will we start getting reports of radioactive contamination of the lake from these plants? The power goes to Rochester, Buffalo, Albany, New York City. Since nuclear power plants and nuclear garbage dumps are too dangerous to put near large cities, we in the small towns and farms are chosen to bear the risks of radiation. But, we are beginning to say, no.

A few years of increased property taxes will not compensate us for the risks of cancer, nuclear accident and genetic damage to our descendants.

I would like to say that I'm very sympathetic with the plight of the people in West Valley because of the tax base which has been provided by the industry, because in Oswego also a large part of our tax base comes from power generation. I think that in the case of West Valley, that the state and the Department of Energy owes it to this community to pay all the rest of their payments on their schools, which they built when this industry came in. This industry should be closed down, but this community should not have to pay these costs.

Without a dump for nuclear garbage like West Valley, the nuclear industry cannot survive. In case you haven't figured it out, a lot of us don't want it to.

Every watt produced by a nuclear power plant brings us a little bit of garbage to dispose of. In New York City there is a sign on the garbage cans that says, every litter bit hurts. Every litter bit of nuclear garbage will hurt us for a very long time, 200,000 years or more.

It is clear that you hope that people here are resigned to having nuclear wastes; by reopening and expanding this nuclear dump, you hope to avoid arousing public sentiment in other areas which do not yet have nuclear wastes and want no part of them.

With the horrors that West Valley has already brought our state, leaking burial grounds, 600,000 gallons of high level waste in tanks with a life expectancy of but 40 years, you hope that we will still be willing to accept more waste. We understand you have even hired a consultant to study our attitudes toward West Valley. In other words, to figure out how best to sell us on accepting more waste.

Our Congress appropriated money for you to study how to clean up West Valley, and what do we get for our tax money? The nuclear priesthood tells us to accept more waste. Are we being asked to pay for absolution?

Let me be perfectly clear, we don't want your Faustian bargain. You are attempting to bribe New York into accepting a Federal waste depository or some other nuclear waste facility in return for DOE's assuming the cost of cleaning up the present radioactive mess at the site, which is now hanging like an albatross around the neck of New York State.

We were greatly encouraged to see in yesterday's paper that Commissioner Larocca has called your proposal nuclear blackmail and has rejected it outright.

When I first heard, to my horror, that instead of cleaning up West Valley you were proposing more, that's exactly what I thought. They are going to say to NYSERDA, we'll pay for the cost, if you let us do something more. It is good to hear Commissioner Larocca say the same thing.

What should you be studying with our money? I think again, you have heard it from us already: a safe way to get these wastes out of West Valley. The site should be cleaned up so that it can accommodate a safe, job producing industry that will benefit the people of this area.

Our efforts to assure a safe energy future for New York will not stop with this hearing. If you push your current proposals any further you will hear much more from all of us who have a very different vision for the future.

Thank you.

MRS. RICHARDSON: Ecology Action of Tompkins County?

MR. INGRAM: My name is Tony Ingram representative of Ecology Action of Tompkins County, a group based in Ithaca, New York. We are downwind of West Valley and Sterling and all the other plants up on the lakes and we feel that what happens at West Valley is going to affect everybody in Western New York, so we are part of the neighborhood.

We strongly protest the Department of Energy's desire to blackmail New York State into becoming a site for nuclear waste storage in exchange for assumption of the responsibility for the danger situation at West Valley Nuclear fuel reprocessing plant.

We insist for the sake of the health and safety of the people of Western New York State area that the West Valley Plant be permanently

shut down and decommissioned. Along with other groups we support the development of an alternative energy center at West Valley.

We oppose any further creation of nuclear waste by government or industry. We are furthermore opposed to any storage of nuclear waste in New York State and want all existing wastes at West Valley and elsewhere to be permanently isolated from human beings and the environment in as safe a manner as possible.

The history of nuclear waste management in the U.S. has been replete with gross mismanagement and miscalculation. The record at waste repositories and attempted reprocessing centers in the U.S. gives us no reason to have confidence that the activities can be carried out safely in New York State.

The West Valley plant has had a history of low-level leakage in Cattaraugus Creek, radioactive emissions into the air and increasing levels of radiation exposure to workers. The plant is located in a seismically active area.

At the Federal Nuclear Waste Repository in Hanford, Washington, mismanagement permitted the leakage of hundreds of thousands of gallons of high-level radioactive waste into the ground. Some radioactive wastes remain toxic for hundreds of thousands of years, far longer than the history of civilization. The radioactive poisons are among the most toxic substances known, causing cancer, genetic mutations and rising infant mortality rates.

There was a gentleman a couple of hours ago who wanted a little evidence, wanted real evidence about harm that is caused by radiation to the environment around nuclear facilities. Well, I don't have anything on West Valley, but Dr. Ernest Sternglass of the University of Pittsburgh has made public studies of the area surrounding the Millstone Nuclear Power Plant in Waterford, Connecticut.

Between 1970 and 1975, the cancer rate in that town went up 58% and nearby New London five miles downwind cancer rates went up 44%. For Connecticut as a whole, the rate rose 12% in this five year period.

Dr. Sternglass points out that the rate for Waterford and environments was markedly higher than that for the rest of New England. Rhode Island, for example went up by 8% and Massachusetts by 7%, New Hampshire by 1% and Maine declined by 6%.

In addition to cancer rates, Dr. Sternglass measures Strontium 90. He told us that we find as a result of various releases of Strontium 90

measured by the utility itself and the farms around that area since 1970 has risen to levels which exceed the monthly average at the height of nuclear bomb testing in 1963. In 1976 the levels of Strontium 90 at a farm 15 miles away from the Waterford plant had reached 27 picacuries per liter, that compared to a level of 23 picacuries per liter for Connecticut as a whole in 1963.

Sternglass says the current levels far exceed permissible standard for drinking water adopted by the Federal EPA in 1976.

We oppose any plan to reopen West Valley as a reprocessing plant. Separation of plutonium from nuclear waste for recycling as a nuclear fuel for nuclear weapons constitutes a grave and unnecessary threat to public health and national security. Plutonium remains radioactive for 240,000 years.

Nuclear weapons experts have testified that less than ten pounds of the material can easily be fashioned into a crude nuclear bomb by potential terrorists for organized crime.

Increased traffic of plutonium will make the prevention of proliferation of nuclear weapons around the world nearly impossible.

In the words of Dennis Hayes, senior researcher at World Watch Institute in Washington, D.C, even today many optimists view nuclear power as an obvious, necessary and desirable step forward, but when civilization stands at the edge of a cliff, a step forward doesn't make much sense. Thank you.

MRS. RICHARDSON: Genessee Valley People's Power Coalition?

MR. FERRAR: I'm Edgar Ferrar and I'm representing the New York State People's Power Coalition. The New York State People's Power Coalition is a statewide coalition of over 70 grass root citizen organizations, alliances and coalitions, representing the energy related concerns of numerous environmental, conservation, low income, senior citizen, laborer, civil libertarian and other activist organizations throughout this state.

We are appalled by the lack of timely posting of notice of this hearing to the effect that citizenry for which these issues are a matter of greatest importance. We are even more deeply concerned by the unbridled affrontery of a government agency insinuating a limitation of options for the West Valley site, defined by the multitude of methods for mismanagement, the poisonous excitement of a filthy and unforgiving technology.

During the three and a half years of its existence the People's Power Coalition has given hope to thousands of desperate victims of irresponsible government and corporate energy decisions. That citizens' concerns channeled into the appropriate judicial, administrative and legislative processes and forums could create the rational dialogue essential to the making of decisions of horrendous and irreversible consequence.

DOE's irresponsible approach to its legislative mandate, however, not only mutilates our premise that the system can be made to work, but also confirms the convictions of radical fringe which claims that you will never go broke over estimating the arrogance of corrupting power flowing from the irrepressible corporate greed.

Further, it is clear from your presentation that in your eyes boundless optimism is a suitable substitute for rational thought.

On February 9, 1977, the Federal Environmental Protection Agency reported that a West Valley stream had been contaminated by seepage from varied low-level radiation waste only 14 years after the first wastes were deposited in 20 foot deep covered trenches designed for 300 to a 1,000 year containment.

Only three days ago we learned that irrefutable evidence of high-level radioactive waste contamination from West Valley and Lakes Erie and Ontario have been methodically recovered from lake bottom core samples. Having thus demonstrated criminal incompetence the nuclear industry and the Department of Energy and the conspiratorial relationship suggests yet another dose of physic as a cure for the deadly dysentery that has already fouled the nest.

I spanked the bottom of my 8 year old grandson for far less infantile incompetence and irresponsibility.

From the nature of your presentation it is obvious to us that all you expect this hearing to achieve is the venting of inconsequential opinion and the right to place a check mark in a box designating compliance with the legal requirement that poses but a superficial impediment to a course of action long since plotted and approved by the financial utility and industrial interests whose business concerns you seem to perceive as the primary business of government.

The People's Power Coalition is deeply troubled by the many broken promises and trusts by the infusion of self-serving judgments into areas of the deepest ethical and moral concern, and by the callous disdain for rational orthodox opposition by an elitist technocratic subculture and its political sponsors.

We believe that this generation, like those which preceded us, possesses this fragile habitat in use for all posterity. The catastrophic potential even more than present harm created by the nuclear fuel cycle at the present level of understanding and responsibility negates all rational hope for untormented future prospects.

The fervent hope that our perception of present reality are wrong, that our residual confidence in the system evolved from our great democratic traditions is still valid, that mechanisms in governments still exist for self correction, could be greatly encouraged by a demonstration of government competency, buttressed by recourse to the ill-gotten financial gains of the beneficiary corporations and mandating a moratorium on the production of additional radioactive poisons while solidification and removal of the West Valley wastes from this state is expeditiously carried out.

MRS. RICHARDSON: Rochester Safe Energy Alliance?

MR. HORNER: Good evening, my name is Andrew Horner, I am here representing the Rochester Safe Energy Alliance, a non-profit organization with about 200 members devoted to producing a safe, economically sound energy policy.

About sixty-five years ago, one of the greatest passenger ships of all times was launched. Brilliantly designed, the ship was divided into separate water-tight compartments so that it would practically have to be turned inside out to do it serious damage. As a result it was proudly referred to as "the Unsinkable." On April 15, 1912, the Titanic hit an iceberg and sank. More than 1500 people were lost.

In 1971, the Atomic Energy Commission announced that the site for the long awaited permanent waste disposal facility had been selected. In testimony before Congress, AEC officials stated that all the necessary studies had been done, and promised that there would be "no significant impact on the environment."

Fortunately, the citizens' groups and the Kansas Geological Survey were not willing to take the AEC's word as gospel. It was found that large amounts of water had been released into salt formations from nearby mining operations. If high-level wastes had actually been stored at this site, dangerous releases would almost certainly have occurred. Yet, the thorough and expensive studies, which the AEC conducted, found none of this.

The point that I am trying to make is simple. Humans, even highly skilled engineers and scientists, are fallible. If the Department of

Energy scientists are convinced that wastes may safely be stored in salt or shale or whatever, fine. I'm glad that they feel that a safe disposal method is possible. But, then can still be wrong. And when dealing with substances as hazardous as high-level wastes, errors can turn rapidly into catastrophes. Still we can't simply throw up our hands in despair. Wastes exist. They must be dealt with.

Before proceeding further, I would like to state that we feel that producing all this radioactive material in the first place was highly irresponsible and that if we continue to do so, when we still don't have adequate disposal facilities, it is little short of criminal. Nevertheless, the question remains, what is to be done with the waste.

And, specifically, is it wise, is it in the national interest to store them in New York. Bear in mind that wastes are very dangerous. Any leakage from the site, could have major health effects and might necessitate the more or less permanent evacuation of large areas of land.

Such leakage, however improbable is still possible. Therefore, a prudent person would site a waste disposal facility in an area with two important characteristics, in addition to the required geology. First, population should be as sparse as possible, so that health effects of any release would be minimized. And, second, land values should be low, so that if some area did not have to be abandoned, there would be as little economic damage as possible.

It is clear that neither West Valley nor any other site in New York meets this criteria, as well as many other areas in other states, and that therefore no responsible agency would choose to do long-term waste storage in New York. Even considering only the national interest, the New York site must be rejected.

To accept West Valley as a waste storage facility, foolish as it is from a national point of view, it becomes totally non-sensible when viewed from the point of view of New York State interests. In addition to the hazards previously mentioned, siting any facility, dealing with nuclear wastes, would involve the transportation of massive amounts of nuclear materials over our highways and railways and possibly through our port facilities.

Numerous studies, especially by the Union of Concerned Scientists have shown the present safeguards are not adequate to guarantee that none of these wastes are released, and that the consequences of such a release would be very severe, with death tolls rising easily into the thousands.

This risk is not acceptable to the people of New York.

As to who should pay for the disposal of wastes presently stored at West Valley, the Alliance believes that as long as the Federal government recklessly continues to pursue a policy of aggressive support for nuclear energy, it has a moral obligation to clean up messes made, if not in its name, at least with its encouragement.

The Federal government should decommission and decontaminate the West Valley site, possibly with the economic aid of the involved industries and/or utilities as thoroughly as current technology allows and at their own expense.

The message we are here to deliver is plain and understandable. The people of New York do not want to be made guinea pigs for any experimental nuclear technologies. We have had enough of these nuclear foul-ups, it is time for a change.

Thank you.

MRS. RICHARDSON: Perington Greenlands? Powerline Action Committee?

MS. MUNSON: Good evening, I am Janet Munson from Rose, New York, and I represent the Powerline Action Committee.

First of all, before I read my statement, I would like to thank the people of New Haven for their hospitality, the refreshments were delicious.

Secondly, doing field research, as we call it in the group we have talked to many line people at RG&E and anytime that you can talk to a line person off the record they will definitely tell you that they would never live under 765 line associated with a nuclear plant. But, because they are like everybody else and they want to protect their job, they will not say this for the public record. What I would like to ask is if the gentlemen here would like to live in West Valley or Rose, New York or Sterling, New York, with their families and have to live under the situations that we are going through living under.

Now, I would like to read my statement. I represent the Powerline Action Committee of Rose, New York, a group of strongly opposed people to the storage of any nuclear waste at West Valley or anywhere else in New York State.

It is the height of selfish irresponsibility to expect to reap the benefits of nuclear energy and leave the dunghill of nuclear wastes for our children and our children's children to deal with.

In the words of the Atomic Energy Commission, the hundreds of thousands of storage years required is virtually forever. Any on-site disposal of waste materials is totally unacceptable to us. Leakage seems to be the norm at storage sites. There has not been, nor can there be any demonstration that the problem of leakage has been permanently solved.

Moreover, agreement with a storage facility necessarily implies at least a tacit agreement with the existence of a nuclear industry, and to this we can only say loud and adamantly, no.

In addition to our philosophical objection to any storage of nuclear waste, we also object on the more mundane levels of health and safety, economics and hazards to our environment. The dangers to our health and safety seems so incredibly obvious as not to need mentioning. Unfortunately, they cannot be as obvious to all or any production of further nuclear wastes would be unthinkable. So let me briefly go over some.

Norman Cousins asked in 1976 if there was a workable answer to the problem of keeping radioactive wastes from leaking into the water tables underground or into the oceanic chain of life. Gavini's revelation of two days ago that curium 244 has been found in Lakes Erie and Ontario, demonstrate plainly that no workable answer has been found.

Radioactive waste is already seeping into our soil and waterways. It cannot be allowed to continued.

When West Valley was closed down it was partly in response to new Federal regulations to guard against earthquake damage. Any location where there is the slightest possibility of an earthquake is an absurd location for nuclear waste.

Whenever you talk of nuclear storage there is the question of transporting the radioactive wastes to the storage facility, with all the attendant dangers of an accident during the transportation phase, risk heaped upon risk. The economics of an eternal nuclear storage system is mind-boggling to say nothing of the eternal surveillance necessary to keep the wastes from terrorists. The cost in both dollars and human freedom is not bearable, nor should the people of New York State have to bear the burden of risk and financial cost to dispose of waste produced elsewhere.

In conclusion I would like to quote Sister Rosalie Bertoll: "There seems to be a philosophy afoot which wants to take care of the poor

ignorant citizen who does not really know what is best for him. I oppose this philosophy as unAmerican and patronizing. We are not less inflamed than our forebearers and we refuse to be terrorized by wealth or pseudo-learning. We will not live on promises and forecasts but will be rooted in the real and the human. We reject planning which includes death of human beings as one of the costs. We demand straight answers to our questions. We again grasp our freedom and dignity and the right to choose our own destiny under God."

It is the firm belief of our group that the only solution to the nuclear waste problem is not to produce it in the first place.

Good night.

MRS. RICHARDSON: Now, I will read the statement for the Safe Energy for New Haven.

Fellow concerned citizens, ladies and gentlemen I intend to say very few words to you this evening, but what I am going to say comes straight from the heart and spirit. I hail from Oswego County. Like many of you I belong to a local safe energy group and as you have, I have talked to many, many people, group legislatures, farmers, doctors, neighbors, lawyers, carpenters; in fact, I have talked to anyone that would stop to listen.

And, if there is any one thing that seems to unite all these people with all of their different backgrounds and points of view on the nuclear issue, it is this; a common feeling that they are doing something terribly wrong to their children and their grandchildren and the unborn children of tomorrow.

This inner feeling that it is morally wrong for us to bequeath our nuclear wastes with all of its potential dangers and social implications to future generations is a common thread which unites even many of the pro-nuclear people to our anti-nuclear cause.

The vast majority of the people I have talked to in my home county of Oswego have indicated to me a deep concern over the problem of what to do with this nuclear waste. It is a common thread uniting us all together. I believe this is clearly shown by the recent Harris poll conducted throughout New York state.

The residents of New York State, our neighbors, your neighbors and mine, oppose the siting of any Federal waste disposal facility anywhere in New York state by more than 4 to 1.

Further, of those persons polled who indicated they favored nuclear plant construction, almost half thought nuclear plants created the greatest waste disposal problem.

Gentlemen and ladies, clearly it is morally wrong for one generation to reap the benefits of a technology and at the same time leave the waste from that technology for future generations to contend with. And clearly the people in Oswego County and the rest of New York State recognize this.

It is now time for our State Safe Energy office and the DOE to recognize this as well. My message to them from Oswego County is to clean up the waste at West Valley, dismantle the reprocessing facilities, and discontinue any and all site studies for a nuclear waste disposal site within New York State. In short, get out of New York State.

MRS. RICHARDSON: Next on the list is Irene Dickinson, Coordinator, Citizens Council for the Protection of the Environment and National Intervenors.

MR. DICKINSON: Obviously I am not Irene Dickinson. I am Leon Dickinson. I live in Ossining and I'm a Board Member of the Citizens Committee for the Protection of the Environment.

I just want to take a little time now to tell you about this and where we are at. The Citizens Committee for the Protection of the Environment is an ad hoc group of people concerned about the hazards of nuclear power. CCPE has participated as intervenors in the Federal licensing hearings for Indian Point Nuclear Power plants for the past ten years. I'm broke in other words.

We are presently a party in the seismic case involving Con Edison's responsibility regarding the design criteria of their Indian Point plants which are sited on the Ramapo Fault, and it is earthquake active.

There are no simple answers to the predicament which nuclear-fission technology has created at West Valley. Last month the USEPA issued a background report on "Considerations of Environmental Protection Criteria for Radioactive Wastes" and summarized in these words, "The goal for control of radioactive wastes should be to prevent its introduction into the biosphere over its hazardous life time."

We submit to you that this is a very, very long time.

From the DOE outline of February 24, "Approach" under "Options for Decontamination" we would like more specific information included to

explain these words, "The time required for the radioactivity to decay to insignificant levels" and if that isn't a moral problem as I raised earlier on the floor, I don't know what is.

We ask for caution on the part of the Federal government, any plans for deep-well on-site disposal should not be considered. Every effort should be made to solidify the wastes and remove them from the site. The outline for the study of options is replete with nuclear plans.

It is time to recognize that people do not want the nuclear options. We want clean energy resources developed; rather than make a bad situation worse, CCPE calls for an innovative, alternative energy project which would be far more job-intensive than any nuclear option, with better health conditions in which to work.

The New York State ERDA was established for the purpose of carrying out research and the development of alternate sources of energy. We trust that the Department of Energy will cooperate in helping along the fulfillment of this mandate at West Valley.

One of the most serious problems at West Valley is a huge vat of liquid waste which was "neutralized" and I think that is a euphemism for something else, and is thereby even more of a hazard, with 30,000 gallons of the 600,000 gallons of high-level waste now settled into a sludge. As a result of this chemical process, we urge that DOE make a chemical analysis of the sludge concentration and that was indicated a little earlier in the question and answer period, and then get on with removing it and converting it to a suitable form of disposal.

The waste sludge analysis should be an NRC priority. Since the waste is primarily military in origin, why not use the military waste sites for disposal. A different countryside, I was just down there ten days ago.

It will be costly to handle the waste safely, but cost ought not to be a factor. However, Getty Oil and Nuclear Fuel Services should not be bailed out by NYSEDA and the New York State taxpayers. Neither do we feel that the Federal government should bail them out. Getty and NFS should be made to pay if it means, even means going to court. Under no circumstances should there be more waste brought into West Valley.

The plans for a national or international waste repository are not acceptable. It is time for industries with nuclear facilities that generate atomic waste to bear the burden of paying for disposal. If this must be handled by levying a special tax, then so be it.

The Union of Concerned Scientists reminded us in 1973 that the pace of development of a suitable waste technology does not seem commensurate with a rate of expansion of the nuclear power industry. It is past the time when the operation of nuclear reactors should be stopped until there is a safe way to dispose of their wastes.

Attached to these comments is a copy of a bill just put before the New York State Legislature by Assemblyman Hinchey, calling for an amendment to the State Energy Law in relation to the storage of radioactive wastes. This piece of legislation may be helpful to DOE in determining the mood of the people of New York State at this time.

Former Governor Rockefeller is known as the father of West Valley. In response to a question about West Valley, he is quoted in the New York Times, April 10, 1977, "You can't have a riskless society. Man's ability to contain, to channel and master his discoveries are what has made civilization." Perhaps the former governor would like to help now with the containing and challenging of this Faustian bargain. And, one dimension of that Faustian bargain is the escape from Greater New York in the case of an accident.

A staff member from County Supervisor Berdello's office said, "In that event, burn the bridges, close them off." Thank you.

MS. DICKINSON: Thank you. Because we have two groups here that needed to be represented, we have to share this time.

I'm speaking now for the National Intervenors at 1413 K Street in Washington, D.C.. The National Intervenors is a coalition of environmental groups from around the nation who are concerned about safe energy sources.

Of our 176 member groups, 45 are located in New York State. We feel, however, that the West Valley facility is not only a New York State problem but a national one and indeed a problem of international scope, for the type of decisions made here will be assigned for all life on our planet.

The outline for the DOE study options at NFS seems to emphasize nuclear uses and omit dismantling and nonnuclear options. Under Item 2-1 we would expect that decontamination and decommissioning would include the option of dismantling and removing the site, from the site, the complete Nuclear Service Center facility plus the exploration of appropriate technology as a replacement.

The GAO study on Issues Related to the Closing of the Nuclear Fuel Services Reprocessing Plant at West Valley, published March 8, 1977 by

the Comptroller General of the U.S., questions the safety of the waste tanks and calls for an assessment of quality assurance data and other conditions as a priority before a reasonable judgment can be made to challenge the NRC's belief that the tanks are safe.

We are concerned that the DOE study's emphasis on the various options for continued or expanded nuclear uses are valid.

Where are the alternative options for the West Valley site? It has been our understanding that the plans for any nuclear facility must include alternatives. At the dawn of the solar energy age and the forecasted decline of the nuclear era, why has DOE not considered the option of a clean efficient, job-intensive energy project for the economic vacuum the NFS facility will leave.

The people of Western New York have lived with this Sword of Damocles long enough. It is time you let the sun in, spend the necessary money and bring in an environmentally sound technology.

Costs for cleaning up West Valley should not be prohibitive. There should be no short cutting with deep-well, on-site disposal. It will be costly to right this horrendous wrong, and we feel the costs for cleaning up should be borne by those who are responsible.

Getty Oil and Nuclear Fuel Services should pay, even if DOE has to take them to the highest courts. Surely there is such a thing as freezing assets if they refuse to comply.

We would add that neither New York State or other taxpayers around the nation should pay for cleaning up the NFS center.

We note in the October 14, 1977 attachment study of options that the NFS, that the method of proceeding will be to establish and staff what appears to be another bureaucracy and then the conclusion simply stated, no environmental impact anticipated. Please explain.

If the Board of Consultants is formed early as we would expect, would there be representation from local and state health and government agencies as well as public interests, that is environmental groups, which means all of us citizens.

What is the process of selecting the Board of Consultants? Who will appoint them and how will the public be kept informed? There is in the attachment, page 3, an item under major procurement, "Public attitudes toward the various options." It would be well to consider the taxpayers attitudes as well as their power.

Only last week a Harris poll reported that over half the residents of New York who were polled, do not want nuclear power. DOE should not expect that taxpayers are going to pay for cleaning up West Valley and Taxpayer action may be an option to include in the DOE outline. Remember, all of our nation is organizing against nuclear power.

It was Dr. George Weil, the scientist, who on December 2, 1942, while an associate of Dr. Enrico Fermi, turned on the first nuclear reactor. He had said, "The promise of fission energy is tantalizing. But nature exacts from mankind a high price for the privilege of exploiting this energy resource. The public must decide whether or not the price is too high.

We, the National Intervenors, feel that the price is far too high.

Thank you and thank you for letting me speak.

MRS. RICHARDSON: The next schedule speaker is Dr. Irwin Bross, we have already heard his statement. It has been submitted in the record. The next scheduled speaker after that is Mr. Martin Lewis.

MR. LEWIS: A couple of things before I get to my prepared statement. One, I checked with the NRC man here. Health effects are life reducing effects; in other words, premature deaths of human beings.

This is my prepared testimony for West Valley DOE meeting. The question has been asked and must be asked again. Everyone in this room knows or should know the dangers of nuclear waste. Most of you believe honestly that we can safely handle some of the dangers of high-level waste in geological repositories or depositories.

I'm sure that the talent here can handle most any engineering problem. But, the technical problems here transcend the strictly engineering aspects. The financing of a geological depository and its security must reach into the future.

Even if a plug is developed to re-establish geological integrity of the site, no plug can be secure from man or the Diety's intervention.

Let's forego the discussion of natural disasters. You all are familiar with the Kracatoa, Santorini's volcano, the winter of '76 in Buffalo and the drought and subsequent flooding of Southern California this year. Let's go on to more immediate issues. Surely all of us have had the unhappy experience of not having proper tread on our tires. Often this is a result of having to make a choice as to what to do with our available capital.

People, being human, often opt for luxuries rather than safeties. In this room I do not see the powers that will decide forever how the taxpayers' money will be spent. Surely you must wonder, no matter how perfect this system you design, how the system will be financed in the years to come.

The minerals and land in this area are fairly expensive. The values are rising. A few minerals which were worthless 20 years ago are sought after today. No matter what safeguards are instituted, safeguards cannot insure against man's intervention, if any minerals in the area of the depository appreciate greatly. I shall not bore you with a litany of insoluble problems. Instead let's look at what you are actually legislating with the solution of the waste problem.

First, the most obvious effect of investing in nuclear power is the fact that resources used for nuclear power will not be available for other sources of energy. Then, later, if nuclear energy proves to be a dead end, resources will not be available to go other routes.

Secondly, the waste will demand eternal vigilance. A proper plug is a design objective of the geological depository effort. Even if a proper plug is designed that can frustrate man's best efforts, a man merely walks a few feet away and drills a parallel hole. A proper plug cannot frustrate the natural forces even for a short time.

Water does seep through salt domes randomly. If you want to check that fact merely ask the farmers in this area about wells that turn sweet, to salty and back again without warning. Ground water can outflank any plug. The best plug cannot overcome the damage that ground water or other water sources can do to the geological depository site.

A tactical military fact is that an obstacle, and a plug is an obstacle, can always be overcome by hostile forces unless secured by friendly manpower. The plug will have to be secure for a quarter of a million years. In the price of security we must therefore include manpower to watch that plug for a quarter of a million years. I don't want to belabor a quarter of a million years.

I want to point out that even in our lifetime security is an elusive and nebulous quality. Who here besides me has walked the slums of the ghettos of a major city at night and without fear again and again. We stand here only a few hours away from the great city of New York in the free land of America. We have not touched the very human problem of making that city safe for its inhabitants. Still we hear talk of making radioactive waste safe for eternity. We've got our priorities and goals badly screwed up.

MRS. RICHARDSON: Our last speaker for the evening will be Dr. George Berg, Rochester Committee for Scientific Information.

DR. BERG: I apologize for even holding you here this evening this late hour, but I came here in 1963, some of you may have heard and I think it is perhaps fitting that I sign off in 1978.

I will give you a bit of history of the way our environmental group, the Rochester Committee for Scientific Information, has been concerned and active with the problem in West Valley, not our problem, our neighbor's problem, and the way in which we tried to help our neighbor.

And, then I will tell you something that I hope will get on the record in Washington and that is about the right way and the wrong way to tackle such a problem.

I hope some people here present are actually neighbors in West Valley and in this area and that I am not only speaking of visitors such as myself.

Now, in 1963 we came here because the plans were, because there was a public hearing on the plans for West Valley and we were the only representatives of public interest other than some people from Eastman Kodak Corporation who worried about fogging their film with radioactive icicles that might blow on the wind from here. That is Dr. Alderberg who was on the committee with me then and is on a committee with me now, and myself, and we were concerned with what local people can do about this hazardous and new technology that comes into their area. And, we asked New York State and the Federal Atomic Energy Commission to develop the capability in the local health department and among the local emergency preparedness people, the capability for handling some of the environmental problems.

Well, Albany didn't believe that such a thing is possible. They don't believe local people can do anything, so they said they would do it all themselves, and so it happened, for example, that when Strontium 90 showed up in milk in this area in a survey conducted from Albany, there was no one local to deal with this, and we came in from Rochester and looked at this problem because you are our neighbors and we were able to assure everybody that that Strontium 90 was not a gift from West Valley, but a gift from the Chinese bomb tests, which was distributed impartially across New York State and not just here.

And, I stress this because I have heard all kinds of nonsense, scientifically unbased, and I think intellectually dishonest nonsense

about the horrors about what is happening here and none of it is true. That contamination in that milk was not West Valley and that high school girl's observation of what is happening in a ward of one hospital is not West Valley. And, if it were we would be the first to scream.

In 1968 we came here because we, by then, had enough results on what the plant was putting into the creek. And, the plant was running according to the rules and the rules were not written according to law, and we pointed that out, we intervened, and we persuaded the Atomic Energy Commission, after being called liars a couple of times. We made our numbers stick because we had the numbers. The Atomic Energy Commission changed the rules and West Valley Nuclear Fuel Services spent over a million dollars building additional waste treatment facilities so they would put less pollution into the creek.

Now, once again, we in the Rochester committee for Scientific Information tried to do the honest thing, and we put in our report, and I hope it goes on record in Washington, that now that you people have changed the rules, and are asking for more service from Nuclear Fuel Services than before, you owe them more money for the service. Well, that little piece of honesty never got across, the more service was demanded, the more money was not paid, the result that we all see before us here.

Last year, for example, and again I think we are good neighbors, we were called in as consultants on the spill of a radioactive waste burial ground, and I found to my great surprise that what happened was that the waste burial ground leaked. It was not a very good burial ground. And, Nuclear Fuel Services intercepted the leak into their lagoon, which was a good thing, because otherwise it would have gone into the creek, into France Creek, Buttermilk Creek, Cattaraugus Creek, and Nuclear Fuel Services was about to be fined by the State of New York for intercepting the leak.

I hope Washington notes the ways of officialdom. Again here a civic organization, a citizens' organization, intervened in the public interest and we were heard for a change.

In 1978 I can tell you that the issue before you today, all day, was not one of recycling wastes and was one not of disposal. There are all kinds of ways of disposing of atomic waste, but it was an issue of whether to adopt the recycling technology or not and it was even more of an issue, it was really an issue to me of how to separate information from misinformation.

And, now that I have spoken about some of the things we have done before, let me say briefly what kind of things we use as our guide and

I think should be used as a guide by people who intervene in proceedings like this. The first principle of information for the public, and this is supposed to be a meeting of information for the public, is that you, the citizens, and particularly the citizens of this area who make the choice, it is the job of speakers like myself to give you choices.

It is not the job of speakers at this podium to give you a god-father choice, proposal, you can't refuse.

Now, what I heard here was Dr. Rasmussen from the Science Advisory Committee Legislative making rational statements about the way to give people reasonable choices, but I heard a number of people hold a gun to your head and let me say very simply, what I heard from Congressman Weiss, nowhere near from here, and from Lorna Salzmann, was very loud, was a collective of statements, not one of which bore any resemblance to truth as I know it. But those statements were used to scare the living blazes out of you so that you will do what they want and not what you might want. That is no way to conduct a public information meeting.

And, I'm sorry to say that there is no way to nail somebody who makes a misstatement, when he makes a misstatement; at scientific meetings we have a way.

Now, so I said, give people choices. You have all kinds of choices, you have a choice to use atomic power or not to use it. Both can be done well. I was a little shocked to have a clergyman stand up here and tell you that there was no virtuous way to do a simple technological thing. You can make a vice or a sin or a virtue out of just about anything. The Faustian bargain he was talking about, he should know, it is described in the Bible. Adam and Eve were kicked out of paradise for trying their hands at agriculture. That was the first technological breakthrough and the world has been polluted ever since.

Now, you have a choice. The question is what are the costs and benefits of the choice and how do you go about this. The second thing speakers on this podium should have presented to you is a look at the whole system and not just the West Valley piece of the system because what is happening here is that here in your neighborhood, decisions made about this one little industry are winning or losing national and international political gains in which you have no stake and no part and they are being played over your bodies and that is not fair. So you have to look at the whole system.

I heard Mr. Pyles, Mr. Salim and Mr. Parsons, three local people, speak here and make excellent sense. They did not agree with each other but they knew the facts, they understood the situation, they looked at

the system. Now, the reason they disagreed with each other is that each one of them likes a different solution, but they offered you reasonable solutions and you can pick from them. I was very impressed with those three men. It is wonderful to see that three local people make sense and two dozen outsiders don't.

Now, the system of which West Valley is a part was designed to recycle atomic fuel so as to cut down on mining. Now, as an environmentalist I know, and every one of you should know, that mining is bad news. The thing that makes coal bad is that you mine hundreds of tons of coal for every few tons of uranium to get the same amount of power, so you dig out more from the ground, so you pollute more. If you recycle you pollute less.

I was amazed to hear only a few of the many environmentalists here say a good word for recycling. West Valley was supposed to recycle plutonium right into mixed oxide fuel and that mixed oxide fuel, so that there will be no chance for diverting into bombs, right back into the power plant. That is an option.

Now, some people don't believe that our country and our political system and our technology can run that option in a clean and decent way and I respect that belief.

But, I don't understand what alternate options they see that we will run better and cleaner, except one and that's the option of conservation. That's the hardest option of all. You have to be very, very smart to run conservation without actually killing people and depriving people of food. It can be done, it is another option. I like it.

But, I will not tell you that the atomic option is bad. It is probably a lot easier to run atomic power clean than to run through the conservation option without starving people to death.

Now, you have to measure all costs and what you have been hearing here, for example, about low-level exposures and their hazards is not measuring low costs, it is picking out the cost you don't like and forgetting the cost that you don't want to look at.

Low-level exposures don't come from the atomic industry. Low-level exposures is from an ionized radiation that come from a background, you were told that by Sarles and Salim, and they come from X-rays in the medical field and they come from nuclear medicine and way, way down there there are some low-level exposures from the atomic industry. If you are worried about low-level exposures, you don't worry about West Valley, you worry about your friend, the X-ray.

There is no such thing as a free lunch, another thing that many people here forgot. Mr. Dahlman spoke about the fact that if you do something you are responsible for the consequences. That's a good environmentalist principle. If New York State is going to use atomic power, and I'm very glad it is, because I am delighted Rochester does not depend on coal. Boy, am I pleased.

In the days when Rochester depended on coal, Vanderbilt had a trust and he skimmed us for the price of coal. Today it would be the Mine Workers Union. I don't care which way it goes, I'm glad we don't depend on it. But, if you want to depend on atomic power, then you have to handle your own dirt.

And, the people who are here saying that we can send it to somebody else, puzzle me, and the people who are generous with Getty's money puzzle me even more because it is twice tainted, taint theirs and taint mine.

You have to learn from your mistakes and the one word I did not hear here tonight and I hope to be able to put it in some written document to you, is who is responsible for the mess. And, let me say that to you straightforward, it is not West Valley, it is not industry and it is not Getty and it is not Grace. The people in industry who entered into a contract to operate West Valley obeyed the letter of that contract to the full. They were promised in return, the same as any waste treatment operator, that they would make a profit from their operation. The government reneged on their promise, ratched their standards, did not give them the money, drove them out of business and now people want to make them, fine them for the fact that they were rooked. That is peculiar morals.

And, finally, you are choosing the future here. You can have all kinds of futures, an atomic future, a non-atomic future, a conservation future, a diversified future. We have 3,000 acres at West Valley site and you can put half a dozen different operations on it and run each one of them clean or run each one of them dirty. None of these things have anything to do with what is actually going to happen at West Valley. The problem at West valley is one of a decision made in Washington, which fuel cycle do you want to buy and where do you want to install the necessary pieces and parts. You have not given us the decision.

MRS. RICHARDSON: We do have one more speaker that has requested some time and that's Ms. Virginia Russell.

MS. SALZMAN: I would like to make a brief rebuttal statement.

MRS. RICHARDSON: Lorna, you can submit it in writing for the record. I'm sorry, I'm going to have to cut you off and recognize Mrs. Russell.

MRS. RUSSELL: Thank you. I'm not going to talk long, I know you have heard much today, many things which I agree with. One of the points that was made is the financial problem.

I have here, I would like to go along with the people who say that the people of West Valley and the people of New York State should not have to suffer economic loss because of what has happened here, and I have 3500 petitions -- pardon me, 3500 signatures from all around the various towns that join me in this statement. And, I would like to give you those first.

Then somebody asked today, where were all of you when they put the site here? And, I want to say that some people were around who did object. I was one. And, this is the book that I used. I talked to everybody I could. I said let's wait on nuclear waste until we know more about it, let's take it easy and find out there many things we don't know. And, you know who was really to blame, it was the people. Nobody would believe me, they all thought I must be crazy. And, here is the very book I used. I went to many organizations and talked to them.

Then I worked at the University of Buffalo in Physics, and in the basement of Hodstetter Hall. This was at a different time. They had started the nuclear reactor and they brought the nuclear wastes over and they put it in a building right next to our laboratory. And, when I asked about it, they said, well, don't worry, because the gas goes up through the ceiling and out, so there is no problem.

And you could hear the geiger counter going tick, tick, tick, tick. So I made quite a stew about it and I refused to work in that laboratory, and after a while they did change the place for the nuclear fuels.

I raise that point because there were some people who were protesting at the time. However, I was not considered an expert in the field.

And, so now when I say, after all those years, I seem to have my timing wrong. Now, everybody is agreeing that nuclear wastes are dangerous. But, now I think I have found a way to treat the nuclear wastes and nobody believes me.

So, I have with me a good deal of documentation. I'm not going to go into it because it is very technical, but I have this which I would like to present to you, which is a plan for treating the nuclear wastes. I think it comes as close as anything can to solving our dilemma.

I wish there weren't nuclear wastes and that we still had waited until we knew more about how to treat them. But, the fact is no matter

how you feel about it, they are here. I managed to get to an Atomic Energy Commission meeting in Austria. This is the high citadel of all the nuclear waste people, and I heard people talking there about, have we got more nuclear wastes than we know what to do with. And, while I have heard many references to the men in this new Department of Energy who are getting the brunt of this whole business, and we have to put it on somebody, of course, but they are presented with all these wastes, they don't know what to do about it.

And, if we move the wastes, this is a very dangerous thing. If we leave the wastes here, this is a very dangerous thing. But, the plan I am talking about is not an expensive one, it is not a dangerous one, it can be done with a very small amount of waste material, someplace off in a distance. It can be done within a few days, you can begin to see if it is working and decontaminating the wastes.

And, I know that the Federal Government and probably right here Nuclear Fuel Services has all the equipment that would be needed to try this. And, if they can't afford the manpower, I'm sure that the people who signed the petitions will get together and provide the money to pay for the manpower.

So, the other thing on these petitions is they are asking the Department of Energy to make this test and to make it soon and report back to us. And, they are also asking that if the tests are negative, we have an opportunity to witness the experiment and see if you really understood what we meant. Perhaps we wouldn't have expressed ourselves clearly, and to check if you carried out what we had in mind.

And, I'm hoping that I will have an opportunity to talk with you gentlemen on a technical level in a little while or some time at your convenience. My time is your time, any time is all right. So thank you very much.

MRS. RICHARDSON: Thank you, Mrs. Russell. That concludes our scheduled speakers for today. And I would just like to say on behalf of myself and on behalf of Congressman Lundine that I think, we think this has been a very productive day.

I would like to express personal thanks to Bob Niver, the Supervising Principal of West Valley School for his hospitality, to the cafeteria workers who put together that lunch for us today and to Casey for helping set up and probably helping tear down, and to all of you who have attended here today. We have listened and we have learned a lot and I think it was a very, very productive session.

MR. COUTOURE: Mr. Niver isn't here right now, I don't think, but he was chairman of our local committee, and I think I can speak on behalf

of the local chamber and all the local residents, we appreciate DOE and NRC for coming here today and for Mary Ann and for Congressman Lundine, for working with the community, and for all of your staff, and the Secretary and so on for putting in a long day here. We appreciate your coming here and hearing us. If we had a key to the village we would present it to you, but we don't have such a thing. We don't even have doors on this village. We are letting everybody come in and speak their piece and we are glad you gave us the opportunity.

Thank you again for coming and hearing us.

MRS. RICHARDSON: My last official act of the evening is going to be to represent the Department of Energy, to turn this whole thing over to the Department of Energy.

DR. OERTEL: Thank you very much, Mary Ann, I think it was in very good hands. I want to thank you very much for being our moderator today. I also want to thank everybody who came here, particularly the speakers who did give us so many perspectives on the West Valley situation.

I can assure you that not only your comments and the ones you made verbally and the ones you may submit for the record, will find their way into the proceedings of this conference, but also that the things you have said will be heeded by us and we'll take those into account in the further conduct of this study.

I also would like to add my thanks to the people here from the high school, the principal and his people who worked so hard to make us, make this meeting possible here for us, including the cafeteria workers.

I also would like to thank the people from the Nuclear Regulatory Commission who appeared here today and addressed the issues concerning that Commission.

I would like to thank all the speakers for doing such an excellent job in staying within their allotted time. We closed earlier than I thought we might. We did manage to recognize all of the speakers, and I'm very happy that we were able to do so.

And, I would like to say that I'm glad the opinions, all the different opinions, got an opportunity of getting expressed here.

On behalf of the Department of Energy I want to thank you and I close this public meeting.

(Whereupon the meeting was adjourned.)

ADDITIONAL WRITTEN STATEMENTS

WRITTEN STATEMENTS

Congressman Stanley N. Lundine

Congressman Jack Kemp

Mr. J. Richardson Lippert, II, Franklinville, N.Y.

Dr. Michael Minot, Cong. Lundine's Science Advisory Steering Committee

Dr. Helen Caldicott, West Newton, Mass.

Mr. Robert W. Ratzel, President, Western N.Y. Environmental
Federation and Delegate to N.Y.S. Conservation Council for
Cattaraugus County, Perrysburg, N.Y.

Statement of League of Women Voters Lake Erie Basin Committee

New York State Assembly Act to Amend the Energy Law, in Relation

to the Storage of Radioactive Materials, introduced by M. of A. Hinchey

Mr. John H. Bunz, Environment Chairman of the New York State

Conservation Council, Inc., Tonawanda, N.Y.

Statement of the Cattaraugus County Planning Board

William R. Hilts, Secretary/Treasurer, Western New York Environmental
Federation, Sanborn, N.Y.

Lawrence Crist, Secretary, Springville Field and Stream Club

Mary Hays Weik, Committee to End Radiological Hazards, New York City

Marlene Zeiker (Mrs. Ronald), Springville, N.Y.

Edward A. Roney, Tonawanda, N.Y.

Mariam Goodman, Chairperson, North Shore Coalition for Safe Energy
Great Neck, N.Y.

Jinx Dowd, Labor Action Coalition of N.Y., Ithaca, N.Y.

Anna E. Wasserbach, Chairman, N.W. Federation for Safe Energy,
Buffalo, N.Y.

Donald P. Ogden, Croton-on-Hudson, N.Y.

Stephen A. Molello, Springville, N.Y.

Reply to Mr. Molello from Nuclear Regulatory Commission

Lorna Salzman, Friends of the Earth, New York City

Paul A. Giardina, Chief, Regional Office of Radiation Programs,
Region II, U.S. Environmental Protection Agency, New York City

Doris Brown, Save Cayuga Lake, Ithaca, N.Y.

D. S. Kiefer, League of Women Voters of Tompkins County, Ithaca, N.Y.

Ronald V. Rieman, Chairman, Energy and Environmental Management
Council, Cattaraugus County, Little Valley, N.W.

Bina Robinson, Swain, N.Y.

Betty Stephan, Colden, N.Y.

CONGRESSMAN STANLEY N. JONDINE
39th CONGRESSIONAL DISTRICT - NEW YORK

STATEMENT TO THE
DEPARTMENT OF ENERGY AND
NUCLEAR REGULATORY COMMISSION
WEST VALLEY, NEW YORK
MARCH 18, 1978

Earlier this week I had prepared a statement to present here today, a statement which I thought was well reasoned, explaining the purpose for today's public hearing, expressing numerous concerns that I have for the community of West Valley and their future, and setting forth criteria which I felt should be followed by the D.O.E. and N.R.C. in guiding their study and decision-making process regarding the technical alternatives and allocation of responsibilities of the future of the West Valley nuclear site.

I was forced to digress from my original planned statement, however, after examining a draft report of a D.O.E. intra-agency task force, released just three days ago, making overall recommendations for a national nuclear waste management policy. A number of specific policy recommendations concerning the future of the Western New York Nuclear Fuel Service Center are made within the scope of this report. These policy recommendations were not only made in advance of this public hearing, but also in advance of the findings, conclusions and recommendations of the specific study on West Valley charged to the D.O.E. under P.L. 95-238, enacted on February 25, 1978. As you know, the specific study of the West Valley site is the subject of today's hearings.

I am deeply concerned that the Department of Energy task force may have prejudged this study process and made recommendations concerning the future

of the West Valley site without first consulting interested parties and the public. Proceeding in this manner can only heighten public skepticism regarding the decision-making process of the Department of Energy. Quite frankly, it is very disturbing to me.

Specifically, the intra-agency D.O.E. task force report recommends that the federal government assume responsibility for the low level waste burial ground and the high level waste at West Valley. The report also points out that the facilities at West Valley might potentially be used for 1) resumed low-level burial operations, 2) receipt of additional spent fuel for storage, 3) international nuclear fuel cycle project evaluation and waste processing R & D demonstration, and 4) geologic disposal of wastes in shale or other suitable formations. The report also notes that the Department of Energy is evaluating the suitability of the Salina Basin salt beds in Western New York for potential siting of a repository for commercial radioactive wastes including those located at West Valley.

The beginning of a study process is not the time to enthusiastically endorse or totally reject any of these proposals. At the same time, it is disturbing to me that at no place in the report is the issue of decontaminating and decommissioning of the facilities at West Valley even addressed.

This report suggests that the D.O.E. is attempting to take advantage of an unfortunate set of circumstances surrounding the history and present status of the West Valley site to force acceptance of a nuclear waste storage

facility in exchange for financial relief for the obligations of New York State under current contractual agreements. I will oppose any attempt to hold New York State hostage in this fashion. The decision-making process must have the benefit of a detailed and comprehensive review of all the alternatives and of public input and comment.

It is of the utmost concern to me that, once again, in this latest D.O.E. draft report, virtually no consideration has been given to the people of the West Valley community and of the Western New York area. In the early 1960's, land was taken away from productive farmers and exchanged for a promise of abounding economic growth and productivity from the nuclear reprocessing business. During the operation of the plant between 1966 and 1972, there were repeated instances of human or hardware failure and overexposures were not carefully monitored. The commercial operation of the site has failed, the land cannot revert to farmland, and now with the site idle for five years, we still do not have an understanding of the possible health and environmental effects of the operation.

This community has been experimented on long enough. Both the federal and state government have a responsibility to help insure the future well-being of this community. This well-being encompasses economic, environmental, and social concerns.

A major portion of the tax base of the West Valley community will be exempted in 1980 when Nuclear Fuel Services leaves the scene. The federal or state government, as part of their fiscal responsibility in this matter, should

provide a form of impact aid or "in lieu of taxes" assistance to the local community. Such aid should be available for as long as the site is tax exempt, or as long as it is necessary for the community to make a transition to another economic base to replace lost local revenue.

I remain deeply concerned that there has been no objective health analysis conducted in and about the West Valley area. Oversight hearings recently held by the House Commerce Subcommittee on Health and the Environment raised many questions regarding the potential adverse health effects from currently acceptable amounts of low level radiation. An aggressive and continuous analysis of the health effects on this community and surrounding areas must be given priority consideration by the Department of Energy and Nuclear Regulatory Commission.

Decisions regarding the future of the West Valley nuclear site should not be made to advance a pro-nuclear cause, or alternatively, to advance an anti-nuclear cause. I am not certain whether we should endorse any new nuclear initiatives in the future or whether we should abandon nuclear energy entirely as a source of energy. I do know that it is absolutely essential that we solve this nuclear waste disposal problem without delay.

The history of the West Valley site is replete with federal and state government irresponsibility. Both played a cooperative role in plunging forward into an uncertain situation without first analyzing its ramifications or consequences. We should be determined not to repeat our past mistakes.

I intend to continue to be an advocate for the best interest of the people of the Western New York area. Although I cannot be certain without further examination whether any of the technical options for the West Valley site suggested in the intra-agency task force draft report released this week have merit, I am extremely disappointed by the manner in which the Department of Energy has proceeded. If this hearing today is to have any meaning at all, a strong message must be conveyed to the Department of Energy that this type of closed decision-making process is totally unacceptable. I urge the Department of Energy and the Nuclear Regulatory Commission to listen closely to the concerns expressed here today.

STATEMENT OF REPRESENTATIVE JACK KEMP AT THE DEPARTMENT OF ENERGY PUBLIC MEETING ON OPTIONS FOR THE WESTERN NEW YORK NUCLEAR FUEL SERVICE CENTER, WEST VALLEY CENTRAL SCHOOL, WEST VALLEY, NEW YORK, SATURDAY, 18 MARCH 1978

The country is watching West Valley today. It is watching not only what is done but also how it is done. The formulation of a critically important public policy, one which may impact substantially upon the types of energy fuels we, our children and their children will use in the future, must be based on reality. Neither unfounded hysteria nor saying we have nothing to worry about will help us resolve this matter.

But everyone concerned with the problem must understand it is not worth endangering the health or life of a single human being because of a postponement of addressing ourselves to the problem and the expeditious effecting of a solution.

There are three questions with which the Department of Energy study of the options available as to the Nuclear Fuel Services Center must answer:

- * How we got to this position we are in today.
- * What is to be done with respect to the wastes, the facility and the site; and
- * Who is to pay and why?

In 1957 the Federal Government sought industrial and State participation in reprocessing radioactive waste and in their storage. It is important to keep in mind as we go through this inquiry that the impetus which led eventually to this problem came from the Federal Government.

In 1961 New York State acquired the present site, and in the following year Nuclear Fuel Services, Inc., was formed by W.R.

Grace Company and AMF. Between 1962 and 1963 a lease and waste storage agreement was negotiated between Nuclear Fuel Services and the New York State Energy Research & Development Authority. A base load agreement was reached with the Federal Government's Atomic Energy Commission to provide an initial load for the plant, a load understood to be sufficient to insure the success of Nuclear Fuel Services as a commercial venture. The Atomic Energy Commission insisted that the State of New York take responsibility for the long term care and custody of the radioactive wastes. After those assurances were given by the State, utility contracts were negotiated, providing a limited initial commercial load with no responsibility for wastes.

The plant was constructed between 1963 and 1965, and between 1966 and 1972 that plant processed 600 tons of fuel, 75-percent of which was Federal Government source, three out of each four tons processed. In 1970 the Atomic Energy Commission, an instrument of the Federal Government, changed its policy with respect to long-term storage of radioactive wastes, in essence insisting upon the Federal care and custody of such wastes. The Nuclear Regulatory Commission, a Federal agency and successor to an element previous within the Atomic Energy Commission, sustained that new policy. In short, the new rules required wastes to be solidified and shipped to a Federal waste disposal area, rather than retaining the wastes in a liquid form, as had been contemplated in the construction of the NFS Center. That change in policy made further commercial reprocessing uneconomical.

Based on the change in policy and on the fact that such a change made further commercial operation of the Center's facilities impractical, NFS notified the public, Federal agencies, and the

State of such a decision. It also notified the State of its intention not to renew the existing lease beyond 1980, a lease the terms of which not only provided for that contingency but also for the State to take over the entire site and facilities, including the wastes, upon the expiration of the lease.

Last year the State of New York, based upon the preponderant role of the Federal Government in the operation of the facilities, including supplying 75-percent of the spent fuel and governing the facilities' operations through its policies, sought a Federal take-over of the site. Faced with the policy question of what ought to be done, Congress authorized the study by the Department of Energy which brings us to these and other meetings.

What is to be done with respect to the wastes, the facilities and the site?

My staff was informed this week by an engineer with the Department of Energy that the 600,000 gallons of liquid wastes now at the West Valley site would reduce to approximately 85 cubic feet in a solid waste form. That is a block of four feet by four feet, some 5 feet 4 inches high. I believe those wastes should be moved to a Federal storage area far removed from any population center, presumably on Federal lands in the West. The Department of Energy's draft Report of Task Force for Review of Nuclear Waste Management, released only two days ago, has recommended, "A majority of independent technical experts has concluded that high-level waste can be safely disposed in geologic formation, such as salt or granite." I see no reason why this cannot be done and done far from any population centers.

This report deserves substantial attention today, because as the Federal Government's outline of where it intends to go with respect to nuclear waste management, the decision with respect to West Valley will be made within its framework.

Let me quote from the relevant sections of the Report:

A majority of independent technical experts have concluded that high-level waste ... can be safely disposed in geological media...

* * * * *

The responsibility for the ultimate disposal for all forms of nuclear waste should be with the Federal Government...

* * * * *

The Task Force recommends that DOE assume responsibility for the ownership and management of the six present commercial low-level waste burial grounds. These are located at ... West Valley, New York ...

* * * * *

Federal management of nuclear waste for ultimate disposal cannot take place independently of local concerns. State and local governments have an important role to play in the process. Their viewpoints, and local expertise, must be more effectively integrated into national planning.

* * * * *

DOE should accept responsibility for the high level waste at West Valley. ... Planning for the disposition of this material should then be integrated into total DOE planning for high level wastes at all sites. ... Similarly, other possible applications of the West Valley site to meet future national and state needs should be considered.

Costs associated with assumption of Federal responsibilities should be shared by the participants so that all parties have a financial stake in the decisions taken to restore the site to productive use, if this is desired, and in removal of undeired waste materials.

Now, what does all of this mean.

First, that the Federal Government is willing to accept responsibility for the low-level waste burial ground and the high level waste at West Valley. This is presumably in recognition of their 75-percent role in providing those wastes.

Second, the Federal Government desires the viewpoints and the expertise of State and local governments, viewpoints which can be expressed openly here today.

Third, we do not know what the Federal Government intends to do with the

West Valley facilities after assuming their responsibility. The inference is made in the Report that operations at the facility could be resumed.

Fourth, even though the Federal Government wishes to assume responsibility for the wastes and the management of nuclear waste in the future, it feels those costs should be shared by the participants, without clearly defining the participants. Does that mean the State of New York and its State Energy Research and Development Authority? Commercial ventures which supplied 25-percent of the spent fuel? It then wants unrecovered DOE costs for low level burial grounds to be recovered in charges for future low level services to all customers, a strong hint of future activity.

Let me comment on those points.

First, the Federal Government should assume responsibility for the low-level waste burial ground and the high level waste.

Second, State and local government, as well as community interests, public and private, should be heard, and all of this should be on the public record. I will return to this point in a moment.

Third, I believe the site must be decommissioned as a nuclear fuel reprocessing center in the sense it was operated from 1966 to 1972. I am opposed to its use as a major reprocessing center, bringing wastes in from throughout the country or the region, reprocessing them and disposing of them at the site. The availability of the site for research and development remains to be seen, but the facility is a resource that ought not to be simply abandoned without much thought and debate about the alternatives.

I want to make it clear that I am unalterably opposed to using West Valley as a Federal dumping ground for additional, large amounts of nuclear waste in the future.

Fourth, I believe the Federal Government ought to bear the total costs for this matter. To recommend that it assume the responsibility but only a share of the cost is to insult our intelligence; it's analogous to having its cake and eating it too. It also ignores the role of the Federal Government in

having brought the facility into existence, providing it with 75-percent of its work, and then changing the rules and regulations to such a degree that it put the commercial venture out of business.

This brings us to our last principal point.

Who is to pay and why?

The most pressing problem for the people of New York is the issue of potential liability for the costs of decommissioning. Depending upon the disposal technique selected, the cost of decommissioning the plant ranges from \$20 million to \$600 million. It is important to remember, as these figures are analyzed, that there really is no upper limit on expenditure for absolute safety in anything, whether it is an automobile, an aircraft or an electric generating plant.

I am firmly persuaded, however, that liability for any such costs rests entirely with the Federal Government, as I have indicated.

No private organization should be protected from poor business judgment, one which results in commercial failure. But, when the Federal Government assumes responsibility for the complete regulation of an industry, as it did here, it must also assume the responsibility for the economic consequences of such substantial changes in regulations that the viability of the industry is undermined.

In light of this point and the realities on which it is based, there is no reason for the State of New York and thereby its taxpayers to assume these costs. Yet I have heard disturbing rumors in recent weeks that the present New York State Government may be in the process of agreeing to pay as much as 50-percent of the yet-to-be-determined costs. This could add a tax

burden of as much as \$300 million -- nearly half of the proposed tax cut which New Yorkers are supposed to receive under the terms of the new State budget.

This State's leadership has a regrettable history of selecting the highest cost alternatives for its operations. I see no reason to continue that history. If the Governor wishes to make the point to the people that the costs are a result of an agreement arrived at by a prior Governor, he ought simply to say it, make the point, and get on with placing the present responsibility where it really lies, with the Federal Government. It is not too late for the State to reverse its historical pattern and insist upon full Federal liability for costs associated with the NFS decommissioning.

My concern over the position of the State does not stop with cost liability though. It goes to what are disturbing rumors that the NYSERDA may have tentatively agreed to the idea of allowing the Federal Government, once it assumes responsibility for the facility, to hold the spent fuel rods from the nuclear reactors of a multistate area. This would be a use of the facility as a dumping ground for additional wastes in the future. It is said that the State may have agreed to this as a trade-off in getting the Federal Government to assume a share of the costs. If true, not only would the local community have to oppose what the State has agreed to, as to an expanded use of the site in the future, but it would show us how poorly the State maneuvers in the political arena. Federal cost assumption could have been, and can be, obtained in other ways.

In summation, I think the Buffalo Courier-Express hit

the nail on the head when it editorialized about this matter last year, commenting:

... the prime responsibility lies with the federal government, which licensed the operation, provided much of the spent fuel and generally encouraged the undertaking (through the then-Atomic Energy Commission). So we hope the Subcommittee (on Environment, Energy and Natural Resources of the House of Representatives) will push this position and insist that it be accepted as government policy.

PRESENTATION TO THE DEPARTMENT OF ENERGY
CONCERNING THE WESTERN NEW YORK NUCLEAR SERVICE CENTER

Dated: West Valley, New York
March 18, 1978

(Portions of this Presentation were deleted
or modified to adjust oral delivery to
10 minutes.)

Witness: J. Richardson Lippert, II
Franklinville, New York 14737

WEST VALLEY--AND BY THAT I REFER TO THE WESTERN NEW YORK
NUCLEAR SERVICE CENTER--HAS BEEN A BITTER-SWEET EXPERIENCE GONE SOUR
FOR LOCAL RESIDENTS, STATE GOVERNMENT, THE NUCLEAR INDUSTRY AND ITS
PROMOTERS AND REGULATORS.

DOE and NRC HAVE BRIEFED US ON THE BACKGROUND OF THE
FACILITY AND SOME OF THE PROBLEMS CONFRONTING US TODAY. I WILL
OUTLINE MY PERSONAL VIEWS IN THREE CATEGORIES. FIRST, WHAT ARE THE
COMPETING DEMANDS FOR THE FUTURE USE OF THE FACILITY? SECOND,
HOW CAN WE MAXIMIZE THE SATISFACTION OF THOSE COMPETING DEMANDS
OR--CONVERSELY--MINIMIZE DISSATISFACTION? AND FINALLY, WHO WILL
PAY THE BILL?

THERE ARE MANY DEMANDS COMPETING FOR ATTENTION AND
EXECUTION, BUT GENERALLY THEY CAN BE PUT INTO A FEW PIGEON-HOLES.
ONE DEMAND IS THAT OF LOCAL GOVERNMENTS AND NEAR-BY COMMUNITIES
FOR A TAX BASE AND EMPLOYMENT. AT THE SAME TIME--IN LIGHT OF ITS
CONTRACTUAL RESPONSIBILITIES, AND PROJECTED COSTS--THE STATE OF
NEW YORK WANTS OUT AND WOULD LIKE THE FEDERAL GOVERNMENT TO TAKE OVER.
THE FEDERAL GOVERNMENT, OF COURSE, RECOGNIZES A PROBLEM WHEN IT
SEES ONE AND IS RELUCTANT TO ASSUME ANY FINANCIAL BURDEN WITHOUT
ALSO RECEIVING SOME OFF-SETTING BENEFITS. SUCH MIGHT BE THE CASE
IF WEST VALLEY WERE CONVERTED TO A FEDERAL REPOSITORY. IN ESSENCE,
ALL LEVELS OF GOVERNMENT WANT TO MINIMIZE THEIR LOSSES.

NOW, INTERTWINED WITH THESE GOVERNMENTAL CONCERNS ARE COMPETING DEMANDS SUCH AS SAFETY AND ENVIRONMENTAL MEASURES VERSUS COST...AND UNCERTAINTY VERSUS DELAY. THESE ARE MORE ESOTERIC IN NATURE AS THEY TEND TO RAISE QUESTIONS SUCH AS: HOW SAFE IS "SAFE ENOUGH"? OR HOW MUCH UNCERTAINTY CAN BE ELIMINATED BY FURTHER DELAY? WHILE SUCH QUESTIONS ARE EASY TO ASK, THE ANSWERS VARY ACCORDING TO INDIVIDUAL EXPERIENCES AND BELIEFS.

ENOUGH ON DEMANDS. WHAT CAN BE DONE AND HOW CAN THE DEMANDS BE RECONCILED?

MY PROPOSAL--IN A SENTENCE--IS TO PHYSICALLY BIFURCATE THE SITE TO SATISFY THE GREATEST NUMBER OF COMPETING DEMANDS AND-- AT THE SAME TIME--PROVIDE NEEDED FLEXIBILITY TO SOLVE THE WASTE PROBLEM. IN OTHER WORDS, THE 3,345-ACRE SITE WOULD BE PARTITIONED BY ISOLATING THE EXISTING NUCLEAR AREA AND FREEING THE REMAINDER OF THE SITE FOR NON-NUCLEAR INDUSTRIAL USE TO SERVE AS A DEMONSTRATION ENERGY CENTER.

I WILL EXPLAIN THIS ONE STEP AT A TIME. FIRST, WE DETERMINE THE AREA OF THE SITE THAT WILL BE REQUIRED TO CONTAIN, CLEAN-UP AND REMOVE THE EXISTING WASTES IN THE TANKS AND THE NPS BUILDING. THIS NECESSARILY ENTAILS ABANDONING THE FURTHER USE OF THE ENTIRE SITE FOR ANY FURTHER NUCLEAR ACTIVITIES--EXCEPT CONTAINMENT, CLEAN-UP AND REMOVAL.

AS TO THE ISOLATED NUCLEAR AREA, I PERCEIVE THREE PHASES OF ACTION. PHASE I IS TO REMOVE THE HIGH-LEVEL LIQUID WASTES BY SHIPMENT--IN SUITABLE FORM--TO HANFORD OR SAVANNAH RIVER. WHILE I REALIZE THAT THIS INVOLVES CERTAIN TRANSPORTATION RISKS, WE HAVE TO PLACE THE PROBLEM IN PERSPECTIVE. THE WASTES HERE AMOUNT TO APPROXIMATELY 600,000 GALLONS. IN HANFORD, WASHINGTON, AND AT SAVANNAH RIVER WE HAVE ABOUT 75,000,000 GALLONS. GIVEN THESE NUMBERS, IT DOES NOT MAKE SENSE TO ME TO EVEN CONSIDER WEST VALLEY AS A PERMANENT FEDERAL REPOSITORY. LET'S CONCENTRATE--NATIONALLY SPEAKING-- ON PLACING THESE DANGEROUS WASTES AT A FEW FOCAL POINTS. INDEED, THIS IS NRC POLICY AND AN EXCEPTION IN THE CASE OF WEST VALLEY CANNOT BE JUSTIFIED.

THE SECOND PART OF PHASE I--AS I HAVE DESCRIBED IT--WOULD REQUIRE THE TRANSFER OF SPENT FUEL ELEMENTS PRESENTLY STORED AT NFS TO OTHER LOCATIONS.

PHASE II OF MY PROPOSAL--STILL IN THE NUCLEAR AREA-- CONSIDERS THE NFS PLANT AND THE LOW-LEVEL WASTE AREA. BOTH PRESENT A TOUGH PROBLEM WITH WHICH I FEEL WE WILL HAVE TO LIVE FOR SOME PERIOD OF TIME. AT THIS POINT, I FEEL WE MUST DECONTAMINATE ALL OF THE ACCESSIBLE AREAS OF THE PLANT STRUCTURE. THEN--BECAUSE OF THE HIGH-RADIATION AREAS--PUT THE PLANT IN MOTBALLS UNTIL OUR TECHNICAL PEOPLE FIGURE OUT WHAT TO DO. IT MAY BE THAT A METHOD TO CLEANSE THE STRUCTURE WILL BE FORTHCOMING TOMORROW...OR IT MAY BE SEVERAL YEARS HENCE. AT THIS POINT, WE SIMPLY DON'T KNOW. THUS, WE CONTAIN THE PROBLEM UNTIL THE SOLUTION IS AT HAND.

THE SAME IS TRUE WITH THE OTHER HALF OF PHASE II: THE LOW-LEVEL WASTES. IN MY OPINION, IT IS NOT NOW FEASIBLE TO REMOVE THEM TO ANOTHER LOCATION. IT MAY NEVER BE...AND PERPETUAL MAINTENANCE MUST BE CONSIDERED.

PHASE III CONSIDERS THE HIGH-LEVEL SOLID WASTES. INITIALLY, THESE WASTES WILL HAVE TO BE CARED FOR UNTIL METHODS OF REMOVAL ARE DEvised. THE COSTS WILL BE HIGH, BUT--AGAIN--I WOULD REITERATE THAT THE NATIONAL POLICY IS TO PLACE THE WASTES AT A MINIMUM NUMBER OF LOCATIONS.

SO MUCH FOR THE NUCLEAR AREA OF THE SITE. I NOW WANT TO FOCUS ON THE OTHER HALF OF MY PROPOSAL, NAMELY, THE NON-NUCLEAR AREA.

YOU WILL RECALL THAT I PREVIOUSLY SUGGESTED THAT THE BALANCE OF THE SITE BE DEDICATED AS A "DEMONSTRATION ENERGY CENTER". IF YOU'RE ASKING: WHAT IS THAT?, I DON'T BLAME YOU BECAUSE A YEAR AGO MY QUESTION WOULD HAVE BEEN "THE SAME.

AN ENERGY CENTER--AS SUCH--DOES NOT EXIST IN THE U.S. CONCEPTUALLY, IT IS A COMPLEX OF CLOSELY-LOCATED INDUSTRIES DESIGNED TO SHARE ENERGY IN SUCH A WAY THAT ENERGY UTILIZATION IS MAXIMIZED. COGENERATION--ONE OF THE KEY WORDS IN PRESIDENT CARTER'S ENERGY MESSAGE LAST SPRING--IS THE CORNERSTONE OF AN ENERGY CENTER. WHILE "COGENERATION" MAY BE A NEW WORD--ESPECIALLY TO THOSE OF US BORN AFTER 1940--IT IS A PROVED TECHNOLOGY WITH ROOTS DATING BACK TO THE 1930's.

SIMPLY STATED, COGENERATION IS THE USE OF ENERGY IN A SERIES OF STEPS TO TAKE ADVANTAGE OF THE RESOURCES NATURE HAS GIVEN US. IN SCIENTIFIC TERMS, COGENERATION IS AN ENGINEERED SYSTEM DESIGNED TO OBTAIN MORE USEFUL WORK PER UNIT OF ENERGY INPUT WITHIN THE CONSTRAINTS OF THE SECOND LAW OF THERMODYNAMICS.

NOW THAT MAY SOUND COMPLICATED, BUT THIS IS A CASE WHERE THE BARK IS WORSE THAN THE BITE. WE HAVE THE HARDWARE AND THE KNOW-HOW TO COGENERATE TODAY.

IT IS POSSIBLE, FOR EXAMPLE, TO USE SOME OF THE ENERGY OF BURNING FUEL AT HIGH TEMPERATURES TO MELT METAL OR OPERATE A KILN. THEN TAKE THE GASSES FROM SUCH A PROCESS--STILL AT HIGH TEMPERATURE-- AND FIRE A BOILER TO PRODUCE PROCESS STEAM AND ELECTRICITY. THIS IS COGENERATION...IT CONSERVES ENERGY...AND WE USED TO DO IT IN THIS COUNTRY. WE STOPPED IN THE LATE 40'S BECAUSE FUEL WAS SO CHEAP THAT COGENERATION WASN'T WORTH THE BOTHER.

TO SUMMARIZE THIS PART OF MY PROPOSAL, I AM ASKING STATE AND LOCAL AGENCIES TO COOPERATE IN THE GOAL OF ESTABLISHING A DEMONSTRATION ENERGY CENTER AT WEST VALLEY. THIS MAY SOUND A BIT GRANDIOSE; AND CANDIDLY I MUST SAY THAT NEW YORK STATE AND--TO A GREATER EXTENT--WEST VALLEY ARE NOT THE FIRST LOCATIONS THAT MAY POP INTO A BUSINESSMAN'S MIND WHEN HE IS LOOKING FOR A PLACE TO GROW.

NEVERTHELESS, THERE ARE POSITIVE ATTRIBUTES TO CONSIDER:

-SITE ACQUISITION PROBLEMS DON'T EXIST AS THE STATE ALREADY OWNS THE PROPERTY

-NEW YORK STATE ENERGY RESEARCH AND DEVELOPMENT AUTHORITY (NYSERDA), THE ACTUAL TITLE HOLDER, ENJOYS AN EXCELLENT POSITION TO COOPERATE WITH DOE TO FUNNEL REALISTIC AND PROVED ENERGY-SAVING CONCEPTS TO THE CENTER

-BECAUSE OF THE GREAT VOLUME OF DATA AVAILABLE, REQUIRED ENVIRONMENTAL STUDIES TO OBTAIN PERMITS WOULD BE EXPEDITED

-THE CENTER WOULD HAVE A CONTINUOUS AVAILABILITY OF ENERGY AT LOWER COST.

PERSONALLY, I'M NOT WILLING TO GIVE UP THE SHIP ON NEW YORK STATE OR THIS AREA. I FEEL THAT THE MECHANISMS EXIST TO SEE THIS THROUGH, THAT IS, NYSEDA TO COORDINATE THE TECHNICAL ASPECTS OF THE PROJECT, AND THE NEW YORK STATE DEPARTMENT OF COMMERCE TO COORDINATE THE DEVELOPMENT. THE NEED FOR COMMUNITY AND LOCAL GOVERNMENT COOPERATION IS OBVIOUS.

HAVING STATED THAT, I NOW SHIFT TO THE THIRD AND FINAL CATEGORY THAT MIGHT BE DUBBED "THE 600-MILLION DOLLAR QUESTION".

FIRST, THOUGH, PLEASE PERMIT ME TO RISE TO THE MACROSCOPIC LEVEL OF THE CURRENT STATE OF NUCLEAR DEVELOPMENT IN THIS COUNTRY. I MUST STATE FOR THE RECORD THAT I OPPOSE THE FURTHER DEVELOPMENT OF NUCLEAR POWER AS IT IS PRESENTLY PRACTICED. NEVERTHELESS, I RECOGNIZE THAT COMMITMENTS HAVE BEEN MADE AND NUCLEAR POWER WILL BE PROVIDING ELECTRICITY FOR SEVERAL YEARS TO COME.

IN VIEW OF THIS REALITY, I FEEL THAT IT IS IN THE NATIONAL INTEREST TO SPARE NO COSTS IN OUR CLEAN-UP OF WEST VALLEY. IF WE MAKE THE MISTAKE OF CUTTING CORNERS TO SAVE MONEY, A MINOR HUMAN ERROR, EQUIPMENT FAILURE OR DESIGN FAULT COULD BE CATASTROPHIC. IN SUCH A CASE, THE FLAMES OF PUBLIC OPPOSITION TO NUCLEAR POWER COULD BECOME SO HEATED THAT THE ECONOMIC UNDERPINNINGS OF OUR ENERGY SUPPLY WOULD BE SEVERELY THREATENED. IF ANYONE FEELS WE CAN'T AFFORD TO DO THIS RIGHTLY, MY RESPONSE IS THAT WE CAN'T AFFORD THE OPPOSITE.

LOOKING AT THE BIG PICTURE FOR JUST ANOTHER MOMENT, I WOULD LIKE TO SAY THAT I FEEL TODAY'S SOCIETY HAS A MORAL OBLIGATION TO AT LEAST PAY FOR--IF NOT SOLVE--THE NUCLEAR WASTE PROBLEM. I REALIZE THAT THE TANK CONTAINING 600,000 GALLONS OF WASTES MIGHT LAST FOR ONE, TWO OR--PERHAPS--THREE GENERATIONS. THAT'S ALL WELL AND GOOD WHEN VIEWED IN A NARROW PERSPECTIVE, BUT MAINTAINING THE

WASTES SIMPLY TO PASS THEM ON TO OUR CHILDREN IS SO IRRESPONSIBLE AS TO JUSTIFY PARRICIDE. I URGE YOU TO RECOGNIZE THIS RESPONSIBILITY AND DEAL WITH IT NOW.

ALL OF WHICH BRINGS US BACK TO THE CRUX OF THE PROBLEM: DOLLARS.

LEGAL VERSUS MORAL RESPONSIBILITY--WHATEVER THEY MAY BE-- BETWEEN NFS, NEW YORK STATE AND THE FEDERAL GOVERNMENT HAS BEEN BANDIED ABOUT LIKE A TENNIS BALL AT WIMBLEDON. WE HAVE BEEN DISTRACTED TO THE POINT WHERE WE ARE FRUSTRATED BY OUR INABILITY TO POINT BLAME. THE REASON IS PARADOXICAL: NO ONE IS TO BLAME, YET EVERYONE IS TO BLAME. SO WHAT DO WE DO?

MY SUGGESTION IS TO ADOPT A NO-FAULT CONCEPT AND SPREAD THE COSTS OF CLEANING-UP WEST VALLEY AMONG THE IDENTIFIABLE BENEFICIARIES OF ITS ACTIVITIES.

AT THE OUTSET WE MUST FACE THE REALITY THAT THE FEDERAL GOVERNMENT IS THE ONLY INSTITUTION OF SOCIETY WITH THE TECHNICAL EXPERTISE TO COPE WITH THE PROBLEM. DOE, NRC AND THEIR CONTRACTORS SOLELY POSSESS THE ORGANIZATION AND THE KNOW-HOW ON A SCALE THAT WILL BE REQUIRED.

THAT'S NOT TO SAY, HOWEVER, THAT THE FEDERAL GOVERNMENT ASSUMES ALL COSTS. THESE SHOULD BE ALLOCATED IN A MORE EQUITABLE MANNER--AND THAT CALLS FOR AN EXAMINATION OF THE FACTS.

FACT NUMBER ONE: ABOUT 65% OF THE WASTES GENERATED AT NFS RESULTED FROM THE PROCESSING OF FUEL TO EXTRACT PLUTONIUM AND OTHER MATERIALS FOR WEAPONS AND EXPERIMENTAL PURPOSES FOR THE ATOMIC ENERGY COMMISSION.

BASED ON THAT, 65% OF THE CLEAN-UP COSTS SHOULD BE PAID BY ALL OF THE TAXPAYERS OF THE UNITED STATES. PRESUMABLY, THE BOMBS THAT WERE MADE AND THE EXPERIMENTS THAT WERE DONE BENEFITED ALL OF US WHETHER RESIDENTS OF NEW YORK, MAINE OR CALIFORNIA. ACCORDINGLY, THOSE COSTS SHOULD BE DISTRIBUTED ACROSS THE NATION.

FACT NUMBER TWO: THE REMAINING 35% OF THE WASTES ARE ATTRIBUTABLE TO THE PROCESSING OF SPENT FUEL ELEMENTS FROM COMMERCIAL POWER REACTORS.

I PROPOSE THAT THESE COSTS BE ALLOCATED AMONG THE BENEFICIARIES OF NUCLEAR POWER BY THE IMPOSITION OF A SPECIAL FEDERAL TAX. THIS "NUCLEAR TAX" WOULD BE IMPOSED AGAINST THOSE UTILITIES PRESENTLY GENERATING ELECTRICITY BY NUCLEAR FISSION, AND PASSED THROUGH TO THEIR CONSUMERS. EACH UTILITY'S SHARE OF THIS TAX WOULD BE DETERMINED BY THE RATIO OF THAT UTILITY'S POWER OUTPUT ATTRIBUTABLE TO NUCLEAR FISSION IN RELATION TO THE TOTAL POWER OUTPUT ATTRIBUTABLE TO NUCLEAR FISSION BY ALL UTILITIES.

AS MORE REACTORS COME ON LINE, THE MIXTURE WILL CHANGE OR THE BASE WILL SPREAD. I WOULD ENVISION THE CUSTOMER'S BILL REFLECTING A "NUCLEAR SURCHARGE" SIMILAR TO THE "FUEL COST ADJUSTMENT" THAT IS PRESENTLY ITEMIZED ON OUR UTILITY BILLS TODAY.

I FEEL THE NO-FAULT CONCEPT IS THE MOST EXPEDITIOUS AND REALISTIC WAY TO APPORTION THE COSTS AT WEST VALLEY AND TO BEGIN INTERNALIZING THE ECONOMIES OF OUR PRIOR JUDGMENTS.

IN CONCLUSION, THE DILEMMA WE FACE IS A BITTER PILL. GOVERNMENTS AT ALL LEVELS HAVE BEEN VOLLYING FOR POSITION, WHILE THE NUCLEAR INDUSTRY HOLDS ITS BREATH AND LOCAL CITIZENS WAIT WITH ANXIETY. WE MUST ALL TASTE THE BITTER PILL, FOR EACH OF US-- IN OUR OWN WAY--IS RESPONSIBLE.

WHEN LOCAL GOVERNMENTS ASK FOR AN IMMEDIATE ASSURANCE OF A TAX BASE AND EMPLOYMENT, THE PILL RESPONDS: "WORK HARD AND IN A SHORT WHILE YOU WILL BE REWARDED."

WHEN THE STATE ASKS FOR REPRIEVE, THE PILL SAYS: "YOU MUST EXPEND YOUR EFFORTS, AND YOUR CITIZENS MUST BEAR THEIR FAIR SHARE OF THE COSTS."

WHEN THE PEOPLE OF THE NATION (a/k/a THE FEDERAL GOVERNMENT) SEEK ABSOLUTION, THE PILL DEMURS: "NO, YOU HAVE CONTRIBUTED SIGNIFICANTLY, AND YOU HAVE CLOISTERED THE NUCLEAR PRIESTHOOD WITH YOUR REALM."

AND FINALLY, WHEN THE NUCLEAR UTILITIES PUT UP THEIR HUE AND CRY OVER THE NUCLEAR SURCHARGE, THE PILL CURTLY BORROWS CLARK GABLE'S FAMOUS LINE AND SAYS: "FRANKLY MY DEAR...I DON'T GIVE A DAMN."

THANK YOU.

APPENDICES TO LIPPERT PRESENTATION

TO

DEPARTMENT OF ENERGY

- I. PROPOSED EXPANSION TO SCOPE OF DOE STUDY TO INCLUDE NON-NUCLEAR OPTION.

- II. EXPLANATION OF NEED FOR PROPOSED EXPANSION AND FURTHER ELABORATION ON FINANCIAL RESPONSIBILITY.

APPENDIX I

Proposed Addition to DOE - proposed outline
for the forthcoming Summary Report.

2.3 Options for a Non-Nuclear Area of Site

- 2.3.1 Define boundaries of safe nuclear area
 - Technical and Safety Feasibility
 - Topography and Access Upstream on Buttermilk Creek
- 2.3.2 Energy Center Development Considerations
 - Willingness of industry to locate near existing nuclear facilities
 - Optimum type and mixture of industries
 - Site resources
 - hydrology
 - sewerage
 - rail transportation
 - highway transportation
 - Power Plant
 - optimum size
 - design and location
 - feasibility of excess power sale to grid
 - State and Local Agency Organization
 - state and local industrial incentives
- 2.3.3 Potential for Employment and Local Revenue
 - Compared with total nuclear site use
 - Time frame comparison

WESTERN NEW YORK NUCLEAR SERVICE CENTER STUDY

Assumes approximately 30 page Summary Report supported by a Detailed Backup Report and appendices. The following is the proposed outline for the summary report:

- 1.0 INTRODUCTION
- 1.1 Congressional Charge to DOE
- 1.2 Summary Description, History, and Present Status of Site and Facilities
- 1.3 Summary of West Valley Issues as Perceived by Concerned Parties
- 1.4 Structure of This Report
- 2.0 TECHNICAL OPTIONS FOR THE FUTURE OF WEST VALLEY FACILITIES
- 2.1 Options for Decontamination, Decommissioning and Waste Disposal
(each of the following includes a summary of the existing situation, uncertainties which must be addressed, status of technology and the range of options)
 - 2.1.1 High Level Liquid Wastes
 - 2.1.2 Fuel Hardware Burial Grounds
 - 2.1.3 Low Level Burial Grounds
 - 2.1.4 Reprocessing Plant
 - 2.1.5 Spent Fuel Storage
- 2.2 Options for Continued Use of the Site
 - 2.2.1 Low Level Burial Grounds
 - Technical Feasibility
 - Demand and Potential Income
 - Uncertainties and Problems
 - Employment Potential
 - 2.2.2 Reprocessing Plant
 - Current U. S. Policy on Reprocessing
 - Demonstration of High Level Waste Solidification
 - Other Uses of Facility
 - Employment Potential
 - 2.2.3 Spent Fuel Storage Facility
 - Technical Feasibility
 - Current U. S. Policy
 - Demand and Potential Income
 - Employment Potential
 - 2.2.4 High Level Waste Storage Tanks
 - Technical Feasibility
 - Current U. S. Policy
 - Employment Potential
- 3.0 INSTITUTIONAL ASPECTS
- 3.1 Responsibility for Execution of Technical Options
 - 3.1.1 Decontamination and Decommissioning
 - 3.1.2 Continued Uses of Site
- 3.2 Financial Responsibilities
 - 3.2.1 Analysis
 - 3.2.2 Findings
- 4.0 RECOMMENDATIONS

APPENDIX II

THE NEED TO EXPAND THE STUDY

One of the purposes of my statement to DOE is to point out what amounts to, in my opinion, a "blind spot" in the scope of the proposed study, to wit: An inadequate consideration of non-nuclear uses of a portion of the site. Such non-nuclear use ought to be given major consideration for the following reasons:

- (1) Non-nuclear development would meet comparatively less opposition, if any, than a proposed expansion of nuclear activity.
- (2) The cost and initiative for the non-nuclear area, as I have proposed it, would be assumed entirely by agencies of the State of New York with local agencies assisting.
- (3) The time-frame to carry out non-nuclear development would undoubtedly be smaller than nuclear development.
- (4) DOE and NYSERDA are each charged with the legislative mandate to consider non-nuclear as well as nuclear energy utilization and development.

In my opinion, the proposed outline for the DOE study leaves a gaping hole in the review of available site options.

DISCUSSION OF PROPOSED ADDITION TO EXISTING DOE OUTLINE

I propose the addition of a non-nuclear option substantially in the form set forth as paragraph 2.3 in APPENDIX I. That paragraph uses the same format (and depth) as the proposed DOE outline [also set forth in APPENDIX I].

SECTION 2.3.1 seeks to define a boundary to divide the 3,345-acre site into two parts: (1) The nuclear area being that area necessary to encompass the existing facilities and which will be reasonably required to safely execute clean-up, removal, and containment only, and (2) The balance of the site that would be dedicated to non-nuclear uses. My position is that the site can be divided in such a manner that less than ten (10%) percent of the site would be necessary for restriction as a nuclear area. I am asking DOE to test the hypothesis with conclusions supported by specific factual material.

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The balance of SECTION 2.3.1 assumes the feasibility of dividing the site as described above. With particular reference to the non-nuclear area: Define site access and topography. Points on Buttermilk Creek upstream from the nuclear area should receive attention as they are less likely to have radioactive contamination from prior activities, and less likely to restrict future flexibility in the nuclear area.

SECTION 2.3.2 considers the "Energy Center" concept. An article that appeared in the May, 1977, issue of FORTUNE MAGAZINE is included as a part of this APPENDIX to further describe the concept and the state of the art. [Permission to distribute a limited number of copies was granted to me by TIME, INC. on March 16, 1978. Permission for further distribution must be granted by TIME, INC.]

A number of study topics are set forth under SECTION 2.3.2. A fundamental question is: Would the existence of the "next-door" nuclear facilities preclude a prudent businessman from locating in the energy center? If so, why? And is such a prejudice indelible or can it be eradicated by education? These questions go to the heart of my proposal and I do not have the answers. I realize the old AEC promotional gimmick of "nuclear parks" (subdivisions within walking distance of reactors and children playing in playgrounds) has gone by the wayside. Has the pendulum now swung to the point where hopes for the proposed energy center are fruitless?

The type and mixture of industries would depend upon the most feasible method of inaugurating an energy center. Basic consideration must be given to industries willing to locate in the area. Beyond that, industry processes must be defined to meaningfully utilize the principle of cogeneration. Each step of the "energy staircase" [see attached article] must be coordinated with the general plan.

Site resources in the non-nuclear area must be defined. They include hydrology; development of industrial, sanitary and storm sewerage capabilities; present and future railway facilities; and present and future highway systems. Most of this information is available, and all that is required is the marshalling of existing data.

The hub of an energy center, as I perceive it, is the existence of a central power plant on the site. It is integrated on the "top side" or "bottom side" [see FORTUNE article for clarification of terminology] or, perhaps, "between top and bottom". It must be considered a major producer of electricity for the site, and an auxiliary component in the total thermodynamic process. Power plant capacity will depend upon fuel availability, cooling capacity, land availability and the requirements of its industrial neighbors.

My guess is that the power plant should be built first to provide a magnet for the balance of the center. Assuming New York State agencies can cooperate, surplus power initially available might be sold to the power grid.

One disadvantage to early power plant construction is the uncertainty of the needs of future industries. Its design must be given much forethought to include flexibility to retrofit, expand, and incorporate site-wide cogeneration. In the same light (although I don't rely on the tooth fairy) design consideration must be given to the possibility of technological breakthroughs such as magnetohydrodynamics and other high-flying technologies now receiving serious consideration in the laboratory.

My final point under SECTION 2.3.2. is that the non-nuclear area must be the responsibility of state and local governments. The people in the West Valley area and New York State cannot call upon the federal government to provide all solutions to all problems (and ask that they be served on a silver platter under a crystal dome). State and local governments must become self-reliant within the realm of their capabilities. I am hopeful that the State of New York has the capacity to streamline itself to avoid bogging flexible and rapid decisions.

The final SECTION, 2.3.3, requests an analysis of the potential state and local economic impact of the non-nuclear option. What is a realistic projection and what is the time frame of the projection? How does it compare with the economic impact if the entire 3,345-acre site is dedicated to nuclear use as implied by SECTION 2.2 of the DOE outline?

STUDY APPROACH: NON-NUCLEAR

The extent and the manner of partitioning the site must be decided between the State of New York and the federal government. Beyond that, the area of inquiry set forth in SECTION 2.3 is primarily a state and local question to which their agencies are capable of responding.

Most of the data already exists and its organization calls for management rather than basic research. Therefore, no time delay should result by the inclusion of paragraph 2.3 within the DOE study. Moreover, as appears in the FORTUNE article, predecessor agencies now a part of DOE have already done considerable work in this field.

FINANCIAL RESPONSIBILITY

The DOE outline, SECTION 3.2, proposes to analyze and make findings of fact about the W.N.Y. Nuclear Service Center.

With respect to that area of the study, I wish to re-emphasize my comments in my presentation and stress the need to avoid prolonged conflict. The situation at hand is much too complex to neatly fit a definitive mold. Neither the United States nor any of the states have faced a similar crisis in the past. This is a "first" and we must deal with it without distraction.

The no-fault concept that I propose deals with the reality that the scope of our problem is confined to no geographic, private, or political entity. Although human nature beckons for a search to point responsibility to "someone", such a search will divert our resources and distract attention. If ultimate responsibility can be assigned, let historians prepare the accounting while we conquer the problem.

The beneficiaries of the activities at the NFS plant must be identified so as to allocate the costs associated with the activities. My presentation sets forth a proposal, and I realize the percentages are subject to adjustment.

Furthermore, the utilities who had fuel processed at NFS are not identical with the utilities presently possessing nuclear capability. This raises a flag about the special federal tax: Should it be assessed against only those utilities whose fuel was reprocessed by NFS OR all utilities presently generating electricity by nuclear fission? For several reasons, I prefer the method outlined in my presentation. A number of other refinements and incentives might be built into this basic tax mechanism.

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INDUSTRY CAN SAVE ENERGY WITHOUT STUNTING ITS GROWTH

Far from taking us back to Walden Pond, conservation could open up a great

To the dismay of many businessmen, President Carter's energy program breaks with the policies of previous Administrations by stressing conservation more than the development of new supplies. Ever since the energy crisis hit, the instinctive response of the U.S. has been like that of an animal deprived of its food: a nervous questing after new sources. Behind this drive was the assumption that the economic organism would suffer malnutrition and stunted growth were it not fed the large and growing energy diet to which it was accustomed. A national policy of reducing the rate of growth of consumption, in other words, has been widely equated with the sort of deprivation that is welcomed only by a few middle-class extollers of the simpler life.

But mounting evidence—from other countries, from recent U.S. experience, and even from theoretical physics—suggests that prosperity and growth are not so rigidly coupled to an increasing energy diet as was long supposed. A number of economists and engineers, in and out of government, have been grappling with the question of how the U.S. can curb its gluttonous, and probably unsustainable, energy appetite. Some have been surprised by their own conclusion that the nation, after experiencing an unavoidable bulge in consumption during the next decade or so, could wind up around the year 2000 using

no more energy than it does now. In the meantime, it could continue achieving respectable economic growth, though perhaps not at the exuberant rates of the cheap-energy years.

The portrait these experts paint of an energy-efficient society looks to be a far cry from the nontechnological, Thoreauvian rusticity that the word "conservation" evokes in many people's minds. Instead, it would be a tightly organized, capital-intensive society whose hallmark would be meticulous engineering. In the interim, a lot of resources would have to be redirected. Building an energy-efficient society would mean altering or retiring a considerable portion of the capital and consumer goods that were designed for an era when energy was cheap and plentiful.

A \$500-billion capital-goods boom

But change, of course, is what industry is all about. Contrary to businessmen's fears of wrenching decline, constructing that society and its accoutrements represents a seldom-matched opportunity to devise and market a vast array of brand-new goods. This opportunity comes at a time when slowing population growth and saturating consumer markets are making a lot of business lives either boringly routine or bruisingly overcompetitive.



Heat paints a portrait of an energy-leaking chemical plant in this "thermograph" made by an infrared scanner, increasingly used these days to spot such

many economic opportunities. *by Tom Alexander*

Roger W. Sant, a former head of conservation for the Federal Energy Administration and now a private consultant to government and business, estimates that energy conservation could generate up to \$500 billion in capital outlays between now and 1985. And if that sounds prohibitively costly, it is useful to keep in mind that *without* conservation, the nation faces a far higher bill for the additional energy it will need.

Lowering the projections

Until fairly recently, most estimates of how much energy the U.S. would require in the future were prepared by the petroleum industry, government officials, and others whose experience and concern were mostly with supply, not conservation. Generally speaking, their projections were extrapolations from growth patterns of the past when energy was cheap and getting cheaper in real terms. Nor did they see much elasticity of demand with rising prices. Accordingly, typical forecasts from the early Seventies saw consumption growing from the 1973 level of 75 "quads" (quadrillions of British thermal units) to between 115 and 125 quads in 1985 and continuing on up to around 200 quads by the year 2000.

The Ford Foundation Energy Policy Project's 1974 report, "A Time to Choose," was the first major study to

stress conservation. It drew a lot of flak by asserting that the nation could travel the path of zero energy growth, after reaching the 100-quad level in 1985, with essentially no damage to economic welfare. Critics in industry, government, and the universities found the report unrealistic in its assumptions about how rapidly society could or should change. Last September, though, the Institute for Energy Analysis of Oak Ridge Associated Universities—an organization that includes several individuals, such as nuclear physicist Alvin M. Weinberg, who have traditionally been associated with the "supply" camp—came out with an influential study outlining surprisingly low projections of energy needs.

Using new data and plausible assumptions about trends in energy prices, population growth, productivity, and in the market saturation of automobiles and household appliances, the institute put U.S. energy demand at between 101 and 126 quads by the year 2000—little more than half the figure that seemed likely in most earlier studies. Moreover, the Oak Ridge study concluded, real G.N.P. per capita could easily grow at between 2.4 and 2.6 percent a year, not as fast as in the soaring Sixties and early Seventies but faster than the long-term average rate that has prevailed since 1940.

Researchers working on a still-unfinished study for



losses. The dark blue, light blue, green, yellow, red, and white tones—in that order—reveal heat losses in ascending temperatures.

the National Academy of Sciences see the possibility that consumption at the end of the century might conceivably be even lower—possibly in the 70-quad range. That conclusion has been echoed by researchers working for the Department of Commerce, whose analysts stress that energy consumption will have to continue climbing from now until the late Eighties before it can turn downward again, partly because of the slow pace at which energy-using machines wear out and get replaced.

A major difference between many of the old, high-demand forecasts and the newer ones is that the former took it for granted that most energy conservation would occur in the household, transportation, and commercial sectors. It would consist of measures like insulating homes, turning down thermostats, and driving more efficient automobiles at 55 mph. All these savings would be more than offset by increased consumption in the industrial sector, where it was assumed that most businesses were already operating pretty efficiently and where energy usage would grow in step with output.

So far, what has happened is the exact reverse. Of all the energy-consuming sectors, industry is the only one that consumed less energy in 1976 than it did in 1973. Overall, it consumed 6.2 percent fewer BTU's in producing almost exactly the same volume of goods. Meanwhile, the BTU's consumed by the residential-commercial and transportation sectors increased by 3.4 and 2 percent respectively.

The biggest gains lie in redesign

Most of the industrial savings to date, to be sure, have been in the nature of pretty unexciting "housekeeping" measures. They include things like turning off lights and machines that are not being used or repairing leaks in high-pressure steam lines or in the thousands of trouble-plagued "steam traps" that separate live steam from condensed water. Less obvious, more expensive approaches have included tricks like replacing oversized electric motors or even installing small power-generating turbines in place of the pressure let-down valves that reduce the 300-pounds-per-square-inch pressure in a natural-gas pipeline to the 30 psi that a furnace might require.

Obviously, only so many of these comparatively painless savings are possible in any existing plant, and industry has probably spotted many of them by now. Most of the remaining improvements will require far costlier alterations and replacements of existing equipment, and in many cases a complete redesign of industrial processes.

But the amount of energy that can be saved that way is absolutely immense. Most of the plants now in existence were built when energy cost a lot less in the United States than it did almost anywhere in the world—as it still does. Seeking an optimum balance between the costs of labor, capital, materials, energy, and so forth, U.S. designers have generally paid a lot less attention to energy efficiency than have their counterparts elsewhere. Now, energy

costs weigh far more heavily and, despite the pretense of the politicians to hold back the tide with oil and gas price controls, they will probably weigh even more heavily in the years ahead.

Europe and Japan furnish clear evidence that the demand for energy is price-elastic. The average price of various fuels in these countries ranges from 1.2 to 2.5 times that in the U.S., while the countries' per capita consumption—in the transportation, residential, and commercial as well as industrial sectors—averages about 50 percent less. Some of the disparity, to be sure, can be put down to differences in per capita income, to cooler summers, more apartment living, shorter commutes and freight hauls, and so forth. But even foreign industries that perform approximately the same jobs as their U.S. counterparts manage to use a lot less energy.

Those energy-stingy French smelters

In West Germany, for instance, five energy-intensive industry categories—food; chemicals; petroleum and coal products; stone, clay, glass, and concrete products; and primary metals—use around 35 percent less energy per dollar of sales than the same industries in the U.S. The effect of price on energy consumption shows up even in processes that are in most respects identical. Both the U.S. and France employ the electrolytic Hall process for refining aluminum. Since the French pay 70 percent more for their electricity, they operate their smelting pots with less current. The penalty is slightly lower production per man-hour and per dollar of invested capital, but the French expend about 22 percent less energy per ton of aluminum.

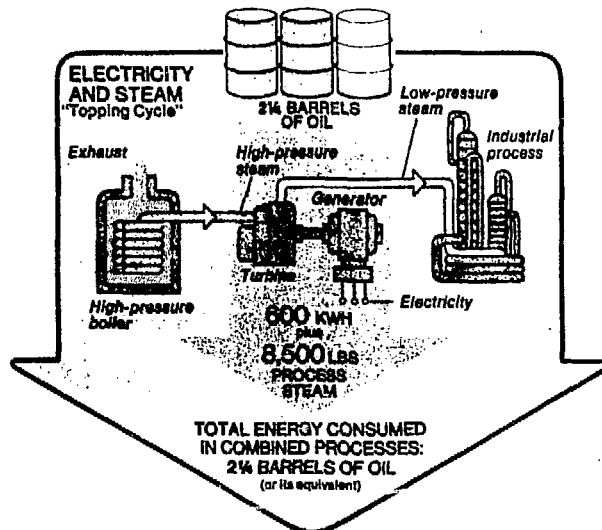
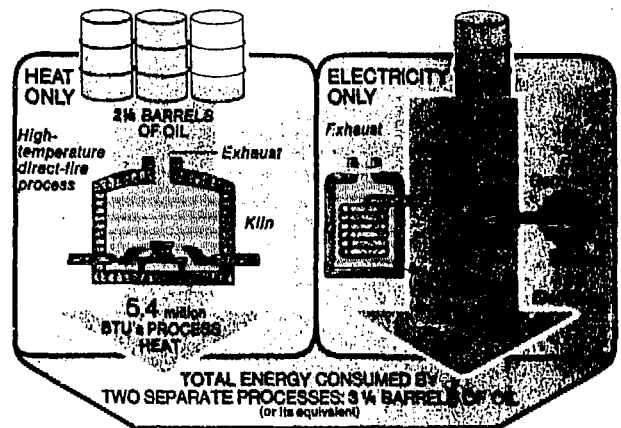
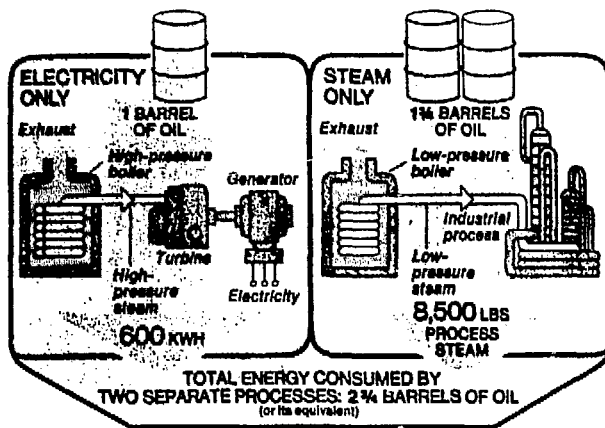
Since the OPEC price hike, the energy prices paid by consumers in nearly every major industrialized country in the world have shot up a lot higher than prices paid by consumers in the U.S. The consequence is that U.S. industry is a laggard in reducing consumption. As energy prices climb, however, all kinds of new processes will become competitive. In the case of aluminum, for instance, Alcoa is now developing a chlorine process that purportedly requires around 30 percent less electricity than the best Hall smelters, though it may cost more to build. Dow Chemical Co. has opened a plant for making ethylene dichloride that requires 85 percent less energy per pound than older plants.

Once engineers start looking at most common industrial processes with an eye to cutting energy use, the opportunities generally seem boundless. Engine exhausts, kilns, furnaces, soaking pits, ovens, distillation towers, and so forth are merely a few of the thousands of industrial devices that have long been allowed to spew valuable heat into the atmosphere. In most cases, that heat can be retained or used for some other purpose.

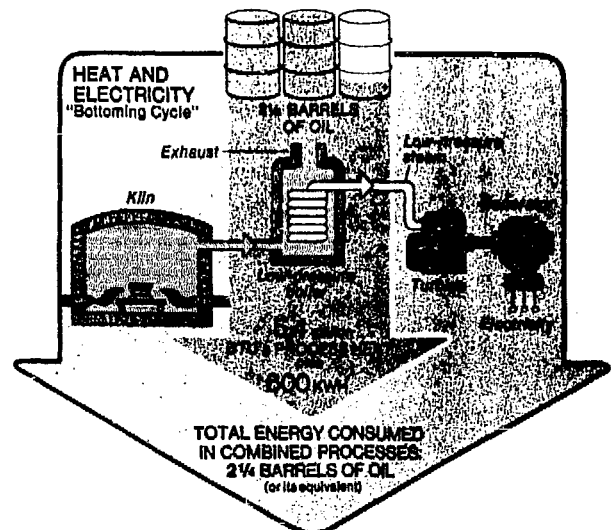
As the opportunities unfold, a huge market should develop for all kinds of heat exchangers—boilers, recuperators, regenerators, etc.—the function of which is

continued

HOW TO SAVE FUEL THROUGH CO-GENERATION



ENERGY SAVING: 19%



ENERGY SAVING: 31%

The hottest "new" idea in energy-policy circles is to revive the old technique of "co-generation" - producing electricity along with heat or steam that will be used for other purposes. Co-generation can take many forms. What all have in common is that they increase the amount of useful energy extracted from each pound of fuel. All forms, furthermore, employ either "topping cycle" or "bottoming cycle" generators, depending upon whether the electricity is produced before or after the process heat.

The left-hand diagram directly above illustrates one version of a topping cy-

cle. An ordinary industrial boiler that converts 8,500 pounds of water every hour into steam at a temperature of 300° F. and 50 pounds per square inch of pressure is replaced by a boiler that produces higher-grade, 700°, 800-psi steam that is first sent through a "back-pressure turbine" to generate electricity. After it emerges from the turbine, it still has the 300°, 50-psi levels that an industrial process might require. Creating that initial high-grade steam, to be sure, takes extra energy. But the total fuel savings over separate power and steam production, according to

Thermo Electron Corp., which supplied the data for these diagrams, amounts to 19 percent.

In the bottoming-cycle approach, illustrated directly above at right, high-temperature gases from a firing kiln are ducted to a boiler producing 450° steam at 400 psi. This generates power in a turbine. The fuel savings in this case are even more impressive—31 percent less than would be consumed if the heat and electricity were produced separately. Along with saving energy, both the topping and bottoming cycles save capital and reduce pollution.

to extract heat from one stream of gas or liquid and transfer it to another. One potentially enormous source of heat, for example, is the hot water discharged by electric-power plants and some other industries. In nearly all the countries of both Eastern and Western Europe, much of this water is used for "district heating"—i.e., to heat nearby commercial buildings and apartment houses.

It pays to keep things hot and dry

Often, energy efficiency consists merely of not allowing something to cool off. The basic process streams of steel mills, for instance, consist of ore pellets, sinter, coke, and coke-oven gas going in, and pig iron, steel ingots, slabs, blooms, billets, and coils coming out. Normally each of these is heated more than once. Recent developments, such as continuous casting, reduce the heat required in the output stream, while some companies are investigating the advantages of not permitting newly made ore pellets and coke to cool before they are used.

Just as multiple heating and cooling wastes energy, so does multiple wetting and drying. Most of the energy in the pulp and paper industry, for instance, goes into drying things out. The pulp from a pulp mill is normally dried before it is shipped to a paper mill, where it is moistened again, converted into paper, and dried once more. Making pulp and paper at the same site can save more than 10 percent of the energy. Experiments are under way in Sweden to make paper without water. Many U.S. cement makers still grind cement as a wet slurry that must be dried, while in many other countries they make it dry to begin with. The U.S. textile industry is experimenting with dyeing fabrics with colored foams instead of wet solutions, thereby reducing drying times.

Improvements in the efficiency of energy production are at least as important as improvements in the efficiency of energy use. A lot of the fuel in an industrial boiler just goes into heating up the air in the fuel-air mixture itself. An obvious first step is to adjust the air-fuel mixture fed into a furnace to optimum proportions. Better yet is to use waste heat from elsewhere to preheat the combustion air before it goes to the furnace. This also enables the furnace to operate on a "leaner" fuel-air mixture: that is, one with a fuel ratio that would be too low to support combustion with cold air.

This principle has recently been put to ingenious bootstrapping use in a coil-coating oven developed by the Canadian firm, BNK Industries, with some help from the U.S. Energy Research and Development Administration. These gas-fired ovens bake out the solvents used in cleaning and painting sheet metal. The Environmental Protection Agency has ordered that all such ovens be fitted with "after-burners" to burn the solvent fumes emitted by the ovens. When the gas crisis began shaping up, it occurred to BNK to modify the ovens so that the solvent fumes themselves become the fuel that fires the oven. With some funding help from ERDA and the National Coil

Coaters Association, BNK modified an oven for one of its industrial customers in time for the gas crisis. It worked so well that BNK already has orders for several more modifications.

Over the long haul, the greatest promise for reducing industrial energy consumption lies in applying some long-known but astonishingly neglected insights that are implicit in the physicists' second law of thermodynamics. Most of the calculations of how much energy industry could save have been based exclusively on the *first* law of thermodynamics, the physical law that says that energy is neither created nor destroyed, but only transformed. Efficiency, in the eyes of that law, is the ratio between the useful work that a device performs and the amount of energy put into it.

What the second law addresses, however, is the *quality* of energy. That law holds, in effect, that thermal energy is a bit like water power: it can only power man's devices when it can flow from a region of high potential—high altitude in the case of water, high temperature in the case of thermal energy—to a region of lower potential. The implication, according to the second law, is that the actual usefulness of any given BTU of energy is not a constant but a variable quantity. As soon as a BTU of energy is released in the combustion process, it immediately begins to flow "downhill": that is, to dissipate itself into the cool surrounding environment where it becomes gradually lost to mankind's purposes.

A simple example illustrates the difference between the first and second laws: if you drop a red-hot block of iron into a kettle of water, it will turn some of the water to steam. In principle anyway, the steam could be sent through a turbine to generate a certain amount of electricity. Alternatively, though, the red-hot block could first be mixed with a lot of blocks that were initially at room temperature. Assuming that they have no other way of losing their heat, all the now-lukewarm blocks together would still contain the same number of BTU's of heat that were initially in the first block alone. But that heat wouldn't be able to do much work; if dropped into the same kettle of water, the blocks would produce no steam and no electricity at all.

The analogy of a wasted waterfall

Typically, most industrial processes waste huge amounts of the potential available work that the second law says is in every molecule of fuel. More than 45 percent of the energy used by American industry, for example, goes into making "process steam," which is used at a typical temperature of around 350° F. By first-law standards, the boilers in which that steam is made are pretty efficient devices; roughly 85 percent of the BTU's initially in the fossil fuel wind up in the steam.

But by second-law standards, these systems are scandalously inefficient, since they will exploit no more than about 25 percent of the fuel's available work. The reason

continued

is that the fuel molecules themselves—whether oil, natural gas, or coal—burn at a temperature around 3,600° F. To immediately dilute that wonderful, high-quality heat to the level of 350° is lamentably wasteful. It is the equivalent of building a 250-foot-high dam at the bottom of a 1,000-foot waterfall, and using only the 250-foot “head” in the man-made lake to generate electricity, instead of constructing penstocks to harness the far more potent 1,000-foot plunge of water from the top of the waterfall.

The era of cheap fuels led to a blithe disregard of second-law fundamentals and to the waste of unbelievable quantities of energy. On contracts from the Ford Foundation and the Federal Energy Administration, Thermo Electron Corp.—a company on Route 128 near Boston that makes furnaces, turbines, and other energy-using equipment for industry—has studied the processing technologies of a number of energy-intensive U.S. industries. It concludes that industry as a whole achieves an overall second-law efficiency of around 13 percent. Thermo Electron calculates that if that efficiency were raised only one percentage point, it would save some 3 percent of the total energy now consumed in the U.S.

Down an energy staircase

There are many ways to capture more of the available work that's in every pound of fuel. Mostly the techniques involve coupling together different devices that require different temperature levels, a strategy known as “cascading.” In principle, the fuel could first be burned inside thermionic or magnetohydrodynamic generators that are under development—devices that require very high temperatures to operate at all. What they do, in effect, is convert into electricity some of the energy carried by the rapidly moving ions emerging from the combustion process itself. After leaving this first stage, the somewhat cooler gases could be ducted directly to some sort of furnace to melt steel. The exhaust from the furnace could then be sent to a boiler to create process steam.

As the final step in this fanciful scenario, the hot water emerging from the manufacturing plant could be used to heat nearby office buildings or houses. It might even be worthwhile from a second-law standpoint to raise the temperature of some of the water by means of an electrically driven heat pump and use it to create some more process steam. By such complicated tactics it would be possible to reach a second-law efficiency of perhaps 30 to 40 percent.

President Carter's new energy policy foresees widespread use of a simpler form of cascading called “co-generation.” This linkup, which combines electricity generation with process heat or steam production, offers great promise of reducing national energy requirements, while at the same time reducing the awesomely burgeoning capital demands of the electrical utilities.

One study, coordinated by Dow Chemical Co. under

National Science Foundation sponsorship, estimates that by 1985, industry could economically justify producing about a third of its electric-power needs and half its process steam through co-generation. That would save the country 680,000 barrels of oil per day, reduce the capital requirements of the nation's utilities by \$4.1 billion per year between now and the mid-Eighties, and cut the average price of electricity paid by residential and industrial consumers by somewhere between 2.9 and 6 percent. Another study, by Thermo Electron, concludes that if the energy wasted in the paper, steel, and petrochemical industries alone were fully exploited through co-generation, it would supply a third of the total electrical requirements of the U.S.

Co-generation is nothing new. Industry produces about 29 percent of the total electric power of West Germany, where much of its power is fed into the national grid. Co-generation also supplies around 10 percent of the electricity requirements of American companies, many of which also sold power at one time. Since the 1920's, though, a host of regulatory, institutional, and economic barriers in this country have discouraged co-generation. States have held that companies selling power to utilities must be regulated as utilities themselves. Most companies would rather die.

Utilities long ago became reluctant to buy the power, in part because it was often erratically produced and therefore a certain amount of backup equipment was required. Furthermore, until the late Sixties, electricity from the utilities kept getting cheaper and cheaper. And manufacturing plants found it more economical to replace their cranky coal-fired co-generation plants with low-cost prefabricated boilers that burned cheap oil or gas to make steam alone.

Another form of co-generation, also far more prevalent in Europe than in the U.S., involves a central electric plant that produces and sells steam or hot water to either industry or residential complexes. The general constraint is that everything has to be located close together because of the cost and energy losses associated with piping steam or hot water.

A better way to burn coal

This central-station approach to co-generation, lately expanded into a more ambitious “energy center” concept, is being championed in this country by Gerald L. Decker, corporate energy manager for Dow Chemical, among others. Energy centers, a few of which already exist, generally consist of a power plant plus one or more manufacturing plants sited closely enough together to share steam. More such arrangements would save energy and reduce the amount of waste heat that now winds up polluting lakes and rivers—heat that amounts to about two-thirds of the energy consumed in making electricity. They would also further a major aim of U.S. energy policy—the switch from oil and gas to coal.

continued

As of now, most plant managers contemplate the prospect of burning coal with considerable unhappiness. A coal-fired boiler or furnace costs on average three to four times as much as its oil- or gas-fired counterpart. Coal is dirty and inherently polluting; storing it takes up a lot of valuable real estate, and hauling it around is a lot more cumbersome than pumping oil or gas. And while the future oil supply may be problematical, the infrastructure for supplying coal is exposed to a range of labor, environmental, and transportation uncertainties that are even scarier to most managers.

Many of the objections to coal are minimized in large central power or steam plants. Stokers, boilers, and stack-gas scrubbers are all proportionately cheaper in larger sizes. Utilities are accustomed to writing long-term supply contracts, and the mining and transportation industries can accommodate these well-anticipated demands.

The anomalies of "average" pricing

Already, the pressures of energy scarcity are forcing some major new moves in the direction of energy centers. Many of the petrochemical plants that settled in the Gulf Coast region to take advantage of natural gas at 20 cents per million BTU's now find themselves faced with the prospect of paying ten times as much and more. Worse than that, it's virtually certain that the government will force them to switch to coal.

Meanwhile, Gulf States Utilities, a principal supplier of electricity to the region, is not only facing similar prospects but also a tremendous burden of paying for the switchover and for new additions to capacity. Recently, Gulf States and the petrochemical companies in several Gulf area locations have been trying to get together on a plan for jointly building large new coal-burning plants that would generate steam and power.

One advantage of such an undertaking is that the power and steam could be sold to users under very long-term contracts that would assure a supply at fixed prices plus some form of escalation. This increased certainty might well offset one of the economic handicaps of most co-generation projects under the present rules of the game. This is the fact that their electricity, in the short run at least, can be undercut in price by power from conventional energy-wasting utility generating plants, even when those plants are built at today's hugely inflated costs.

This is an example of the way politically influenced rate making takes precedence over economic rationality. In free-market commodity transactions, prices generally reflect the marginal costs of production. But state public-utility commissions generally base electrical rates on the average costs of owning and operating the utility equipment, which includes the cheaper old generating plants as well as the costly new ones. Moreover, the rate structures tend to favor industrial bulk users of power.

On top of that, the utility has a monopoly in its area and, being in effect a ward of the government, can get by

with a lower rate of return on capital. When a manufacturing company—particularly one that is already highly leveraged—can get its hands on investment dollars, it often prefers to spend them on expanding plant or market share rather than on production economies, even when the rates of return favor the latter.

Late last year, a major cement company investigated buying a co-generating system to tap waste heat from some of its kilns and generate 4,700 kilowatts of power. The cost of the equipment would have been around \$2.7 million and the "fuel," of course, would have been free. But partly because of the low "average" price that the company currently pays for purchased power, it decided against the project even though the purchased power is subject to unforeseeable rate increases. Even so, the rate of return on the co-generation project would have been a very attractive 22 percent. But this company, like many, had a double standard, insisting on a 30 percent return from cost-cutting projects while settling for only 15 percent on those that expand capacity.

What made sense to the cement company, however, makes no sense for the country. An equivalent amount of new generating capacity, including fuel-supply facilities, transmission lines, etc., will eventually have to be built at a cost of more than \$7 million to the electric utility that supplies the company's power. Thus the nation will waste at least \$4 million of scarce capital, burn the equivalent of 180 barrels of unnecessary oil per day, and get some additional air pollution in the bargain.

Rules that can backfire

Often, government's instinctive response to such tales is to revert to the whip of law rather than to attack the market incongruities that were responsible in the first place. Among the proposals being considered in Washington, for example, is one that would require that every industrial steam boiler above such-and-such a size be equipped to co-generate electricity. Other proposals would require that every boiler, or every industrial process, meet such-and-such a standard of efficiency.

The Federal Energy Administration already has a so-called "mandatory" program for industry that calls for an average 18 percent efficiency improvement in the fifty largest companies in each of the ten most energy-hungry industries. So far, the only thing really mandatory about the FEA's program is that each company must report how well it is doing. No sanctions—except perhaps embarrassing publicity—are now in the law to enforce those standards.

But even this approach contains elements of inequity and the seeds of its own defeat. Mandatory requirements tend to penalize those companies that have been the most efficient in the past. They would also tend to discourage the changeover to coal, which usually burns less efficiently in boilers than oil or gas. One astute analyst of the complexities of energy usage, Bruce Hannon of the

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University of Illinois, points out another drawback in shotgun-style efficiency regulations. Companies that now expend energy making their own materials and parts, Hannon says, can achieve huge paper improvements in energy efficiency by simply switching to buying those materials from someone else.

Aside from the new overburden of bureaucracy and regulation that the mandatory approach entails, the substitution of regulations for prices practically guarantees suboptimal behavior. What it would probably do is to lock technology and institutions into their present format—removing the incentive to develop new processes and inhibiting society at large from adopting more energy-efficient arrangements. Without considerable economic incentive, for example, builders will not elect to nestle apartment houses or factories up to coal-burning power plants to share their warmth. Nor is it easy to conceive of any laws acceptable to American society that could force them to do so, except the laws of economics.

3M has a better idea

All these reasons for being skeptical of mandatory measures don't mean that society—through its government—cannot or should not bring to bear pressures to accelerate conservation, pressures that are stronger than the unaided market alone might muster. Recently, for instance, the 3M Co., in consultation with several other companies and the state of Minnesota, proposed what it calls the "Minnesota Plan." The objective is to reduce energy consumption in the U.S. commercial and industrial sectors by at least 30 percent—the equivalent of about 5.5 million barrels of oil per day—below levels that would otherwise be reached in the coming decade. While the planners estimate that around half that 30 percent could be achieved at little or no cost, the remaining half would require altering or replacing plant and equipment at a cost of around \$60 billion.

The key governmental feature in the Minnesota Plan would be a 25 percent tax credit to companies for expenditures related to energy conservation, plus a same-year write-off. The tax incentives would expire within five years—a provision designed to get companies moving at once. 3M contends that the plan would not even result in any long-term loss of revenues to the government, since the short-term loss would be made up quickly through taxes on the companies' subsequent energy savings.

On its face, the Minnesota Plan appears to have a lot to recommend it, but such proposals may find a cool reception in Congress. Legislators are already worried about appearing to reward industry for conserving energy when everyone else is being compelled to make sacrifices. Yet the plan is preferable to a set of governmental measures that attempt to bully the industrial sector into conserving more energy. A more effective stick to wield—along with the carrot of tax breaks—would be high energy prices.

That stick, as it happens, is acquiring more force with every OPEC price increase and every boost in the ceiling price of "new" interstate gas. Having studied the supply-versus-demand question from various perspectives, the experts now pretty much agree that it generally costs a lot less to save energy than to consume it. John A. Belding, director of conservation research and technology at ERDA, says that, as a rule of thumb, it costs somewhere between a few cents and \$1.50 to save a barrel of oil, compared with today's going prices of \$11 to \$18 to industrial users. Robert O. Reid, vice president of Energy & Environmental Analysis Inc., a consulting firm, estimates that the average after-tax return on energy-conservation investments now lies somewhere between 20 and 30 percent. Thomas F. Widmer, vice president of Thermo Electron, calculates that if the U.S. were to invest \$160 billion in conservation measures and another \$160 billion on developing new supplies over the next decade, there would be far less of a drag on economic growth than if it spent the \$500 billion to \$800 billion that economists estimate will otherwise be needed to develop new sources of supply.

The abrupt rise in the marginal cost of supplying new energy—a change that began about 1970, even before OPEC stunned the world with its huge price increases—is the event that will sooner or later trigger a huge new conservation industry. Until 1970, energy consultant Roger Sant points out, the average incremental cost of new energy supplies was about \$1.60 per million BTU's, or less than the average price that consumers paid. But today, Sant says, the cost of adding new supplies—exploration, drilling, building power plants, etc.—is in the range of \$4 per million BTU's. And the average wholesale price of all forms of energy is being held down to \$2.70, primarily by government price controls.

The coming industrial symbiosis

The industrial history of the U.S. has been one of continual dissolution and recrystallization into new patterns. What drives the process is capital depreciation and shifting relative costs of the different factors of production. In the past, many of the changes were energy-related—the replacement of water-powered mills along streams by steam-powered mills in cities and coalfields, the shift of chemical plants to the gas fields of the Gulf states.

The steepening costs of energy seem likely to remobilize this restless process, except that now the only cheap and abundant new sources of energy lie in the vast amount of available but unused work that is discernible through the second law of thermodynamics. The latest episode in the quest after energy may be a coalescence of industry—and perhaps even dwellings—into symbiotic contractual relationships that will allow each participant to nourish itself on that portion of the energy cascade that others can't efficiently exploit. Companies may find, in other words, that the largest, cheapest supply of new energy will be—each other. END



American Chemical Society

CONGRESSIONAL SCIENCE
COUNSELOR PROGRAM

1155 SIXTEENTH STREET, N.W.
WASHINGTON, D.C. 20036
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March 17, 1978

My name is Dr. Michael J. Minot. I am a materials scientist employed in Corning, New York. I am a member of Congressman Stanley Lundine's Science Advisory Steering Committee. I am a member of the American Chemical Society and represent the 39th Congressional District in the A.C.S. Congressional Science Counselor Program. The views I express below are my own and are not necessarily endorsed by the A.C.S. or Congressman Lundine.

I have reviewed the D.O.E. approach for the Western New York Nuclear Service Center Study, dated 2/23/78. I am in general agreement with the 3-part approach of the study:

1. Identify issues
2. Outline options
3. Prepare recommendations to Congress

The issues surrounding West Valley are primarily social-legislative issues. Technical feasibility for a number of waste management options has already been outlined and detailed in a number of reports including the Battelle report, 1976. The key issue that should be addressed in the proposed D.O.E. study is allocation of responsibility - legal, technical, financial and moral - for West Valley.

I strongly endorse the formation of a Board of Consultants as suggested in the D.O.E. memo of 10/14/77. This Board should include representatives from the State of New York, Cattaraugus County, Congressman Lundine's office, as well as concerned citizens from the immediate West Valley area. This Board should participate with D.O.E. in finalizing recommendations to Congress.

A reasonable policy for nuclear waste management is a key step in providing a timely resolution to the formidable problems surrounding increases reliance on nuclear energy in the near term future.

Sincerely,

Michael J. Minot
R. D. #2, Thurber Road
Corning, New York

Please reply to:



RECEIVED

1978 MAR 13 AM 10:16

DIV. OF WPR

By 415 Commonwealth Ave

West Newton

02165

Chen

Feb 27.

Dear Mr. Paragba,

I received a circular from DOE re the New Valley meeting on March 18. Unfortunately, I will be unable to attend that day, but I would like to submit an article on the medical implications of nuclear power, which has a large section on biological properties of radioactive waste on nuclear waste, to be submitted as evidence during this meeting & included in the public record,

Yours Sincerely

Helen Caldecott MD. MB, BS
FRACP.

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P.S. In fact, could this document be read aloud to the public meetings at some ~~of~~ time during the day - as it is most essential that the residents of West Valley understand the medical implications of this waste in the food chain & their bodies, if in fact it leaks or spills. Already there has been migration of actinides through the soil from low level solid burial sites & there will be inevitable contamination of the water system in time.

Mo.

MEDICAL IMPLICATIONS OF NUCLEAR POWER.

Nuclear power poses the greatest public health hazard the world has ever encountered because of the inevitable contamination of the biosphere with plutonium and radio active wastes. Cessation of all forms of nuclear power is the ultimate form of preventive medicine.

The fuel cycle of nuclear power plants is complex, but not too difficult to understand. It has many biological and medical implications which must be understood by the average person in the street as well as by the politicians who make most important decisions for society.

In this article I describe the fuel cycle step by step, and explain the medical dangers arising from each step.

1. **Mining.** Uranium is the fuel for atomic reactors. When it is mined from the ground it emits a radioactive gas called radon which is often inhaled into the lungs of miners where it converts after four days to lead 210 which remains radioactive for more than 100 years. Because radiation in the body is carcinogenic, it has been discovered in the U.S.A. that up to 20% of uranium miners die of lung cancer over a 20 year period of mining.
2. **Milling.** After the uranium ore is mined it is then milled and refined. Thousands of tons of waste ore (tailings) are discarded and left lying in huge heaps on the ground. The tailings generated to provide uranium for nuclear power in the U.S.A. over the next 24 years may produce 45 cases of lung cancer in the world per year for tens of thousands of years. The causative agent is again the gas radon which is continually emitted from the waste uranium in the tailings.
3. **Enrichment and fuel fabrication.** The uranium is then enriched and is fabricated into fuel rods which are transported to the nuclear reactor, and placed in the reactor core. A typical 1000 megawatt reactor contains 526 bundles and each bundle consists of 12 rods. The radioactive uranium produces heat by fission which is utilised to generate electricity. But during this process uranium is converted to many radioactive daughter products which are the ashes or wastes of nuclear power. Once a year one quarter of the rods are removed from the reactor core because their generating life has ceased. The rods are both thermally and radioactively very hot and must be stored on racks in cooling ponds containing water. They now contain a very large number of biologically dangerous radio active materials including strontium 90, iodine 131, cesium 137 and plutonium.
4. **Reprocessing.** Eventually it is hoped these rods will be transported in caskets to a reprocessing plant where they will be dissolved in nitric acid.

The plutonium is purified and removed from the solution, in powder form as plutonium dioxide. It will then be used as either fuel for atomic bombs or fuel for "breeder nuclear reactors" (reactors which breed plutonium). It is at this point in the fuel cycle that the greatest dangers arise once the plutonium is separated. Plutonium is an extremely potent cancer producing material, appropriately named after Pluto, the God of Hell. It enters the body of children and adults by inhalation of contaminated air, where it is deposited in the lung. Because of its potent cancer producing properties the acceptable body dose has been set at less than 1 millionth of a gram (an invisible particle). There is some evidence this level has been set too high. Cancer will not appear until 15 to 20 years after inhalation. By extrapolation, 1 lb. of plutonium, universally dispersed would be adequate to kill every man, woman and child on earth. Most of the plutonium manufactured in the fuel cycle will be in powdered form and by the year 2,020 in the U.S.A. the industry will have produced 30,000 tons of plutonium and there will be 100,000 shipments of material annually on the highways of the U.S.A. Because plutonium is the basic material of atomic bombs, it is more valuable than heroin on the black market, and therefore vulnerable to theft by terrorists, racketeers, non-nuclear nations and deranged individuals. Reactor grade plutonium makes inefficient but dirty bombs. It also has a curious physical property of igniting spontaneously when exposed to air, thereby producing tiny aerosolised particles which are dispersed by wind currents and available for inhalation by humans and animals. One could envisage disastrous consequences if a truck were to crash and discharge some of its deadly contents. Plutonium must be transported very carefully, packed in small quantities in separate containers because only 10 lbs is "critical mass" which means that a spontaneous atomic explosion could occur if 10 lbs or more were compacted together in a finite space.

The most important property of plutonium is a half life of 24,400 years, (half life of a radioactive substance is the period of time for half of a given quantity to decay, and a similar period for half of the remaining radioactivity to decay, *ad infinitum*.) Therefore radiation from man-made plutonium will exist on earth for at least half a million years. To illustrate the enormous medical problems arising from the physical properties of plutonium; if an individual dies of lung cancer engendered by plutonium, his body will return to dust, but the plutonium lives on to produce cancer in another human being.

Although it will be used as "fuel" in breeder reactors, more plutonium will be produced than will be utilised. So there will be a continual net increase in plutonium manufactured. The nuclear industry has not yet decided what to do with all this plutonium - there are no safe methods of disposal and storage available at this point in time.

5. **Waste Storage.** After the plutonium is extracted from the radioactive waste, very dangerous biological elements remain, which have no further use and are pure waste products. This remaining solution contains some plutonium, radioactive iodine, strontium 90, cesium and many

other highly toxic radio-nuclides. Because it is extremely hot, it must be stored in tanks which are cooled continuously for years. Every month numerous leaks of radioactive wastes are reported in the U.S.A., in quantities from several gallons to 200,000 gallons. When this dangerous fluid leaks it will inevitably contaminate the water system of the planet, and the various elements are taken up by the food cycle. Radioactive iodine, strontium 90, and cesium are absorbed by roots of grass and vegetables and are further concentrated in the flesh and milk of animals when they eat the grass.

Iodine 131, strontium 90 and plutonium are concentrated in milk, both human and animal. Cesium is concentrated in muscle (meat) and plutonium is also concentrated 1,000 times in fish compared to the background water concentration. These substances are invisible, because they are tasteless and odourless and it is impossible to know when one is eating or drinking or inhaling radioactive elements.

6. Biological properties of radioactive waste. All cells of the body have a central nucleus which contains genes, the basic inherited material which controls all our characteristics (colour of eyes and hair; size, facial characteristics, enzyme systems etc.). Genes are changed by radioactive particles. Cells and genes which are actively dividing (as in fetuses, babies and young children) are most susceptible to the effects of radiation. If a gene which controls the rate of cell division is altered by radiation, the cell may divide in an uncontrolled fashion to produce cancer and leukaemia. It may take from 15-30 years before cancer appears after the cell is exposed to radiation. If a gene in the sperm or egg is altered by a radioactive particle, the young may be born either with an inherited disease, or the baby may appear normal, but will transmit the damaged gene to future generations, to become manifest in later years.

Radioactive iodine is absorbed through the bowel wall, and migrates in the blood to the thyroid gland where it may produce thyroid cancer.

Strontium 90, is also absorbed through the bowel after being ingested in contaminated milk, and is incorporated in bone because it chemically resembles calcium. This element causes osteogenic sarcoma - a highly malignant, lethal bone tumour, and leukaemia, a cancer of the white blood cells. The blood cells are formed in the bone marrow, and are therefore subjected to the effects of radiation from strontium 90 in the adjacent bone.

Cesium 137 is deposited in muscles of the body where it can produce malignant changes.

Plutonium is one of the most carcinogenic substance known. It is not absorbed through the bowel wall, except in infants in the first four weeks of life when it is ingested in milk. As previously described, infants are extremely sensitive to the toxic effects of radiation. The route of entry of plutonium is by inhalation of contaminated air into the lungs. Small particles of plutonium are deposited deep in the respiratory passages, where they tend to remain for years. It is accepted that one millionth of 1 gram of plutonium is sufficient to produce lung cancer 15-30 years after initial inhalation of the element. Plutonium is also absorbed from the lungs into the blood stream where it is carried to the liver (to produce a very malignant liver cancer), to bone (where like strontium 90, it causes osteogenic sarcoma and leukaemia), and it is selectively taken up from the circulation by the testes and ovaries where, because of its incredible gene changing properties, it may cause an increased incidence of deformed and diseased babies, both now and in future generations. Plutonium also crosses the placenta, from the mother's blood into the blood of the fetus, where it may kill a cell responsible for development of part of an organ, e.g. heart, brain etc., causing gross deformities to occur in the developing fetus. This mechanism for production of fetal deformities is called teratogenesis and is different from the deformities caused by genetic mutation in the egg or sperm, because although the basic gene structure of the cells of the fetus is normal, an important cell in the developing fetus has been killed leading to a localised deformity. (Similar to the action of the drug thalidomide).

Massive quantities of radioactive wastes are being and will be produced in the future. The safe storage of waste is unsolved, and even if there were a present-day solution, we could not predict a stable society or world for half a million years; we could not guarantee incorruptible guards, or moral politicians and we certainly can not prevent earthquakes, cyclones or even wars. As waste is leaking now so inevitably will it leak in the future. We could therefore predict epidemics of cancer and leukaemia in children and young adults, and an increased incidence of inherited disease (there are 2,000 described inherited diseases). It is also inevitable that plutonium will be stolen and utilised for atomic weapon production (2 tons of plutonium are presently unaccounted for in the U.S.A.).

It has been claimed that 80 - 90% of all cancers may be caused by environmental pollutants. There was a 5% increase in cancer in the U.S.A. in the first seven months of 1975, and a total 3% increase in 1975.

Governments spend millions of dollars searching the causes of cancer, leukaemia and inherited disease, but simultaneously spend billions of dollars in an industry that will directly propagate these diseases.

As a doctor, I appeal to my fellow medical colleagues to investigate this enormous present and potential threat to our patients, and to urgently initiate programmes of prophylactic medicine.

I also appeal to the Mothers and Fathers of the world to educate themselves about the medical dangers of nuclear power and to demand from government a safe future for their children, grandchildren and descendants.

11014 North Road
Perrysburg, N.Y. 14129
February, 27, 1978

Joanne Passaglia
Div. of Waste Management
Mail Station B-107
Dept. of Energy
Washington, D. C. 20545

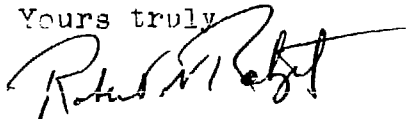
Dear Madam:

As President of the 6 County Western N.Y. Environmental Federation and a delegate to the N.Y.S. Conservation Council from Cattaraugus County, I have been very concerned about the Nuclear Fuel Plant which was built in West Valley, N.Y. This was a big mistake to saddle our taxpayers of Cattaraugus Co. with and have always felt that until a feasible method could be discovered to handle this nuclear waste it should have never been built.

I feel that it is only fair the Federal Government take over the OPERATION CLEAN UP as this waste is primarily brought in from outside New York State. The waste facility has seepage into a creek that empties into Lake Erie which is used as a water supply for many towns and cities and naturally is a great health hazard to our citizens.

This clean up operation will no doubt be very costly but we feel that it is essential to the health and safety of our people.

Yours truly



Robert W. Ratzel

League of Women Voters LAKE ERIE BASIN COMMITTEE

STATEMENT
TO
UNITED STATES DEPARTMENT OF ENERGY
ON
NUCLEAR FUEL SERVICES, INC. WEST VALLEY, NEW YORK
West Valley Central School March 18, 1978

The Lake Erie Basin Committee of the League of Women Voters represents 7800 members in 65 local Leagues in the Lake Erie watershed areas of Michigan, Indiana, Ohio, Pennsylvania and New York. Since its inception in 1963, this ~~state~~ committee and its component Leagues have worked to protect and restore Lake Erie and its tributaries through pollution abatement and prevention and through improved planning and management of water and related land resources.

This statement should not be interpreted as a position for or against nuclear power generation. We do, however, believe it is unwise to permit proliferation of nuclear wastes because present technology has not assured either short-term or long-term environmental safety.

The Albany/Washington decision to locate the Nuclear Fuel Services, Inc. operation at West Valley failed to consider several environmental factors and appears to be based solely on supposed isolation from major population centers. A number of other factors of equal or greater importance were obviously not given adequate consideration. For example, even a cursory examination of geographic/geologic conditions will indicate how unsuitable the West Valley site is for an operation of this kind.

Western New York has experienced repeated glacial action with resulting unconsolidated materials filling the valleys. At one period the ancestral Alleghany River flowed north and entered Lake Erie near where Cattaraugus Creek does today. One of the present day surface-water divides between the Lake Erie/Lake Ontario/St. Lawrence system and the Alleghany/Ohio/Mississippi system lies less than five miles from the NFS site.
(Ref: 'Guide Book Geology of Western New York State' Pg. D-14
State University College of New York at Fredonia 1974)

"Ground-water divides and ground-water flows do not always coincide with surface-water divides and surface-water flows, as ground-water moves into or out of the basin."
(Ref: Great Lakes Basin Framework Study
Appendix 3 Section 5 Lake Erie Basin)

Radioactive contamination of Erdman Brook, Buttermilk Creek, Cattaraugus Creek to its mouth and contamination of Lake Erie have been documented.
(Ref: 'Radioactivity from Nuclear Fuel Reprocessing Plant to Natural Waters'
Rupert, Pilgrim, Hopke SUCNY at Fredonia 1971, 1973
(Ref: 'Radiological Health Data & Report - EPA Vol. 12-9 Pg. 473)

MICHIGAN . INDIANA . OHIO . PENNSYLVANIA . NEW YORK

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"Lake Erie receives radioactive wastes from the first commercial fuel reprocessing plant. As a result of problems identified by the State's environmental monitoring program, the reprocessing plant was required to build a low-level liquid waste treatment plant to minimize discharges of Cs-137 and Sr-90. Tritium, Ru-106 and I-129 are not significantly reduced and these isotopes may be a problem in the future." (LWV underlining)

(Ref: International Joint Commission

Great Lakes Water Quality Board Report 1973 Page 217)

The foregoing comment relates to 1972 when the plant was in operation.

"Lake Erie showed no effect of the nuclear fuel reprocessing plant on Cattaraugus Creek and only weapons-fallout and natural radionuclides were present during 1974."

(Ref: International Joint Commission

Great Lakes Water Quality Board Report 1975 Page 92)

This covers a period when the plant was not in operation.

"The data available from monitoring programs in the Great Lake's during 1976 suggest that fallout from weapons testing is the predominant source of all man-made radionuclides in the aquatic ecosystem. However, these monitoring programs are considered to be inadequate in the light of the recommended Great Lakes' Surveillance Plan." (LWV underlining)

(Ref: International Joint Commission

Great Lakes Water Quality Board Report 1976 Page 52)

Question: Has there been monitoring of area ground-waters for all radionuclides present in NFS wastes?

Have the headwaters of the Alleghany (Great Valley Creek and Ischua Creek) which originate in this general area been monitored?

The western New York region is rated "3" (major destructive earthquakes may occur) for seismic risk by the U.S. Geological Survey 1976. The West Valley site is located 23 miles from the Clarendon/Linden fault according to the New York State Geological Survey sub-surface map July-August 1971.

"Regarding the high-level waste storage, the GAO has reservations about tank safety, and does not feel that it has assurance the waste would be contained if a tank failed.

GAO specifically found that:

- tank life is unpredictable and therefore the tank might fail at any time.
- tanks may not meet NRC seismic criteria.
- ground-water floated the tanks out of the ground during construction and damaged both vaults. The vaults were inspected and repaired following the incident, but the tanks were not."

(Ref: "West Valley and the Nuclear Waste Dilemma"

Twelfth Report by the Committee on Government Operations

October 26, 1977 Page 15)

Question: Considering the foregoing geographic, geologic and seismic data from official sources, can any believable assurance be given that there is "no immediate danger" ?

Q: In view of the proximity of the NFS site to two major drainage basins, each supporting populations in the millions, has any assessment been made of extent of the endangered area in the event of a major disruption or continued undetected escape of lesser amounts of radioactive effluent? What official plans have been made to protect people?

Precipitation allows nutrients and pollutants from land to enter water-courses via run-off and percolation. Recently a number of studies have demonstrated that sediments not only constitute a physical problem but also can exert a significant water quality impact. Sediments especially the smaller size fractions, i.e. clay adsorb a wide variety of pollutants including nutrients, pesticides and toxic substances. In some instances, these materials form strongly cohesive bonds with the sediments and are unavailable to the aquatic environment, while in other cases the sediments merely act as a transport mechanism for these materials carrying them from upland areas to the Great Lakes, where they become available to the biological system." (19)

"(21) The soil types found in the Cattaraugus Creek watershed also contribute greatly to rapid run-off and surface erosion. The silt-loam soil types which are prevalent in the watershed have low water absorption and retention. Consequently, sheet run-off tends to occur during periods of heavy rainfall."

(League underlining)

Past studies of stream bottom silt showed deposition of radionuclides in high concentrations. (10 and 35) Dr. Hopke's studies indicated that some low levels of fission fragments or long-lived radioactive species were being discharged to Lake Erie. (reported in IJC Water Quality Board Report 17)

"(27) Generally a sand bar is formed extending in a northeasterly direction from the westerly bank of the stream at its mouth. This is an indication of a predominantly easterly littoral current as it enters the lake. In past years quite extensive sand and gravel beaches extended in both directions from the mouth of the creek with the beaches wider and extending for greater distances easterly of the creek mouth. At present, because of existing higher lake levels, the beaches are narrower and less extensive and subject to severe erosion especially west of the creek's mouth."

The sand bar at the mouth in past years was dug through in the interest of flood control and this fill was silt-casted downdrift in the fall of the year. No tests were made for radionuclides, none are required if fill looks clean. This is the principal swimming recreational area for Erie County residents from the creek mouth to the Sturgeon Point area, location of the Erie County Water Authority water intakes.

Radionuclides are not only adsorbed by tiny silt particles in the water but also can be concentrated in algae where they enter the food chain. Dead Chlorella cells showed a similar concentrating ability. The fact that algae might retain high radionuclides even after death and settling has a particular significance when Lake Erie's phosphorus and related algae problems are considered.

It is appalling to us that these areas were open to the public at all while the plant was operating and dead algae were covering our beaches. When we asked if these areas were monitored, we were told that all the testing was done in the creek watershed. There is or has been no effective near-shore monitoring program in Lake Erie to evaluate water quality and assess the effectiveness of pollution abatement programs.

The Lake Erie Bibliography showed studies on thermal discharges and studies on atmospheric plumes from power plants, however no studies of the effects of low-level radioactive discharges. The IJC Great Lakes Research Advisory Board listed as a critical need Ecology 8.

Fate of Radionuclides Released from Nuclear Facilities

STATEMENT: The operation of nuclear facilities such as reactors and fuel processing plants involves the regular release of small quantities of radionuclides and the finite probability that major releases of radioactivity may enter the environment as a result of a catastrophic accident. Real effects of present actions are not clear nor can the effects be predicted of major releases on drinking water supplies and those segments

of aquatic food chains directly affecting man for a time equal to the lifetime of each radionuclide.

4

(League underlining)

IMPORTANCE:

The Great Lakes provide the drinking water for a significant portion of the population of the U.S. and Canada. This information will be important to develop site-by-site contingency plans for water treatment and long-term usage of the water body.

NEED 3-1

Development of Improved Prediction of Short-term Removal Processes for Radionuclides from the Water Column.

OBJECTIVE: To determine the possible chemical form and speciation for radionuclides in water following their release. To determine the relative importance of biotic and abiotic processes such as uptake by phytoplankton and inorganic particulate matter in the water column. To predict the resulting concentrations of radionuclides in drinking water.

NEED 8-2

Determination of Bioaccumulations of Radionuclides in Aquatic Organisms.

OBJECTIVE: To determine the concentration of the transuranic elements in the commonly edible portions of aquatic organisms as a basis for the calculation of the radiation dose to man.

NEED 8-3

Determination of the Long-term Removal and Resuspension Processes for Radionuclides in the Great Lakes.

OBJECTIVE: To determine the effects of bioturbation, currents, storm activity and lake morphology on sedimentation rate and the distribution of radionuclides in the sediments and their influence on the long-term availability of radionuclides to return to the water column by resuspension.

NEED 8-4

Determination of the Effect of Extreme Changing of Water Quality on the Availability of Radionuclides to the Water Column.

OBJECTIVE: To determine the physical-chemical interaction of each nuclide as it may be affected by changing conditions e.g. dissolved O₂, E, pH, complexing capacity of the water column over lifetimes greater than several hundred years and for changes in water quality.

5

The IJC Research Advisory Board's recognition of the urgent need for research to fill these critical gaps; plus the geographic/geologic/seismic information already available which shows this site to be extremely sensitive and vulnerable, is clear indication that continued use for reclamation and disposition invites radioactive contamination of both surface and ground waters of the Lake Erie/Lake Ontario/St. Lawrence system and possibly of the Alleghany/Ohio/Mississippi waterways. The original decision of New York State (with federal government concurrence) to locate this industry at West Valley was obviously made without adequate environmental and demographic information. It is an error that has deadly significance for millions of eastern North American residents.

Since the bulk of these wastes originated from the federal government's weapons program and from power generation in such states as Texas, Wisconsin, New Jersey, Pennsylvania and Michigan, this problem is clearly more than a New York State responsibility. Both the state and federal governments bear a grave responsibility to reduce these risks to the lowest possible minimum without further quibbling or delay. If the democratic concept of public participation is to be accorded something more than perfunctory lip-service by the Albany/Washington decision-makers, the valid apprehensions documented by knowledgeable citizens should be the deciding factor in any decisions to be made for West Valley.

Operations should not be permitted to resume at the environmentally sensitive West Valley site.

Operations producing nuclear wastes should be held to a minimum until waste handling and storage technology is significantly improved.

Costs of final disposition of wastes and dismantling of facilities must be included in the cost of nuclear power.

It is not unreasonable to expect that those who promote nuclear power and avail themselves of its benefits, also be prepared to accept final disposition in their own area, of the radioactive wastes generated in supplying such benefits.

The alternatives to nuclear power generation become increasingly attractive when all the economic, environmental and social costs of the entire nuclear cycle are understood.

Certainly use-conservation merits mention.

Wind power should not be dismissed. The problems of storage/transmission become minor when compared with the "nuclear waste dilemma".

The most promising alternative in western New York is hydro power. The generating plants on the Niagara River produce power for transmission on the Northeast power grid and do so safely and without pollution. Further, the facilities do not impair esthetic values but rather, are a point of interest to residents and tourists alike.

The tremendous capability of the Niagara is not presently fully utilized. PASNY officials have indicated that power production could be increased, perhaps nearly 80%, without gross impairment of tourist attractions.

6

The Lake Erie Basin Committee of the League of Women Voters respectfully urges officials of the Department of Energy to use the Department's influence to forestall resumption of reclamation/disposition operations at the WPS plant and to help initiate responsible efforts to defuse the "West Valley silent bomb", where erosion, corrosion and procrastination can create a final, irrevocable, personal blackout for millions now living in eastern United States and Canada.

Thank you for the opportunity to state our views.

League of Women Voters
Lake Erie Basin Committee
Mrs. Samuel Arcara, Coordinator
135 Clean Street,
East Aurora, New York 14052

Mrs. Samuel Arcara

cc: [unclear] and [unclear]

Lake Erie Basin Committee LWV

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List doesn't include interviews or research papers.

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Radioactivity in New York Surface Water July-December 1969 and January-June 1970

*Bureau of Radiological Pollution Control
New York State Department of Environmental Conservation*

In 1955, the New York State Department of Health began a program to determine the amount of radioactivity in water used for public consumption. On July 1, 1971 this program was transferred to the newly formed New York State Department of Environmental Conservation. Radioactivity in water may arise from any one or a combination of the following sources: the natural mineral content of water (background), atmospheric fallout, or nuclear industry operations.

Analytical procedures

A measured quantity of water, usually 500 ml, is evaporated and the residue is analyzed for its gross beta component in an end-window, gas-flow proportional counter.

Strontium and alkaline earths are precipitated as carbonates from a 500-ml sample. Iron and rare earths are removed by hydroxide scavenging, while barium is precipitated as a chromate. Strontium is finally precipitated as a sulphate from a

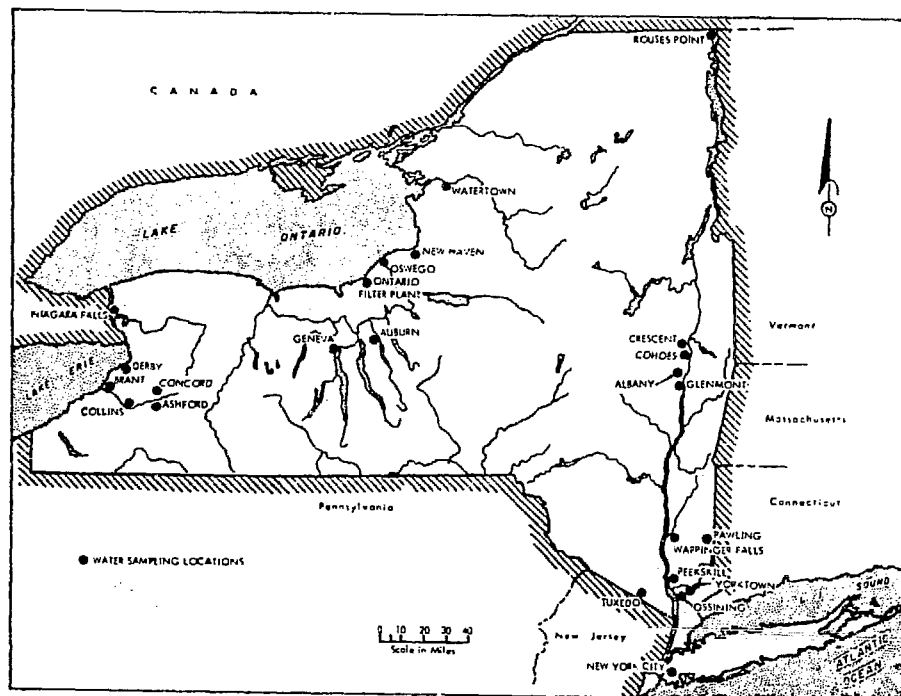


Figure 1. New York water sampling locations

Radioecological Surveillance of the Waterways Around a Nuclear Fuels Reprocessing Plant¹

N. I. Sax, Paul C. Lemon, Allen H. Benton, and Jack J. Gabay²

A 3-year study of the aquatic ecosystem around a nuclear fuels reprocessing plant, located in western New York State, has been conducted to find and evaluate natural indicators of environmental contamination. The study covered preoperational and early post-operational phases. The ecological vectors selected for study were algae, silt, and fish, all from Cattaraugus Creek and its tributaries. Samples were collected at several points upstream and downstream from the plant effluent and quantitatively analyzed by gamma-ray spectrometry. All vectors analyzed indicated process of uptake and concentration of ruthenium-rhodium-106, cesium-137, cesium-134, and/or zirconium-niobium-95, and sometimes cobalt-60.

In addition, the concept of using natural indicators not native to the streams under study was tested by translocating fresh water clams from Chautauqua Lake, 60-miles southwest of the site, and placing them in the streams around the plant. The clams not only thrived in their new environment but upon analysis showed definite interaction by concentration of the above radioisotopes with the shells showing approximately twice the radioactivity of the soft parts of the clams. This concept might prove to be a sensitive indicator of environmental contamination.

In April 1966, the world's first commercial nuclear fuels reprocessing plant, located in the southwestern part of New York State, became operational. Prior to and since then, the Radiological Sciences Laboratory of the Division of Laboratories and Research, New York State Department of Health, with the cooperation of the State University of New York, has been conducting an ecological study of the effect on the aquatic ecosystems in that area with a view to finding the most suitable vectors as natural indicators of environmental contamination.

Description of sources

The facility is a multipurpose plant capable of processing any type of nuclear fuel element from which the fuel can be reduced to a nitric acid solution. The baseline process is a Purex solvent-extraction method designed for processing,

at a capacity of 1,000 kg/day of uranium enriched <3 percent in the form of UO₂ or uranium metal. Fuels must be cooled 150 days after removal from a reactor before they can be processed (1). In addition, a burial site, operational since 1963, is maintained for the storage of high, intermediate, and low-level radioactive wastes from the plant and offsite users.

Study area

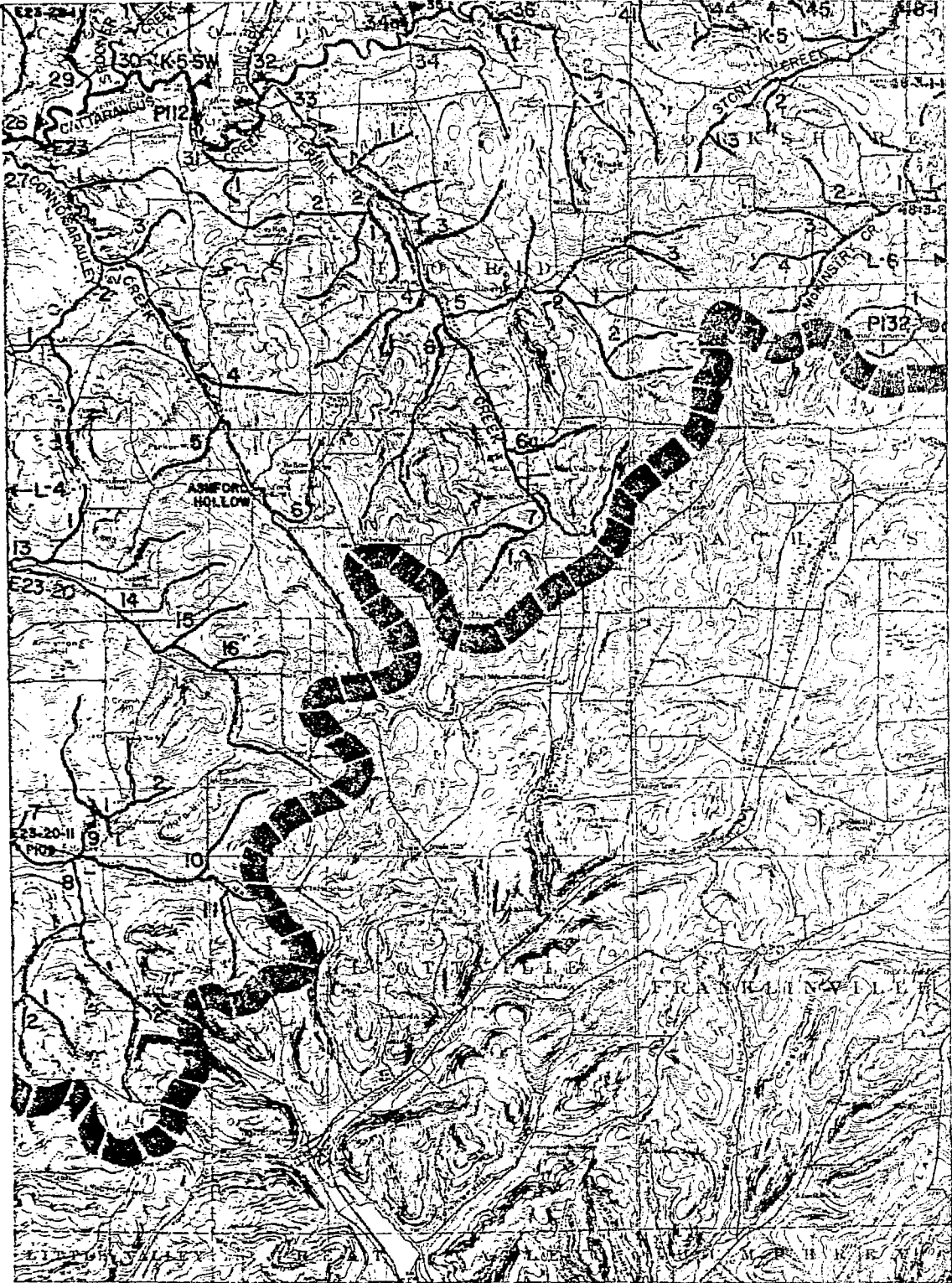
Study of the aquatic ecosystem centers on two waterways flowing through and around the reprocessing plant site (figure 1). Buttermilk Creek flows through the site in the southeast to northwest direction and empties into Cattaraugus Creek just outside the extreme northwest corner of the site. Cattaraugus Creek flows in a westerly direction and, after many convolutions, eventually empties into Lake Erie. Both streams are fed by many tributaries. The only important tributary, considering radionuclide inventory in the streams, is Erdman Brook, which serves as a receptor for runoff from the burial site and effluent discharge from the reprocessing plant.

The physical and chemical characteristics of a portion of Cattaraugus Creek were studied to determine some of the ecological conditions to which organisms living in the stream must adapt in order to survive. Determination of the oxygen

¹ This investigation was supported by U.S. Public Health Service Grant RH 412, National Center for Radiological Health.

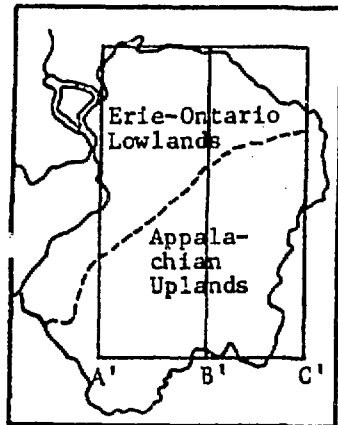
² Mr. Sax is associate research scientist with the Radiological Sciences Laboratory, Division of Laboratories and Research, New York State Department of Health; Dr. Lemon is professor of Biological Sciences, State University of New York, Albany, N.Y.; Dr. Benton is professor of Biology, State University College, Fredonia, N.Y.; and Mr. Gabay is senior research scientist with the Radiological Sciences Laboratory, Division of Laboratories and Research, New York State Department of Health.

ELLICOTTVILLE














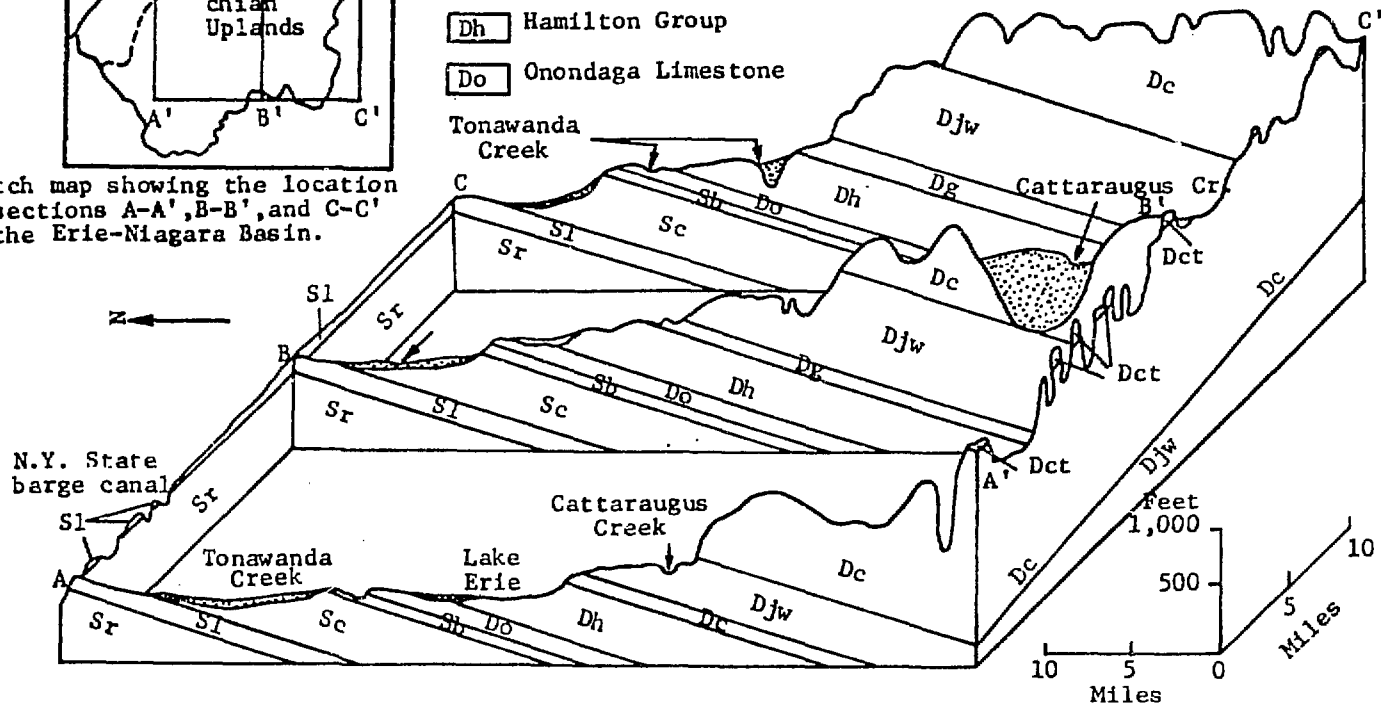
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MAP L-5



Sketch map showing the location of sections A-A', B-B', and C-C' in the Erie-Niagara Basin.

- | | | | |
|---|--|---|-------------------------------------|
|  | Unconsolidated deposits (shown in major valleys) |  | Bertie Limestone and Akron Dolomite |
|  | Conneaut Group of Chadwick (1934) |  | Camillus Shale |
|  | Canadaway Group of Chadwick (1933) |  | Lockport Dolomite |
|  | Java and West Falls Formations |  | Rochester Shale and older rocks |
|  | Genesee and Sonyea Formations | | |
|  | Hamilton Group | | |
|  | Onondaga Limestone | | |



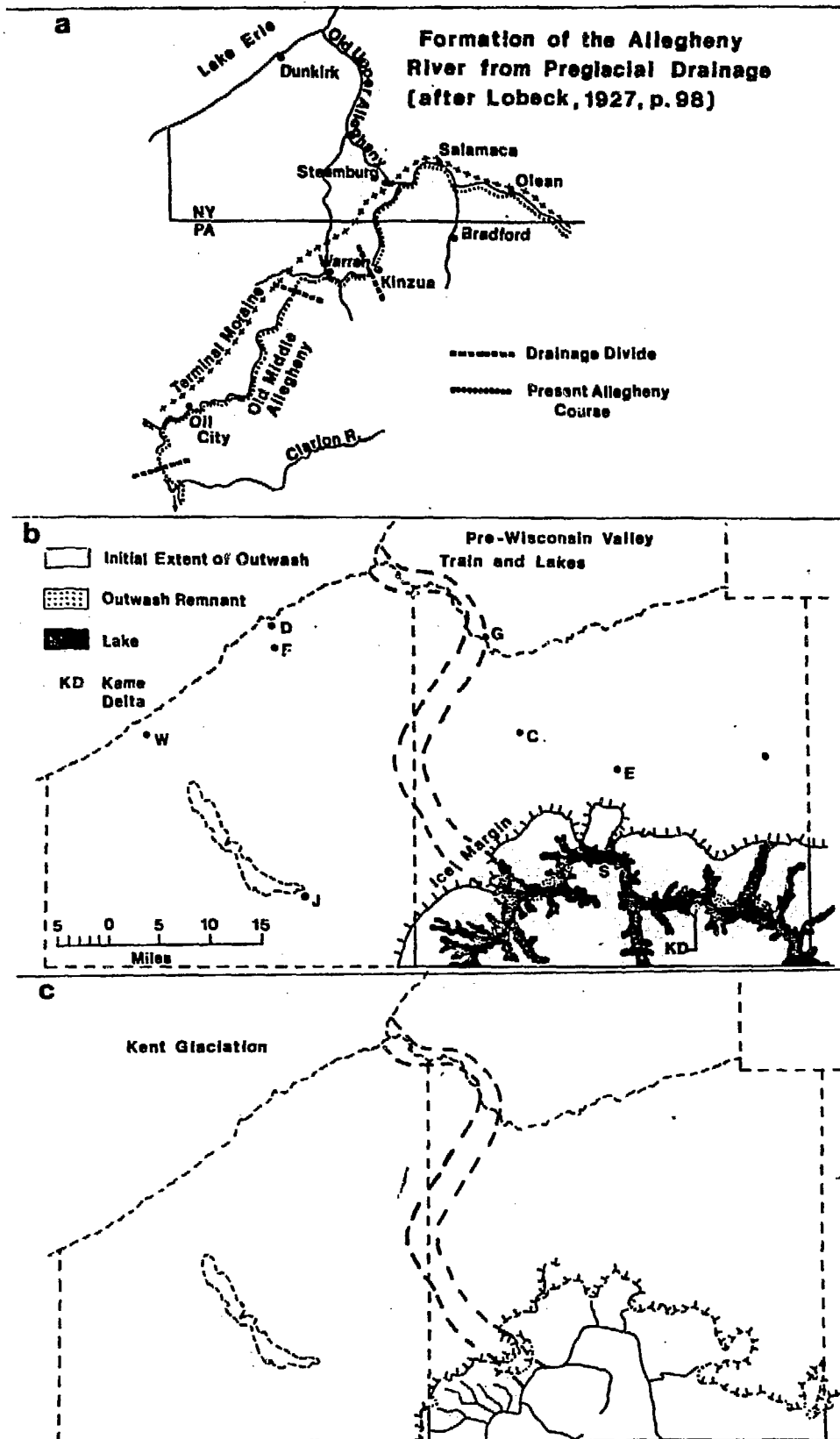
CAMP DRESSER & MCKEE

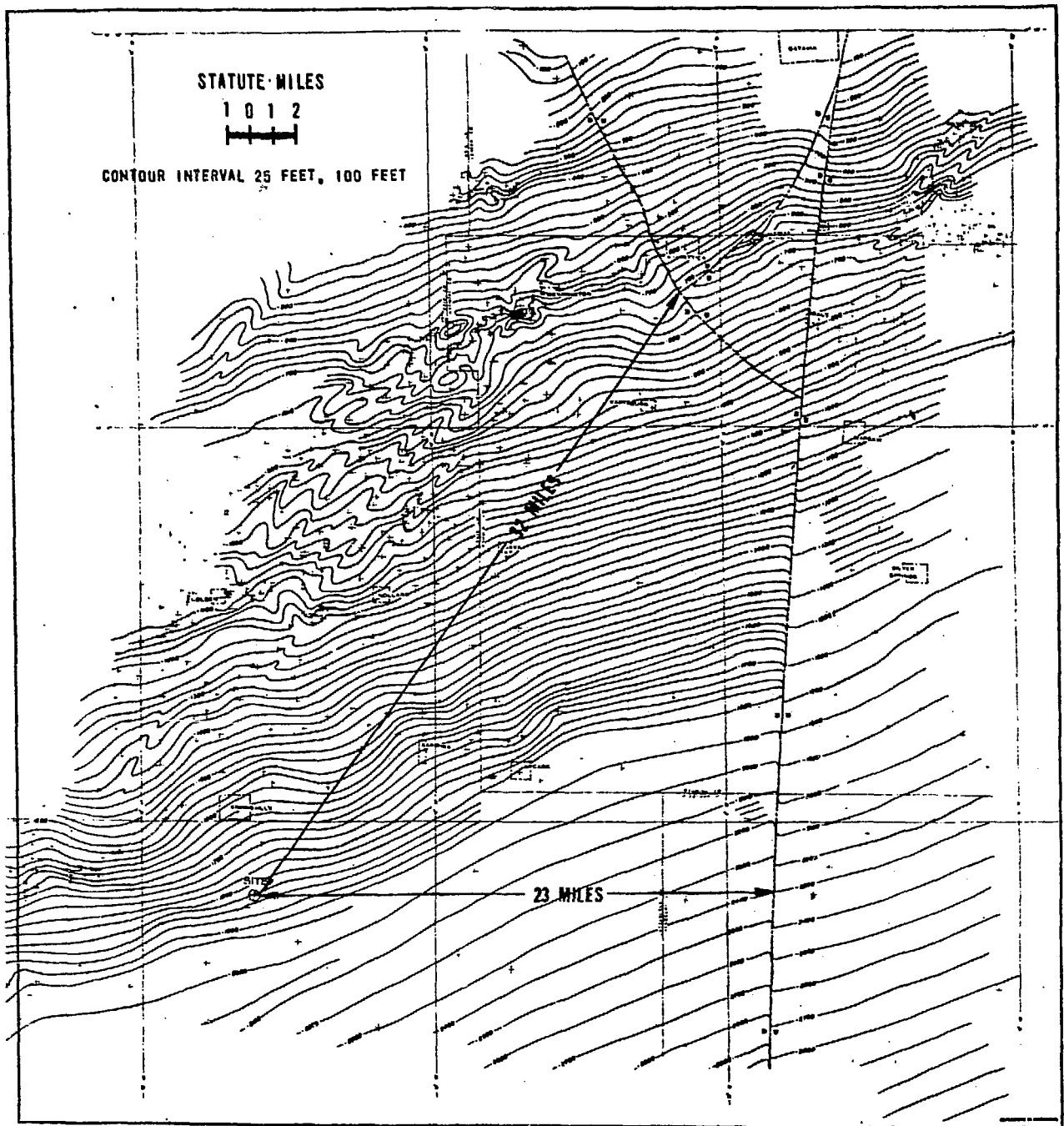
ERIE AND NIAGARA COUNTIES REGIONAL PLANNING BOARD
COMPREHENSIVE SOLID WASTE STUDY

FIG. C-2. FENCE DIAGRAM OF PART OF THE ERIE-NIAGARA BASIN

SOURCE GROUND-WATER REOURCES OF THE ERIE-NIAGARA BASIN, NEW YORK 1968 (III)

Plate 2. Stages in the evolution of the Western N.Y. Landscape





**SUBSURFACE MAP
SHOWING STRUCTURE CONTOURS ON THE MEDINA FORMATION**

MAP PREPARED BY ARTHUR M. VAN TYNE, GEOLOGIST, N.Y.S.
GEOLOGICAL SURVEY, WELLSVILLE, N.Y., JULY & AUGUST, 1971.
BASED ON FIELD-CHECKED, CORRECTED EXPLORATORY WELL LOG DATA,
PUBLISHED & UNPUBLISHED.

THE BASE FOR THIS MAP WAS PREPARED FROM PORTIONS OF THE
FOLLOWING U.S.G.S. 15 MINUTE QUADRANGLE MAPS. ATTICA 1949,
ARCADE 1923, BATAVIA 1950, PORTAGE 1903, DEPEW 1948,
SPRINGVILLE 1923, ELLICOTTVILLE 1939, & FRANKLINVILLE 1938.

LEGEND;

— 1500 —

CONTOUR LINE SHOWING DEPTH
BELOW SEA LEVEL TO TOP OF
MEDINA

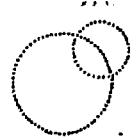
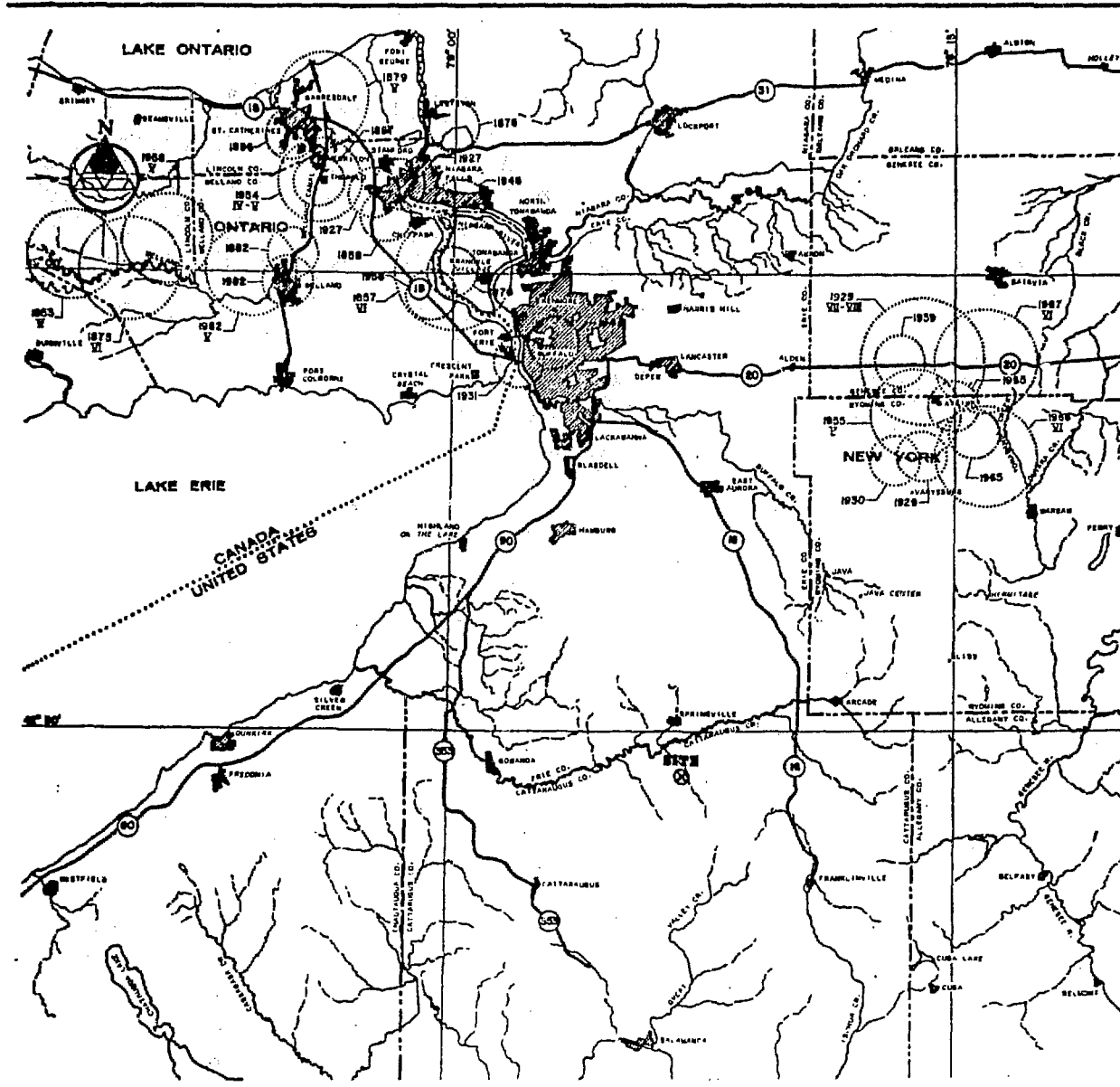
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WELL LOCATION

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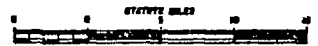
FAULT

FIGURE 4.7-2.



THESE SYMBOLS REPRESENT THE RELATIVE SIZES OF THE EARTHQUAKES AND THEIR APPROXIMATE EPICENTERS. THEY DO NOT DEFINE THE LIMITS OF THE EPICENTRAL AREAS OR FELT AREAS OF THE SHOCKS. SEE LIST OF REPORTS FOR DISCUSSION.

FIGURE 4.7-1
VICINITY EPICENTER MAP



REFERENCE:
THE DATA FOR THIS MAP WERE PREPARED FROM PORTIONS OF THE FOLLOWING USGS TOPOGRAPHIC MAPS:
TORONTO, CANADA: UNITED STATES, 1955 1:50,000
BUFFALO, UNITED STATES: CANADA, 1967.

474

EARTHQUAKE HISTORY OF NEW YORK

Hokkaido. The quake generated a local tsunami along the coast. A height of 90 cm was reported at Hanasaki Port in Nemoro. The Sapporo Observatory issued a tsunami warning to residents along the Pacific coast of Hokkaido. There were no casualties or damage, but local residents were evacuated to higher ground and fishermen moved their ships outside Hanasaki Port as a precautionary measure. The main shock was followed by a number of aftershocks, but none caused damage.

MISSOURI

A magnitude 4.5 earthquake occurred on June 13 at 4:40 p.m. c.s.t. in the New Madrid area. The quake was felt strongly at Kewanee, Marston, New Madrid, Risco, and other areas of southeastern Missouri. The earthquake was also felt in Arkansas, Kentucky, and Tennessee. Maximum intensity V.

ALABAMA

Northern Alabama experienced an earthquake on June 24 at 6:12 a.m. e.s.t. The magnitude 3.8 quake was felt sharply in Fayette County. No damage was reported. Maximum intensity IV.

WYOMING

A magnitude 6.0 earthquake struck Yellowstone National Park on June 30 at 11:54 a.m. m.s.t. The tremor was felt throughout the park by most tourists and residents. The epicenter was located between Norris Junction and Canyon Junction in the north-central part of the park. The quake caused land and rock slides that closed the highway for several hours in Gibbeon

Canyon between Old Faithful and Norris. The bypass to Virginia Cascade was also closed for a few days. The quake was also felt in Idaho, Montana, and Utah. Maximum intensity VII. This earthquake was located just to the east of the epicenter of the magnitude 7.1 Hebgen Lake earthquake of August 17, 1959, which killed 28 persons and caused approximately \$11 million damage. The June 30 earthquake was preceded by a magnitude 5.0 foreshock at 11:49 a.m. m.s.t. and was followed by hundreds of aftershocks which were monitored by the U.S. Geological Survey.

U.S. EARTHQUAKES¹

Alabama	1
Alaska	14
Arkansas	1
Arizona	1
California	16
Hawaii	1
Idaho	2
Kentucky	1
Maine	1
Massachusetts	1
Missouri	1
Montana ²	5
Nebraska	1
New Hampshire	1
New York	1
Tennessee	1
Utah	1
South Dakota	1
Vermont	1
Washington	1
Wyoming	4
Total	57

¹ Felt earthquakes as reported from many sources.

² Exclusive of aftershock series.

FATALITIES

Throughout the world no earthquake fatalities were reported during May-June 1975.

by Carl A. von Hake.

National Oceanic and Atmospheric Administration, Boulder, Colo.

With its greatest length roughly paralleling the St. Lawrence River, New York has felt strongly the more important earthquakes of that seismically active region. In addition, 38 shocks of intensity V or greater (Modified Mercalli scale) have occurred within its borders. The region along the St. Lawrence is classed in seismic risk zone 3, while much of the remainder of the State is in zone 2. Only the southeastern portion is in zone 1. A shock in northeastern New York in 1897 was felt over about 390,000 km², and a damaging earthquake centered near Massena in 1944 affected an area of 450,000 km² in the United States. Most of the other earthquakes have affected small areas.

Strong earthquakes in 1638, 1661, 1663, and 1732 in the St. Lawrence Valley and a shock near Newbury, Mass., in 1727 were felt in New York before the first notable tremor centered within the State occurred. On December 18, 1737, an earthquake near New York City threw down a number of chimneys (intensity VII). This shock was reported felt at Boston, Philadelphia, and at New Castle, Del.

Walls vibrated, bells rang, and objects fell from shelves (intensity VI) at Buffalo from a shock on October 23, 1857. Also, a man seated on a chair was reportedly thrown to the ground. At Lockport, rumbling noises were heard for a full minute. This shock was felt as far as Hamilton, Peterborough, and Port Hope, Ontario, Canada; Rochester, N.Y.; and Erie and Warren, Pa. The total felt area covered approximately 46,000 km².

A rather severe earthquake centered in northeastern New York caused moderate damage along the St. Lawrence River and in the Lake Champlain area in 1877. Crockery was overturned, ceilings cracked, and chimneys were thrown down (intensity VII) from the November 4 tremor. At Saratoga Springs, buildings were shaken and a roaring sound was heard; at Auburn, windows were damaged. The earthquake was felt throughout a large part of New York and New England and eastern Canada, about 233,000 km².

On August 10, 1884, an earthquake caused large cracks in walls at Amityville and Jamaica (intensity VII). The shock was felt strongly at New York City. In addition, 30 towns from Hartford, Conn., to West Chester, Pa., reported fallen bricks and cracked plaster.

The total felt area was estimated at 181,000 km².

A shock reported as severe, but with no damage noted (intensity VI), occurred in northeastern New York on May 27, 1897. It was felt over the greater portion of New York and parts of adjacent New England States and Quebec, Canada.

A very large area of the northeastern United States and eastern Canada, about 4,200,000 km², was shaken by a magnitude 7 earthquake on February 28, 1925 (March 1, universal time). A maximum intensity of VIII was reached in the epicentral region, near La Malbaie, Quebec, Canada. A large portion of New York State experienced intensity IV effects; lesser intensities were noted south of Albany.

Extensive damage occurred in the Attica area from a strong shock on August 12, 1929. Two hundred and fifty chimneys were thrown down, plaster was cracked or thrown down, and other building walls were noticeably damaged (intensity VIII). Many cemetery monuments fell or were twisted. Dishes fell from shelves, pictures and mirrors fell from walls, and clocks stopped. An increased flow at the Attica reservoir was noted for several days after the earthquake; a number of wells near the reservoir went dry. There was some damage at Batavia and other points at similar distances. A wall was cracked at Sayre, Pa. The earthquake was felt throughout most of New York and the New England states, northeastern Ohio, northern Pennsylvania, and southern

Ontario, Canada, a total area of about 250,000 km². Strong aftershocks were felt at Attica on December 2 and 3; dishes fell from shelves and clocks stopped.

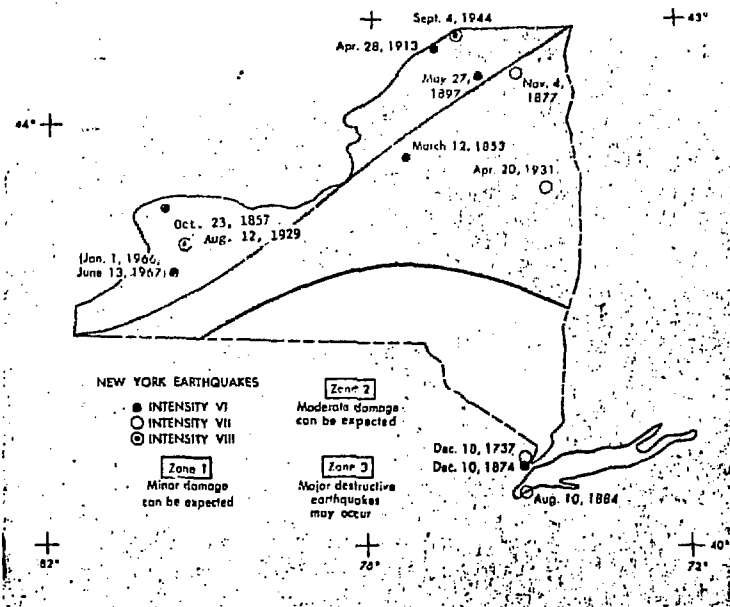
The opposite end of the State experienced similar damage from another shock less than 2 years later. On April 20, 1931, an earthquake centering near Lake George threw down about 20 chimneys at Warrensburg and twisted a church spire (intensity VII). A small landslide was reported on McCarthy Mountain. At Glens Falls, walls were cracked, dishes broken and clocks stopped. At Lake George, buildings swayed and store goods fell from shelves. At Luzerne, some chimneys were damaged and windows broken. The shock was felt over about 155,000 km², but with less intensity in the Catskills than at equal distances in other directions. This anomaly was also noted in the August 12, 1929, Attica earthquake.

The magnitude 6¼ earthquake centered near Timiskaming, Quebec, Canada, on November 1, 1935, caused slight damage at many points in New York. The damage was limited, in general, to plaster cracks, broken windows, and cracked chimneys. The shock was felt throughout New York, as far south as Washington, D.C., and as far west as Wisconsin. An earthquake centered near Lake Ossipee, N.H. on December 24, 1940, caused widespread, though slight, damage in the epicentral region, extending into Maine, Massachusetts, Rhode Island, and Vermont. Reports from Dannemora, N.Y., noted plaster

and windows cracked and some dishes broken. The shock was felt over all of New York State.

On September 4, 1944, an earthquake centered about midway between Massena, N.Y. and Cornwall, Ontario Canada, caused an estimated \$2,000,000 damage in the two cities. The shock destroyed or damaged about 90 percent of the chimneys at Massena (intensity VIII), with similar effects at Cornwall. In addition, masonry, plumbing, and house foundations were damaged at Massena. Many structures were rendered unsafe for occupancy until repaired. Press reports indicated a large number of wells in St. Lawrence County went dry, causing acute hardship. Brick masonry and concrete structures were damaged at Hogansburg; some ground cracking was also reported. Minor damage was noted at nearby towns. This earthquake was felt over approximately 450,000 km² in the United States, including all the New England States, Delaware, Maryland, New Jersey, Pennsylvania, and portions of Michigan and Ohio. A few points in Illinois, Indiana, Virginia, West Virginia, and Wisconsin also reported feeling the tremor.

Since the 1944 Massena-Cornwall earthquake 12 shocks of intensity V or VI have originated in New York. A magnitude 4.7 disturbance on January 1, 1966, caused slight damage to chimneys and walls at Attica and Varysburg. Plaster fell at the Attica State Prison and the main smokestack was damaged (intensity VI). The total felt area was about 46,500 km².





Earthquake-Hazard Map of United States

by S. T. Algermissen and
David M. Perkins,
U.S. Geological Survey,
Denver, Colo.

We have recently evaluated the probability distribution of maximum ground shaking to be expected from earthquakes occurring in the 48 contiguous United States. Our report is meant to be useful in engineering construction and design.

The study is based primarily on the historic seismic record. This is sparse before 1930 and fairly complete since 1960. Geologic data played a comparatively minor role in our evaluation, simply because such data have not yet been interpreted with earthquake hazards in mind.

The report evaluates the relative importance of the parameters and assumptions used in making a statistical hazard analysis. The accompanying map gives a preliminary estimate of the relative earthquake hazard in various parts of the country.

The earthquake hazard from ground shaking is expressed as percentages of the Earth's acceleration, that is, gravity. (A free falling body on Earth experiences an acceleration of 1 g or 980 cm/s².)

The map depicts the seismic hazard across

the United States at a constant-probability level. The map thus takes into account the role that earthquake-recurrence rates take in defining an appropriate level of earthquake resistance. Regions where earthquakes recur frequently present a higher level of hazard than most regions where earthquakes occur much less frequently.

The map shows the acceleration in hard rock with a 90-percent probability that it will not be exceeded in 50 years. In other words, there is only a 10-percent probability that these values will be exceeded in 50 years.

Several features are apparent on the map. The contour levels range from 4 percent g to 60 percent g. Below the 4-percent-g contour level the ground-shaking effects are controlled mainly by earthquakes with magnitudes of 4.0 or less. The record of

Numbered contours are the horizontal acceleration in hard rock expressed as a percentage of g - the Earth's gravity. The seismic hazard is depicted at a constant-probability level; there is a 90 percent probability that it will not be exceeded in 50 years. The numbers within each contour are the maximum expected acceleration. The maximum acceleration within the 60-percent contour along the San Andreas and Garlock faults in California is 80 percent of g (using the attenuation curves of Schnabel and Seed, 1973. See Algermissen and Perkins, 1976.)

events of this size is not very complete. In regions below the 4-percent-g contour, wind loading, rather than earthquake acceleration, is likely to govern the design of structures.

The highest acceleration contour is in California along the San Andreas fault and in Owens Valley. The maximum values within this area are accelerations of about 80 percent g.

2. The regions in the Eastern United States which have experienced damaging earthquakes are outlined by the 10-percent-g contour - Charleston, New England, and New Madrid. These values are governed by New Madrid. These values are governed by the much lower earthquake recurrences in these areas, compared with the Western United States.

3. Regions in the United States where earthquakes of intensity VII or less have been experienced as isolated events generally lie in the portions of the map below 4 percent g. This means that there is no more than a 10-percent chance that accelerations greater than 4 percent g will be experienced in 50 years.

We have mapped this probabilistic estimate of maximum acceleration as a single parameter. Obviously acceleration does not describe all the characteristics of strong ground motion. Nevertheless, a wide range of structures has been designed to be earthquake resistant, using peak acceleration as the basic design parameter of strong ground motion.

Reference

Algermissen, S. T. and Perkins, D. M., 1976. A probabilistic estimate of maximum acceleration in rock in the contiguous United States; U.S. Geol. Survey Open-File Rept. 76-416.

STATE OF NEW YORK

10351

IN ASSEMBLY

February 21, 1978

Introduced by M. of A. HINCHEY—read once and referred to the Committee on Environmental Conservation

AN ACT to amend the energy law, in relation to the storage of radioactive materials

The People of the State of New York, represented in Senate and Assembly, do enact as follows:

1 Section 1. The energy law is hereby amended by adding a new article eleven
2 to read as follows:

ARTICLE 11

STORAGE OF RADIOACTIVE MATERIAL.

3
4
5 Section 11-101. *Storage of radioactive material.*

6 11-103. *Petition procedure.*

7 11-105. *Legislative approval.*

8 11-107. *Joint legislative committee.*

9 § 11-101. *Storage of radioactive material. Notwithstanding any provision of*
10 *general, special or local law, rule or regulation to the contrary, no facility for deposit,*
11 *storage, reprocessing or disposal of spent nuclear fuel elements or high level*
12 *radioactive waste material shall be constructed or established in the state of New York*
13 *unless the legislature shall first have found that it promotes the general welfare of the*
14 *state and shall have approved, by joint resolution, a petition for the approval thereof.*

15 § 11-103. *Petition procedure. 1. A petition for approval by the legislature of a*
16 *facility for which approval is required by this article shall be submitted to the speaker*
17 *of the assembly and the president pro tempore of the senate and referred forthwith to*
18 *the joint legislative committee on radioactive material established pursuant to this*
19 *article.*

20 2. *The joint legislative committee on radioactive material shall, subsequent to*
21 *receiving the evaluations called for by subdivision three of this section, hold a public*
22 *hearing on each petition for such approval. Notice of such public hearing shall be*
23 *published once a week for two successive weeks in a newspaper of general circulation*
24 *in the county in which the proposed facility is to be located, the last publication to be*
25 *at least twelve days before the day appointed for the hearing. Any person or agency*
26 *may submit recommendations relating to the proposed facility to the committee. The*
27 *committee shall have authority to examine all records and information relevant to the*
28 *petition in the possession of the petitioner or any state agency.*

29 3. *Upon receipt of the petition, the joint legislative committee on radioactive*
30 *material shall forward a copy of the petition and notice of its receipt by the committee*

EXPLANATION — Matter in italics is new; matter in brackets [] is old law to be omitted.

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1 to the chairman of the public service commission, the commissioners of the
2 departments of health and environmental conservation and the attorney general. Each
3 officer so notified shall forthwith cause the petition to be reviewed and evaluated and
4 shall submit such evaluation of the impact of the proposed facility in the state and
5 any other information deemed relevant to the petition to the committee.

6 4. Not less than thirty days prior to the public hearing to be held pursuant to
7 subdivision two of this section the joint legislative committee on radioactive material
8 shall also give notice thereof by certified mail to each municipal and regional
9 planning commission having jurisdiction over the site of the proposed facility, to the
10 governing body of each city, town or village in which the proposed facility is to be
11 located and to the governing body of each city, town or village contiguous to such
12 municipality or municipalities.

13 § 11-105. Legislative approval. 1. The joint legislative committee on radioactive
14 material shall report to the legislature its recommendation to approve or not to
15 approve the petition for the facility together with such additional information and
16 comment it deems appropriate.

17 2. Any joint resolution approving a facility pursuant to section 11-101 of this
18 article shall include findings that the proposed facility:

19 a. will promote the general welfare and will not have an undue adverse effect on
20 health, safety, aesthetics, historic sites, air and water purity, the natural environment
21 and the economy; and

22 b. will not unduly interfere with the orderly development of the region with due
23 consideration having been given to the recommendations of the municipal and
24 regional planning commissions and the municipal governing bodies.

25 3. Unless the proposed facility shall have been approved by the legislature, no state
26 officer, agency or department shall undertake to approve or license the proposed
27 facility or undertake to cause or obtain the approval or licensing from any other state
28 or federal governmental agency or board. The appropriate state officers and agencies
29 shall use every proper and available legal means to prevent siting and licensing of
30 such facility until the approval of the legislature shall have been so obtained.

31 § 11-107. Joint legislative committee. 1. Upon receipt of a petition for approval
32 pursuant to this article, there shall be established a joint legislative committee on
33 radioactive material to receive and process such petition in accordance with this
34 article. Said committee shall be composed of four members of the senate, to be
35 appointed by the president pro tempore of the senate, and four members of the
36 assembly, to be appointed by the speaker of the assembly. The committee shall
37 organize by the election from its members of a chairman and a vice-chairman.

38 2. The committee may meet as often as necessary to discharge its duties pursuant
39 to this article. The members of the committee shall receive no additional
40 compensation for their services as such members of the committee, but shall be
41 reimbursed for the expenses actually and necessarily incurred by them in the
42 performance of their duties hereunder.

43 3. The committee may request and shall receive from any court in the state and
44 from any department, division, board, bureau, commission or agency of the state or
45 of any political subdivision thereof such assistance and data as will enable it
46 properly to carry out its activities hereunder and effectuate the purposes herein set
47 forth.

48 § 2. This act shall take effect immediately.

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55



New York State Conservation Council, Inc.

1190 Parkhurst Blvd
Tonawanda, N.Y. 14150

27 Feb. 1978.

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Joanne Rosengalia
Dept. of Energy
Div. of Waste Management
Wash. D.C. 20545.

Dear Joanne:

The spokesmen of this great state are very concerned about the nuclear contamination brought about at the N.F.S. installation near West Valley. We have been aware of it for many years now!! We want it cleaned up at the earliest possible moment and the matter not shelved under the bed like it has been in the past.

In all fairness, we believe the pressures to create this installation to be for a national nuclear need for reprocessing, which technology has been a realist in its failure in development. Consequently, we feel the best agency to handle this giant clean-up project would be that of the Federal Government. To this end we are committed.

Respectfully Submitted
John H. Bunz
Environment Chairman
of the
N.Y.S.C.C. Inc.

WRITTEN STATEMENT OF THE CATTARAUGUS COUNTY PLANNING BOARD TO THE DEPARTMENT OF ENERGY IN REGARDS TO THE PUBLIC MEETING AT WEST VALLEY CENTRAL SCHOOL AUDITORIUM, WEST VALLEY, NEW YORK ON SATURDAY, MARCH 18, 1978 CONCERNING THE SCOPE, SCHEDULE AND CONSTRAINTS OF THE DEPARTMENT OF ENERGY STUDY OF OPTIONS ON THE WESTERN NEW YORK NUCLEAR SERVICE CENTER

The Cattaraugus County Planning Board was created in the early 1960's, about the same time that the Nuclear Fuel Service Center was being conceived by the private sector nuclear industry, the Federal government and the State government. Since the Nuclear Fuel Service began, the Planning Board has been concerned with the planning and location of the Nuclear Fuel Service's plant in West Valley, New York. Throughout the '60's and early '70's the County Planning Board has supported the efforts of private industry, the State of New York, and the Federal government to promote the private involvement in the nuclear industry, particularly at the recycling end of the fuel processing stream.

The County Planning Board, as well as other agencies, invisioned an entire industrial base being developed on the basis of the nuclear re-processing site and the nuclear reservation in West Valley. The County Planning Board assisted the Town of Ashford in preparing a development plan which invisioned significant increases in development as a spin off from the nuclear industry.

In retrospect, we can see that the visions were never accomplished due to an enormous number of factors of which neither the County nor the Town had complete control of.

It now appears that at this point in time with technology as it is, the role of private industry is questionable in the recycling or reprocessing end of the nuclear fuel system. With the apparent abandonment of the site by Nuclear Fuel Service in 1980, it is obvious to the Planning Board that the State and the Federal government, as partners, must become involved with the disposition of this facility. Both the State and the Federal government along with various environmental organizations and agencies must see that the hazardous wastes are ultimately disposed in an environmentally safe condition.

On Page 58 of the Cattaraugus County Land Use Plan, published by the Cattaraugus County Planning Board in June of 1977, in the section of the report entitled "Goals, Policies and Objectives" the following statement is found: "Encourage the continued use of the Nuclear Fuel facility in the Town of Ashford by the State and Federal governments using extreme caution regarding the health and safety of the citizens and protection for the environment of the County."

At a recent meeting of the County Planning Board, the Board did express its concern for the future of the facility and reaffirmed its policy that the Federal and State government should both be involved in providing a facility at West Valley which is environmentally safe for the citizens and which provides employment and an economic base for the surrounding area.

The County Planning Board also supports a recent resolution of the

... Legislature which says in part "RESOLVED, that the government of the State of New York, or the Federal government, or a combination of the two continue to operate the facility in the Town of Ashford, thereby improving employment to people of the area, and a tax base for the communities involved, and be it further RESOLVED, that in the event that the plant operations are terminated impact aid be given to Cattaraugus County, the Town of Ashford, the Town of Ashford Fire District, and the Ashford Central School District."

The Planning Board's further recommendation is to encourage the Federal and State governments to consider this facility for a research and development center, in order to determine the most economical, most environmentally sound methods of ultimate disposition of nuclear waste of this type. It is estimated that approximately 80 million gallons of similar type wastes exist within this country, primarily as a result of the defense programs. It seems that this facility would offer an excellent opportunity for the Federal and State government to determine the best possible means of disposing of such wastes.

It also appears unlikely that this site should be a prime consideration for solidification of the liquid high-level wastes and disposal of other solidified high-level waste due to the extreme climatic conditions, the soil and topography and the fact that the site lies near the Attica fault line. For these reasons the Planning Board would not like to see this site used as a long-range storage of all nuclear wastes, however, we would like to again stress that it appears to provide an opportunity for the Federal and State governments to provide for a solution to the long-term storage problem of liquid wastes of this type.

MEMBERS NEW YORK STATE
CONSERVATION COUNCIL

ALLEGANY COUNTY FEDERATION
CATARAUGUS COUNTY FEDERATION
CHAUTAUGUA COUNTY FEDERATION
ERIE COUNTY FEDERATION
NIAGARA COUNTY FEDERATION
WYOMING COUNTY FEDERATION

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DIV. OF WPR

Western New York Environmental Federation

Office of Secretary:

5115 Bear Road
Sanborn, NY 14132

February 28, 1978

Ms. Joanne Passaglia
Div. of Waste Management
Mail Station B-107
Dept. of Energy
Washington, DC 20545

Good Morning

Regarding the Nuclear Fuels Facility located in Ashford Hollow, West Valley, Cattaraugus County, N.Y. and the problem concerning what to do with it.

The Western N.Y. Environmental Federation, composed of delegates from the organized sportsman/conservation clubs in the six counties of Western N.Y., voted unanimously to take a position calling for the cleaning up of the area as quickly as possible. To facilitate this, we recommend that the Federal Government be given this responsibility and be required to bring all of its powers and capabilities into action in order to complete the task as quickly and safely as possible.

We would appreciate your support.

Yours in conservation,


William R. Hilts
Secretary/Treasurer

bh

RECEIVED

SPRINGVILLE FIELD & STREAM CLUB, INC.

WHITE STREET

1978 MAR 10 PM 4:09 SPRINGVILLE, N. Y. 14141

DIV. OF WPR



March, 4 1978

Joanne Passaglia
Division of Waste Management
Mail Station B-107
Dept of Energy
Washington D.C. 20505

Dear Miss Passaglia ;

Due to the fact that a accident or a earthquake could happen in the area of Neuclear Fuels at West Valley N.Y. The natural drainage of this erea would contaminate Lake Erie and the entire water supply of Western N.Y.

The Federal Government should dispose of the Hot Garbage in some other area so it wont be a hazard to the public.

Yours in Conservation

Springville Field & Stream Club

Lawrence Crist Sec.

Committee To End Radiological Hazards

166 Second Avenue
New York, New York 10003

Mary Hays Weik
Secretary
GR 7-5935

March 7, 1978

"PEOPLE AGAINST THE ATOM"

Dr. Marvin Resnikoff
Coalition on West Valley Nuclear Wastes
Box 123, Market Station
Buffalo, New York 14203

Dear Dr. Resnikoff:

Thank you for your letter inviting me to attend the March 18th Dept. of Energy meeting on the future of the West Valley nuclear reprocessing site - long closed on account of local high radioactive pollution. After my experience of some years ago at the Government Hearing of the Getty Company's request to reopen the plant and triple its production - where I was sitting quietly and was officially asked to leave before the Hearing had even opened - I shall not take the time and expense now to attend the March 18 meeting. I am, however, sending the enclosed letter on the event to the N.Y. Times.

The utter insolence of the Government's action, in inviting other nuclear countries of the world to deposit and store their atomic wastes at West Valley, on the premise that since that site is already lastingly polluted by similar wastes, additional deposits there would be of no importance(!), is so corrupt that it shocks an American's understanding, and destroys whatever confidence he still retains in his government officials' sense of humanity and justice.

To placate local citizens with an offer of a few government jobs on a local project of "investigation and research", is reminiscent of the scraps of meat flung behind by a Russian sled to delay the wolves on its trail. I hope the local students and scientists will have the good sense to refuse such an insult to their intelligence.

The only reasonable reparation would be for Getty and the Government to pay for the aggregate expense of moving every citizen of this doomed area to an unpolluted place of safety, where he could live out the rest of his life in some security - haunted though he might be by the fear of genetic injuries already incurred by his family.

The other imperative is to build and maintain no more such reprocessing plants here or anywhere in America or the world! But in our current era I hardly expect any such honest settlement to be offered or made.

Sincerely,

Mary H. Weik
Mary Hays Weik

Copies to President Carter
and James Schlesinger,
U.S. Secretary of Energy

To whom it may concern:

I am writing this letter to express my feelings on the presence and elimination of Nuclear Fuel Services in our area.

I just want to say that I personally want "it" out of our state. By "it" I mean the highly radioactive waste material that is buried in that Valley.

I believe "it" could cause serious health problems for people living near the facility. If it has not done so already. I live four miles away which is surely not enough to be "safe."

Perhaps 10, 20, or even 30 miles away would not be safe, How do we know? Can anyone, including the Federal Government, give me the absolute assurance that I am living in a safe zone? I do not want the Federal government to take over the facility and so decide my future. We should have a say in what is to be done if this occurs. Some bureaucrat sitting in Washington should not be able to decide if I'm living

under safe conditions here. Because other states have outlawed such a facility within their borders and New York State should follow suit.

On March 10, Channel 9 reported on the possible danger of birth defects resulting from the radioactive element that is present here. I'd like to know why the deformity rate for this area is almost 4 to 1 as compared with the rest of the state? Who is to decide that any human life should enter the world deformed as a result of the environmental dangers that the mother or father were exposed to? ~~I, for one, do not want to witness the disappointment and heartbreak of my future grandchildren being exposed to any more of this. I want normal, healthy healthy grandchildren and I have just as much right to them as any one of you here today. Perhaps that right has already been taken away from me ^{previously} because of the "guinea pig" atmosphere that~~

I've lived in most of my life.

It'd also like an investigation into the number of breast cancers and uterine cancers found within our area as compared to the rest of the state during the time of operation of Nuclear Fuel Services. We could all be shocked. Or perhaps there could be a check-up on couples who want children, but for some reason are found to be sterile. I know of three off-hand. Could be another show.

I have seen deformed fish in Cattaraugus Creek with my own eyes. I know of a man who witnessed a deer with abnormally short, stubby legs in the area of the plant. Perhaps the lower order of animals have already begun to tell the story of the future. Curs is a slower progress or is it already beginning to manifest itself with these unusually high rates of deformities?

I have also talked with people who worked at the facility until they were "burned out." They have

told me of incidences which involve dumping of drums of nuclear waste into trenches. Upon impact, they split open and spilled their contents into the soil. There were supposedly three ponds of water over there where upon the last pond was capable of supporting fish life but there was no sign of life as the water was still "too hot" or radioactive. I've heard of cases where a man was sent in to do a certain job and the man responsible for getting him out before he got an overdose had fallen asleep outside the door.

How life become ~~some~~ so meaningless to allow such things to even happen? I say to get "Pandora's Box" out of our state and keep it out! Let's rid ourselves of this nuclear concentrate,, NOW.

Marlene Gieker (Mrs. Ronald)
Springville, New York

March 14, 1978

Dear Mr. Lundine,
To be brief, I own 6 acres
of land on Watson Rd. off
Beech Green rd. which I have
plans to build a home upon
retirement, which will be
in 4 yrs.

What is concerning me
is the radiation problem that
there seems to be in West Valley.

Is this area going to be
safe to live in? I don't
want to build & invest a
good amount of money if
it isn't.

I hope to see this situation
taken care of. Not only for
the concern for human life
but also the wild life that
is so rich in this area.

Sincerely,
Edward A. Koney
730 Magara Parkway
N. Tonawanda
N. Y. 14120

NORTH SHORE COALITION FOR SAFE ENERGY
P. O. BOX 18
GREAT NECK, N. Y. 11021

March 14, 1978

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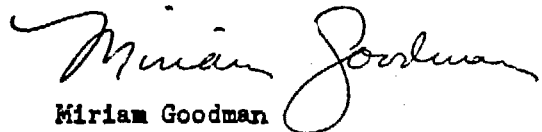
Department of Energy
Division of Waste Management
Mail Station B-107
Washington, D. C. 20545

Re: Public Meeting, West Valley, N. Y.

To Whom It May Concern:

Since we are unable to attend the above meeting soliciting public comment on the DOE study of options on the Western N. Y. Nuclear Service Center, we are herewith enclosing our written comment.

Sincerely yours,


Miriam Goodman
Chairperson

Enc.

COMMENT ON DEPARTMENT OF ENERGY STUDY OF OPTIONS ON THE
WESTERN N. Y. NUCLEAR SERVICE CENTER, SUBMITTED BY THE
NORTH SHORE COALITION FOR SAFE ENERGY, P. O. BOX 18,
GREAT NECK, N. Y. 11021

As a coalition of individuals and community organizations in Nassau County in the State of New York, we are extremely concerned about the options the Department of Energy proposes for the West Valley site.

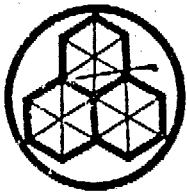
Since we believe that the hazards of radioactivity are an ongoing threat to present and future generations, we are opposed to the continuation of the use of West Valley for storage of low or high level nuclear wastes and to the introduction, at or near this site, of additional wastes or new nuclear facilities, such as a demonstration plant, reprocessing plant or other nuclear project. Not only would these options intensify and exacerbate the already reprehensible environmental situation created at West Valley, but they would add the additional burden of greatly increased radioactive waste transportation through N. Y. State from all directions in and out of the State.

The present unused facility at West Valley must, as soon as possible, be decommissioned and the site be decontaminated and restored to a healthy state by the solidification and removal of the present wastes. The cost of this action should be borne by those responsible for the present situation and not by the State of N. Y.

We urge that a more viable future for this area be assured by the development of an Alternative Energy Center, a project dedicated to further the utilization of energy sources that are safe for the environment and for people.

Miriam Goodman
Chairperson

Phone: 516: MA 1-0345



LABOR ACTION COALITION OF NEW YORK

PUBLIC POWER

FULL EMPLOYMENT

SAFE ENERGY

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March 14, 1978

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UAW 424 AFSCME - Buffalo

STAFF

Daniel B. Leahy
Organization Director

Jinx Dowd
Information Director

*Union affiliation for
identification purposes only

Joanne Passaglia
Division of Waste Management
Mail Station B-107
Department of Energy
Washington, D. C. 20545

Dear Ms. Passaglia:

At the third annual legislative conference of the Labor Action Coalition of New York, 60 delegates representing over 60,000 members of local unions across the state passed unanimously the following resolution.

We hereby request that this resolution be included in the Department of Energy study of options for the Nuclear Fuel Services site at West Valley, NY:

BE IT RESOLVED that the Labor Action Coalition of New York proposes that the radioactive wastes on the West Valley site be removed, that those companies and institutions who polluted the site pay for the clean-up, that no further wastes be introduced to the site, that an alternate energy, job-producing, environmentally-compatible industry be located on the site and that this resolution be transmitted to the Department of Energy for inclusion in their study of West Valley options.

Sincerely,

Jinx Dowd
Jinx Dowd

For the Executive Board

Please send correspondence regarding results of the DOE study to: LAC Information Bureau, P.O. Box 732, Ithaca, NY 14850.

291

March 15, 1978

Marvin Resnikoff
Coalition on West Valley Nuclear Wastes
Box 1 2 3 Market Station
Buffalo, New York 1 4 2 0 3

Re: West Valley Wastes
Statement for Sat. March 18,
DOE/public meeting

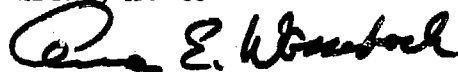
Dear Friends:

Federal monetary responsibility for West Valley NFS should be not a matter of what the fine print in any contracts say or do not say, but a matter of what is right. The Federal Government pushed nuclear power on the citizens of New York State, without their informed consent, if not without their knowledge. The Federal Government must accept responsibility for the problem them created and promoted - nuclear wastes.

The responsibility for monitoring the West Valley site, should, however, be the responsibility of Dept. of Environmental Conservation of New York State. Federal "surveillance" of sites has and is inadequate. The State of New York should reserve for itself this responsibility and right, as it is the governmental body most directly responsive to the residents of New York State, and so would have a more immediate reason for see that monitoring is done in the interests of the people of New York State, rather than having that interest subverted to what a Federal Agency may perceive as "greater good",

Also, no further wastes, chemical and/or radioactive, should be brought into or stored at West Valley, whether they be U. S. generated wastes, foreign, or those generated by any activities in New York State. The recommendation of the President's Council on Environmental Quality should be taken under advisement - that no more nuclear plants be built until the problem of safe disposal of nuclear wastes is demonstrated. Simply saying the Federal Government is taking over the problem is a non-solution. It is simply shifting the problem from one hand to the other, NOT solving it.

The nuclear industry reminds me of a person knocking his head against a wall. In this case, the wall is the matter of permanent waste disposal. When it (the nuclear industry) starts to bleed, it simply puts a bandaid on the hurt, instead of stopping the action that caused the hurt in the first place. It is simply insanity to keep generating a larger problem when there is no known solution to the problem already here.



ANNA E. WASCEBEACH, CHMN.
N.Y. FEDERATION FOR SAFE ENERGY
BOX 2808 W. SAUCERTIES RD.
SAUCERTIES, N.Y. 12477

Donald P. Ogden
Camp Rainbow
Croton-on-Hudson, N.Y.

Re: Testimony for the
Department of Energy
Public Hearing at
West Valley, N.Y.

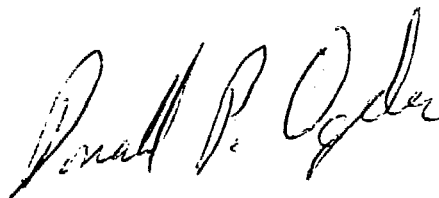
My name is Donald Ogden. I am speaking as a private citizen and parent to three children. I wish to address the members of this hearing committee on the subject of the West Valley Nuclear Fuel Services installation and its effect upon the future of the citizenry of West Valley, New York State, and the Union. My comments will be brief and to the point.

As we all know, the Bill of Rights to the Constitution guarantees all of us the right to good health. In this age of industry we find that basic right being challenged almost daily by a large and varied assortment of environmental pollutants that are introduced into the biosphere. Radiation is certainly no less of a pollutant than carbons and nitrates, indeed, as science learns more of the effects of radiation upon us, it becomes apparent that radioactive materials are a graver danger to the Earth than we had expected. The research of Professor E.J. Sternglass on the effects of low level radiation attest to this. It becomes more obvious through recent research efforts that any increase in radiation levels above normal background readings are a valid threat to the health of the public. I contend that the existence of the NFS complex is such a threat and that its further operation would only serve to magnify an already dangerous situation.

As we are aware, the effects of radiation are a cumulative matter. Its dangers and ill effects do not become visibly apparent until long periods of time have elapsed. Even if the NFS installation should cease to exist today, its actual effect upon the populace would not become apparent until the distant future. Bearing this in mind, would it not be presumptuous

of anyone to assume the safety of the installation via present day health statistics ?

A matter that is even more distressing than the one at hand is the poison legacy that we leave behind for future generations to deal with. Not only are the constitutional rights of the public for good health being denied, but the rights of their descendants as well. Besides the short-term radioactive materials that the nuclear industry creates, there are long-term materials such as Plutonium-238 which remain highly active and extremely dangerous for hundreds of thousands of years. These materials must be kept out of the biosphere for periods of time that, in reverse, would span back to the age of cro-magnon. There is no way we can guarantee the security of this material over such a vast period of time. The Nuclear Fuel Services complex in West Valley is part and parcel to this poison legacy and as such should not continue operation, for its operation, its very existence is a threat to the health and welfare of the public. In short, we are dealing with an immoral technology and its time to end it.



enclosed: "Surprising Findings About Plutonium
Dangers To Man Reported At The International
Atomic Energy Agency Meeting In San Francisco."

SURPRISING FINDINGS ABOUT PLUTONIUM DANGERS TO MAN REPORTED

AT THE INTERNATIONAL ATOMIC ENERGY AGENCY MEETING IN

San Francisco, California - November 17-21, 1975

Summarized by

John C. Cobb, M.D., M.P.H.

University of Colorado Medical School, Denver

1. K.C. Pillai of India reported on studies of plutonium in the ocean sediments near the effluent of the Bombay nuclear fuel reprocessing plant. He observed the preferential uptake of plutonium by mollusks of the genus *Arca*, with concentrations up to 67 pCi/kg of flesh. His findings suggest that the amount of plutonium bound to the organic fraction of the ocean sediments is increasing with time; plutonium seems to be moving from the inorganic fraction to the organic fraction of sediments.
2. A.T. Jakubick of Germany reported that the rate of migration in soil of plutonium oxide (the usual form of airborne contamination) is about 100 times faster than that when plutonium nitrate solutions are spilled on the soil.
3. G.M. Matlack of Las Alamos, USA reported that plutonium-238 dissolves faster in cold fresh water than it does in warm salt water and that more plutonium is dissolved in the water from a large chunk of plutonium-238 than from the same quantity in finely divided form. He suggested an explanation for these unexpected findings could be the high alpha activity and heat shock effects. These observations are important in relation to the accidental loss of a plutonium-238 power source into the ocean, (eg. from a satellite).
4. Y. Sugimura from Tokyo reported that plutonium hydrolyzes in sea water to form colloidal particles which become attached to larger particles having a faster settling velocity. Thus plutonium settles into the ocean sediment faster than strontium or cesium. Plutonium is accumulated in various seaweeds up to 100,000 times the concentration in sea water.
5. V.T. Bowen from Woods Hole, USA, reported that plutonium doesn't stay put in lower layers of the ocean sediments, but moves back up to the surface of the sediment, probably as a result of activity of worms; there it becomes available to fish and other bottom-feeding organisms which may get concentrations of plutonium in their flesh up to five times that of the sediment itself.
6. L.D. Labeyrie from France reported that plutonium-239 and iron-55, in microparticulate suspension, can be translocated from shallow waters toward the open sea and to deeper waters, where they may be reincorporated in the biological cycle, as a result of bacterial activity. Plutonium-239, surprisingly, may be more active chemically and biologically than iron-55.
7. D.S. Woodhead from England reported that plaice fish eggs concentrate plutonium up to 35 times the concentration of the water (mostly in the shell). He calculated that approximately 25% of the eggs exposed to the waters near the Windscale plant would be penetrated by at least one, two, or three alpha particles per egg during the 17 day development period.

8. F.H. Essington of Los Alamos, USA, reported finding a surprisingly large amount of plutonium in some of the deeper layers of soil at "nuclear safety event" test sites in Nevada. It had evidently migrated down from the surface, where it had been deposited 12 to 21 years ago when experimental detonations of chemical explosives, in close proximity to assemblies of plutonium and/or uranium, resulted in the deposition of substantial quantities of the nuclear materials over areas of several hundred hectares. Concentrations of plutonium in the surface layers gave measurements of over 100,000 disintegrations per minute per gram of soil (d/m/g) and the concentrations at 15 to 25 cm depth, in some cases, were as high as 1000 d/m/g. It tended to accumulate in cemented lime/silica lenses in deeper layers. Migration could have occurred through vertical fractures resulting from expansion and contraction of blocks of desert soil. The data suggest that plutonium had moved very rapidly down to 25 cm depth in some areas as a result of heavy rainfall, so that clean-up operations had missed much of it. Burrowing animals may carry these materials down as far as more than one meter, he said.

Americium-241 moved down in the soil much more rapidly than plutonium, so that the ratio of americium to plutonium was ten times greater at 18 cm depth than it was at the surface. He also mentioned that K.R. Price had reported that americium was taken up by tumbleweed and cheatgrass as much as 1000 times more than was plutonium in those same areas.

Comment: A later paper by P.W. Krey, of US, ERDA, showed on a map of the world that the plutonium dispersed by these "nuclear safety events" covered an area more than 1000 miles in diameter and spread significant quantities of plutonium as far east as Denver, Colorado. Krey estimated that in Salt Lake City about twice as much plutonium activity was deposited from "safety tests" at the Nevada Test Site as was delivered by global fall-out.

Krey also reported calculations on americium-241, which is a decay product of plutonium-241 and gradually grows in as the plutonium decays. He estimates that, the americium-241 content of present worldwide fall-out in soil will peak in the year 2037; it will then be comparable in alpha activity, to the remaining plutonium. Because americium is taken up so much more readily by animals and man, this may become the greatest danger of plutonium to mankind.

9. T.E. Hakonson of Los Alamos, USA, reported an attempted inventory of the sediments in Mortondad Canyon where plutonium wastes from Los Alamos had been dumped over the past 32 years. The sediments contained an average of 200 picocuries per gram of dryweight. The inventory could only account for about half of the known amount of plutonium discharged into the canyon. However, in response to questioning, Dr. Hakonson stated that he did not know how to get an estimate of the accuracy of his inventory.

10. S.M. Price of Richland, WA, USA, described studies of the soil below two trenches at Hanford reactor site where over five million liters of liquid wastes were dumped some years ago containing about 68 kilograms of plutonium. The soil was so radioactive that they had to put the drilling rig inside three barriers, and use glove boxes like those at the Rocky Flats plutonium processing plant. At 5 cm. below the trench floor, they found a plutonium-239 concentration of approximately one curie per liter of dry soil; at 9 meters depth, they still found plutonium at concentrations of about 10 microcuries per liter of soil. Americium and other actinides were also found at about 10 μ Ci/L. concentration at 9 meters depth. These core samples were studied by gamma ray energy analysis and by placing them on photographic film to make autoradiographs.

11. T. Tamura of Oak Ridge, USA, reported on studies of plutonium-contaminated soil from, 1) the Nevada Test Site "safety shot" areas described above, 2) the flood plain of White Oak Creek where a radionuclide retention pond spilled when the dike failed in 1944, and, 3) the old Erie Canal resulting from a leak in the acid waste transfer line at Mound Laboratory.

He found that the Erie Canal samples contained a more soluble form of plutonium which was taken up by plants in concentrations much higher than had been previously found (discrimination factor = 6×10^{-5}). He pointed out that the finer silt and clay size particles of plutonium, especially in the Nevada Test Site samples he studied, are important to consider in evaluating the degree to which plutonium is resuspended and carried in the air. He recommends vigorous pursuit of plutonium particle size studies to improve our meager understanding of plutonium's behavior and fate in the environment and its danger to animals and man.

12. G.L. Meyer of US, EPA, reported on studies of environmental leakages of plutonium, etc. from the waste disposal facility at Maxey Flats, Kentucky where, since 1963, commercial nuclear waste and processing by-products were buried containing 1,638,000 curies and more than 80 kg of plutonium-239. The burial trenches in this humid forest site filled up with water causing an alarming and unexpected mobilization of the plutonium. The study found plutonium contamination of streams, ground water, sub-surface and surface soil samples near the site and as far as one kilometer outside the burial site. This unexpected mobilization was only partly explainable as being related to the humid climate, acid in the forest soil, chelating agents in the waste material, unfortunate hydrological conditions and geological characteristics of the burial area, atmospheric pollution from the on-site evaporation operations, and not least to problems in management and supervision of this commercial operation. Fortunately, Maxey Flats is in an area (Fleming County) which is, at present, rather sparsely populated. In the discussion, a British participant questioned the advisability of this kind of waste disposal. The rejoinder was that at least it seemed to be better than ocean burial which the British have used.

13. E.A. Bondietti of Oak Ridge, USA, reported various poorly understood chemical interactions between substances in the soil and plutonium in samples contaminated 30 years ago in the Oak Ridge reservation area. He stated that the formation of plutonium complexes and the interactions with humic substances and uronides which are ubiquitous in

the environment, make the plutonium more available for uptake by living organisms, especially in acid soils (below pH 6.0). Oxidation of the soil organic matter with sodium hypochlorite released 82 percent of the total soil plutonium. Resin extraction results indicate that a substantial fraction of the soil plutonium would be available for uptake by plants. The observed association of about 30% of plutonium in the soil with organic matter in nature under actual environmental conditions is not clearly understood and requires further study, according to Bondietti.

14. O.S. Myers of the Lawrence Livermore Laboratory, USA, reported on studies of the digested sludge from the Livermore City sewage treatment plant which had been accidentally contaminated to the level of 2.8 picocuries per gram of dry sludge, or one thousand times the background level, as a result of release of 32 microcuries of plutonium-239 from the Laboratory into the city sewer system. The sludge is widely used by local citizens for fertilizer. Studies showed that the greatest risk to users would be from the rototilling operation where the resuspended particles of plutonium mostly of submicron diameter, would be inhaled, resulting in an individual receiving the total cumulative (50 year) exposure of 27 milirem to the pulmonary lymph nodes (and correspondingly smaller doses to other body organs) as a result of using the rototiller for one period of four hours. Clearly, a farmer working this soil on a regular basis might inhale a significant and possibly dangerous amount of plutonium from inhaling such dusty air (which Myers estimates to contain 2.4×10^{-4} Ci/m³ of plutonium-239 mostly in submicron size particles).

Comment:

The added cumulative gonad dose of plutonium should have been calculated; it might be enough to have a significant effect on the genetic endowment of the population in the area using this sludge for fertilizer.

15. D.D. Smith of the US EPA, reported on tissue studies of plutonium in cows which had been grazing on the Nevada Test Site. They found the solubility of plutonium in gastro-intestinal fluids varied greatly depending on the type of vegetation eaten. Plutonium-238 was more soluble than plutonium-239, and it was found to be more readily absorbed and retained by cattle. The findings also showed that evidently the placenta presents no barrier to the transfer of plutonium from the dam to the fetus.

Comment:

No studies were made of the concentrations in gonads of these animals; these data are needed to evaluate any possible genetic effects.

16. W.F. Beckert of the US EPA, reported studies showing that the common soil fungus, Aspergillus niger, is surprisingly able to take up plutonium-238 in various chemical forms from agar culture media, and incorporate it in the aerial spores in concentrations one-tenth to one-twentyfifth that of the wet culture medium. One sample of spores contained 976 picocuries per gram of plutonium-238 which had been taken up from plutonium dioxide in agar whose concentration was 2.24×10^4 pCi/g. Similar phenomena, Beckert said, are likely to

occur in soil under natural conditions. The action of such microbes in the soil may also render plutonium soluble and available for uptake by plant roots. This may explain the increase with time observed in the uptake rate by clover from soil. Beckert thinks it may well be that within several decades, plutonium uptake by plants will increase to higher levels than is currently projected.

Comment:

No studies were made of the genetic effect of the plutonium incorporated into the spores.

17. H.R. McLendon of the Savannah River Plant presented data showing that plutonium coming from the nuclear fuel reprocessing plants over the past twenty years, has significantly contaminated the soil over an area of about 80 km diameter. In this humid and heavily vegetated area, plants and animals have taken up an alarmingly large fraction of the soil plutonium. The concentrations of plutonium found in grasshoppers and cotton rats were surprisingly high, being on the average about one-tenth of those in the honey suckle and camphor weed in the same areas. These plants in turn, showed a surprisingly high concentration, on the average about one-tenth of the concentration of that in the soil core samples taken in the same area. The data indicate that the plutonium in these plants came mostly from dust settling on leaves rather than from uptake through the roots. Near the processing plant, the plutonium-239 concentration of cotton rat lungs and flesh was 1.96 femto curies per gram; that of camphor weed was 11.7 fCi/g; that of the soil core to 15 cm. depth was 89.9 fCi/g; and that of the resuspendible material in the top millimeter of soil was 1931 fCi/g. The observed concentrations decreased with increasing distance from the plant, as would be expected. However, statistically significant concentrations of plutonium-239 were found as far away as 40 km in Augusta (9.2 \pm 0.9 fCi/g in dust). The plutonium in the dust in Augusta could be identified as having come largely from the processing plant because of the high ratio (34%) of alpha rays coming from plutonium-238, as compared with plutonium-239.

Comment:

Previous studies in arid areas, using plutonium from weapons tests in the laboratory, had comfortingly shown that the plutonium concentration in plants was one-ten thousandth to one-millionth of the concentration in soil, giving an unwarranted lack of concern for this route of plutonium transfer to animals and man. The lip area near the Rocky Flats plant in Colorado has soil concentrations of plutonium twenty-thousand times as high as the highest found in this Savannah River Study; much more plutonium is loose in the environment of the Nevada Test Sites, the Hanford reactors, and Maxey Flats in Kentucky. (See above # 8,10,14)

18. B.G. Bennett of US, ERDA, HASL, New York said most studies indicate that inhalation by man of plutonium from fall-out in the environment is 1000 times more important than ingestion and accounts for most of the body burden. He mentioned, however, that plants take up americium and curium from the soil more readily, about 10 to 30 times as much as plutonium. He quoted a paper by A. Wallace (in Health Physic 22 1972, pg. 559) indicating that soy beans grown in soil contaminated with americium and containing chelating agents (often used with fertilizer) showed a concentration of americium in their roots of over 300 times that in the soil.

Comment:

Americium is a decay product of plutonium-241 which builds up in the soil where plutonium has been deposited. It is considered to be much more dangerous to living things than plutonium because of its chemical characteristics, its alpha radiations, and its more penetrating gamma rays.

19. A.A. Mullen of US, EPA, Las Vegas, reported that when laying hens eat plutonium-238 in a soluble form, they absorb a limited amount and transfer a large part of this to the yolks of their eggs. However, they absorb a larger fraction of ingested americium-241 and rapidly transfer this to their egg yolks, liver, and skeleton. Thus americium seems to present a greater hazard to man than plutonium, as transferred through laying hens.

Comment:

Genetic effects were not studied

20. E. Holm of Lund University, Sweden, reported that the lichen-carpet in northern Sweden has concentrated plutonium from fall-out up to levels of 300 pCi per kg dry weight. Reindeer which graze on these lichen reach concentration in their livers of about 5 pCi/kg. Inhalation of plutonium dust appears to be more important than ingestion of plutonium from eating reindeer, among the Laps of this area.
21. E.M. Romney of the University of California, USA, reported studies of contamination of vegetation in the Nevada Test Site "Nuclear Safety Event" areas (also studied by Essington and Tamura, #8 and 11 above). In these areas, since the plutonium was dispersed some 12 to 21 years ago, americium has grown in from the plutonium-241 by radioactive decay, so that now about one-tenth of the alpha activity in the surface soil is due to americium. At lower depths in the soil, the americium alpha activity is comparable to the plutonium alpha activity; and since plant roots take up americium much more readily than plutonium, it appears that americium has prime importance as a potential hazard to animals and man.

Most of the plutonium found in vegetation had evidently come from deposition on the foliage as a result of resuspension of very fine plutonium dust particles. Since the fine dust is more readily carried

by the wind, the amount of plutonium found in vegetation was sometimes found to increase with increasing distance from ground zero, even though the total amount of plutonium in the soil was much less at the greater distance from ground zero. In other words, the more dangerous small particles of plutonium have been more readily blown away from the source by the wind and, when resuspended, are deposited on plants where they may be eaten by animals.

The hairy leaf surfaces of Eurotia lanata retained the highest concentrations of plutonium, (eg. a mean concentration of 2.6 ± 1.0 nCi/g of dry leaves in an area where the soil showed 14 ± 6 nCi/g)

Comment:

This high ratio of foliage to soil concentrations (2.6:14=approx 1:5) is surprising in that it is several orders of magnitude higher than values previously reported. However, this ratio is of the same order of magnitude as the findings reported above by McLendon at Savannah River, S.C. (see #17), even though the actual plutonium concentrations there in both soil and plants were about one-millionth of those at Nevada Test Site. The importance of the size of plutonium particles in assessing the hazard to animals and man is again emphasized in this paper. Ordinary soil sampling procedures are simply not adequate if they ignore particle size.

22. D.N. Edgington of Argonne Laboratory, USA, reported that in the sediments of Lake Michigan, the concentration of plutonium near the effluent from a nuclear power plant was negligible, but 50 miles across the lake, where the currents had carried the effluent and the sedimentation rate was high, the concentration of plutonium was 3 times the level attributable to fall-out from nuclear weapons testing. This demonstrates that one must not be content to measure sediments nearby only, but must understand the currents and sedimentation dynamics in order to evaluate plutonium hazards.
23. V.E. Noshkin of Lawrence Livermore Laboratory, USA, reported studies of deep well water in the Enewetok Atoll where 43 nuclear bombs were tested during the years 1948-1958. Plutonium was found in unexpectedly high concentrations (3 fCi/l.) at depths up to 80 meters. These studies indicate that plutonium is very mobile through water-saturated coral-soil environments, in contrast to cesium-137 which was found, as expected, mostly in the shallower depths, where the water was less salty.

Comment:

To this reporter, it seemed ironic and shocking that the scientists involved in these satanical operations, which have rendered these atoll islands uninhabitable, should refer to these ravished beauty spots by alphabetically assigned Christian names, "Alice", "Belle", etc., in place of their former Polynesian names, "Bongallua", "Bongombongo", etc.

24. W.J. Bair, of Battelle Laboratories, USA, reported studies of lung cancers induced in animals by inhalation of insoluble plutonium-239 particles. The risk for humans exposed to the current maximum permissible annual dose to lung for occupational exposure over a period of 50 years would be 1 case of lung cancer per 8 persons, on the basis of his projections from animal studies. This is 5 to 9 times greater risk than has hitherto been estimated from human radiation exposure data. He argues that these animal data should be more pertinent than previous estimates based on exposures of human lungs to radiation sources other than internal alpha-ray emitting particles like plutonium.

He also reported that the lung cancer risk from inhaling insoluble plutonium particles appears to be twice as great as the risk from inhaling soluble particles; and the risk from plutonium-239 is higher than that from plutonium-238.

Comment: Bair's findings are disturbing since they would suggest stricter standards, especially for people exposed to breathing insoluble plutonium dust, as for example near Rocky Flats. Because his findings indicate that particles with high specific alpha activity (plutonium-238) are much less likely to induce a cancer than lower specific activity particles (of plutonium-239), this could mean a greater risk than hitherto estimated for people exposed to very small particles of plutonium-239 (less than 0.1 micrometer diameter).

25. W.H. Ellett of the US, EPA, compared estimates of the excess cancer mortality which may result from exposure to various occupational radiation dose limits, especially body burdens of transuranic elements. He concluded that there is urgent need for substantial downward revision of allowed body burdens for transuranics, especially plutonium. This conclusion was based on the observed rates of cancer induced by Radium-226 in man, the observed rates of cancer induced by radium and plutonium in animals, and the observed deposition of plutonium in various organs in animals and man.

He emphasized the need for detailed consideration of the genetic and somatic risks due to irradiation of the gonads, pointing out that D. Green, et al (Nature 255: 77, 1925) observed that in mice, plutonium is deposited in the region of the sperm - generating cells of the testicles. This results in a dose 2.5 times greater than would be calculated assuming a homogeneous plutonium deposition in the testicles.

Comment: Other animal and human data indicate that plutonium is deposited in both ovaries and testicles in concentrations greater than, and in some cases much greater than, the concentrations in the lung or bone (C.R. Richmond and R.L. Thomas, Health Physics 29: 241, 1975). Plutonium may have a special affinity for the gonadal cells which will determine the genetic future of the species. The

implications of this are at present unknown because of lack of research in this area, but the possible effect on future generations could be devastating. It may be that the gonads, rather than lung, liver, or bone, should be considered the critical organ for calculation of permissible levels of plutonium exposure.

Conclusions:

In a panel discussion following the above papers, and in informal discussions afterwards, it was generally agreed by the US, ERDA representatives that 1) current permissible limits for plutonium in the lungs are at least several times too high, and people exposed to presently permissible amounts of inhaled plutonium have a very substantial risk of developing cancer; and 2) the genetic risks have hitherto received too little research attention and are beginning to be recognized as possibly of critical importance in establishing permissible limits.

Concluding Comments:

"The plutonium economy", as conceived by the US, ERDA in the Environmental Impact Statement on the Fast Breeder Reactor, involves plans for the amount of plutonium being handled by this industry to reach 30,000 tons during the next 45 years. Even without any accidents or atomic bomb explosions, we could expect that even the best handling of this much plutonium would cause an enormous increase in the amount of plutonium, on the average, deposited in the gonads of the world population.

From experiments with animals, A.L. Brooks reports in (Science:190 p. 1090; Dec. 12, 1975) that less than 200 rads of alpha radiation from plutonium-239 or americium-241 causes an average of one chromosome aberration per cell in liver tissue. Brooks states that his findings ... "may have a very real relationship to genetic risk from protracted radiation exposures".

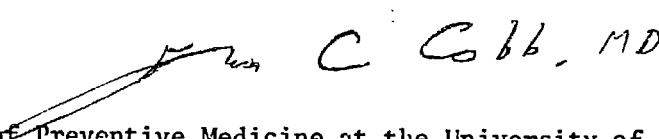
Assuming that the concentration of plutonium in gonads is about twice that in lung, as found by Richmond (op. cit.), then exposure to plutonium on the job resulting in the maximum permissible lung burden of 16 nanocuries (to a kilogram of lung) would result in about 32 nanocuries per kilogram of gonadal tissue. This much alpha radiation from plutonium would probably cause very severe genetic defects in future generations of the offspring from these individuals. The extent of this effect in humans can only be surmized from data like that of Brooks (op. cit.) in animals. Much more research in this area is needed.

In the meantime, it seems prudent to warn plutonium workers who have received as much as one lung burden (16 nCi) of plutonium that they may have an increased incidence of genetic defects in their descendants.

From the point of view of population genetics, the amount of plutonium already inhaled by the entire world population of 4 billion people may already, today, have committed future generations to an increased rate of genetic defects. The average concentration of 0.5 picocuries per kilogram of gonadal tissue observed by C.R. Richmond, in ordinary citizens of USA who were not occupationally exposed, probably represents the world-wide exposure from fall-out from atomic bomb testing. This exposure is probably already going to cause a much larger actual number of genetically defective children than would the maximum permissible exposure of inhaled plutonium to each of about 6,000 young plutonium workers. In other words, the exposure to everybody in the world, which has already occurred from bomb testing, is much more important, genetically speaking, than the exposure of plutonium workers.

If plutonium workers had already had their children before their exposure to plutonium, as would be advisable, then the genetic results of their exposure would be nil. There is, however, no easy way of preventing exposure of all the young people in the world to the plutonium already dispersed in the entire atmosphere. Hopefully, we can prevent any further atom bomb testing or dispersal of plutonium from the nuclear power industry. This would mean putting a stop to both, which would be difficult, given the enormous investments involved and the power politics of the world, but not impossible.

The problem is that until the critical genetic research on plutonium has been done, we will not know how serious the genetic effects might be. When we find out, it may sadly be too late.


Dr. Cobb is Professor of Preventive Medicine at the University of Colorado Medical School, member of the Governor's Scientific Advisory Committee of Colorado, Member of the Air Pollution Control Commission of Colorado. He has served on the Governor's and U.S. Congressman Wirth's Task Force on the Rocky Flats Plutonium Plant, and on the Governor's Task Force on Uranium Enrichment. Under an EPA contract, he is currently investigating plutonium and americium in the tissues of people who have lived near the Rocky Flats plutonium plant near Denver, where spills of plutonium-contaminated oil were carelessly allowed to occur by the Dow Chemical Company, contaminating the Denver environment.

March 19, 1978

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Ms. Joann Passaglia
U.S.D.O.E.
Mail Stop B 107
Washington, D.C. 20545

Dear Ms. Passaglia:

You and the other members of D.O.E. that conducted the public meeting at West Valley on March 18, 1978 are to be heartily congratulated for the tact and professional demeanor that you displayed. Thank you for your efforts.

Those present heard a variety of statements, many of which included allegations that were highly questionable at best. One such allegation was particularly disturbing to me.

Ms. Carol Mongerson of the "Coalition on West Valley Wastes", Ms. Holly Nachbar of the "Springville Radiation Study Group", and others stated that a geologic feature, allegedly a fault, was "discovered" in Zoar Valley and, that on the basis of an anonymous tip, this feature was investigated by the U.S.N.R.C. and was subsequently responsible for the change in seismic requirements issued by the U.S.N.R.C. to N.F.S. in 1976.

I believe this allegation to be an outright falsehood. Would you please solicit written comments from the U.S.N.R.C. on this matter and include them with the written transcripts of the meeting? I tried to make this request during the question and answer session, however, there was not sufficient time for me to be recognized. Thank you for your assistance in this matter.

Very truly yours,


Stephen A. Molello

Mr. Stephen A. Molello
137 North Buffalo Street
Springville, New York 14141

(716) 592-4730



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

Docket No. 50-201

1978 MAR 30 PM 3 37

U.S. DEPT. OF ENERGY

Dr. Goetz Oertel
Assistant Director for
Waste Handling
Division of Waste Management
Department of Energy
Washington, D. C. 20545

Dear Dr. Oertel:

SUBJECT: DOE REQUEST FOR COMMENT ON LETTER FROM
MR. STEPHEN A. MOLELLO CONCERNING
GEOLOGY NEAR WEST VALLEY, N.Y.

We are pleased to comment on the letter you received from Mr. Molello dated March 19, 1978. In his letter Mr. Molello stated that Ms. Carol Mongerson, Ms. Holly Nachbar and others had made statements about geologic features near West Valley, N.Y. at the public meeting on March 18, 1978, and would like NRC comments on this matter. Our comments on this subject follow.

During our review two minor faults were discovered in the Cattaraugus Creek gorge north of the site. An NRC geologist examined one of these faults during the Summer of 1975. Displacement was found to be on the order of one foot. These faults probably have been formed during the Acadian or Appalachian orogenies. Because of their small size and distance from the site (approximately 2-1/2 miles), we determined that they did not represent a hazard to the site. They were of no significance in causing the staff to require additional justification for the proposed SSE. The SSE is the safe shutdown earthquake as defined in our regulations 10 CFR 100 Appendix A and is that earthquake which has commonly been referred to as the design basis earthquake.

Sincerely,

A handwritten signature in dark ink, appearing to read "Richard W. Starostecki".

Richard W. Starostecki, Chief
Fuel Reprocessing and
Recycle Branch
Division of Fuel Cycle
and Material Safety



FRIENDS OF THE EARTH 72 JANE STREET • NEW YORK, NEW YORK 10014 • (212) 675-5911

Additional Comments: for the record of March 18, 1978
regarding disposition of Nuclear Fuel Services, West
Valley, N.Y., by Lorna Salzman, Mid-Atlantic Representative,
Friends of the Earth

It is regrettable that The Dept. of Energy failed to prevent vilification of individuals at today's public meeting, and reprehensible that it refused to permit the individuals vilified a public opportunity to rebut the attack. I would therefore like to submit for the record the following comments relating to Mr. George Berg of the Rochester Committee for Environment Information.

Mr. Berg inferred that my comments were lacking a factual basis. For the record it should be noted that the information on which my statement was based was contained in studies, reports, and memoranda issuing from the Dept. of Energy itself, the Nuclear Regulatory Commission, the U.S. Environmental Protection Agency, the U.S. Comptroller General, and the U.S. Geological Survey, as well as printed material issued by the State of New York. All of these are verifiable.

In addition, Mr. Berg's concluding comments totally contradicted his earlier statement made from the floor during the discussion period. Earlier, he had gone to great lengths to discredit the concept of epidemiological studies, stating that such studies were inherently unreliable due to the complexity of non-workplace factors bearing on health. However, in his final statement delivered from the podium, he stated unequivocally that no health effects could be traced from the Nuclear Fuel Services plant at West Valley. This is obviously in direct contradiction to his earlier statement, for otherwise how could one conclusively reach a negative finding on the NFS health effects without an epidemiological study? And if Mr. Berg believes such studies cannot be accurately conducted, what gives him the right to make a public assertion absolving NFS of all health effects?

In the future it is imperative that DOE insure fair and equitable treatment for all participants and that it allot time for rebuttal in the event of personal attacks. Without this, DOE's credibility as sponsor and moderator is seriously in doubt.

Lorna Salzman
March 20, 1978

Lorna Salzman



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION II
26 FEDERAL PLAZA
NEW YORK, NEW YORK 10007

MAR 15 1978

Dr. Goetz Oertel
Manager of Waste Handling
U.S. Department of Energy
Mail Stop B-107
Washington, D.C. 20545

Dear Dr. Oertel:

The purpose of this letter is to provide the U.S. Department of Energy (DOE) with the U.S. Environmental Protection Agency's (EPA) testimony for the public meeting to be held at the West Valley Central School auditorium in West Valley, New York on March 18, 1978. According to a DOE announcement, the objective of the public meeting is to solicit comments on the scope, schedule, and content of the DOE study of options on the Western New York Nuclear Services Center, operated by Nuclear Fuel Services (NFS). We request that our testimony herein be formally incorporated into your proceedings for this public meeting.

EPA is pleased to have the opportunity to provide its comments to the proposed DOE study of future options with regard to the Western New York Nuclear Services Center, at West Valley, New York. EPA has three major observations relating to this study. These are summarized as follows:

-Any options for West Valley proposed by the Department of Energy's study must fully implement the guidance, and the criteria and standards establish by the Environmental Protection Agency for radioactive waste management and disposal.

-The appropriate State and Federal officials should immediately begin to define what will constitute "acceptable condition" of the site for the purposes of transferring the authority for the site from NFS to New York State.

-At the present time occurrences of radioactive water leakage, radioactive gas formation and escape, and site erosion at the low-level burial site seem to pose a more immediate concern than the high-level reprocessed waste stored on site. Based on this, remedial action for the low-level burial area should be considered as an immediate priority.

This should not be misconstrued that EPA underestimates the magnitude of the problem posed by the high-level wastes on site. EPA believes that an environmentally acceptable solution to this problem is urgently needed.

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The responsibility for setting radiation protection standards for radioactive wastes is vested primarily in two authorities transferred to EPA by the Reorganization Plan No. 3 of 1970. The first gives EPA broad responsibility to provide Federal radiation protection guidance to the President for all radiation affecting health. The second gives EPA responsibility for setting generally applicable environmental standards. These authorities for establishing radiological standards have been extended by the Marine Protection, Research, and Sanctuaries Act of 1972, the Resource Conservation and Recovery Act of 1976, and the Clean Air Act Amendments of 1977.

To carry out its radioactive waste management responsibilities EPA is undertaking a two-step program. The first step, under the broad authority to provide Federal radiation guidance, involves the development of pertinent environmental protection criteria for all wastes. The second step, under the specific authority to set generally applicable environmental standards, is to establish general numerical standards for high-level radioactive waste to define present and future conditions that must be met for protection of the environment. The EPA also has plans to establish environmental standards for low-level waste by 1984, and for uranium mill tailings by 1982. In addition, criteria for waste packaging and for site selection for EPA's ocean disposal regulations are scheduled for the early 1980's.

The EPA plans to establish federal radiation guidance for decommissioning nuclear facilities by 1985. There are several considerations regarding decommissioning of which the most significant for the NFS situation appears to be that decommissioning was not a design factor. Such a situation may lead to a separation of decommissioning considerations for existing facilities and for new facilities. If the guidance takes this approach, existing facilities such as NFS would be studied on a case by case basis as the need for decommissioning arises.

The EPA is in the process of establishing environmental radiation protection criteria for waste management. The Agency has developed an initial formulation of proposed guidance for radioactive waste storage and disposal using input received from two open workshops held by EPA in Reston, Virginia (February 3-5, 1977) and Albuquerque, New Mexico (April 12-14, 1977). The proceedings of these two workshops are available from EPA as ORP/CSD-77-1 and ORP/CSD-77-2. Before presenting its formal proposed guidance in the Federal Register, the Agency has issued the initial criteria formulation as a source document, Background Report: Consideration of Environmental Protection Criteria for Radioactive Waste for discussion at a Public Forum to be held in Denver, Colorado (March 30-April 1, 1978). The EPA intends to issue environmental radioactive waste criteria in July 1978.

In parallel and sometime after the criteria are developed, a technical environmental assessment of high-activity, long-lived wastes will be made within the framework of the criteria to arrive at numerical standards for these wastes. These standards will be issued in draft form in late 1978. Hence, any options for West Valley proposed by the DOE study must implement the guidance, and the criteria and standards to be set forth by EPA.

In 1972 when EPA began its overall radioactive waste management program, very little information was available on the disposal of low-level radioactive wastes at shallow land burial sites. Since then, EPA has performed extensive studies at two of the six commercial low-level radioactive waste burial sites (Maxey Flats, Kentucky and West Valley, New York). Since 1972, the EPA has published numerous reports evaluating the generic adequacy of existing low-level radioactive waste burial techniques. These are cited at the end of the testimony for your convenience and several are provided for DOE's reference.

In the early 1970's the New York State Department of Environmental Conservation (NYSDEC) detected small increases in the level of radioactivity in streams adjacent to the low-level burial area at West Valley. The NYSDEC hypothesized that these increased levels were caused by either burial site surface contamination or by lateral migration of radioactivity from the trenches and asked EPA to assist in determining which pathway is responsible for the increase. A lithological boring study was performed in 1973 and 1974 showing tritium contamination of the surface area and the first 10 to 15 feet of strata immediately adjacent to the trenches used for burial. While the data was insufficient to determine the source of the tritium contamination, it has been surmised from further work that no significant lateral migration has taken place to date.

Extensive water infiltration has occurred at the north end of the burial site trenches, and in March 1975, water containing radionuclides seeped through two of the trench caps contaminating the adjacent burial area. Burial operations were terminated by NFS shortly after this seepage was detected by NYSDEC. It was determined in a NYSDEC study funded by EPA in 1973 that trenches in the northern section of the site where the seepage occurred contained more than 3 curies of cesium-137, 15,000 curies of strontium-90, 46,000 curies of cobalt-60, 26,000 curies of combined carbon-14 and tritium, 15,000 curies of tritium, 19,000 curies of mixed fission products, and 50,000 curies of other radionuclides. This inventory study is entitled Low-Level Radioactive Waste Burial Site Inventory for the West Valley Site, Cattaraugus County, New York.

After the seepage incident, NYSDEC required the implementation of a temporary program to control trench water levels. In the northern section of the site, where the trench water levels were already high, water was pumped out of the trenches, treated, diluted, and discharged into a nearby stream. In the southern section, where improved capping procedures were initiated in 1968, trench water levels had not risen in a manner similar to those in the north. The performance and history of the low-level radioactive waste site at West Valley is summarized in an EPA

report Summary Report on the Low-Level Radioactive Waste Burial Site, West Valley, New York (1963-1975).

Presently, there are several studies underway at the low-level site which are funded or performed by federal and state agencies. New York State agencies, under the lead of the New York State Geological Survey (NYSGS), are conducting a detailed four year EPA funded field study to determine the impact of the burial site on the environment and man. The four phased study will define the movement of water and contamination in sufficient detail to develop a working mathematical mass transport model for the site. From this model, the amount of leakage, if any, and the potential for future leakage, if any, can be estimated. A final report on Phase I and an interim report on Phase II will be available in the Spring of 1978. The U.S. Nuclear Regulatory Commission (NRC) is also funding the NYSGS to assess site erosion and surface water problems at the site. This information will also be used in the development of the radionuclides transport model. Preliminary information from this study indicates that small amounts of radioactive methane have been formed in the low-level burial trenches as a result of organic reactions. This gas has been detected escaping into the environment through the trench caps.

In coordination with EPA efforts at West Valley, the U.S. Geological Survey (USGS) is performing a study at West Valley to determine the physical and chemical properties of materials making up the burial media and the underlying geological formations. The USGS has issued a report Ground-Water Hydrology and Subsurface Migration of Radioisotopes at the Low-Level Solid Radioactive-Waste Disposal Site, West Valley, New York in July 1977 on its findings.

The EPA funded the New York State Energy Research and Development Authority (NYSERDA) to determine the amounts and types of low-level wastes produced by nuclear power plants. While wastes from nuclear power plants do not presently constitute a great percentage of the low-level nuclear waste buried at West Valley and the other commercial burial sites, they are expected to make up the majority of all wastes buried, in the future, both in volume and radioactivity. This study has been completed and published by the EPA as Characterization of Selected Low-Level Radioactive Waste Generated by Four Commercial Light-Water Reactors.

The New York Energy Research and Development Authority (NYSERDA) has contracted a study to determine the cause and recommend solutions to the problems of water accumulation in burial trenches, define an erosion control program, and design a monitoring program to detect radionuclide movement onsite.

From these site studies, the inventory survey study, and the waste categorization study, EPA has found that wastes were placed in shallow trenches untreated, the trenches were covered with excavated soil with little compaction, and there was insufficient knowledge of site hydrogeology upon which retention of radioactivity at the sites were primarily dependent. Due to land preparation prior to burial and burial procedures used at West Valley, erosion of the low-level burial area has

occurred. During times of heavy rainfall, rapid surface water runoff has caused significant soil erosion particularly in the north burial area. The trench caps, besides being composed of fill and weathered till, are subjected to external surficial weathering and internal waste subsidence. These actions have caused the trench caps to become more permeable than the surrounding undisturbed soil, resulting in water infiltration into the trenches. Water infiltration has been identified as the major cause of radioactivity to the environment via the overflow of trench water through the caps, the percolation of gaseous by-products of leachate formation, and erosion of the site.

In February 1978, the NYSDEC requested EPA comments on NYSDEC's intent to issue a State Pollution Discharge Elimination System (SPDES) permit to NFS allowing discharge of liquid sanitary wastes into Erdman Brook. The EPA Regional Office of Radiation Programs (RORP) in reviewing the intended SPDES permit recommended that New York State not issue a permit to NFS allowing for the release of pumped out treated trench waters. The EPA believes that the problem of water infiltration through trench caps, and the subsequent trench water buildup and overflow will not be solved if New York State continues to issue SPDES permits allowing for release of this radioactively contaminated water. In 1976, the averaged annual discharges were 50,800,000 pCi/l of H-3, 374 pCi/l of Sr-90, and 337 pCi/l of I-129. These concentrations exceed current radiation concentration guides for water as stated in 10 CFR 20 and should be considered unacceptable planned discharge.

The situation with regard to this permit leaves the State with a dilemma. If the conditions allowing the discharge are put into the permit, then New York State can order NFS to pump the water from the trenches over the next two years. If NFS then vacates the site, the problem trenches may be stabilized on a temporary basis and the State will avoid the cost of the pumpdown and treatment operation. However, any incentive for NFS to correct the leaking trenches on a long-term basis will be lost. Conversely, if the permit does not allow the discharge of water pumped from the trench after treatment and dilution, then in 1980 the State could inherit one low-level burial site with several water laden burial trenches.

Since the lease does require NFS to turn the site over to the State in "good" condition, it would probably be wise for the appropriate state and federal agencies to consider defining the exact conditions necessary for transfer of this site as a high priority item.

The EPA believes, based on information available, that at the present time the low-level burial area represents a greater radiological hazard than the tank containing the 600,000 gallons of reprocessed high-level waste. This judgement is based on the facts that: (1) radioactivity has already leaked through low-level

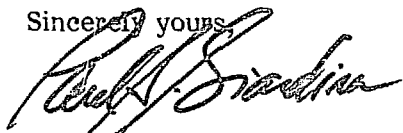
burial trench caps, (2) radioactive gases are formed in the trenches and are escaping through the trench caps, (3) erosion of the north end of the burial has the potential to washout of several of the northern trenches if unchecked, (4) solutions to correct the three abovementioned occurrences have not yet been implemented, and (5) the high-level tank is generally regarded to be in good condition with an expected lifetime of a new tank to be over 40 years.

Based on this EPA believes that the involved Federal agencies, specifically DOE, NRC, and EPA should work together with the state to secure the low-level burial area and demonstrate the problems currently associated with shallow land burial of low-level radioactive waste (water infiltration, site erosion, and gas formation) can be overcome. This would serve two important purposes: (1) restoring the burial site at West Valley to a secure condition, and (2) providing necessary information for future low-level burial operation, maintenance and siting.

The EPA Region II Office of Radiation Programs (RORP) has been developing a possible demonstration project which may eliminate the trench water infiltration problem and would be willing to work with DOE to explore its feasibility.

In closing, it should be underscored the RORP stands ready to provide any existing technical information DOE may require for its study. It is EPA's opinion that before a full report of the options available for the Western New York Nuclear Service Center can be explored three things must be accomplished: (1) environmental criteria and standard setting for high-level radioactive waste management and disposal must be completed, (2) the conditions necessary for transfer of the site to the State must be established, and (3) a program for remedial action for the low-level site must be planned. The EPA stands ready to aid the DOE in its future endeavors at West Valley within budgetary constraints.

Sincerely yours



Paul A. Giardina, Chief
Regional Office of Radiation Programs

Encl.

Reference Material

Low-Level Radioactive Waste Burial

Generic Studies

Report Number	Title
U.S. EPA (SW-12d)	"Hydrogeology of Solid Waste Disposal Sites in Northeastern Illinois," 1971
520/3-74-009	Storage of Low Level Radioactive Wastes in the Ground Hydrogeologic & Hydrochemical Factors With an Appendix
ORP-75-1	A Survey Of The Farallon Islands 500-Fathom Radio-Active Waste Disposal Site.
ORP/TAD-75-1	The Environmental Impact of The Low-Level Radioactive Solid Waste System-An Overview
520/3-75-021	Preliminary Data on the Occurrence of Trans uranium Nuclides in the Environment at the Radioactive Waste Burial Site Maxey Flats, Kentucky
ORP/TAD-76-4	Available Methods of Solidification for Low-Level Radioactive Wastes In The United States
ORP/LV-76-3	Review Of State Licenses For Disposal Of Low-Level Radioactive Waste By Shallow Land Burial
ORP/CSD-77-1	Proceedings: A Workshop On Issues Pertinent To The Development Of Environmental Protection Criteria For Radioactive Wastes. Reston, Virginia February 3-5, 1977.
ORP/CSD-77-3	Proceedings: A Workshop On Policy and Technical Issues To The Development Of Environmental Protection Criteria For Radioactive Wastes Albuquerque, New Mexico April 12-14, 1977 "Problems and Issues in the Ground Disposal of Low-Level Radioactive Wastes, 1977," G. Lewis Meyer, ORP, Proceedings of Symposium on the Management of Low-Level Radioactive Wastes, Atlanta, Georgia, May, 1977 (In Printing) Background Report, "Considerations of Environmental Protection Criteria for Radioactive Waste," Feb. 1978

Maxey Flats Burial Studies

REPORT

TITLE

520/3-75-021	Preliminary Data On The Occurrence of Trans-Uranium Nuclides In The Environment At The Radioactive Waste Burial Site, Maxey Flats, Kentucky
520 5-76-020	Radiological Measurements at the Maxey Flats Radioactive Waste Burial Site-1974 to 1975

West Valley Burial Studies

REPORT

TITLE

Low-Level Radioactive Waste Burial Site Inventory for the West Valley Site, Cattaraugus County, New York, 1973.

902/4-77-010

Summary Report On The Low-Level Radioactive Waste Burial Site, West Valley, New York (1963-1975)

"Nuclear Waste Disposal Costs (West Valley, New York)" Hearings Before a Subcommittee on Government Operations, March 8 and 10, 1977.

"Preliminary Pathway Observations of Radionuclide Movement to the Environment from a Low-Level Radioactive Waste Disposal Site in a Humid Climate," Proceedings of the Twenty-Second Annual Meeting of the Health Physics Society, Atlanta, Georgia, July, 1977.

"West Valley and the Nuclear Waste Dilemma," Twelfth Report by the Committee on Government Operations, October, 1977.

"Investigation of Gas Formation in a Low-Level Radioactive Waste Disposal Site," Conference Proceedings of the Fifth National Conference on Energy and the Environment, November 1977 (in printing).



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1978 MAR 21 TH 12:07

DIV. OF WPR

P.O. BOX 237
Ithaca • New York 14850
Telephone (607) 273 • 6173

March 15 1978

Mr. George Cunningham
Department of Energy
Washington D.C.
20545

Dear Mr. Cunningham,

Our Association is concerned with proposals to reactivate the nuclear dump site at West Valley. We urge that no further use be made of this dump until the present pollution has been cleaned up. Dumping should only be resumed when safe disposal methods are available.

Although we do not advocate Federal subsidy of the nuclear power industry we believe the Federal Government bears a moral responsibility in this matter. The Atomic Energy Commission was instrumental in encouraging the growth of the nuclear power industry and so should be responsible for funding research into safe disposal methods.

The Federal Government should also set standards of cleanliness that must be met and maintained at West Valley.

Yours sincerely,

Boris Brown

Boris Brown

CAYUGA LAKE CONSERVATION ASSOCIATION, INC.

LEAGUE OF WOMEN VOTERS

OF TOMPKINS COUNTY

ITHACA, NEW YORK

6

To: Hearing Officer,
DoE and NRC hearing, West Valley, N.Y., 18 March 1978

From: League of Women Voters of Tompkins County, N.Y.

Subject: future of West Valley, N.Y.

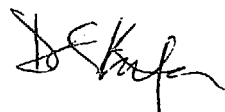
We understand that there is a proposal to re-open and expand the use of West Valley for nuclear wastes, rather than to keep it closed and clean it up, on the grounds that since the site is already contaminated, it's better to go on using it for this purpose than to do this to a new site.

We recognize that New York State may feel great pressure to accept continued use of the West Valley dump as a condition for federal takeover of the site.

We respectfully suggest that any continued use of West Valley as a nuclear dump would be a serious mistake for a very simple reason. The existence of West Valley provides the important opportunity to demonstrate that such a land-disposal site can be decontaminated and reclaimed. To our knowledge, such a demonstration has never been made -- it has only been claimed to be possible. Such a ~~XXXXXXXXXX~~ clean-up demonstration must be made if the government has any hope of continuing with a nuclear power program. The people of the U.S. don't need to be told "it can be cleaned up" -- they need to be shown that the NFS plant can be decontaminated and dismantled and the wastes disposed of in a more lasting fashion.

The fuel-reprocessing plant NFS operated at West Valley from 1966-1972 has left the site with (1) low-level wastes in open trenches (some leaking), (2) high-level wastes in steel tanks (corroding), (3) an unknown quantity of buried contaminated equipment. Thus West Valley has given the nuclear industry and the NRC -- inadvertently-- their chance to "stop talking and start doing".

The U.S. people are owed this clean-up demonstration; the West Valley site is unique in this respect. We strongly urge that no other use be made of the West Valley site.



D. S. Kiefer
for LWV-TC
629 Highland Rd.
Ithaca, N.Y. 14850

CATTARAUGUS COUNTY



ENERGY AND ENVIRONMENTAL
MANAGEMENT COUNCIL

RONALD RIEMAN
Chairman

303 Court Street
Little Valley, N.Y. 14755
Phone (716) 938-9111 Ext. 55

March 22, 1978

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1978 MAR 27 AM 10 21
ETN

Dr. Goetz Oertel
Division of Waste Management
Mail Station B-107
US Department of Energy
Washington, DC 20545

Dear Dr. Oertel:

The Cattaraugus County Energy and Environmental Management Council wishes to have its position included in the transcript of the DOE public meeting held at West Valley, New York, on March 18, 1978, and presents the attached statement for the record.

Thank you.

Very truly yours,

Ronald V. Rieman

Ronald V. Rieman
Chairman

bon
Attach.

ENVIRONMENTAL STATUS OF
WESTERN NEW YORK NUCLEAR SERVICE CENTER

During the 16 years since New York State procured and dedicated the Western New York Nuclear Service Center, there has been a significant accumulation of plant operating experience and a broad scope of environmental studies performed at this site. The data and experience acquired provide a sound basis for projection of the impact of future center activities.

Radioactive effluents from the site have consistently been within the limits of the US Nuclear Regulatory Commission. Chemical effluents have been controlled so that negligible quantities are released into the nearby streams. Studies by the US Environmental Protection Agency, the NYS Department of Environmental Conservation, and others have found no significant environmental impact resulting from activities at the Center. There has been no discernible disturbance of the terrestrial and aquatic ecological relationships in the area. These favorable results are in part due to the stringent controls placed upon the industry by the federal government. We can think of no industry where the goals of public safety and environmental protection receive higher priority.

Considering the history of safe operation, the continuing environmental surveillance and controls, and the fact that the Center has been dedicated for nuclear activities, the Council believes that future use of the site for nuclear programs is both logical and desirable.

Cattaraugus County
Energy and Environmental
Management Council

By: Ronald V. Reeman
Chairman

Date: March 21 1978

Dr. Goetz Oertel
U.S. Department of Energy
Mail Stop B-107
Washington DC 20545

March 22, 1978

ETN

1978 MAR 29 AM 9 04

RECEIVED

Dear Dr. Oertel:

Please enter this statement on the record of the meeting held at West Valley on March 18, 1978. I was present but didn't feel that I had anything to add to a long meeting that hadn't been said by others.

The situation at West Valley should never have been allowed to develop. Since it was, we must determine the best possible solution for the earth and its people as a whole.

This would seem to be to convert the high-level liquid wastes to solid form and store all the wastes in the most stable geologic formation available. They should be stored in such a way that they can be retrieved and rendered harmless if the necessary technology should be developed in the future. The West Valley site should be decontaminated in so far as possible.

I don't believe that West Valley is suitable for such long-term (hundreds of thousands of years) storage because of

1. The relatively high population density of New York State.
2. The past history of seismic disturbances.
3. The possibility of breaking down the salt formation from the heat of the stored wastes.
4. Periods of heavy rainfall.
5. The drainage into Lake Erie (and therefore Lake Ontario) that millions of people depend on for drinking, sanitation and jobs.

The financial liability will have to be underwritten by the federal government, but I believe that Nuclear Fuel Services and the State of New York should be assessed their share. As a citizen seriously considering leaving New York State upon retirement because of its high taxes, I do not like this solution, but feel it was a mistake that will have to be paid for. West Valley should likewise be assisted by suitable loans (not grants) in getting over its financial hump. I do feel, however, that the situation warrants

consideration as the disaster it is and that considerable federal help should be given as in any other disaster. It is only fair, however, that those who stood to gain from the operation should bear their share of the burden.

I feel that any new development on the site should be by private industry. It would be an appropriate location for a federally subsidized energy project by private industry provided the site actually has the needed qualifications for the project and provided the project is to be undertaken anyway without reference to West Valley.

I hope the Department of Energy will profit from this experience and discourage (rather than encourage as it has been doing) the generation of still more nuclear wastes for which it does not have an ultimate solution.

The only sensible solution to our energy problems is to make more efficient use of our present power and learn to take advantage of the renewable sources available to us. Building more nuclear plants right now is like eating more arsenic to cure the stomach ache we got from the last lot.

Bina Robinson
Swain NY 14884
607/545-6213

Bina Robinson

Betty Stephan
8270 Lower E Hill Rd
Colden, NY. 14033

Dr. Goetz Oertel
Manager of Waste Handling
U.S. Department of Energy
Mail Stop B-107
Washington, D.C. , 20545

Dear Dr. Oertel:

I attended the public hearing which DOE held at West Valley on March 18, 1978. I would like to add this statement to the transcript of that meeting.

I am now a resident of Colden, N.Y. , approximately 20 miles north of West Valley. However, I lived 18 years in West Valley , approximately 4 miles from the Nuclear Fuels facility there. My parents still reside there. As such , I do not consider myself an "outsider" and would hope you would number my opinion as one of more than that of an observer. I am not affiliated with any club or organization in regards to this issue.

Let me first state my opinion on NFS: I believe the plant facilities and the wastes should be decontaminated, decommissioned, and removed, in the safest way possible, and as soon as possible. This does not mean in 1985, which is supposedly the earliest date by which a federal repository can be established, or in 1981 when the state is scheduled to take over the site from NFS. Many people's lives may depend on the government's swift action in removing these wastes. No one can guarantee that the tank holding the high level wastes will not begin to leak at any time. The longer you delay dealing with this, the greater the risk. This is really a terrible thing to have hanging over your heads. It is already known that the northern trenches with the low level wastes are already leaking and will continue to do so until corrected.

In my opinion, the handling of the northern burial grounds of low level wastes, is and has been, to say the least, irresponsible. To begin with, for NFS to not have studied the hydrogeology of the site more thoroughly before burial, and the inexcusable manner in which they dealt with these wastes, not

taking care to make it more permanently safe, is really very shocking. For the government to allow NFS to pump water out of the trenches, treat and dilute it to "safe" levels, and then dump it into the stream, rather than correcting the problem until the wastes can be removed, is also inexcusable. Particularly since this corrective process would seemingly be a relatively inexpensive one. Meanwhile, many people's health is at stake.

In deed, there is no proof that low level radiation has a consequential adverse affect on the public health. However, there certainly is a need for a study to determine this. The saying "what you don't know can't hurt you" is certainly not true in this case, but seems to be the stand the government is taking. Do we dare risk the health and perhaps the lives of our families and future generations on that premise? I need to have proof that it is not dangerous. If the government is so sure that it is safe, why has it so obviously overlooked this aspect of study? How can this neglect be explained? Are 'you' merely concerned with who's financial responsibility the wastes and the studies are,

or are 'you' genuinely concerned with the public's safety, as 'you' claim? Prove this to us - put our minds to rest.

In closing, may I ask that when reporting to the president on your findings, that you take a moment to think in a very personal way. Could you move to and live in West Valley or in the surrounding areas, knowing what you know? Or more importantly, would you be able to move your family here, not knowing what is yet to be learned?

Thank you for your time. I am grateful for the opportunity to express my opinion. I ask that your report and recommendations be thorough, specific, swift, and sensitive.

Sincerely yours,
Betty Hornung Stephan

The following additional information was submitted to the Department of Energy by Mrs. Virginia Russell and not included as part of the transcript:

1. Booklet, "The Universal Field" Vol. I. by Virginia Russell, published by Universal Field Foundation, Buffalo, NY, 1976.
2. Report, FTD-MT-24-2140-71, "Growth in Works on Isotopic Power in the USSR," Foreign Technology Division, Air Force Systems Command, 7/28/72.
3. Booklet, "What Can We Do With Nuclear Wastes?" by Virginia Russell, published by Universal Field Foundation, Buffalo, NY, 3/78.
4. Article from Aerospace Engineering, "An Electric Propulsion Systems With a Direct Nuclear Electrogenerator," December 1962.
5. Space Applications and Technology Abstract of "A Parametric Study of Direct Nuclear Electrogenerator Cells Using a Beta-Emitting Source," Cohen, Low, Jr. (Lewis Research Center, Cleveland) NY, American Institute of Aeronautics and Astronautics, 1963.
6. Space Applications and Technology Abstract of "Potentialities of the Radioisotope Electrostatic Propulsion System," Miekelsen and Low, Jr.
7. Cross Section of Radioactivity Gradient Circuit
8. Article, "Potentials of Radioisotope Electrostatic Propulsion," by William Miekelsen and Charles Low, Jr., NASA Lewis Research Center, Astronautics and Aerospace Engineering, 10/63.
9. 2,224 Signed Petitions to the President and Congress of the United States Regarding Financing and Handling of Nuclear Wastes stating the following:

We, the undersigned citizens of New York State cannot afford to pay about \$600,000,000 to handle nuclear wastes because Federal regulations have changed regarding treatment of wastes. We urge the Federal Government to meet these costs and to take full responsibility for handling the wastes which it has helped accumulate at West Valley.

We recognize that the changes in Federal regulations were necessitated for reasons of safety and we urge the Federal Government to test the proposed process for detoxifying the wastes by drawing off the dangerous radioactivity and transforming it into safer, more useful forms.

Written comments by William J. Kelleher, Chief, Nuclear
Engineering and Radiological Health Section, Bureau of
Radiation, New York State Department of Environmental
Conservation

New York State Department of Environmental Conservation
50 Wolf Road, Albany



Peter A. A. Berle,
Commissioner

Dr. Goetz Oertel
Manager of Waste Handling
Division of Waste Management
Department of Energy
Washington, D.C. 20545

Dear Dr. Oertel:

A photograph of a deer shot approximately 11 years ago was presented at the public hearing in West Valley March 18, 1978. Mr. Robert Wozniak, a representative of the NYS Department of Environmental Conservation, had an opportunity to look at the picture. It appeared to Mr. Wozniak that the deer had papilloma, a virus that produces fatty benign tumorous growths on the deer.

Mr. Wozniak checked into the matter further. Investigative records of deer kills, including sick deers, are normally kept for 3 to 4 years. If the deer in question was investigated 11 years ago the record would have been destroyed by this time. Mr. Wozniak also contacted the Department's pathologist, Dr. Ward Stone. Information from Dr. Stone is enclosed. Please note that Dr. Stone has offered to examine the photograph to give his professional opinion.

Very truly yours,

William J. Kelleher, P.E.
Chief, Nuclear Engineering and Radiological
Health Section
Bureau of Radiation

RECEIVED

7 AM 4:38

WJK:sd

Enclosure

cc: R. Wozniak
W. Stone
S. McMahon
T. Casmanan

ETN



New York State Department of Environmental Conservation

MEMORANDUM

SEARCHED	_____
INDEXED	_____
SERIALIZED	_____
FILED	_____
APR 1 1978	_____
FBI - ALBANY	_____

TO: Bob Wozniak
 FROM: Ward Stone
 SUBJECT: Papilloma and Fibroma on white-tailed deer
 DATE: March 20, 1978

The above are very common on New York State white-tailed deer. They are caused by a virus (see attached). Their presence is not at all indicative of exposure to radioactive materials.

If there is need I would be glad to examine the photograph (or a copy) that was put into evidence.

WS:mv



 Ward Stone
 Associate Wildlife Pathologist

attach.

© L. D. FAY

NUMEROUS WRITERS, in discussing diseases of deer, have described tumorous growths on the skin and identified them differently as warts, papillomas, neurofibromas, fibromas, and fibrosarcomas. While identifications have varied, the growths have many characteristics in common.

♦ **HISTORY.** Berry (1925) described a female white-tailed deer (*Odocoileus virginianus*) taken in New Hampshire with several tumors attached to the skin. The larger one, a "cauliflower growth," was attached near the left shoulder. Others the size of a "goose egg" and a "walnut" were attached to the skin of the flank and shoulder. Dr. C. F. Jackson, Department of Zoology, University of New Hampshire, identified the tumors as fibromas. Berry stated that the deer was fat and looked healthy.

Hoover (1937) reported that a female white-tailed deer shot in New Hampshire in 1936 bore a great many (226) nodulated tumorous growths distributed over the body. The doe appeared to be normal and in good condition with the exception of the tumors which were about the head, neck, body, and legs. Hoover gave the following description:

The tumors were irregular nodular masses varying in size from 5 to 50 mm in diameter. The external surfaces of the growths were covered with skin and the smaller growths with both hair and skin. The inner substance was made up of dense, gray-white tissue containing gray-black areas of 2 to 4 mm in diameter. . . .

The growths were composed of fibrous tissue that was very cellular and resembled so-called "hard fibromas" of man, but with no definite evidence of malignancy. The black

spots about the periphery were composed of keratinized epithelium surrounded by squamous epithelium of normal appearance, forming inclusion dermoid spots. There was no evidence in this particular case that the affliction was a parasitic disease or a contagious one. It might well belong to a disease resembling Von Recklinghausen's multiple neurofibromatosis of man.

The tumors were identified as neurofibromas by Dr. William R. McLeod and Dr. R. E. Miller of the New Hampshire State Laboratory of Hygiene.

In a paper on the management of white-tailed deer on the Pisgah National Game Preserve in North Carolina, Shilling (1938) stated, "Fibromous tumors and scabs of the epithelial tumorous type have been becoming increasingly common since 1934. These appear to be benign neoplasms occurring exclusively on the epidermis and never internally." He gave no further description of the growths.

Honess (1939), in a brief article illustrated with photographs, described a "freak" head of a deer taken in Wyoming. About the ears, eyes, and neck were masses of tumorous growths described by the author as "heavily pigmented fibrous nodules."

A photograph shows warty growths clustered about the eyes, the base of the ears, and on the neck, varying in size roughly from a few mm to 60-70 mm in diameter. The surfaces are hairless, rough, and dark. The cut surface shows a light-colored, even-textured mass covered on the epidermal surface with a heavily pigmented layer, uneven in thickness and with fingerlike projections extending rather deeply into the light-colored stroma of the tumor.

Histologic preparations of the tumors were examined by Dr. Mayut G. Smith, pathologist of Washington University School of Medicine, who identified the tumors as fibromas. Dr. Smith suggested that the tumors might be of a kind produced by a filterable virus in the manner of the fibromas and myxomas of wild rabbits.

Honey did not indicate the species of the deer involved, but the head in the photograph appears to be that of a mule deer (*O. hemionus*).

Chaddock (1939) described multiple growths on the skin of a white-tailed deer in Wisconsin. He counted 33 growths, identified as epithelial papillomas, under the mandible, a cluster on the right leg, and single papillomas scattered over the abdomen and the rear legs. He commented that the deer was in good condition and seemed to suffer no ill effects from the tumors.

Wadsworth (1954) identified as fibrosarcomas ". . . multiple, spherical fibrotic tumors attached to the superficial layers of the skin. . ." of a doe white-tailed deer in Vermont. Tumors occurred about the head, neck, right shoulder, abdomen, and tail. They were most numerous about the face and covered the left eye, and their combined weight was estimated to be about 25 pounds. Necropsy disclosed two fibrotic growths about the size of marbles on the ventral margin of the right lung. All other viscera were grossly normal.

Histologic examinations of the multiple tumors revealed: "An abundance of fibroblasts were present, arranged in an irregular pattern, and containing large, well-stained nuclei. There was no evidence of active mitosis." The tumors were identified as fibrosarcomas.

Shope (1955) and Shope *et al.* (1958) described a tumorlike condition observed repeatedly in white-tailed deer of New Jersey. The growths were scattered over the body and were especially numerous about the head and neck. They ranged in size from 0.5 cm to as much as 10 cm in diam-

eter. The cut section showed a firm, white, and fleshy tissue overlaid with a "rind" of thickened epithelium, often darkly pigmented. They described the gross and histologic appearance of the tumors as typical of that of fibromas. They were able to transmit the tumors to normal deer through application of tumor substance to the scarified skin of experimental deer. Their designation for the disease was "an infectious cutaneous fibroma." Shope *et al.* advanced an opinion that the epithelial papillomas described by Chaddock (1939) in Wisconsin, the fibromas reported by Quontrup (1946) in Virginia, the papillomas described by Herman and Bischoff (1950) in California, and the fibrosarcomas described by Wadsworth (1954) in Vermont were the same as the fibromas observed frequently in New Jersey and studied by their group.

♦ **DISTRIBUTION.** Skin tumors with similar characteristics have been reported over wide areas of North America in two species and several subspecies of deer. Identifications have been made only on gross and histologic characteristics which are subject to considerable variations due to the age of the tumor, species of animal involved, concurrent bacterial infections, and differences in interpretation by histopathologists. One may suspect that all such tumors originate from a common virus. However, the validity of this assumption awaits scientific evidence through serologic, transmission, and virus characterization studies.

⊕ **White-tailed Deer.** Skin tumors which are variously identified but have or are implied to have similar characteristics have been reported in white-tailed deer. (See Table 42.1.)

The locations listed in the table include the range of three subspecies of white-tailed deer (Kellogg, 1956): Virginia white-tailed deer (*O. virginianus virginianus* Zimmerman), northern woodland white-tailed

TABLE 42.1. Skin Tumors in White-tailed Deer

Location	Identification of Tumor	Reference
Kentucky	fibroma	Fay, 1962
Maine	skin tumors	Banasick, 1961
Michigan	fibroma	Fay, 1962
New Hampshire	fibroma	Berry, 1935
New Hampshire	neurofibroma	Hoover, 1937
New Jersey	fibrosarcoma	Shope, 1939
New Jersey	infectious cutaneous fibroma	Shope et al., 1939
New York	papilloma	Seventyhaus and Chestnut, 1936
New York	cutaneous fibroma	Friend, 1967
North Carolina	fibromous tumor	Shilling, 1938
North Dakota	warts	Richards, 1957
Pennsylvania	papilloma or fibroma	Forbes, 1961
Vermont	fibrosarcoma	Wadsworth, 1954
Virginia	fibroma	Quortrup, 1946
Wisconsin	epithelial papilloma	Chaddock, 1939
Wisconsin	papilloma and fibroma	Dahlberg and Guettinger, 1956

deer (*O. v. borealis* Miller), and Dakota white-tailed deer (*O. v. dacotensis* Goldman and Kellogg).

⊙ Mule Deer and Black-tailed Deer. Identical skin tumors have been reported in mule deer and black-tailed deer (both *O. hemionus*). (See Table 42.2.)

According to Cowan (1956a) the locations given in Table 42.2 include the range of several subspecies of the mule deer and the black-tailed deer. Most positively identified on the basis of their range are the Rocky Mountain mule deer (*O. hemionus hemionus* Rafinesque), California mule deer (*O. h. californicus* Caton), Columbian black-tailed deer (*O. h. columbianus* Richardson), and Sitka deer (*O. h. sitkensis* Merriam). The references are not specific as to which of the several subspecies of mule

deer in California and Arizona may be involved.

⊙ Moose. Since the moose (*Alces alces* Linnaeus) is another member of the deer family, perhaps it is not surprising that skin tumors similar to those described for deer should also occur on this mammal. Murie (1934) wrote concerning his observations of moose on Isle Royale in Lake Superior: "Epidermal growths of various sizes, some perhaps three inches in diameter, were seen on several moose, the larger warts suspended by a narrow neck of skin. The warts usually hung from the belly region, but in some animals they also occurred on the ears, flanks, and hams. One young bull was seen fairly covered with them."

He quoted Dr. E. C. O'Roke, of the

TABLE 42.2. Tumors in Mule Deer and Black-tailed Deer

Location	Identification of Tumor	Reference
Alaska	warts (papilloma and fibroma)	Cowan, 1956b
Arizona	papilloma and fibroma	Swank, 1958
British Columbia	warts (papilloma and fibroma)	Cowan, 1956b
California	papilloma	Herman and Bischoff, 1950
California	papillomalike growth	Leopold et al., 1951
California	warts	Loughurst et al., 1952
North Dakota	warts	Richards, 1957
Washington	papilloma	Brown, 1961
Wyoming	fibroma	Honess, 1939
Wyoming	papilloma	Honess and Winter, 1956

Department of Natural Resources, University of Michigan, who examined some of the growths, as reporting they were "purely epidermal."

Cowan (1951) reported that contagious warts, tumorous growths identified by their histologic structure to include both fibromas and papillomas, are found frequently on moose of British Columbia. He stated, "The disease is believed to be caused by a virus. The same cause is inferred for the disease in game."

♦ **ETIOLOGY.** A number of writers have considered the skin tumors of deer to be analogous to warts (papillomatosis) of cattle, which have been proved to be caused by a virus. By inference it was presumed that the tumors of deer also were of viral origin. Shope (1955) and Shope et al. (1958) were first to demonstrate that the cutaneous fibroma from New Jersey deer they studied was truly a transmissible infectious disease. They found that deer inoculated on an area of scarified skin with a suspension of tumor tissue prepared from fibromas taken from wild deer developed multiple growths in about 7 weeks. The tumors continued to grow slowly for about 2 months and then, in most of the experimentally infected deer, suddenly dried up and sloughed away from the skin. In one deer the tumors continued to grow until the animal was killed 10 months after inoculation. In gross appearance and upon histologic examination the experimentally induced tumors were identical with those found in naturally infected deer. These workers further demonstrated that filtrates derived from passing ground tumor material through Seitz pads and Berkefeld N candles were infective to deer, though the Seitz filtrates had a longer incubation period and produced fewer tumors than did the unfiltered suspensions of fibroma tissue. They concluded that the fibromas with which they were working were caused by a virus.

In limited transmission studies Shope

et al. were unable to infect rabbits, guinea pigs, and sheep with the virus from deer. Results of gross infectivity tests with deer and cattle indicated that cattle cannot be infected with the deer fibroma virus, and conversely, deer with the papillomatosis virus of cattle. They were of the opinion that the two viruses were specific for their respective hosts and were not etiologically related to one another.

The virus of the deer fibroma was found to be very stable when stored in 50% glycerol saline at -20°C . Fibromas stored in this manner still retained infective virus at the end of 27 months.

The work of Shope and his co-workers lends strong support to a hypothesis that many if not all of the common skin tumors of deer and moose identified as warts, papillomas, fibromas, neurofibromas, and fibrosarcomas are of viral origin. However, the question of whether they all are caused by the same virus will not be settled until there is more experimental evidence.

♦ **TRANSMISSION.** The manner by which skin tumors spread among the Cervidae is a subject for speculation. The studies by Shope and co-workers clearly demonstrated that the virus of the cutaneous fibroma of deer is infective when mechanically applied to the abraded skin of a susceptible deer. If skin tumors of all Cervidae are the result of similar viral infections, it is apparent that transmission is dependent upon the transfer of virus from an infected to a susceptible host. This might be accomplished by chance transfer of tumor material into skin abrasions through casual contact of deer with each other and possibly through contact with vegetation contaminated with tumor material from infected deer. It would seem that infected males fighting during the rut might well inoculate their opponents with virus. Some evidence in support of the latter has been reported by Friend (1967) who found that a significantly higher proportion of males bore skin tumors than did

females in a group of over 3,000 deer examined in New York State.

Another possible means by which the virus is transferred among deer is through insect vectors. It is well established that other tumor-inducing viruses, the myxoma virus, the Shope fibroma virus, and the rabbit papilloma virus, are transmitted through arthropod vectors (Fenner and Ratcliffe, 1965; Larson et al. 1956).

♦ **PATHOGENESIS.** The tumors are localized at the place of attachment to the skin, and do not invade the subcutaneous structures. They show no evidence of metastasis to other organs. Field evidence indicates that the tumors have no apparent deleterious effects on the general health of the host except in those rather unusual instances where massive tumors about the head interfered with eating or sight. The statement is frequently made in reports concerning skin tumors of deer that the deer was "fat" or the deer was "in good condition," even in cases where there was a massive growth of tumors on an animal. Shope et al. (1958) did not mention any clinical symptoms other than tumor growths in deer experimentally infected with the fibroma virus. However, it is not clear from their report whether the deer were observed closely enough to detect less apparent systemic responses to the virus infection.

Some writers have suggested that the larger tumors, particularly, are subject to abrasion and thus may provide pathways to bacterial invasions. The significance of this reasoning has not been evaluated.

It appears from current knowledge concerning the skin tumors of Cervidae that these benign growths have little or no important pathologic effects on the host and are not a significant factor in the health and survival of deer. However, we should remain aware that our current knowledge of the disease is very limited, and that the tumor by which the disease is recognized is the advanced or terminal stage of infection.

Before we can say conclusively that the disease is harmless, it must be studied in all its aspects. The virus or viruses involved must be studied in animals of different species and age, particularly during the period of incubation and early manifestation of the disease. Well-documented examples exist in the medical field where viruses producing mild infections in most persons are particularly pathogenic to the fetus and the young.

♦ **PATHOLOGY**

⊙ **Gross.** The tumors are firm, fleshy masses attached to the surface of the skin and range in size from minute to 10 cm in diameter and larger. They may occur singly, multiple but distinct, or close together and merging into rough nodular masses covering large areas. Most often the surface is deeply pigmented and dark brown or black and may be smooth, tufted, wrinkled, or fissured. Some growths have been described as having a cauliflowerlike surface. The larger growths are frequently eroded and bleeding (Fig. 42.1).

Cut surfaces of the growths are firm, tough, and light colored or white except for the epithelial surface, which often is pigmented and dark brown or black. The growths are composed of epithelial and connective tissues.

Small growths tend to be round, nodular, and close to the skin, while larger ones may be irregular in shape and pedunculated and pendulous. As outgrowths of the skin, they are freely movable over the underlying tissues. They occur most frequently about the head and shoulders, though they may develop almost anywhere on the body. They do not metastasize to other organs of the body.

⊙ **Microscopic.** Descriptions of histologic sections of the tumors are few. Most references deal only with the occurrence of tumors, or at most a gross description, and a brief summary of histologic findings.

FIG. 42.1 Cutaneous fibromas on an adult male white-tailed deer.

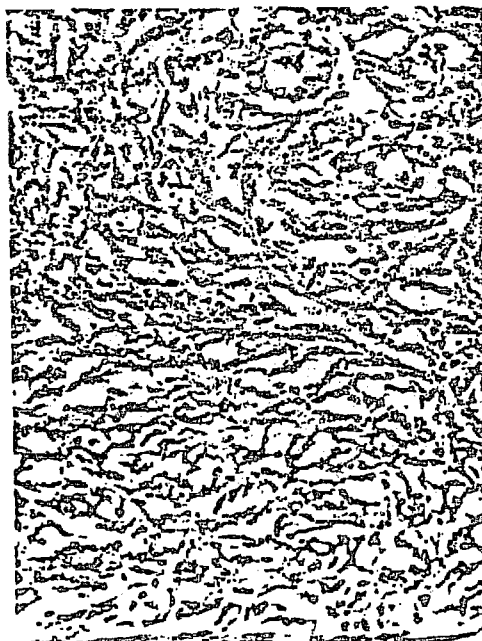


Shope et al. (1958) described in considerable detail the histopathology of naturally occurring and experimentally induced fibromas from New Jersey deer. The tumors were composed of stellate, angulated, or spindle-shaped cells resembling fibroblasts. These cells were rather evenly distributed in a mosaic pattern throughout a groundwork of collagen strands. The cell nuclei of the younger, experimentally induced tumors tended to be larger and round and took on a pale stain, while those of older, naturally occurring tumors were smaller, dark-staining, and usually elongated. Mitotic figures were not seen. The stroma of the tumors was moderately well supplied with blood, as evidenced by the presence of thin-walled blood vessels, and areas of tissue necrosis were not seen. The epithelial layer covering the surface of the tumors was thickest at the top and became thinner at the sides. This layer was frequently pigmented.

The basement membrane of the epithelium was intact. In older tumors, particularly, the collagen strands near the surface of the tumors tended to be arranged in a regular pattern in which they ran perpendicular to the epithelial layer and extended

dom arrangement and some crisscrossing of the collagen strands in the deeper tissues of the tumors.

The microscopic structure of a fibroma from a white-tailed deer is shown in Figure 42.2.



♦ IMMUNITY. Some field and experimental observations indicate that skin tumors may regress and disappear. Leopold et al. (1951) gave an account of a wild mule deer buck, live-trapped at the age of 2 years, having a wart, possibly a fibroma, on its neck. The wart had disappeared when the buck was recaptured 21 months later.

In their experimental infections of young deer (5 months to 1 year old) with fibroma virus Shope et al. (1958) noted, in 46 to 56 days, tiny pigmented elevations along the needle-scratch lines of inoculation on the skin of the deer. One month later the elevations were visible as a line of nodules about 1 mm in diameter. After about 7 weeks of growth the nodules were 2-3 mm in diameter. At this point of development the growths on 5 of 6 deer suddenly stopped enlarging, became dry and shrunken, and finally sloughed away. The tumors on the 6th deer continued to

grow, until at the end of 10 months after inoculation they had reached a diameter of 3 cm and were merging to form a tumorous mass. At this time the deer was killed for examination.

These results suggest that the fibroma virus causes an immune response in a majority of host animals and infection is terminated before the tumors reach observable size. This implies that the incidence of exposure to the tumor virus may be considerably higher among deer than the presence of gross tumors would indicate.

♦ TREATMENT AND CONTROL. No methods have been developed for treating affected deer or controlling transmission of the disease in deer herds. Current knowledge concerning skin tumors of deer indicates that the disease is relatively harmless to the host and that control is not an important point for consideration.

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APR 17 1978

Department of Energy
Washington, D.C. 20545

Mr. Gerald Taylor
Legislator, Cattaraugus County
Ellicottville, NY 14731

Dear Mr. Taylor:

During the afternoon Question/Answer/Discussion period of the March 18 public meeting at West Valley, DOE was requested to relay a question to you. For your background, the following is the verbatim discussion from the transcript:

"SPEAKER: I have two questions, both of them brief, Is Mr. Gerald Taylor still here?

MS. RICHARDSON: I don't believe so.

SPEAKER: I take that as a no. I have a question which I would like to have entered into the record because I feel that it is important that the Department of Energy ask it of Mr. Taylor. I don't know if that is an acceptable procedure. I think you might have to hear the question first.

What I want to know, Mr. Taylor presented a resolution from the County Legislature from his town, I don't recall which, stating that they felt that the nuclear facility should be reopened so that it would provide adequate tax revenues. What I am wondering is, several other people have proposed an alternative facility. I think the Department of Energy should address a question to Mr. Taylor asking if that resolution would -- asking whether the body that would pass that resolution would find it acceptable to have an alternative energy facility on that site, which would provide the same kind of revenues and so forth, the same kind of job opportunities that Mr. Taylor was concerned about.

Is that a question that you might pass on to Mr. Taylor, because I think the answer to it would be important to your considerations about the opinions of the people in Cattaraugus County.

DR. OERTEL: We can make sure that Mr. Taylor is made aware of your question, and it will be up to him how he responds. We will have to accept the resolutions and contributions on the merits in which they are made. But, as you know, this is only the first opportunity of several to make such comments. So I would expect considerably refinement in consensus development as we go along."

Mr. Gerald Taylor

- 2 -

APR 17 1978

We apologize that we have been unable to obtain the name of the speaker who asked the question. If we find out who the speaker was, we will let you know. If you know, please drop us a note. The Department of Energy study group would be interested in your feelings and/or suggestions with regard to an alternative energy facility.

Thank you for your comments at the March 18 meeting. If we can be of assistance, please write us.

Sincerely,

19/

Goetz K. Oertel
Assistant Director
for Waste Handling

RESULTS OF EVALUATIONS
OF MARCH 18 PUBLIC MEETING

Total Evaluations: 89

Affiliations of Evaluation Respondees

No affiliation given - local residents	19
No affiliation given - other residents	27
Environmental organizations	34
College or universities	4
Government - State	2
Government - County	2
Industrial representative	1

Preference as to starting and ending times

Start at 9:00 am	46
Start earlier	3
Start later	9
No preference	31

Preference as to day of week

Saturday	56
Saturday or Sunday	6
Sunday	4
Monday or Friday	2
Friday or Saturday	1
Monday	1
Any day except Sunday	1
No preference	18

Preference as to location

	<u>Local Residents</u>	<u>Other Residents</u>
West Valley	15	21
No preference indicated	2	26
Buffalo	1	8
Several meetings throughout NY State	0	5
Western New York	2	3
Springville	0	2
Albany	0	2
Hamburg	0	1
Erie County	0	1

Preference as to program/format

No preference	48
Same as 3/18	17
More educational - featuring scientists, health officials, Government, etc.	4
Hold over several days or cut shorter	4
Open discussion	4
More time for questions	3
One spokesman for each group	2
A.M. session for people, not politicians	2
Speaker-to-speaker rebuttals	1
More local input	1
Full range of views required generating solutions to constructive application of nuclear energy	1
Health and safety and alternate non-nuclear possibilities	1
Did not like format (but no suggestions on improving)	1

Preference as to DOE presentation

No preference given	75
Poor	2
More facts and displays	1
Repeat presentation in a.m. and p.m.	1
DOE needs to be a learner, too and try to understand what the people want	1
OK, but evaded questions	1
Have heard same old AEC arguments and opinions in 72, 73 and 74	1
Better prepared statistics on health, safety, management, costs of dismantling	1
All were qualified and knowledgeable	1
Too condescending of citizens	1
Biased toward nuclear industry	1
Too superficial	1
Inadequate - must be more clear and defined	1
Well done	1

Stay for Entire Meeting

	<u>Yes</u>	<u>No</u>	<u>No Answer</u>
Local	11	6	2
Other	23	40	7

Financial Responsibility

	<u>Before Meeting</u>	<u>After Meeting</u>
No. Pref. listed	25	25
Federal Government	14	13
Getty Oil (N.F.S.)	7	4
N.Y.State	1	0
Fed. Govt./Getty Oil (N.F.S.)	8	14
Fed. Govt./Nuclear industry	2	1
Fed. Govt./N.Y.State/Utilities	4	6
Fed. Govt./N.Y.State/Getty Oil	8	9
Fed. Govt./N.F.S./Utilities	2	3
N.F.S./private utilities	0	1
Fed. Govt./N.F.S./N.Y.State/NYSERDA	1	0
Fed. Govt./N.Y.State	4	2
Getty Oil/N.Y.State	1	1
The People who made the mess (Getty Oil, etc.)	1	1
Utilities planning to utilize facility	1	0
Share on usage basis with Fed. Govt. paying its share	1	1
Undecided	5	4
NFS expansion/continuation	4	4

Other Comments

- 0 Keep speakers on issue rather than allow them to use meeting as forum for other causes.
- 0 One spokesman or time slot for each organization
- 0 Use site for alternative energy source
- 0 Cut down cameras and applause
- 0 Study should be on how to clean out waste, not bring more in
- 0 Split wood, not atoms
- 0 Too short notice to public - need 30-45 days
- 0 Don't pollute water of Buffalo for a few jobs and taxes
- 0 Too much conflicting information - more research should be done here
- 0 Surprised by absence of NFS representatives on speakers list
- 0 Hearings needed in several areas of N.Y.
- 0 Should be extensive studies on health effects
- 0 Would appreciate public progress reports of DOE study

- 0 Don't want children exposed to radiation
- 0 Democracy is rule of the majority and majority are located in Buffalo, Cleveland, Canada, etc. - where meetings should be held
- 0 Distribute advance summary of report prior to meeting
- 0 Meeting focused on demoralizing aspects of becoming financially dependent upon an industry dominating a small town's economy
- 0 West Valley should be helped to bear the burden of loss of this industry
- 0 DOE already had formed opinion
- 0 No smoking in meeting room
- 0 Pro-nuclear people given time in AM when news media present and anti nuclear relegated to PM
- 0 Should be cleaned up in safe manner - not necessarily the cheapest
- 0 Well organized
- 0 Need more nuclear power plants for future energy needs
- 0 DOE is following same path as AEC and NRC promotion of nuclear power
- 0 Favor the establishment of a private enterprise research center for solving the problem with an economic incentive provided by IRS codes
- 0 DOE not able to answer questions reasonably - Politicians cannot be trusted just as the Government cannot be trusted
- 0 I want N.F.S., buildings, storage out
- 0 Very helpful and constructive session
- 0 It's incredibly immoral to discuss nuclear disposal while continuing to produce the waste
- 0 The people will make you pay
- 0 Moderator, M.A. Richardson, excellent work - DOE reps. cold, elitist, condescending, even a suggestion of arrogance
- 0 "Wake-up"
- 0 More hearings are needed
- 0 Clean up now; argue who will pay later
- 0 Take some kind of popular vote or pool at next meeting on support or non-support of NFS
- 0 Schedule speakers according to postmarked date on their request

- 0 Many of the unfounded statements given could have been more effectively countered by inviting and placing on the panel knowledgeable agencies such as N.Y. Depts. of Health and Env. Conservation

DEPARTMENT OF ENERGY

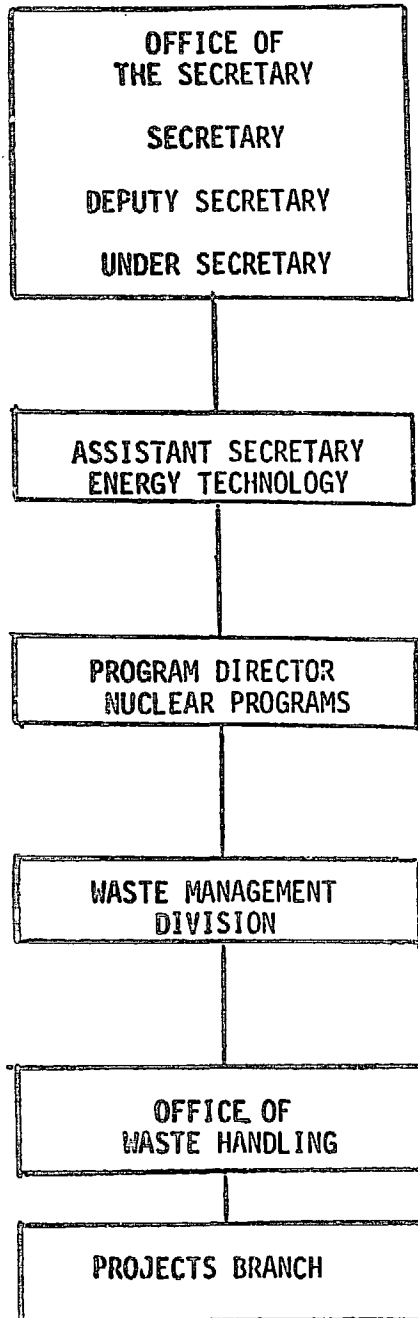
FACT SHEET

PURPOSE OF INVOLVED FEDERAL AGENCIES

DEPARTMENT OF ENERGY (DOE)

The purpose of the DOE is to carry out in a coherent and effective manner the elements of the Nation's energy policy. Major programs include conservation and solar applications, resource applications, energy technology, environmental programs, energy research, and defense programs.

DEPARTMENT OF ENERGY



NUCLEAR REGULATORY COMMISSION (NRC)

The NRC licenses and regulates the uses of nuclear energy to protect the public health and safety and the environment. It does this by licensing persons and companies to build and operate nuclear reactors and to own and use nuclear materials. The NRC makes rules and sets standards for these types of licenses. NRC also carefully inspects the activities of the persons and companies licensed to ensure that they do not violate the safety rules of the Commission.

(This function was formerly part of the Atomic Energy Commission. Under the Energy Reorganization Act of 1974 the NRC was established as an independent regulatory agency.)

ENVIRONMENTAL PROTECTION AGENCY (EPA)

The purpose of the EPA is to protect and enhance our environment today and for future generations to the fullest extent possible under the laws enacted by Congress. The Agency's mission is to control and abate pollution in the areas of air, water, solid waste, pesticides, noise and radiation. EPA's mandate is to mount an integrated, coordinated attack on environmental pollution in cooperation with State and local governments.

U. S. GEOLOGICAL SURVEY (USGS)

The broad objectives of the USGS, under the Department of Interior, are to perform surveys, investigations, and research covering topography, geology, and the mineral and water resources of the U. S., classify lands to mineral character and water and power resources, enforce departmental regulations applicable to oil, gas, and other mining leases, permits, licenses, development contracts, and gas storage contracts, and publish and disseminate data relative to the foregoing activities.

DEPARTMENT OF TRANSPORTATION (DOT)

The DOT establishes the Nation's overall transportation policy. Under its umbrella there are seven administrations and the Materials Transportation Bureau whose jurisdictions include highway planning development, and construction; urban mass transit; railroads; aviation; and the safety of waterways, ports, highways, and oil and gas pipelines. Decisions made by DOT in conjunction with the appropriate State and local officials strongly affect other programs such as land planning, energy conservation, scarce resource utilization, and technological change.

GENERAL ACCOUNTING OFFICE (GAO)

The GAO has the following basic purposes: to assist the Congress, its committees, and its Members in carrying out their legislative and oversight responsibilities, consistent with its role as an independent nonpolitical agency in the legislative branch; to carry out legal, accounting, auditing, and claims settlement functions with respect to Federal Government programs and operations as assigned by the Congress; and to make recommendations designed to provide for more efficient and effective Government operations.

Western New York Nuclear Service Center Options Study

Public Meeting

FEDERAL GOVERNMENT ATTENDEES

Department of Energy

Office of the Assistant Secretary for Energy Technology

Mr. Robert D. Thorne, Acting Assistant Secretary

**Dr. Goetz Oertel, Acting Assistant Director for Waste Handling,
Division of Waste Management**

**Mr. Carmine Smedira, Chief, Projects Branch,
Division of Waste Management**

**Mr. Robert Woolley, Project Engineer, Projects Branch,
Division of Waste Management**

**Mr. Michael Eastman, Project Engineer, Projects Branch,
Division of Waste Management**

**Mrs. Joanne Passaglia, Technical Communications Specialist,
Projects Branch, Division of Waste Management**

**Ms. Jackie Swope, Secretary, Projects Branch,
Division of Waste Management**

**Office of the Assistant Secretary for Intergovernmental
and Institutional Relations**

Mr. James Griffin, Public Affairs Officer, Office of Public Affairs

Argonne National Laboratory, Argonne, Illinois

**Dr. Charles Luner, Project Manager, NFS Study Project,
Division of Environmental Impact Studies**

**Mr. Philip Gustavson, Director, Division of Environmental
Impact Studies**

Ms. Pamela Merry, Scientific Associate-Biologist

Ms. D. A. Broderick, Sociologist/Attorney

DOE Region II, New York City

Mr. Alan Moss, Council

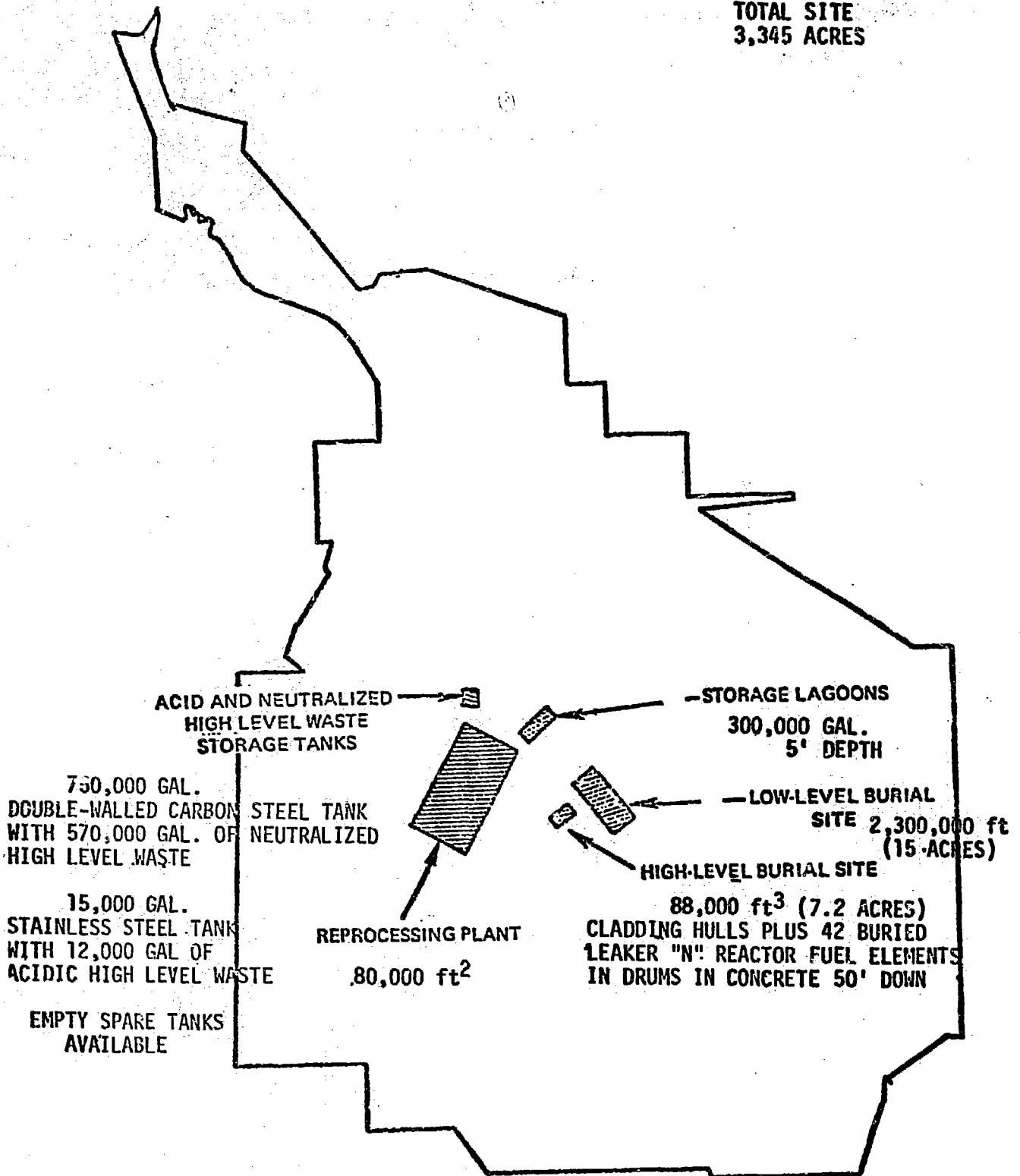
DOE Chicago Operations Office

Mr. Charles Baxter

Nuclear Regulatory Commission

Mr. Richard Starostecki, Chief, Fuel Reprocessing and Recycle Branch
Mr. Thomas Clark, Fuel Reprocessing and Recycle Branch

TOTAL SITE
3,345 ACRES



Geography of the West Valley Site

WASTE INVENTORIES :

**WRITTEN COMMENTS MAY BE SUBMITTED FOR THE RECORD BY
SUBMITTING THEM TO:**

DR. GOETZ OERTEL

U. S. DEPARTMENT OF ENERGY

MAIL STOP B-107

WASHINGTON, D. C. 20545

**ALTHOUGH COMMENTS ARE WELCOME THROUGHOUT THE COURSE OF
THE STUDY, COMMENTS TO BE INCLUDED IN THE TRANSCRIPT OF
THIS MEETING MUST BE RECEIVED AT THE ABOVE ADDRESS NO
LATER THAN MARCH 29, 1978.**