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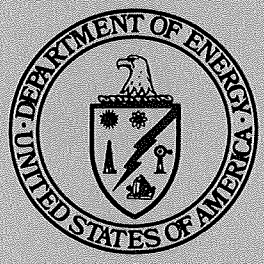
DRAFT

AREA RECOMMENDATION REPORT FOR THE CRYSTALLINE REPOSITORY PROJECT

OVERVIEW



JANUARY 1986

U.S. DEPARTMENT OF ENERGY
OFFICE OF CIVILIAN RADIOACTIVE WASTE MANAGEMENT
CRYSTALLINE REPOSITORY PROJECT OFFICE

DOE/CH-15(O)
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FOREWORD

The Nuclear Waste Policy Act of 1982 (NWPA) directs the U.S. Department of Energy (DOE) to, among other requirements, provide for the siting, construction, operation, and closure of deep, mined geologic repositories for the disposal of high-level radioactive waste and spent nuclear fuel. The NWPA establishes a schedule and a step-by-step process by which the President, the Congress, the affected States and Indian Tribes, DOE, the U.S. Nuclear Regulatory Commission (NRC), and other Federal agencies are to work together in the siting and development of nuclear waste repositories, culminating in the operation of the first geologic repository in 1998, in accordance with NRC licensing requirements.

To implement its provisions, the NWPA established DOE's Office of Civilian Radioactive Waste Management (OCRWM). OCRWM is currently considering bedded salt deposits, salt domes, basalt, tuff, and crystalline rock as host rocks for geologic repositories. These rock types are being analyzed at different locations within the conterminous United States under four coordinated projects: the Basalt Waste Isolation Project, the Salt Repository Project, the Nevada Nuclear Waste Storage Investigations, and the Crystalline Repository Project.

For the first repository, the NWPA requires DOE to recommend to the President, from at least five nominated sites, three candidate sites to be characterized after which one site will be selected as the first repository. The rock types being considered as potential hosts for this first repository are basalt, salt, and tuff.

While Congress has not yet authorized construction of a second geologic repository, the NWPA requires DOE to recommend a site for a second repository because of the stipulation that no more than 70,000 metric tons of radioactive waste and spent nuclear fuel be placed in the first repository until a second repository becomes operational. DOE is considering two sources of sites for the second repository: crystalline rock formations, which are already the subject of a comprehensive screening program conducted by the Crystalline Repository Project, and sites which will have been characterized for the first repository but are not selected for the first repository site, and sites evaluated but not nominated for site characterization for the first repository.

Comments concerning the draft ARR will be considered in preparing the final ARR. Public briefings and hearings to receive oral comments are planned. Written comments should be directed to the address below during the public comment period indicated in the Federal Register notice announcing the availability of this document.

U.S. Department of Energy
Attention: Comments -- Draft ARR
Crystalline Repository Project Office
Chicago Operations Office
9800 South Cass Avenue
Argonne, Illinois 60439

ABSTRACT

The draft Area Recommendation Report (ARR) for the Crystalline Repository Project identifies portions of crystalline rock bodies as proposed potentially acceptable sites for the Nation's second repository for deep geologic burial of high-level radioactive waste and spent nuclear fuel. This Overview provides a brief summary of that report.

The U.S. Department of Energy (DOE) evaluated available geologic and environmental data for 235 crystalline rock bodies in the North Central, Northeastern, and Southeastern Regions to identify preliminary candidate areas. Further evaluation of these preliminary candidate areas resulted in the selection of 12 areas as proposed potentially acceptable sites. The process used for these evaluations and the narrowing of crystalline rock bodies under consideration is in accordance with the General Guidelines for the Recommendation of Sites for Nuclear Waste Repositories (DOE Siting Guidelines), which were developed pursuant to the requirement of Section 112 of the Nuclear Waste Policy Act of 1982 (NWPA). This process is described in the Region-to-Area Screening Methodology for the Crystalline Repository Project.

The 12 proposed potentially acceptable sites are located in the States of Georgia (1), Maine (2), Minnesota (3), New Hampshire (1), North Carolina (2), Virginia (2), and Wisconsin (1). Portions of the proposed potentially acceptable site in Wisconsin are located within the Menominee and Stockbridge-Munsee Indian Reservations and portions of one of the sites in Maine are located within the Penobscot and Passamaquoddy Indian Reservations.

The data, analyses, and rationale pertaining to the identification of the 12 proposed potentially acceptable sites are presented in the draft ARR. The analyses presented in the draft ARR demonstrate that the evidence available for each proposed potentially acceptable site supports (i) a finding that the site is not disqualified under Appendix III of the DOE Siting Guidelines and (ii) a decision to proceed with the continued investigation of the site on the basis of the favorable and potentially adverse conditions identified to date. Once the draft ARR is finalized, potentially acceptable sites in crystalline rock will be formally identified by the Secretary of Energy, in accordance with the DOE Siting Guidelines. These potentially acceptable sites will be investigated and evaluated in more detail during the area phase of the siting process and considered along with other candidate sites in a progressive narrowing process to finally choose the site of the second repository in 1998. Eight additional areas, which meet the requirements for identification as potentially acceptable sites, will retain their designation as candidate areas DOE may identify any or all as potentially acceptable sites during ARR finalization or area phase investigations if it is determined that other areas are required to meet program requirements.

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BACKGROUND OF THE CRYSTALLINE REPOSITORY PROJECT

Crystalline rocks were considered to be a viable host rock for a repository as early as 1957. In mid-1979 DOE initiated a national survey to identify regions of crystalline rock with potential for isolating nuclear waste. Crystalline rocks are defined by the Crystalline Repository Project (CRP) as intrusive igneous (e.g., granite) and high-grade metamorphic rocks, rich in silicate minerals, with a grain size coarse enough that individual minerals can be distinguished with the unaided eye.

The national survey identified and recommended for further study three regions of crystalline rock (Figure 1). These regions, the North Central, Northeastern, and Southeastern Regions, span 17 States, each of which contains exposed or near-surface crystalline rock bodies. These states are Connecticut, Georgia, Maine, Maryland, Massachusetts, Michigan, Minnesota, New Hampshire, New Jersey, New York, North Carolina, Pennsylvania, Rhode Island, South Carolina, Vermont, Virginia, Wisconsin.

Regional studies inventoried available environmental, geologic, and socioeconomic literature. A detailed screening methodology was developed and applied to the data contained in this literature.

The region-to-area screening process is detailed in DOE's Region-to-Area Screening Methodology for the Crystalline Repository Project (Screening Methodology Document or SMD), issued in April 1985. It lists five factors to disqualify rock bodies or portions thereof from further consideration: (1) Federal-protected lands, (2) components of the National forest lands, (3) State-protected lands, (4) highly populated areas and areas containing more than 1,000 persons per square mile, and (5) mines and quarries deeper than 100m (330 ft).

In addition, the SMD lists 20 environmental and geologic variables, given below, scaled to represent degrees of favorability and adversity on a standard 1 to 5 scale, that were used in the selection of areas for DOE's consideration for further investigation in the area phase.

Environmental

- Proposed Federal-protected lands
- Population density
- Proximity to Federal-protected lands
- Proximity to State-protected lands
- National forest lands
- State forest lands
- Designated critical habitat for threatened and endangered species
- Wetlands
- Surface water bodies
- Proximity to highly populated areas or to 1-square-mile areas with 1,000 or more persons

Geologic

- Rock mass extent
- Major ground-water discharge zones
- Rock and mineral resources
- Seismicity
- Suspected Quaternary faulting
- Postemplacement faulting
- Thickness of rock mass
- Thickness of overburden
- State-of-stress
- Ground-water resources

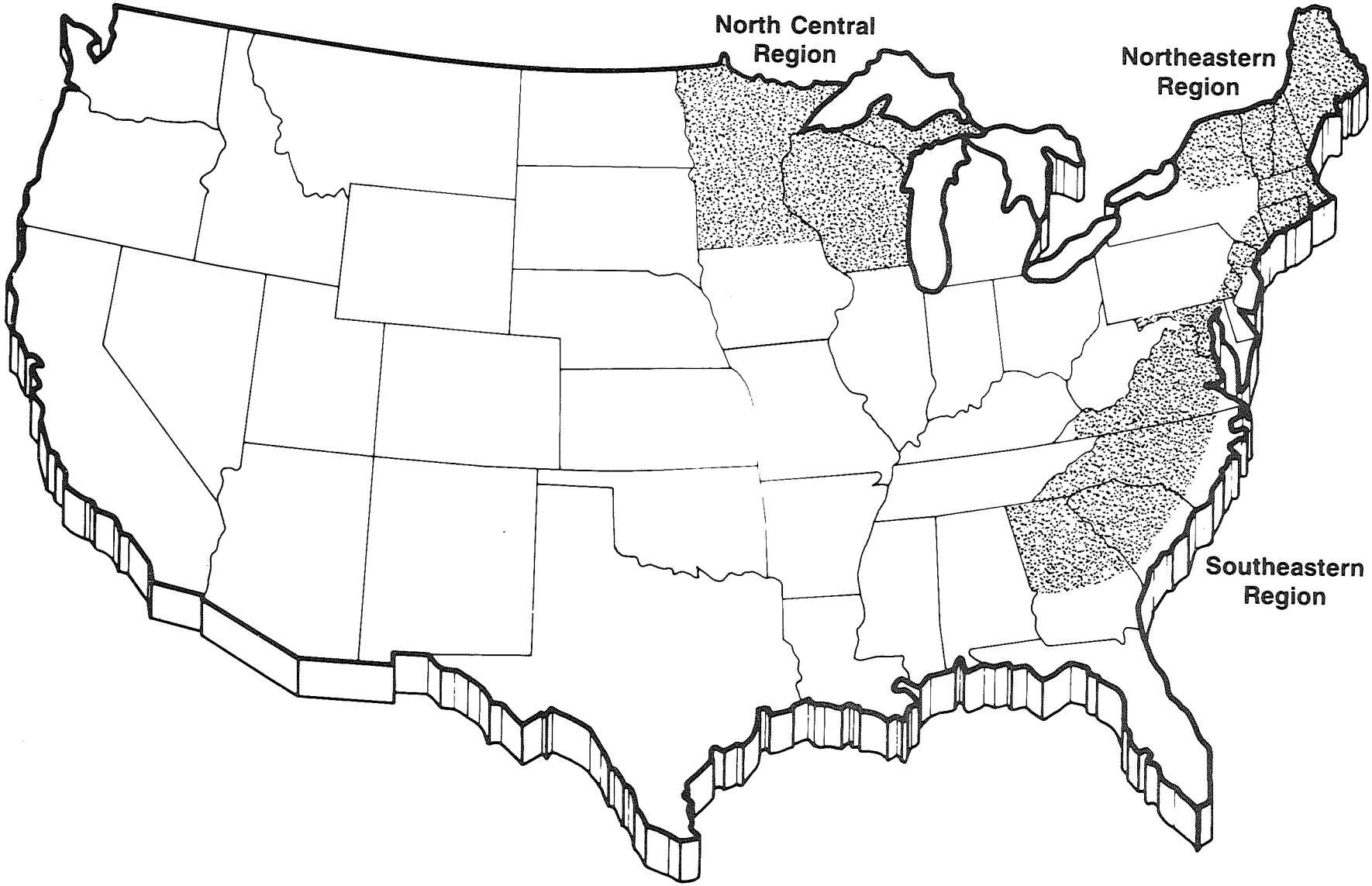

Figure 1. Crystalline Rock Regions Being Considered for the Second Repository

These areas are initially identified in the draft Area Recommendation Report (ARR) as preliminary candidate areas. The areas were evaluated for identification as candidate areas and, finally, as proposed potentially acceptable sites. The final ARR, which is planned to be issued in mid-1986, will provide the basis for the identification of potentially acceptable sites on which area phase field investigations will be conducted.

DOE plans to do field studies in the area phase, starting in December 1986. The focus of the area phase efforts will be the acquisition of new and more detailed geologic, engineering, environmental, and socioeconomic data on the potentially acceptable sites identified as a result of region-to-area screening. The area screening process will use the DOE Siting Guidelines as the basic criteria for identifying the preferred site locations in each potentially acceptable site by utilizing available field data. Before initiation of the area phase field work, an area characterization plan will be developed in consultation with the affected States and Indian Tribes. The schedule allows for approximately three years of field work in the area phase.

Acquisition and evaluation of area phase field data will make it possible to evaluate potentially acceptable sites in crystalline rock and to nominate candidate sites which are suitable to be included in the Secretary of Energy's recommendation to the President of sites to undergo site characterization for the second repository. Each nomination will be accompanied by an environmental assessment. These environmental assessments will be issued in draft form for review and comment in March 1991. The recommendation to the President is currently scheduled to be made in October 1991. Presidential approval of the candidate sites for characterization for the second repository would result in site characterization work at the approved sites for approximately 4 to 6 years. Prior to the initiation of site characterization at any site, DOE will issue a site characterization plan which will include, among other requirements, a description of the candidate site, the site characterization activities to be conducted, plans for decontamination and decommissioning, and any other information that may be requried by the NRC. After completion of site characterization, DOE will recommend one site, from among all characterized sites, to the President for approval as the second repository site. This recommendation will be accompanied by an environmental impact statement which will be prepared pursuant to the NWPA and the National Environmental Policy Act of 1969. This is to be followed by the President's recommendation to Congress of a single site for location of the second repository in March 1998. A license application will be made to the NRC after the site designation becomes effective. The review period of 27 months for issuance of a construction authorization by NRC is considered to be minimal but achievable for the second repository. The present estimate for the time required to construct a repository ready for receipt and emplacement of waste is approximately 6 years. Before construction of a second repository, the DOE must receive Congressional authorization.

The major milestones for the CRP are listed below::

Milestone	Date
- Issue Region-to-Area Screening Methodology	April 1985
- Issue Final Regional Characterization Reports	September 1985
- Issue Final Area Recommendation Report	July 1986
- Identify Potentially Acceptable Sites	July 1986
- Issue Final Area Characterization Plan	December 1986
- Begin Area Phase Field Investigations	December 1986
- Complete Area Phase Field Investigations	January 1990
- Issue Final Environment Assessments	September 1991
- Nominate and Recommend Sites for Characterization	October 1991
- President Approves Sites	December 1991
- Issue Initial Site Characterization Plan	January 1993
- Request Congressional Approval for Construction	March 1993
- President Recommends Second Repository Site to Congress	March 1998
- Submit License Application to the Nuclear Regulatory Commission	May 1998
- Receive construction authorization from NRC and begin construction	August 2000
- Begin waste emplacement	June 2006

GENERAL DESCRIPTION OF A REPOSITORY

The purpose of the deep, mined repository is to provide for the long-term containment and isolation of high-level radioactive waste and spent fuel. The primary safety barriers to prevent release of radionuclides to the environment are the geologic and hydrologic characteristics of the sites. Additional protection is ensured by the design, construction, and operation of facilities for waste receipt and handling, the waste package, facilities for underground emplacement of the packaged waste, and the provisions for backfilling and sealing off the excavations.

The designs will meet requirements of applicable regulations and engineering constraints to ensure safe construction and operation. The depth and general layout of the repository facilities will depend on the geology and hydrology of the specific site. While the conceptual design will be based on existing crystalline rock properties and field data obtained in the area phase, the preliminary and final designs will make full use of data obtained from subsequent field studies conducted as a result of site characterization activities.

The waste types to be considered in the design process for receipt at the second repository are spent fuel and solidified defense high-level waste, but the design will not preclude disposal of solidified reprocessed commercial high-level and transuranic wastes. For conceptual design purposes, the wastes are assumed to be brought to the facility by rail and truck in licensed, shielded shipping casks. This assumption does not include the consideration of the operation of a monitored retrievable storage facility that supports the prepackaging of wastes prior to the shipment to the second repository. Therefore, at the second repository, it is assumed that the wastes will be unloaded, inspected, sorted, and packaged in surface facilities. Once packaged for emplacement, the waste will be transported in transfer casks for final disposal underground.

The repository will be designed so that any or all of the emplaced waste can be retrieved on a reasonable schedule starting at any time up to 50 years after emplacement operations are initiated, unless a different time period is approved or specified by the U.S. Nuclear Regulatory Commission.

Figure 2 shows a schematic layout of the areas at a repository site. Figure 3 shows a schematic of the surface facilities and underground disposal rooms. Conceptual designs for nuclear waste repositories in other rock types show the surface facilities occupying approximately 400 acres. Depending on the mode of underground emplacement of waste packages, the underground facility may occupy up to 2,200 acres.

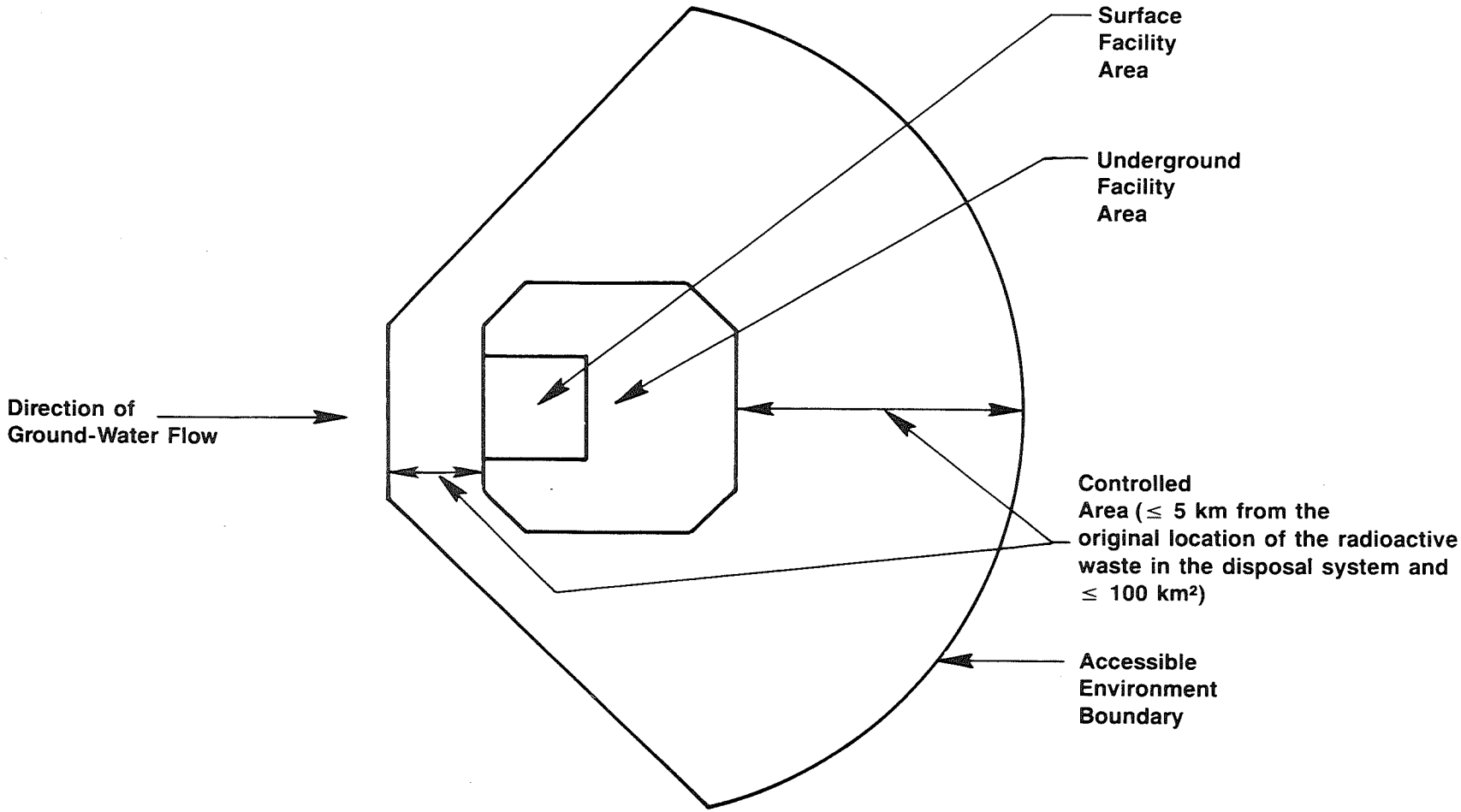

Figure 2. Schematic Layout of Areas at a Repository Site

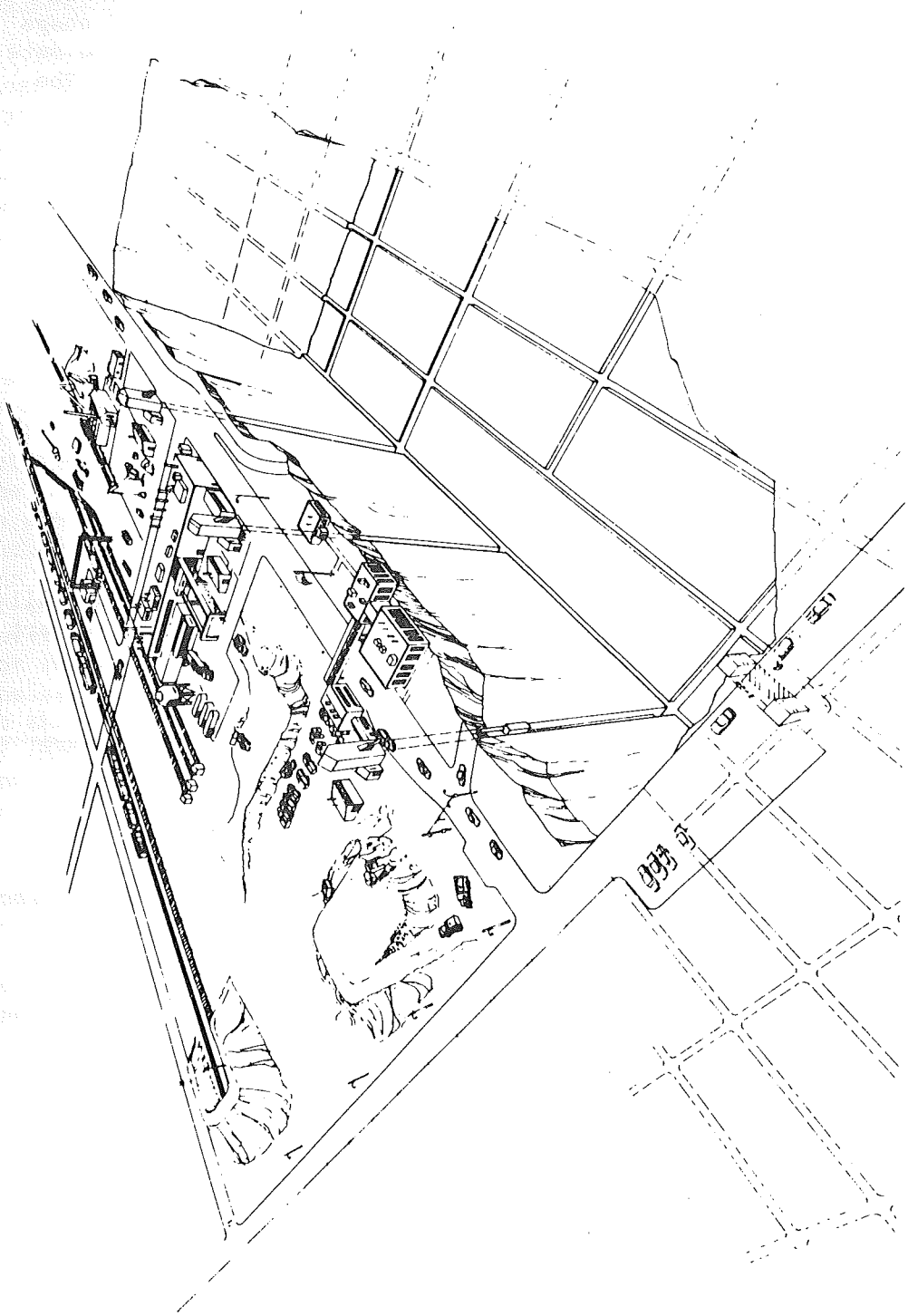

Figure 3. Schematic of Surface and Underground Facilities

Restrictions on surface and subsurface activities in these facility areas are required to protect individuals from exposure to radiation and radioactive materials. A controlled area, marked by suitable monuments, will extend horizontally at a maximum of 3 miles (5 km) in any direction from the outer boundary of the underground facility. The size and shape of the controlled area at a given site will ultimately depend on the rate and direction of ground-water flow and other site characteristics. The design will be finalized on a site-specific basis after completion of site characterization studies to ensure that releases to the accessible environment will not exceed those permitted by the U.S. Environmental Protection Agency (EPA). To preclude human intrusion, incompatible activities such as deep mining and drilling, will be prohibited in the controlled area during construction, operation, and after permanent closure of the repository.

PURPOSE AND SCOPE OF THE DRAFT ARR

The purpose of the Area Recommendation Report is to (1) present the results of the region-to-area screening; (2) document the selection of candidate areas* and (3) make the requisite findings for identification of potentially acceptable sites in accordance with Section 960.3-2-1 of the DOE Siting Guidelines. The draft ARR presents each step of the region-to-area screening process used to identify candidate areas as well as the analyses and findings required by the siting guidelines to support the identification of proposed potentially acceptable sites. This report, when finalized, will serve as the decision basis document specified in the DOE Siting Guidelines, 10 CFR 960.3-2-1. Computer-generated maps to support the selection of candidate areas are provided as Volume 2. Any data utilized to support the selection of candidate areas and their subsequent identification as proposed potentially acceptable sites are also presented or referenced, as appropriate.

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* "Candidate Area" is a land unit which generally has favorable characteristics and has no known characteristics which provide a sufficient basis for deferral. A candidate area covers a minimum of 100 km^2 (39 mi^2) within which a nominal circle 11.2 km (7 mi) in diameter can be inscribed. The 100 km^2 (39 mi^2) area is equivalent to the area requirement on crystalline rock bodies to be considered for regional phase evaluations and is consistent with the U.S. Environmental Protection Agency (EPA) requirement for the maximum size of a controlled area.

SUMMARY OF THE DRAFT ARR

The Region-to-Area Screening Process

The objectives of region-to-area screening are to: (1) narrow the geographic focus of the CRP within the three study regions from 235 exposed or near-surface crystalline rock bodies to the number of candidate areas required for area characterization and (2) provide the basis for the identification of potentially acceptable sites in accordance with 10 CFR 960.3-2-1. These potentially acceptable sites will be investigated and evaluated in more detail during the area phase.

The region-to-area screening process consists of four basic steps. The four steps involve the use of a computer-aided screening approach and a review of any additional qualitative/descriptive literature, to ensure that the candidate areas warrant further investigation. Step 1 involves an initial screening to eliminate portions of land units containing any of five disqualifying factors as defined in the SMD. Step 2 involves a determination of the composite or aggregate favorability of portions of the rock bodies not disqualified in Step 1 based upon the relative degree to which favorable or potentially adverse conditions are present as indicated by the screening variables. This step is accomplished through the application of various weight sets indicating the relative importance of the screening variables as defined in the SMD. These weight sets were developed in two workshops (the first for the CRP staff and the second for representatives of the involved States). Step 3 is a sensitivity analysis to evaluate the impact of: four additional variables; changes to the scales of three preselected Step 2 variables, an alternate index of favorability (the geometric mean); and considering a variety of weight sets. These three steps are described in detail in Section 2.2 of the draft ARR.

Finally, a review of the results of Steps 1 through 3 considering additional qualitative/descriptive information not directly incorporated in Steps 1 through 3 was conducted to help ensure, within the limitations of a regional study, that the preliminary candidate areas identified warrant further examination in the area phase. This qualitative review and evaluation is also described in Sections 2.2 and 3.2 of the draft ARR.

The data base for the region-to-area screening methodology is compiled in Regional Characterization Reports. Additional information considered in the qualitative/descriptive review is referenced in the draft ARR. Six final Regional Characterization Reports (one Regional Environmental Characterization Report and one Regional Geologic Characterization Report for each of the three regions) were issued in September 1985. The data contained in the reports were obtained from the open literature, as well as information directly provided by the 17 involved States. The Regional Characterization Reports were initially issued in draft form in May 1983. As a result of comments received, DOE reissued the reports as revised drafts in December 1984 in order to be consistent with the DOE Siting Guidelines and the draft Region-to-Area Screening Methodology for the Crystalline Repository Project. This

resequencing of activities allowed for state review of the revised draft Regional Characterization Reports to consider the way in which DOE would use the information presented in the reports.

Three state workshops to discuss the region-to-area screening methodology were conducted during 1983 and 1984. These workshops provided an opportunity for representatives from the involved States to participate in and comment on the development of the region-to-area screening process, including the development and application of disqualifying factors and screening variables which are based on applicable favorable and adverse conditions in the Siting Guidelines. In September 1984, a draft report documenting the region-to-area screening methodology for the Crystalline Repository Project was issued to the seventeen States for review and comment. After consideration of all comments received, DOE issued, in April 1985, a final report documenting the CRP's region-to-area screening methodology. This screening methodology document (SMD) contains a detailed discussion of the disqualifying factors and regional screening variables and a description of the region-to-area screening process. Appendix A to the SMD contains DOE's response to all written comments received on the draft report.

Results of Region-to-Area Screening

As a result of applying Step 1 of the methodology, 7,628 km^2 (2,934 mi^2) of the total of 76,060 km^2 (29,250 mi^2) area underlain by crystalline rock in the North Central Region were disqualified. Similarly, 24,400 km^2 (9,401 mi^2) out of 65,060 km^2 (25,020 mi^2) of area underlain by crystalline rock in the Northeastern Region were disqualified. In addition, 3,279 km^2 (1,261 mi^2) out of 54,190 km^2 (20,840 mi^2) of area underlain by crystalline rock in the Southeastern Region were disqualified. The remaining areas within the three regions, 68,420 km^2 (26,320 mi^2) in the North Central Region, 40,620 km^2 (15,620 mi^2) in the Northeastern Region, and 50,910 km^2 (19,580 mi^2) in the Southeastern Region, were examined with respect to Steps 2 and 3 of the methodology. As a result of applying Steps 2 and 3 of the region-to-area screening methodology, 22 preliminary candidate areas consistently appeared as more favorable areas. The overall favorability of these 22 preliminary candidate areas (with respect to other areas) is generally unaffected by the variety of sensitivity analyses applied in Step 3 (i.e., modification of variable scales, incorporation of other geologic variables, and consideration of a variety of weights and the geometric mean). These 22 preliminary candidate areas are contained in 7 states.

The area designations are as follows:

Region	State	Area Designation	Areal Extent [mi^2]	Counties
North Central	Wisconsin	NC-2	171	Ashland, Bayfield, & Sawyer
		NC-3	439	Langlade, Menominee, Oconto, & Shawano,
		NC-4	641	Marathon, Menominee, Portage, Shawano, & Waupaca
	Minnesota	NC-6	300	Marshall, Pennington, Polk, & Red Lake
		NC-7	113	Norman and Polk
		NC-9	249	Becker, Clearwater, & Mahonomen
		NC-10	397	Benton, Mille Lacs, Morrison, & Sherburne
		NC-12	171	Pope, Stearns, & Todd
		NC-13	60	Big Stone, Stevens, & Swift
		NC-14	287	McLeod, Nicollet, Renville, & Sibley
		NC-A5	70	Marshall
Northeastern	Maine	NE-2	92	Hancock, Penobscot, & Washington
		NE-4	385	Androscroggin, Cumberland, & Oxford
		NE-N5	94	Franklin, Somerset
	New Hampshire	NE-5	78	Cheshire, Hillsborough, Merrimack, & Sullivan
Southeastern	Virginia	SE-1	64	Goochland, Hanover, & Louisa
		SE-2	209	Bedford
		SE-3	307	Halifax & Pittsylvania
	North Carolina	SE-4	142	Franklin, Johnson, & Wake
		SE-5	105	Buncombe, Haywood, & Madison
	Georgia	SE-6	67	Gwinnett, Walton
		SE-7	214	Lamar, Monroe, & Upson

Boundaries for the preliminary candidate areas were determined, with the result that NC-3 and NC-4 were combined, because of their close proximity to each other, into one preliminary candidate area designated NC-3.

DOE has determined that areas in close proximity to the Canadian border, which would require sampling/field work in Canada for characterization of the potentially acceptable sites, would be excluded from further consideration. As a result, NE-N5, the west boundary of which coincides with the U.S./Canadian border, was excluded and will not be studied in the area phase.

The selection of candidate areas from the list of 20 preliminary candidate areas was completed after a review of data contained in the Regional Environmental and Geologic Characterization Reports and other publicly available references. A review of whether any significant adverse features identified to date would prevent DOE from conducting further investigations on any of the 20 preliminary candidate areas resulted in the determination that there is no basis for deferral of any of the areas at this time. Therefore, these 20 land units (preliminary candidate areas) are designated as candidate areas.

The resulting list of 20 preliminary candidate areas was considered in light of other siting provisions in Subpart B of the DOE Siting Guidelines, to confirm that the selection satisfied the requirements of 10 CFR 960.3-1-1 (Diversity of geohydrologic settings); 10 CFR 960.3-1-2 (Diversity of rock types); and 10 CFR 960.3-1-3 (Regionality). It was determined that the distribution of preliminary candidate areas in three geohydrologic settings in the three regions satisfied the guideline requirement for diversity of geohydrologic settings. Further, it was determined that the 20 preliminary candidate areas when considered with the first repository sites in tuff, salt and basalt formations that may be available for the second repository would provide a diversity of host rock types, thus satisfying 10 CFR 960.3-1-2. Since consideration of regionality under 10 CFR 960.3-1-3 can only be made after the site for the first repository has been recommended, it is too early to apply this requirement of the guidelines at this time.

Identification of Potentially Acceptable Sites

The DOE Siting Guidelines (Section 960.3-2-1) require that to identify a site as potentially acceptable, evidence shall support findings that the site is not disqualified when examined against ten disqualifying conditions. The ten disqualifying conditions are: erosion, dissolution, tectonics (2), natural resources, population density and distribution (2), offsite installations and operations, and environmental quality (2). The draft ARR provides the analyses of the candidate areas against these ten conditions. None of the 20 candidate areas are disqualified as a result of these analyses.

Based on the above conclusion, DOE could propose to identify all 20 of the candidate areas as potentially acceptable sites. In order to provide sufficient confidence that DOE will be able to nominate up to five sites in crystalline rock for characterization, DOE has determined that it is only necessary to identify 12 of the candidate areas as proposed potentially acceptable sites for the area phase investigations. This determination was based on a consideration of the areal extent of the candidate areas and their distribution within three geohydrologic settings.

The eight candidate areas not proposed for identification as potentially acceptable sites will be considered and may be designated as potentially acceptable sites during ARR finalization or area phase investigations if other areas are necessary to meet program requirements. DOE recognizes that the proposed identification of 12 potentially acceptable sites is less than the range of 15 to 20 previously discussed. However, DOE believes that the initiation of area phase investigations on 12 potentially acceptable sites provides a reasonable basis for proceeding. The rationale for this decision can be found in Section 5.4 of the draft ARR.

Therefore, the draft ARR identifies 12 of the candidate areas as proposed potentially acceptable sites. The 12 proposed potentially acceptable sites were identified as a result of an analysis that focused on the sites having the most favorable geologic and environmental characteristics. These proposed potentially acceptable sites are:

Region	State	Area Designation	Areal Extent [mi^2]	Counties
North Central	Wisconsin	NC-3	1094	Langlade, Menominee, Marathon, Oconto, Portage, Shawano, & Waupaca
	Minnesota	NC-6	300	Marshall, Pennington, Polk, & Red Lake
		NC-7	113	Norman and Polk
		NC-10	397	Benton, Mille Lacs, Morrison, & Sherburne
Northeastern	Maine	NE-2	92	Hancock, Penobscot, & Washington
		NE-4	385	Androscroggin, Cumberland, & Oxford
	New Hampshire	NE-5	78	Cheshire, Hillsborough, Merrimack, & Sullivan
Southeastern	Virginia	SE-2	209	Bedford
		SE-3	307	Halifax & Pittsylvania
	North Carolina	SE-4	142	Franklin, Johnson, & Wake
		SE-5	105	Buncombe, Haywood, & Madison
	Georgia	SE-7	214	Lamar, Monroe, & Upson

These 12 proposed potentially acceptable sites and the eight candidate areas that may be designated as potentially acceptable sites, either during ARR finalization or area phase investigations, are shown on Figure 4.

Prior to finalization of the draft Area Recommendation Report, DOE will consider comments from other Federal agencies, States, Indian Tribes, and the general public.

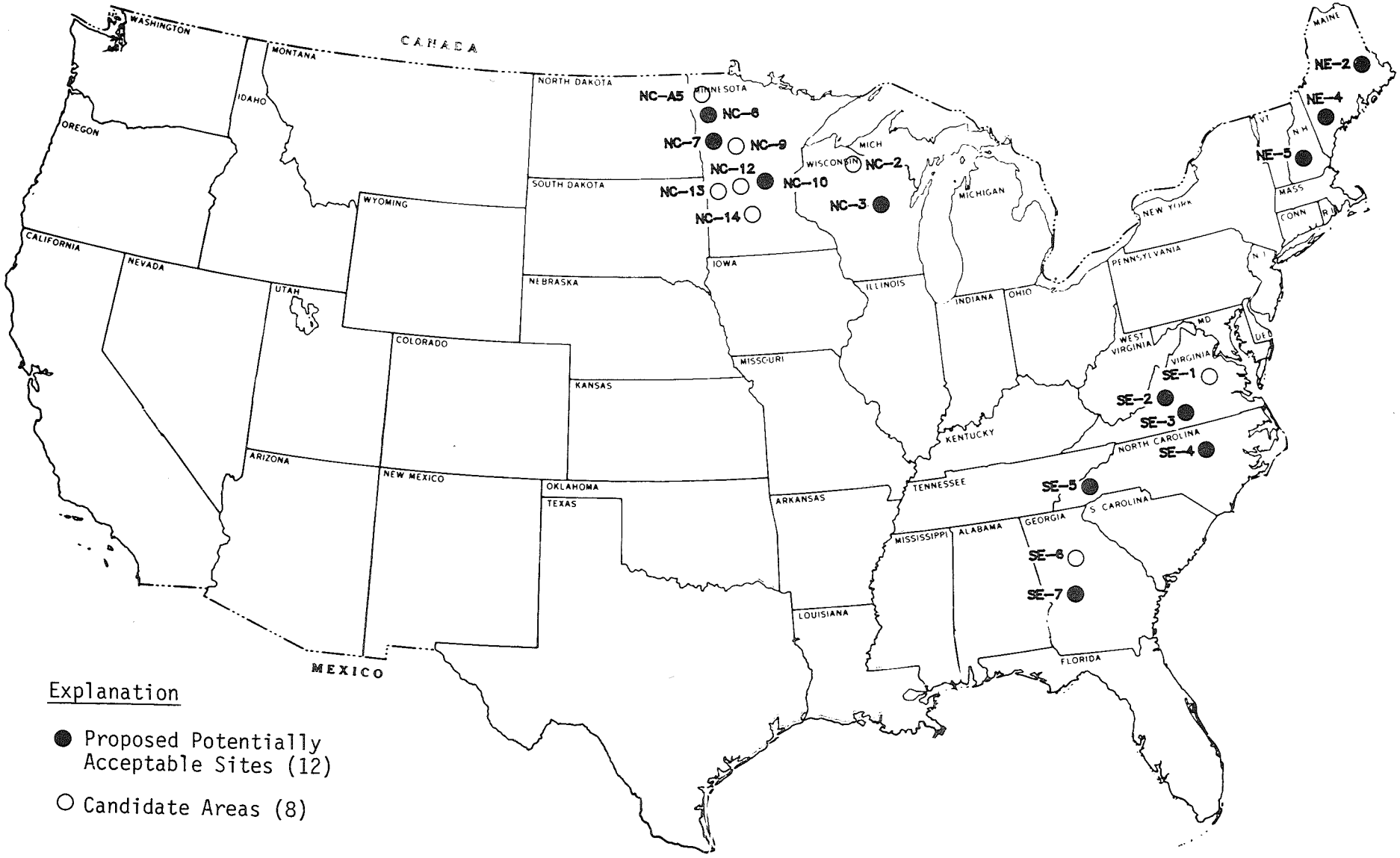

Figure 4. Proposed Potentially Acceptable Sites and Candidate Areas for the Second Repository

APPENDIX A

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