

POLICY ISSUE INFORMATION

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FOR: The Commissioners

FROM: William D. Travers
Executive Director for Operations

SUBJECT: SUMMARY OF DECOMMISSIONING TRUST FUNDING STATUS REPORTS
FOR POWER REACTORS

PURPOSE:

To give the Commission a summary of the staff's review findings regarding the second biennial decommissioning trust funding status reports for power reactor licensees.

BACKGROUND:

The Commission's final rule on "Financial Assurance Requirements," published in the *Federal Register* on September 22, 1998 (63 FR 50465), required, among other things, that power reactor licensees must submit biennial decommissioning funding status reports to the Nuclear Regulatory Commission (NRC) by March 31, 1999, and every 2 years thereafter. The Commission imposed this reporting requirement to ensure adequate monitoring of decommissioning funding as deregulation of the electric generating industry proceeds.

DISCUSSION:

All power reactor licensees submitted the required reports for their units by March 31, 2001. The NRC received reports for 122 reactor units, including 104 units that are currently licensed

CONTACT: Ronald B. Uleck, NRR/DRIP/REXB
301-415-3741

to operate and 18 that have been permanently shut down. The staff reviewed these reports and developed the following summary information regarding the units that are currently licensed to operate:¹

- ! As of December 31, 2000, power reactor licensees had on deposit approximately \$23.7 billion in external decommissioning trust fund accounts for decommissioning the radiological portion of their plants.² The total minimum amount needed to decommission the radiological portion of power plants, based on the generic formulas in 10 CFR 50.75(c), is approximately \$35.3 billion. The aggregate estimate by licensees, based in some cases on site-specific estimates that exceed the minimum formula amounts, is approximately \$36.3 billion.³
- ! In the aggregate, licensees have collected about 67 percent of the funds currently estimated to be needed for decommissioning, using the NRC's generic formulas, and about 65 percent according to the licensees' available estimates. Licensees' reports included 14 site-specific decommissioning cost estimates that exceeded the generic formula amounts. Individual licensees have, of course, collected higher or lower percentages than these aggregate percentages.
- ! On the basis of the minimum amounts calculated using the generic formulas, 16 operating units have fully funded decommissioning accounts. That is, if these units were permanently shut down today, they would have sufficient funds, based on the NRC's generic formulas, to complete radiological decommissioning. Another 47 units have collected from 50 percent to almost 100 percent of the necessary decommissioning funds. The remaining 41 units have collected less than 50 percent of the current estimate of what they will eventually need for decommissioning, although, as discussed below, this does not necessarily indicate noncompliance.
- ! The staff reviewed licensees' schedules of the annual amounts remaining to be collected to meet the estimated costs of decommissioning their plants. Based on staff's initial review, it appears that all licensees have collection schedules targeted to fully fund decommissioning of the radiological portions of their plants at license termination.
- ! The staff also evaluated collections on a straight-line basis. That is, the staff compared the funds collected (expressed as a percentage of the total minimum amounts estimated

¹ Although the first report to the Commission on the status of decommissioning trust funding, SECY-99-170, included information for both units that are currently licensed to operate and units that have been permanently shut down, only those units licensed to operate are included in this report to avoid providing summary data that may be misleading because shutdown plants may be in various stages of decommissioning.

² Licensees may also deposit additional funds for decommissioning non-radiological portions of their plants.

³ Staff notes that an independent investment management company, which gathers information on nuclear decommissioning funding status, reports that as of December 31, 2000, licensees' decommissioning trust funds totaled \$27.2 billion and that total costs of decommissioning are about \$49.8 billion. These figures, although similar to those in this paper, may not always be in 2000 dollars and can include funds in internal reserve accounts and non-radiological decommissioning costs.

using the generic formulas) to expended reactor life (expressed as a percentage of a 40-year license term, or a 60-year license term for those reactors to which the NRC has granted license extensions). When measured this way, 64 units exceed a straight-line collection rate, and 40 units are collecting at less than a straight-line rate. The units collecting at less than a straight-line rate have funding plans or rate-setting authority decisions that will allow them to reach target funding levels. (The staff notes that the NRC's regulations do not require a straight-line collection schedule. The NRC has explicitly deferred to a licensee's rate regulator, or the licensee itself if self-regulated, to determine the specific collection rate for decommissioning funds). Thus, all licensees appear to be compliant with the provisions of 10 CFR 50.75.

- ! In the aggregate, the licensees' reports projected future trust fund deposits for radiological decommissioning of an additional \$5.4 billion. In addition, licensees projected that future interest earned on funds already collected and on future collections will add approximately \$11.5 billion. The aggregated licensees' current and estimated future deposits and the earnings on those deposits total approximately \$40.6 billion. The staff notes that the NRC's regulations do not require licensees to estimate future cost escalation, but do require licensees to recalculate their decommissioning cost estimates each year to account for escalation that has occurred in the previous year.

On the basis of the staff's initial review of licensees' status reports and the foregoing findings, all power reactor licensees appear to be on track to fund decommissioning by the time they permanently shut down their units. The staff notes that, pursuant to 10 CFR 50.82(c), a few licensees that have already permanently shut down their units prematurely are collecting funding shortfalls into the decommissioning period.

Also, the staff notes that some specific information reported by licensees needed further clarification. For example, licensees' annual payments into their trusts funds were, in some cases, not clearly presented and need to be confirmed by the staff. Some licensees used a real rate of return greater than 2 percent on decommissioning fund balances, but did not cite approval of their rate-setting authorities as required by 10 CFR 50.75(e)(1). Other licensees continue to submit reports that do not clearly state whether rates of return on fund balances are pre- or after-tax rates, thus affecting calculation of the real rate of return. The staff is working with the licensees of plants where questions exist to obtain additional information from the licensees and, where appropriate, require corrective action. Furthermore, the staff believes that resolution of these reporting issues would not affect the staff's findings as summarized in this paper.

RESOURCES:

The evaluation provided herein has no additional resource implications.

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COORDINATION:

The NRC's Office of the General Counsel has no legal objection to this paper.

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William D. Travers
Executive Director
for Operations