

**POLICY ISSUE
INFORMATION**

March 30, 2006

SECY-06-0073

FOR: The Commissioners

FROM: Luis A. Reyes
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SUBJECT: SUMMARY OF DECOMMISSIONING FUNDING STATUS
REPORTS FOR NUCLEAR POWER REACTORS

PURPOSE:

To summarize the staff's findings on the March 31, 2005, biennial decommissioning funding status reports for nuclear power reactor licensees.

BACKGROUND:

Pursuant to 10 CFR 50.75(f)(1), all nuclear power reactor licensees are required to submit decommissioning funding status reports every 2 years. The staff uses the guidance in NUREG-1577, Rev. 1, "Standard Review Plan on Power Reactor Licensee Financial Qualifications and Decommissioning Funding Assurance," Regulatory Guide (RG) 1.159, Rev. 1, "Assuring the Availability of Funds for Decommissioning Nuclear Reactors," and Office Instruction LIC-205, "Procedures for NRC's Independent Analysis of Decommissioning Funding Assurance for Operating Nuclear Power Reactors," as a framework for assessing these reports. Some of the most important aspects of the staff's review include: (1) an analysis of the latest decommissioning cost estimate for each unit, which is adjusted annually; (2) a calculation

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of projected earnings allowed by rule on decommissioning fund balances and future deposits; and (3) an assessment of the reasonableness of schedules to collect additional funds in the future by licensees who are not required to prepay decommissioning funds but instead are authorized to accumulate funds over time.

The reports addressed by this paper present the status of licensees' decommissioning funding assurance arrangements as of the end of Calendar Year (CY) 2004. The staff previously submitted to the Commission summaries of the first three sets of biennial decommissioning funding status reports. The most recent summary (in SECY-04-0019, dated February 5, 2004) covered funding through the end of CY 2002.

DISCUSSION:

The staff has evaluated the information in the current biennial decommissioning funding status reports for all of the 104 operating nuclear power reactors.

Method of Assessing Decommissioning Funding Assurance

To analyze the biennial reports, the staff divided licensees into two categories. The first category comprises external sinking fund licensees, which accumulate funds over time. These licensees are either (1) electric utilities that are entitled to recover decommissioning costs through rates established by a State regulatory authority and, if there are wholesale sales, the Federal Energy Regulatory Commission (FERC), (2) self-regulated electric utilities that establish rates on their own to recover decommissioning costs; or (3) non-electric utilities that are indirectly regulated in the sense that they receive non-bypassable charges authorized by a regulatory authority pursuant to legislation. The second category comprises all other licensees.

External Sinking Fund Licensees

Licensees authorized to exclusively use external sinking funds are subject to a method of analysis that is based on the consideration of a number of factors: (1) the number of years remaining on the license for operations, including any renewal period approved by the (NRC); (2) the amount of scheduled contributions to the decommissioning fund that must be collected in each remaining year and whether the scheduled amounts will significantly increase in later years; (3) the percentage of current licensee revenues accounted for by annual decommissioning collection amounts; (4) whether the plant has any known operational concerns that will increase the likelihood of premature shutdown; (5) whether the licensee now has sufficient funds to place the plant into a long-term storage condition (e.g., SAFSTOR); and (6) relevant State legislation and public utility commission actions and decisions. The staff's review is done on a case-by-case basis for each reactor. The review is consistent with

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legal constraints¹ and the NRC's historical position that States and the FERC are the primary regulatory authorities to ensure an economical, appropriate rate of collection. At the same time, it allows the NRC to make a separate determination on whether there is reasonable assurance that a licensee authorized to use an external sinking fund will be able to eventually fund the decommissioning of its plant.

The NRC's decommissioning funding regulation, 10 CFR 50.75, does not require licensees using external sinking funds to make deposits in amounts and at rates that follow any predetermined schedule.² Section 2.2.8 of Regulatory Guide 1.159 does contain some limited guidance on the amount "[a]nnual deposits in an external sinking fund . . . should attempt to approximate" However, the staff has never sought to require that a licensee adhere strictly to some generic collection schedule, for several reasons. First, the Commission has deferred consistently to State public utility commissions and FERC on the timing of deposits. The deference is based, at least in part, on "the long history of effective rate regulatory oversight and recovery of safety-related expenses through rates" Final Policy Statement, 62 Fed. Reg. at 44,074. Second, the staff has not determined that there is a need for a generic collection schedule (assuming an appropriate one could be formulated). Finally, the staff has not yet encountered a problematic situation in which a licensee remaining under State or FERC regulation used an external sinking fund.

All Other Licensees

In regard to licensees that are not authorized to use external sinking funds as the exclusive method of providing decommissioning funding assurance, the staff analyzed the licensees' existing decommissioning fund balances and factored in earning credits to the extent allowed by NRC regulations. The staff also considered any supplemental decommissioning funding

¹See, e.g., section 271 of the Atomic Energy Act of 1954, as amended (42 U.S.C. § 2018) which provides in relevant part that "[n]othing in the [Atomic Energy Act] shall be construed to affect the authority or regulations of any Federal, State, or local agency with respect to the generation, sale, or transmission of electric power produced through the use of nuclear facilities licensed by the Commission"; *Pacific Gas & Electric Co. v. State Energy Resources Conservation and Development Commission*, 461 U.S. 190 (1983) (section 271 removed "any doubt that rate making and plant-need questions were to remain in state hands").

²The NRC specifically decided that its decommissioning funding rule, "and the NRC's implementation of it, does not deal with . . . rate of fund collection" General Requirements for Decommissioning Nuclear Facilities, Final Rule, 53 Fed. Reg. 24,018, 24,038 (June 27, 1988), cited in Final Policy Statement on the Restructuring and Economic Deregulation of the Electric Utility Industry (Final Policy Statement), 62 Fed. Reg. 44,071, 44,074 (Aug. 19, 1997).

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assurance mechanisms such as parent company guarantees. To determine whether currently estimated costs are covered by assured funding, the staff compared the total assured funding
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to the minimum decommissioning cost estimate for the particular unit calculated using NRC formulas in 10 CFR 50.75 to determine whether currently estimated costs are covered by assured funding.

Results of NRC Staff Evaluations

The staff's findings are as follows:

- As of December 31, 2004, nuclear power reactor licensees collectively had on deposit approximately \$30.9 billion in external decommissioning trust fund accounts. This figure is about 76 percent of the funds estimated in 2004 that will be needed at the time of permanent shutdown for decommissioning, based on the generic formulas in 10 CFR 50.75(c).
- Units owned by licensees authorized to exclusively use external sinking funds (all licensees other than the ten below): With the exception of the Exelon situation discussed further below, the staff determined that when earnings credits and scheduled collections are factored in, decommissioning funding assurance now equals or exceeds the latest available (NRC determined) minimum decommissioning funding estimate. Therefore, for these units, no staff action need be taken for any of these units.
- Units owned by licensees not authorized to use external sinking funds: As of the end of 2004 with respect to the 10 licensees not authorized to exclusively use external sinking funds, the staff determined that all 10 are providing adequate decommissioning funding assurance through prepaid funds and/or guarantees.
- For 6 units at 3 sites owned by Exelon Generation Company, LLC in Illinois, the staff determined that the projected total accumulation of funds for those units does not meet the respective minimum formula amounts. Exelon assumed a 3.07 percent real rate of return to conclude that they were providing adequate funding assurance. However, the staff concluded that an earnings credit resulting from a higher than 2 percent real rate of return, claimed by the licensee over the remaining operating lives of the units, is not warranted for the 6 units.

Exelon is continuing to collect non-bypassable charges through 2006, but after such time the licensee will have no right to collect any additional funds. The 3.07 percent real rate of return is a figure that in 2001, the licensee and the public utility commission agreed was a reasonable assumption in computing a non-bypassable charges collection schedule through 2006. However in 2001, the licensee agreed to waive any right to future collections beyond 2006 in exchange for the public utility commission authorizing the final schedule of non-bypassable charges. Given that there will no longer be any further opportunity to collect funds after 2006,

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whether or not the licensee's investments perform as expected, the staff is of the opinion that the licensee may only take credit for future earnings based on a 2 percent real rate of return. The reason is that although 10 CFR 50.75(e)(1) allows a licensee to take an earnings credit of

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greater than 2 percent "if the licensee's rate setting authority has specifically authorized a higher rate," such provision is not applicable here because the licensee is no longer subject to a rate setting authority that will re-evaluate the licensee's fund balances and its need for future additional collections.

This situation involving this licensee is a case of first impression. The Statements of Consideration for the amendment to 10 CFR 50.75 that established the earnings credits in the rule did not specifically address this situation. The staff's view is that a licensee should not be allowed to rely on a greater than 2 percent real rate of return when that licensee has no further recourse to a rate setting authority that can authorize future additional collections if the assumed earnings rate "authorized" by the rate setting authority did not materialize.

The staff and the licensee are discussing this matter and how the licensee would make adjustments to its decommissioning funding assurance mechanisms to provide reasonable financial assurance based on a 2 percent earnings credit. Under the guidance of Regulatory Guide 1.159, Rev. 1, a licensee not subject to a rate setting authority should make necessary adjustments "at least once every two years, in conjunction with the biennial report." Therefore, the staff would expect the licensee here to set aside additional funds or provide additional funding assurance mechanisms by the time of the next biennial report such that projected funds assured will meet or exceed the respective formula amounts. Alternatively, the licensee could apply for a temporary exemption³ to allow it additional time to increase its decommissioning funding assurance.

COMMITMENT:

The staff has informed Exelon of its conclusion that action is needed to provide reasonable assurance of adequate decommissioning funding for six of its units in Illinois and will continue to seek resolution of the matter.

CONCLUSION:

The staff identified no concerns with the decommissioning funding assurance levels for 98 operating nuclear power reactors. For the remaining six units, all in Illinois, the staff found that action is required on the part of the licensee to provide reasonable assurance of adequate decommissioning funding.

³As discussed in SECY-98-157, the NRC granted temporary exemptions to Great Bay Power Corporation to allow them sufficient time to obtain additional funding assurance.

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RESOURCES:

The evaluation provided herein has no additional resource implications.

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COORDINATION:

The Office of the General Counsel has no legal objection to this paper. The Chief Financial Officer has reviewed this paper for resource implications and has no objections.

/RA/

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