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United States Government **Department of Energy**

memorandum

DATE: OCT 29 2010

REPLY TO ATTN OF: GC-55

SUBJECT: Liability Estimate

TO: Steve Isakowitz
Chief Financial Officer, CF-1

This memo sets forth the Office of Standard Contract Management's current estimate of the United States Government's liability in connection with the Government's partial breach of the "standard contracts" that it executed pursuant to the Nuclear Waste Policy Act of 1982 (NWPA). The Office of Standard Contract Management estimates that liability, as of today and based on the analysis and qualifications set forth below, to be $15.4 billion. Section 302 of the NWPA requires that the standard contracts provide that "in return for the payment of fees established by [the NWPA], the Secretary, beginning not later than January 31, 1998, will dispose of the high-level radioactive waste or spent nuclear fuel involved . . . ." The contracts do not require that the Government begin accepting any particular company's spent fuel by that date; rather, a queue has been established that sets forth the priority and order in which spent fuel is to be accepted.

As of the date of this memorandum, the Government has not begun accepting commercial spent nuclear fuel for disposal, and has conceded that it has partially breached the standard contracts it entered into pursuant to the NWPA. The Government has not admitted, nor has any plaintiff claimed, a total breach of the standard contracts because, among other things, the Government still intends and still is obligated by law to accept for disposal the spent nuclear fuel covered by the standard contracts.

The Administration has decided no longer to pursue development of a repository at Yucca Mountain. The Secretary of Energy, acting at the direction of the President, established the Blue Ribbon Commission (the Commission) on America's Nuclear Future to conduct a comprehensive review of policies for managing the back end of the nuclear fuel cycle, including all alternatives for the storage, processing, and disposal of civilian and defense used nuclear fuel, high-level waste, and materials derived from nuclear activities. The Commission shall submit a draft report by the mid-year 2011 and a final report in early 2012 with their recommendations on these issues. As a result, until further policy guidance is provided, the Office of Standard Contract Management is no longer able to estimate a date for the commencement of operations of a DOE facility for the acceptance of spent fuel and high-level radioactive waste. Accordingly, this estimate is based upon guidance received from your office as to the acceptance date to be utilized in the calculation of the Department's liability (see memo "Interim Update of DOE'S SNF Litigation Liability" dated Oct. 27, 2010, attached). Furthermore, we continue to assume that once the Department begins accepting fuel, it of course will not be able to accept all

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the Nation's spent fuel at once – instead, it plans to accept the fuel at a steady pace according to the queue that has been established. That means that the Department may not begin accepting spent fuel from some utilities for several years after the commencement of receiving operations.

Background

Currently, there are 72 commercial nuclear reactor sites, with 104 operating reactors and 14 reactors that have been shut down. As of end of 2009, about 62,300 MTHM of spent fuel was stored at commercial sites. At-reactor dry storage capacity was approximately 13,400 MTHM as of December 2009. The currently-operating reactors have an annual aggregate spent fuel discharge rate of 1,800 to 2,200 MTHM per year, although there obviously is substantial variability in that number depending on a variety of factors, such as technical and operational issues at particular facilities, fuel cycle designs, etc.

It is currently projected that in 2020, the cumulative discharge of spent fuel from commercial reactors in the United States will total approximately 85,100 MTHM.

Current litigation

A number of parties who entered into standard contracts with the Government have sued the United States in the U.S. Court of Federal Claims. In general, those lawsuits argue that the Government is in partial breach of the standard contracts, and claim damages due to that breach. The U.S. Court of Appeals for the Federal Circuit has held, in general, that in these lawsuits the plaintiffs only are entitled to recover as damages the costs that they incurred prior to trial and solely due to the Government's breach. This means that the only damages for which the Government is liable are the costs that a plaintiff has incurred, as a direct result of the Government's partial breach, to store spent nuclear fuel covered by a standard contract.

The lawsuits in the Court of Federal Claims are at various procedural stages, and are pending before a variety of different judges; the cases have not been consolidated in any way. Because the cases are pending before different judges, the facts in each case are different, the cases are at various stages of fact discovery and motions practice, and a number of particularized fact and law issues must be resolved in each case to determine what if any recoverable damages a plaintiff has incurred, it is very difficult to make predictions about the outcomes of the pending cases. As a result, a contingency must be added to any estimate of liabilities.

The plaintiffs in some cases have settled with the Government, and therefore in those cases we know with a relatively good degree of certainty what the Government's financial exposure is to those plaintiffs, assuming the repository opens on the schedule set forth above. Those settlements are described later in this memorandum. Given the variability of the fact situations involved with utilities throughout the country, and the unknowns that are presented with respect to the reasons and timing of each utility's decisions about at-reactor storage of spent nuclear fuel – some of which are the very

questions currently being litigated in the Court of Federal Claims – it is difficult to estimate with any high degree of precision the Government's ultimate liability in connection with this litigation. Because it is not possible to predict outcomes of the litigation, the most appropriate method of estimating the Government's total aggregate liability in connection with the standard contract litigation is to look to the settlements that the Government has entered into with some plaintiffs, and seek to extrapolate those settlements to the other entities that have sued the United States. This method of estimation is certain to overestimate in some cases and underestimate in other cases the actual damages that the Government may ultimately pay, either through settlements or judgments, to some of the plaintiffs. As a result, the estimate being provided here is not intended to be a prediction about the outcomes of pending litigation, but rather is intended to be a reasonable estimate.

For all of these reasons, the Office of Standard Contract Management is using the settlements as the basis for its liability estimate at this time. Set forth below is a brief description of each of the eight settlements that have been entered into to date. These settlements cover approximately 40 percent of the nuclear power reactors under contract with the Department for disposal (47/118). For these reasons, the Office of Standard Contract Management believes it is appropriate at this time to use these settlements as the basis for estimating the Government's aggregate litigation-related liability relating to the Government's partial breach of the standard contract.

Exelon Settlement

The Exelon settlement resolved all pending spent nuclear fuel litigation brought against the Government by Exelon and its subsidiaries Exelon Generation Company, Commonwealth Edison Company and AmerGen Energy Company. Collectively, those companies own 20 of the 118 nuclear reactors, including three shutdown reactors, covered by the standard contract. Under the settlement agreement, the Government will reimburse Exelon for the actual incurred costs of spent fuel storage that are directly attributable to the Government's failure to begin accepting spent fuel by January 31, 1998. The agreement provides for an initial payment from the Judgment Fund (not from the Nuclear Waste Fund or from appropriations made to the Department) of approximately $80 million to cover the actual costs of additional spent fuel storage already incurred by Exelon as of the date of the settlement. Future reimbursements would be made only after actual incurred costs have been verified by the Department as being both allowable and reasonable, as defined in the agreement, and would be reimbursed on an annual basis.

The Exelon Settlement Agreement established acceptance rates, i.e., rates at which the delay damages are calculated under the Agreement, which were significantly lower - 900 MTHM per year through 2014 and 2,100 MTHM per year thereafter – than the 3,000 MTHM per year planned by the Department for steady-state repository operations. It is this provision in the Settlement Agreement that allows the Department eventually to "catch up" on acceptance and to terminate payments under the Settlement Agreement. Exelon will incur reimbursable costs for spent fuel storage until the Department has

caught up on the backlog of spent fuel that has accumulated as a result of the delay in beginning acceptance and is picking up Exelon's fuel on time according to the acceptance schedule. The point at which the Department has caught up with the acceptance of spent fuel is referred to as the crossover point.

South Carolina Electric and Gas Settlement

The Department's settlement with South Carolina Electric and Gas and South Carolina Public Service Authority (collectively SCE&G) resolved all of SCE&G's pending spent nuclear fuel litigation against the Government. The settlement covered one reactor, the Virgil C. Summer Nuclear Station. Under the settlement agreement, which is modeled on the Exelon settlement, the Government will reimburse SCE&G for the actual incurred costs of spent fuel storage that are directly attributable to the Government's delay in beginning fuel acceptance on January 31, 1998.

The agreement provides for an initial payment from the Judgment Fund of approximately $9 million to cover the actual costs of additional spent fuel storage already incurred by SCE&G (from January 31, 1998 through July 31, 2005). All future reimbursements, which also will be paid from the Judgment Fund and will be made on an annual basis, will be made only after incurred costs have been verified by the Department as being both allowable and reasonable, as defined in the settlement. Just as with the Exelon settlement, the acceptance rates in the SCE&G settlement on which delay damages are calculated are significantly lower - 900 MTHM per year through 2014 and 2,100 MTHM per year thereafter - than what is actually predicted for repository operations (3,000 MTHM per year).

Omaha Public Power District Settlement

The Department's settlement with the Omaha Public Power District (OPPD) resolved all of OPPD's litigation concerning spent fuel. The settlement covers one reactor, the Fort Calhoun Nuclear Power Plant, located near Omaha, Nebraska. Under the agreement, which again is modeled on the Exelon settlement, the Government will reimburse OPPD for the actual incurred costs of spent fuel storage that are directly attributable to the delay in beginning fuel acceptance on January 31, 1998. The agreement provides for an initial payment from the Judgment Fund of approximately $5 million to cover the actual costs of additional spent fuel storage already incurred by OPPD (from January 31, 1998 through June 30, 2005). All future reimbursements will be made only after incurred costs have been verified by the Department as being both allowable and reasonable, as defined in the agreement.

Duke Power Settlement

The Duke settlement covers the Oconee Nuclear Stations Units 1, 2 and 3, the McGuire Nuclear Stations, Units 1 and 2, and the Catawba Nuclear Station, Units 1 and 2. Under the terms of the settlement agreement, which, like other settlements, is modeled on the Exelon Agreement, the Government will reimburse Duke for the actual incurred costs of

spent fuel storage that are directly attributable to the government's delay in beginning fuel acceptance on January 31, 1998. The agreement provides for an initial payment from the Judgment Fund of approximately $56 million to cover the actual costs of additional spent fuel storage already incurred by Duke (from January 31, 1998 through July 31, 2005).

Tennessee Valley Authority Settlement

In 2008, the Tennessee Valley Authority entered into a settlement covering TVA's claim for storage costs actually incurred due to the Government's delay in beginning spent nuclear fuel acceptance on January 31, 1998, limited to TVA's 2005 fiscal year (October 1, 2004 through September 30, 2005). This settlement applied to spent fuel storage costs at its Browns Ferry Nuclear Plant, Units 1 and 3, and Sequoyah Nuclear Plant, Units 1 and 2. The agreement provided for a one-time payment of $10,359,706 from the Judgment Fund. In 2009, the parties negotiated a separate pending settlement for storage costs for those units in the amount of $3.7 million for fiscal year 2006 and $9.8 million for fiscal year 2007 ($13.5 million total).

NextEra Energy Settlement (formerly FPL Group)

The FPL Group settlement resolved three lawsuits, Florida Power and Light (FPL), FPL Energy Seabrook and Interstate Power and Light. The settlement agreement covers six contracts which collectively cover the following eight reactors: Turkey Point Units 3 and 4, St. Lucie Units 1 and 2, Seabrook, Duane Arnold and Point Beach Units 1 and 2. The agreement provided for an initial payment from the Judgment Fund of approximately $124 million and covered the actual costs incurred for spent fuel storage that are directly attributable to the Government's delay in beginning fuel acceptance on January 31, 1998 through December 31, 2007 for all reactors except Point Beach 1 & 2. Point Beach was acquired by FPL Group in October 2007 and rights to seek costs prior to the sale were retained by the former owner. Under the settlement, which was also modeled on the Exelon settlement, future reimbursements are made on an annual basis after incurred costs have been verified by the Department as being both allowable and reasonable. Costs related to Point Beach are reimbursed, per the settlement agreement, from calendar year 2008 forward and the liability estimate has been adjusted to include the years not covered by the settlement agreement.

PSEG Nuclear LLC Settlement

PSEG Nuclear LLC ("PSEG Nuclear") and Public Service Electric and Gas Company settled the lawsuit for delay damages arising from their two contracts covering the Hope Creek Generating Station, No. 1 Unit, and Salem Nuclear Generating Station, Nos. 1 and 2 Units. Under the terms of the settlement agreement, the Government will reimburse PSEG $57.1 million for the time period January 31, 1998 through December 31, 2007

for spent fuel storage costs actually incurred due to the Department's delay in beginning spent nuclear fuel acceptance on January 31, 1998.

Dominion Energy Kewaunee, Inc. Settlement

The Department's settlement with Dominion Energy Kewaunee, Inc. provides for a payment from the Judgment Fund of approximately $20.9 million to cover the actual costs of additional spent fuel storage already incurred by Dominion Energy Kewaunee from January 31, 1998 through December 31, 2008 for the one-unit Kewaunee reactor.

Fifty cases brought by nuclear utilities remain pending against the Government in the U.S. Court of Federal Claims. As of October 1, 2010, the Judgment Fund had paid Exelon $360.3 million ($80.5 million + $58.5 million + $24.4 + $51.2 million + $82.8 million + $62.9 million), SCE&G $9.3 million ($9.0 million + $.1 million + $.2 million), OPPD $27.7 million ($4.9 million + $15.1 million + $.8 million + $1.1 million + $5.8 million), Duke $82.2 million ($56.4 million + 6.9 million + $5.5 million + $5.4 million + $8.0 million), NextEra Energy $185.8 million ($124.3 million + $31.6 million + $29.9 million), Dominion Kewaunee $20.9 million, PSEG Nuclear $66.0 million ($57.1 million + $8.9 million), TVA $58.7 million ($34.9 million from court decision + $23.8 reimbursement request) and Arizona Public Service $30.2 million (from court decision). In addition to Judgment Fund payments, the following payment has been authorized by the Department of Justice and/or recommended by Department of Energy: $100.47 million for Exelon. While not yet approved by the Department of Energy or the Department of Justice, additional claims for $14.4 and $11.8 million are currently under review for PSEG and TVA, respectively.

Recent Court Decisions

It is worth noting that judges of the Court of Federal Claims have continued to issue opinions and orders entering judgment in favor of plaintiff utilities. In 2006, judgments were entered for four utilities: in Yankee Atomic, the court awarded three utilities, Yankee Atomic, Connecticut Yankee and Maine Yankee a total of approximately $143 million in damages due to the Department's partial breach of the standard contract and in Pacific Gas & Electric, the court awarded damages for partial breach of the standard contract totaling approximately $42.8 million. Since that time, the Court has entered judgments for the utility Sacramento Municipal Utility District in the amount of $39.8 million; in Southern Nuclear in the amount of $77 million; in Northern States in the amount of $116.5 million and in Systems Fuel Arkansas in the amount of $48.7 million. In 2008, four additional judgments were entered against the Government: in Boston Edison in the amount of $40.3 million and in Carolina Power and Light in the amount of $82.8 million and, after the close of the FY 2008 fiscal year, judgments were entered in two Dominion Power cases in the amounts of $42.7 million for Dominion Connecticut and $112.1 million for Dominion Virginia (VEPCO).

In 2009, three judgments were entered against the Government: The courts awarded Wisconsin Electric Power Co. $50 million for its damages, awarded Dairyland Power

Cooperative $37.7 million and on remand, awarded Sacramento Municipal Utility District $53.1 million. A number of judgments were also entered against the Government in 2010, including $56.9 million in Energy Northwest; $9.7 million in System Fuels Mississippi; $89 million on remand in the Pacific Gas and Electric cases; $448,859 in Consolidated Edison; $106.1 million in Entergy Nuclear Indian Point; $40 million on remand in Boston Edison; $4.2 million in Entergy Nuclear Generation Co.; $142.4 million in Southern California Edison; $30.2 million in Arizona Public Service Co.; $142.6 million on remand for the three Yankee utilities; and $46.6 million for Entergy Vermont Yankee.

The Government did not appeal the award to Arizona Public Service, and, accordingly, the judgment became final and non-appealable. The award has been paid by the Judgment Fund. The Government has filed appeals in all other cases in which judgments have been entered. The various trial courts continue to find that the Department is in partial breach of the standard contract and damages should be awarded. The courts also continue to make determinations of legal and factual issues in each case that are contradictory in many instances and provide no clear guidance regarding disposition of these issues in future cases.

As noted above, decisions in these cases are final orders issued by Court of Federal Claims judges and are subject to appeal to the U.S. Court of Appeals for the Federal Circuit. Because the Government may prevail on some or all issues and because of the courts' continuing inconsistent rulings these judgments were not used as a basis for estimating the litigation liability of the Department for purposes of this memorandum. Rather, the Office of Standard Contract Management used the settlements, which establish known and knowable amounts for which the Government is financially liable.

It should also be noted that in July 2006, a final, non-appealable judgment was entered in a spent nuclear fuel case, Tennessee Valley Authority v. United States. The court awarded the plaintiff $34.9 million for the Department's partial breach of contract. In that case, a third Court of Federal Claims judge made factual and legal determinations that were disparate from those made on the same issues in the cases discussed above. The Government did not appeal that decision and, accordingly, the judgment became final and non-appealable.

The Cases on Appeal to the Federal Circuit

In August 2008, the U.S. Court of Appeals for the Federal Circuit, in three separate opinions, decided the appeals in the three Yankee cases, the two Pacific Gas and Electric cases and the Sacramento Municipal Utility case. The court affirmed in part and reversed in part the various lower courts' findings and ordered the cases to be sent back to their respective trial courts for recalculation of damages based on the Federal Circuit's findings. Among other issues the Federal Circuit decided, it found that the annual acceptance rate that increases to 2,650 MTHM/year was the Government's annual rate of acceptance of spent nuclear fuel to be applied in each case before deciding whether the Government's partial breach of contract was a substantial factor in causing the plaintiffs'

damages. The time period to seek further review of the Circuit court's determinations expired and the cases were remanded to their respective trial courts for further proceedings consistent with the Federal Circuit's rulings. Subsequently, the Government sought further review by the Federal Circuit of the trial court decisions in those remanded cases. Accordingly, none of the judgments are final and payable.

It should also be noted that two utility plaintiffs filed appeals to the Federal Circuit of the dismissal of their cases by the Court of Federal Claims. In both cases the trial courts found that the plaintiffs had previously assigned their rights to assert damages claims related to their spent nuclear fuel storage to a third party and therefore had no claims remaining to pursue. The Federal Circuit affirmed the lower court's decision with the result that neither plaintiff was awarded any money damages.

Estimate

The Office of Standard Contract Management believes that the Exelon settlement is a representative sample on which to base an estimate of potential liability due to the delay in waste acceptance. Exelon represents a significant number of reactors of a diverse nature. The Exelon fleet includes 17 operating reactors and three shutdown reactors, new and older reactors, large and smaller reactors, as well as a mix of pressurized water and boiling water reactors. Additionally, the reactors are located in geographically diverse regions (East Coast and Midwest). This diversity leads us to believe that the Exelon settlement represents the diversity that exists in the claims from the other nuclear plants that are still pursuing damages from the government.

Given the foregoing analysis, the Office of Standard Contract Management estimates the Government's liability in relation to its partial breach of the standard contract to be $16.2 billion. The Office of Standard Contract Management developed this estimate as follows: 1) The monetary amount of the settlements and claims submitted with Exelon through 2010 was $460.8 million; 2) the number of reactors covered by the settlements was determined to be 20; 3) the number of storage years was determined to be 209.61; 4) the remaining storage years for the period 2010 through 2055 for the reactors covered by the Exelon settlement was determined to be 759.39; 5) the estimate was calculated by dividing the monetary amount of the settlements through 2010 ($460.8 million) by the storage years covered by the settlements through 2010 (209.61 years) resulting in an average of $2.2 million per storage year; and 6) using the average dollar per storage year, the Department estimated that extending the unit value to all future storage years expected to be covered by the Exelon settlement results in a estimated cost of future settlement payments of $1,669 million.

A similar process was utilized for the SCE&G, OPPD, Duke, NextEra Energy, TVA, PSEG and Dominion Energy Kewaunee settlements, and resulted in total estimated values of $34.8 million, $103.9 million, $322.6 million, $928.9 million, $429.1 million, $276.0 million, and $87.4 million, respectively.

The Office of Standard Contract Management applied a contingency of 45 percent to the future settlement values calculated above. This contingency reflects that there are a limited number of settlements on which to base this estimate. Applying this contingency amount to the amounts calculated above results in a combined total including contingency of approximately $6.46 billion.

This represents approximately 40 percent (47 of a total of 118 nuclear reactors) of the nuclear reactors covered by a standard contract. Accordingly, to develop the Government's total liability estimate, based on these settlement estimates, the amount of $6.46 billion was multiplied by a factor of 2.511. This resulted in the total estimate of $16.2 billion.

After deducting the amount paid to date under these settlements and as a result of final judgments, a total of approximately $841.2 million, the remaining liability is estimated to be approximately $15.4 billion.

As noted earlier in this memo, this number is not intended to predict an outcome in any particular case, or estimate the damages (if any) that the Government owes to any particular utility, other than those with which it already has entered into settlements. Rather, this memorandum is intended to set forth an estimate of the Government's total aggregate liability due to its partial breach of the standard contracts. Also as noted above, this estimate will almost certainly be subject to revision in the future, based on future settlements, future judgments, and other developments.

David K. Zabransky, Director
Office of Standard Contract Management
Office of General Counsel

Attachment

ATTACHMENT

Department of Energy
Washington, DC 20585

OCT 27 2010

MEMORANDUM FOR RICKEY R. HASS
DEPUTY INSPECTOR GENERAL FOR
AUDIT SERVICES

FROM: OWEN F. BARWELL
DEPUTY CHIEF FINANICAL OFFICER

SUBJECT: Interim Update of the Department of Energy's Spent Nuclear Fuel Litigation Liability

Last year, the Department estimated its liabilities under current law resulting from delaying the beginning of waste acceptance from 1998 to 2020 at $13.7 billion before the reduction for payments made from the Treasury Judgment Fund. The estimate was based on a model that utilized settlements to date, assumptions concerning beginning and crossover dates for waste acceptance at a permanent repository, and an added contingency factor of 45 percent due to the limited number of settlements used to project the estimate.

The Department's FY 2010 Budget Request announced the Administration's intended termination of the Yucca Mountain repository project and included the funding needed to explore alternatives for nuclear waste disposal. In March 2010, the Department sought approval to withdraw the Nuclear Regulatory Commission license application for the Yucca Mountain repository. The Secretary has convened a Blue-Ribbon Commission of experts to evaluate alternative approaches for meeting the Federal Government's responsibility. In the interim, the Department's position is that its existing spent nuclear fuel litigation model provides a reasonable basis for its accounting liability estimate and that no basis exists or is warranted at this time to change the estimated beginning acceptance date or crossover date assumptions used in the model.

In the attached report issued to Congress, dated December 2008, the Department lays out a timetable of six years from development to acceptance of spent nuclear fuel at an interim facility – one of several alternatives that could be considered by the Blue-Ribbon Commission. While the six years assumes resolution of issues (explained in the report) and the facility is for the consolidation of fuel from decommissioned reactors, it does support the position that the year 2020 is within a yet undefined range of possibilities for addressing the Department's obligations for acceptance of spent nuclear fuel. The interim facility approach outlined in the report is modular and scalable and provides support for the Department's conclusion that the assumptions within the current spent nuclear fuel litigation model are reasonable.

Attachment

cc: Eric Rasmussen, KPMG