

NUCLEAR REGULATORY COMMISSION**10 CFR Parts 30 and 50**

RIN 3150-AF41

Financial Assurance Requirements for Decommissioning Nuclear Power Reactors

AGENCY: Nuclear Regulatory Commission.

ACTION: Final rule.

SUMMARY: The Nuclear Regulatory Commission (NRC) is amending its regulations on financial assurance requirements for the decommissioning of nuclear power plants. The amendments respond to the potential rate deregulation in the power generating industry and NRC concerns regarding whether current NRC decommissioning funding assurance requirements will need to be modified. The amendment requires power reactor licensees to report periodically on the status of their decommissioning funds, and on changes in their external trust agreements and other financial assurance mechanisms. The amendment also allows licensees to take credit for certain earnings on decommissioning trust funds.

EFFECTIVE DATE: November 23, 1998.

FOR FURTHER INFORMATION CONTACT:

Brian J. Richter, Office of Nuclear Reactor Regulation, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001; telephone: 301-415-1978; e-mail: bjr@nrc.gov.

SUPPLEMENTARY INFORMATION:**I. Background**

The NRC published an advance notice of proposed rulemaking (ANPR) for "Financial Assurance Requirements for Decommissioning Nuclear Power Reactors" on April 8, 1996 (61 FR 15427). This action was developed to amend the NRC's regulations relating to financial assurance requirements for the decommissioning of nuclear power plants in anticipation of rate deregulation of the power generating industry. In response to the comments received on the ANPR, the NRC published a proposed rule on September 10, 1997 (62 FR 47588). The NRC proposed to: (1) Revise the definition of "electric utility" and related definitions contained in 10 CFR 50.2; (2) add a definition of the term "Federal licensee" to address the issue of which licensees may use statements of intent; and (3) require power reactor licensees to report periodically on the status of their decommissioning funds and changes in

their external trust agreements. The rule also would have amended 10 CFR 50.75 to expressly allow licensees to take credit for the earnings on decommissioning trust funds during the operating and decommissioning periods.

II. Comments on the Proposed Rule

The Commission received 33 letters containing more than 200 comments on the proposed rule representing 25 licensees or licensee organizations, 5 State agencies or Public Utility Commissions, 2 public interest groups, and an individual with no affiliation provided. Copies of the letters are available for public inspection and copying for a fee at the Commission's Public Document Room, located at 2120 L Street, NW. (Lower Level), Washington, DC 20555-0001.

The comments have been organized by topic and an analysis of them follows.

1. Definition of Electric Utility

A. Linkage Between Decommissioning Financial Assurance Requirements and Financial Qualification Requirements (i.e., Linkage Between Costs of Operation, Maintenance, and Decommissioning)

Several commenters, including the Nuclear Energy Institute (NEI), stated that NRC should not use the term "electric utility" in its decommissioning financial assurance rules because the term is used for different purposes in the context of NRC's financial qualification requirements in 10 CFR 50.33(f). These commenters stressed that only decommissioning costs are of concern with respect to the financial assurance requirements, whereas only operation and maintenance costs are of concern with respect to the financial qualification requirements. By referencing all these costs as well as the cost of "electricity," the proposed definition of electric utility is both unclear and problematic.

The commenters cited several specific problems. First, the definition does not adequately express NRC's intent that an entity can demonstrate adequate assurance if it can "conclusively demonstrate a government-mandated, guaranteed revenue stream for all unfunded decommissioning obligations" by virtue of a non-bypassable charge that covers only decommissioning costs. (For example, one commenter stated that, in California, licensees are assured of recovering decommissioning costs in distribution rates through non-bypassable means, although recovery of

the costs of operation and maintenance may not be assured.) Second, the definition could unnecessarily invite challenges to the rates established by regulators. Specifically, by requiring that an electric utility's rates be "sufficient for the licensee to operate, maintain, and decommission its nuclear plant safely," the proposed definition could imply that NRC may in the future evaluate the sufficiency of rates established by other regulatory authorities to cover costs of operations and maintenance. Third, by referencing "operation," the definition could create or imply some responsibility for decommissioning funding on the part of nonowner operators that, they argued, may inhibit the formation of joint operating companies.

The NRC believes that commenters' concerns in this area were addressed by the third sentence of the proposed definition, that states that "An entity whose rates are established by a regulatory authority by mechanisms that cover a portion of its costs will be considered to be an 'electric utility' only for that portion of the costs that are collected in this manner." NRC did not intend to have all licensees consider only the combined costs of operation, maintenance, and decommissioning. Nevertheless, even some commenters who understood NRC's intent suggested modifying this third sentence. One suggestion was to replace it with "An entity whose rates are established by a regulatory authority by mechanisms that cover only decommissioning costs will be considered to be an 'electric utility' with respect to its decommissioning funding responsibilities." (Presumably an additional parallel sentence would address "costs of operation and maintenance costs * * * with respect to its financial qualification requirements.") Another suggestion was to clarify the third sentence by referring to recovery of a certain portion *or discrete category* of costs. Either of these suggestions would also obviate any need to include the 10 percent de minimis threshold for non-recovered costs that was suggested by one commenter (i.e., because the relevant category of costs—for decommissioning—would be recovered, even if they were less than 10 percent of all costs), and would allay the concerns of several commenters that an entity recovering only decommissioning costs through non-bypassable charges might be considered less than a 100 percent electric utility for purposes of the decommissioning requirements.

One possible remedy, as suggested by NEI, would be for NRC to construct and define a new term such as "qualified nuclear entity" that would apply only to

the decommissioning financial assurance requirements. NEI would define a qualified nuclear entity as one that obtains decommissioning funds through: (1) A rate-setting mechanism; (2) a non-bypassable charge established by legislative or regulatory mandate; or (3) a binding contractual agreement with another party that is equal in amount to the entity's decommissioning funding obligation. Only the third option in NEI's definition is not generally consistent with NRC's proposed definition. NEI's comment does not fully or adequately explain the meaning or implications of the binding contractual agreement included as the third option in its definition. However, other commenters specifically referenced NEI's comments, and objected to the binding contractual agreement portion of NEI's suggested definition. Some of these commenters stated that a binding contractual agreement would provide inadequate assurance unless the party offering the contract were appropriately qualified.

As a final point, NEI noted that the term "electric utility" may take on a different meaning as a result of industry restructuring, but would not alter the existing definition of electric utility which would, under NEI's proposal, remain applicable to NRC's financial qualification requirements. The logic of this position is that the current rule is intended to address the decommissioning financial assurance requirements rather than the financial qualification requirements.

Nevertheless, the loss of regulatory oversight as a potential consequence of industry restructuring is as relevant to NRC's financial qualification requirements as it is to NRC's decommissioning financial assurance requirements. Therefore, the NRC has adopted another approach that is intended to address commenters' concerns, but that does not have some of the shortcomings of NEI's approach. The Commission has decided not to change the current definition of "electric utility" as it applies to financial qualifications requirements in 10 CFR 50.33(f). Rather, the NRC is clarifying the applicability of external sinking funds and other mechanisms directly in 10 CFR 50.75.

B. Direct vs. Indirect Cost Recovery

Some commenters argued against the proposed deletion of the phrase "either directly or indirectly" in the first sentence of NRC's existing definition of electric utility, which states that "Electric utility means any entity that generates or distributes electricity and which recovers the cost of this

electricity, *either directly or indirectly*, through rates established by the entity itself or by a separate regulatory authority." These commenters stated that allowing cost recovery based only on regulated rates and non-bypassable charges might restrict licensees from competing in the open market. Specifically, the change might prevent licensees with Public Utility Commission (PUC)-or Federal Energy Regulatory Commission (FERC)-approved, long-term power sales agreements from qualifying as electric utilities.

It is not clear whether PUC-or FERC-approved, long-term power sales agreements would qualify as cost of service regulation or as non-bypassable charges (and hence as cost recovery through regulated rates) under either the current definition or the proposed definition. Assuming that PUCs or FERC analyze these agreements to ensure that they are consistent with the entity's recovery of all reasonable and prudent costs, it would be reasonable for NRC to interpret these agreements as acceptable under either definition. Because this interpretation would not be obvious under either definition, however, such an interpretation by NRC would have to be implemented through existing or new guidance documents, whether or not the phrase is added to the definition. If these agreements are not consistent with the entity's recovery of all reasonable and prudent costs, then the phrase "either directly or indirectly" has been deleted appropriately.

Another commenter stated that NRC should not delete the phrase "directly or indirectly" because the deletion could be interpreted as eliminating the exemption from financial qualification requirements applicable to nonowner operators who cover their costs under contracts with owners. The commenter claimed that NRC has traditionally held that nonowner operators are "electric utilities" exempt from the regulated rates of the owners who are contractually committed to pay the operators' expenses. The logic of the commenter's argument seems to be that nonowner operators recover the costs of their electricity from owners, whose rates are directly regulated, thereby making the operator's cost recovery indirectly regulated. For the reasons that follow, the final rule should render this concern moot.

C. Consequences of Not Meeting the Definition

One commenter suggested that the proposed definition could result in the premature shutdown of nuclear power plants that have insufficient funds set

aside to pay for decommissioning. This comment appears to argue that premature shutdowns may result if, as a result of an entity's loss of status as an electric utility, it must (but is unable to) provide up-front financial assurance for decommissioning. This issue is analyzed in Section 7.B, Prepayment/Up-front Assurance.

D. Implications for State Ratemaking Authority

Some commenters suggested that NRC clarify that it does not intend to infringe upon State ratemaking authority. To this end, one PUC stated that the NRC should remove from the definition the requirement that utilities recover "the cost of electricity," which is only an intermediate consideration in the development of rates. This commenter suggested that the definition should be changed to "any entity that generates, transmits, or distributes electricity." In response, the NRC has neither the intention nor the authority to infringe on State ratemaking authority. The NRC believes that the final rule described below will obviate these commenters' concerns.

E. Regulatory Efficiency

Some commenters suggested that the proposed regulation at § 50.75(e)(3) be revised to avoid repeating the definition of electric utility. This comment has been adopted, de facto, by the final rule.

F. Application of Definition to Public Power Agencies

Some commenters noted that the proposed definition does not appear to require public power agencies to recover all of their costs in their rates, only that they set their own rates. In a competitive market, it does not follow that the authority of such agencies to set their own rates will, in and of itself, provide assurance of decommissioning funding.

These comments appear to address the last sentence in the proposed definition of electric utility:

Public utility districts, municipalities, rural electric cooperatives, and State and Federal agencies, including associations of any of the foregoing, that establish their own rates are included within the meaning of "electric utility."

This sentence automatically classifies any licensee that falls in one of the above-referenced groups (collectively referred to by the commenter as "public power agencies") as an electric utility. Thus, public power agencies automatically qualify as electric utilities without consideration of any of the definition's other conditions on rate recovery. The commenters' assessment

appears sound in that, in a competitive market, such entities might not recover all their costs even if they can set their own rates. The ability to set rates adequate to achieve full cost recovery would be undermined by the loss of an exclusive service territory. Although the NRC is retaining, unmodified, the definition of "electric utility" for purposes of financial qualifications, the NRC has adopted this comment in its revised § 50.75(e).

2. Definition of Non-Bypassable Charge

A. Stricter Definition Needed

One commenter suggested revising the definition to require that monies collected via the non-bypassable charge be available to the licensee, either through assignment or some other mechanism. This comment seems reasonable. If charges are not available to the licensee (e.g., if the revenue stream resulting from the charge has been assigned to an unrelated party as a result of a securitization), then the non-bypassable charges would not provide reasonable assurance of decommissioning funding. The final rule has been modified to reflect that non-bypassable charges should be available to the licensee as part of funds for decommissioning deposited in an external sinking fund.

One commenter stated that because decommissioning funding must be secured and insulated from market risk, the preferred funding method should be a non-bypassable charge established by a regulatory mandate. According to the commenter, this approach better assures adequate funding while removing decommissioning as an issue in future competition, and also would help utilities in making optimal business decisions in the competitive environment. Regardless of the validity of the comment, the NRC believes that it would be encroaching upon the responsibilities of other regulators if it were to establish a single method for cost recovery.

B. Link Between Operation, Maintenance, and Decommissioning

One commenter stated that the definition's reference to "costs associated with operation, maintenance, and decommissioning" is problematic for the same reasons that were noted in the "electric utility" definition. (See discussion and analysis in Section 1-A.) Another commenter stated that NRC's proposed definition of non-bypassable charge could be interpreted to mean that operation, maintenance, and decommissioning costs must all be covered by a charge in order to meet the

definition. This may be inconsistent with actual charges established by PUCs. For example, a PUC could decide to establish a charge for decommissioning costs, but not for operation and maintenance costs.

One feasible solution was suggested by several commenters, who stated that the definition should be revised to read "costs associated with operation, maintenance, or decommissioning. * * *" They noted that this is more consistent with the intent of the rule and would not exclude licensees that recover only decommissioning costs through a non-bypassable charge, but that recover all other costs through competition. The final rule reflects this modification.

C. Types of Non-Bypassable Charges

One commenter stated that it is not clear whether the proposed definition encompasses wire charges, stranded cost charges, transition charges, exit fees, other similar charges, the securitized proceeds of a revenue stream, or price cap regulation. If NRC decides to defer to State regulatory officials, the final rule should be clear in stating the types of charges covered by the definition. Similarly, other commenters suggested expanding the definition to include other funding mechanisms imposed or established by a governmental authority. One commenter suggested the definition might include a decommissioning liability covered by State securitization legislation. Another suggested it might include binding contracts secured by legislation or a regulatory commission order or both.

The proposed definition, as stated, includes

* * * charges imposed by a governmental authority which affected entities are required to pay [over an established time period] to cover costs associated with operation, maintenance, and decommissioning of a nuclear power plant.

As noted in the previous section, the NRC has modified the definitions of "non-bypassable charges" in the final rule to focus solely on "costs associated with decommissioning of a nuclear power plant." With that modification, this definition seems to provide an effective performance standard for any type of charge that might be developed by State regulatory officials to cover decommissioning costs. Consequently, there seems to be little benefit to the commenter's suggestion, and some possible danger if any specific charges that might be listed in a revised definition were ultimately implemented by State regulatory officials in ways that did not meet the currently proposed

definition. Nevertheless, the NRC has cited examples of non-bypassable charges in its definition, without limiting such charges only to the cited examples.

Finally, one commenter stated that NRC's commentary that securitization of a licensee's interest in non-bypassable charges "may" be an acceptable method of providing decommissioning funding assurance seems to suggest that the existence of a licensee's entitlement to non-securitized irrevocable, non-bypassable charges may not be sufficient to meet the definition and avoid up-front funding. This comment, however, seems at odds with the plain meaning of the definition of non-bypassable charges.

D. Other

Finally, one commenter suggested revising the definition to replace the phrase "governmental authority" with the phrase "regulatory authority." As pointed out by the commenter, this would make the definition more consistent with the definitions of "electric utility" and "cost of service regulation." The NRC is aware of the difference and believes the definition as presented better represents the NRC position because the term "governmental authority" is more inclusive and allows for actions by non "regulatory authorities," such as State legislatures.

3. Definition of Cost of Service Regulation

The comments addressing the definition of "cost of service regulation" seemed, in general, more directly applicable to other parts of NRC's proposal, as discussed below.

One commenter stated that the modifier "all" should be deleted from the "cost of service" definition. This commenter argued that a definition requiring that "all" reasonable and prudent costs be recovered invites a challenge to the sufficiency of a licensee's rate regulation. Similarly, another commenter stated that the definition should account for the possibility of "partial" cost of service regulation. The NRC believes that commenters' concerns in this area were addressed by the third sentence of the proposed definition of electric utility, that states "An entity whose rates are established by a regulatory authority by mechanisms that cover only a portion of its costs will be considered to be an "electric utility" only for that portion of the costs that are collected in this manner." NRC did not intend to imply that a licensee was subject to cost of service regulation only in the event that

all its reasonable and prudent costs are recovered per the definition, but rather that the licensee would be deemed to be regulated under cost of service regulation for whatever portion of its reasonable and prudent costs are covered per the definition. This comment has been rendered moot by the NRC's revised final rule.

Another commenter stated that the proposed definition of "cost of service regulation" should not exclude "performance based" and "incentive" ratemaking adopted by some State ratemaking authorities. This commenter proposed adding the following to the definition: "Cost of service regulation includes, but is not limited to, alternative forms of ratemaking which provide for a portion of costs to be recovered based on reasonable benchmarks and incentives for good performance."

This comment does not seem to recognize that the term "cost of service regulation" is actually referenced as "traditional cost of service regulation" by the proposed definition of electric utility, which distinguishes cost of service regulation from indirect cost recovery through non-bypassable charge mechanisms. In the final rule, this reference to traditional ratemaking is contained in the definition of "cost of service regulation." In this broader context, the NRC's intention to keep the present focus of "cost of service regulation" seems clear and, moreover, the licensee's suggested additions seem inappropriate (because they are not precisely consistent with traditional direct recovery of reasonable and prudent costs). However, given that the NRC believes that incentive or price-cap-based ratemaking provides reasonable assurance of decommissioning funding, the NRC revised the definition of "cost of service regulation" to reflect this concern.

4. Need for General Flexibility

The flexibility issue has two dimensions. First, several commenters wanted the maximum number of financial assurance options available to reactor licensees. Second, these commenters urged NRC not to include specific or detailed criteria in its rules, which should be kept general, but to address implementation details in a regulatory guide or similar non-binding form.

Among the various financial assurance mechanisms, there are differences in cost, availability, and risk (i.e., degree of assurance). Similarly, because licensees vary in their financial situations and prospects, they pose different degrees of risk in terms of their

abilities to provide funding for reactor decommissioning. Making riskier financial assurance mechanisms available to riskier licensees compounds risk to the public that adequate funds will not be available when needed. Thus, prudent public policy may limit the range of mechanisms that should be offered to certain categories of licensees. This is recognized by the commenters themselves, who more or less endorsed the NRC framework, which distinguishes a category of licensees that should not be afforded the option of using an external sinking funding, by itself, as a mechanism of assurance. The commenters did not contend that all licensees should be allowed to use all mechanisms; however, they wanted the external sinking fund option to be made available to more reactor licensees than might qualify under the NRC proposal. If this mechanism were equal to the others in terms of risk, the NRC could make it more available in the interests of flexibility. Because this option has more risk than other available assurance options, the NRC believes it is prudent to restrict its use to licensees with stronger financial or rate regulatory characteristics.

With respect to keeping the rule general and reserving details for a regulatory guide, there are two key considerations. First is a matter of regulatory philosophy and enforcement posture. Reserving details for regulatory guides is an approach that the NRC has used. However, regulatory guides are statements of one way in which licensees can meet regulations and do not establish requirements.

The second consideration is the potential need to change the requirements. It is much easier to change, add, or delete methods as acceptable for meeting requirements in regulatory guides than in regulations. Inasmuch as the NRC's power reactor licensees have begun on a path of economic restructuring, and will be in a period of transition for a number of years, the flexibility afforded by using a regulatory guide as a vehicle for decommissioning financial assurance requirements may be an advantage. On balance, the NRC is maintaining a level of detail equivalent to previous rulemaking in this area, and reserves the right to issue more detailed guidance where necessary. The NRC, in acknowledging the use of combinations of assurance methods, cannot list all possibilities, but includes as an example, the recent New Hampshire legislation that provides for the proportionate liability of the co-owners of the Seabrook Nuclear Power Station in the event that another minority

owner, Great Bay Power Company, defaults on its obligations.

5. Applicability of Requirements to Plant Owners and Operators

Two commenters urged the NRC to clarify that the requirements for decommissioning financial assurance apply only to owners or entities that have assumed decommissioning liability under contracts and not to entities that are solely operators. The commenters argued that this clarification is important to the formation or use of specialized operating service companies with no ownership interests in the facilities they operate.

Applying financial assurance requirements to both owners and operators provides flexibility, since either can demonstrate compliance. This approach also recognizes scenarios in which the operator has greater financial resources or creditworthiness or both than the owner. Such a scenario is conceivable following the economic restructuring of the electric power industry. To provide greater flexibility and assurance, the NRC will not specifically exempt operator licensees from the financial assurance requirement. This is unlikely to affect the formation or use of operating service companies, because they can negotiate with reactor owners regarding which party or parties will be responsible for demonstrating financial assurance for decommissioning purposes.

6. Site-Specific Cost Estimates

Four commenters addressed the desirability of allowing licensees to use site-specific decommissioning cost estimates as the basis for financial assurance and reporting, even if these estimates are less than the current minimum amounts prescribed in § 50.75. The primary advantage asserted would be to avoid unnecessary assurance expenses when a site-specific estimate is less than the current NRC minimum. Other asserted benefits of allowing licensees to use site-specific cost estimates below the NRC minimums include greater consistency with PUC approaches, tax treatment, and possible Financial Accounting Standards Board (FASB) requirements. Moreover, acceptance of site-specific estimates might enhance the integrity of the rule, given the perception stated by several licensees of problems with the current minimum amounts and the acceptance by PUCs of site-specific cost estimates as the basis for financial assurance even where the site-specific estimates are less than the NRC minimums. However, given other

potential weaknesses in current implementation (primarily relating to the adequacy of cost estimates and the potential under-funding indicated by current balances in decommissioning trust funds), such an allowance could aggravate the risk of potential under-funding associated with the external sinking fund mechanism. Submittal of site-specific estimates to the NRC would enable it to better evaluate the funds needed for decommissioning. However, the Commission has decided to defer allowing site-specific estimates that are lower than the amounts specified in 10 CFR 50.75(c) until additional decommissioning data are obtained. (Staff Requirements Memorandum, SECY 97-251—Proposed Rule on Nuclear Power Reactor Decommissioning Costs, February 5, 1998.)

7. *Alternative Methods of Assurance*

A. *Alternative Framework Proposed by NEI*

NEI's proposed framework for financial assurance for decommissioning resembles in broad outline NRC's framework, which broadens the range of allowable assurance mechanisms for reactor licensees that lose the ability to recover decommissioning costs through regulated rate fees or other mandatory charges established by a regulatory body. Although the external sinking fund, standing alone, is not allowed for the licensees losing such regulatory oversight, the NRC framework also offers opportunities for case-by-case consideration of non-standard financial assurance arrangements. Examples include § 50.75(e)(1)(v), which allows unspecified, other guarantee methods; and certain contractual arrangements in § 50.75(e)(1)(ii)(C).

The NEI's framework involves three, rather than two, categories of power reactor licensees. Under the NEI framework, the broader set of assurance mechanisms (including the current external sinking fund approach) would be available to: First, licensees meeting the criteria for "qualified nuclear entities" and second, licensees that do not meet the requirements for "qualified nuclear entities" but that satisfy a set of financial criteria. NEI does not specify in its comments what these financial criteria would be. Third, licensees that satisfy neither the criteria for qualified nuclear entities nor the alternate financial criteria would not be allowed to use the external sinking fund option, but would be able to use the other mechanisms. NEI also includes an

option for non-standard demonstrations of assurance.

The effect of the NEI proposal would be to make the current external sinking fund financial assurance option available to a larger number of licensees than would be allowed under the NRC proposal. This effect is the result of: (1) Defining "qualified nuclear entities" in terms of criteria that may be less stringent than the proposed criteria for "electric utility"; and (2) allowing licensees that satisfy certain financial criteria also to take advantage of the external sinking fund option, which they would not be allowed to do under the NRC proposal. The NEI proposal would mean an increase in the risk that adequate funds will not be available when needed because of an inadequate funding rate, inadequate earnings on invested funds, or premature shutdown. It would decrease the cost to licensees. NRC's proposal entails less risk of inadequate funding, but greater cost to licensees.

On balance, to make the external sinking fund option more available to reactor licensees, the NEI framework would result in greater risk that sufficient decommissioning funds will not be available when needed. The NEI proposal also would require the development of appropriate financial criteria, which would be challenging to develop because of the unpredictable nature of the industry. An entity that meets the financial criteria, unlike those licensees who retain the ability to recover decommissioning costs through regulated rates and fees or other mandatory charges established by a regulatory body, would have no guarantee of collecting sufficient funds for decommissioning and could encounter deteriorating financial conditions that could cause a reduction or cessation of payments into the external sinking fund.

The NEI framework would produce the same result if the financial criteria were made an alternate basis for being a "qualified nuclear entity." This would produce a two-tier framework parallel in structure to the NRC proposal, though different in content.

Based on these considerations, the NRC is not adopting NEI's proposed approach. Rather, the NRC is specifying in § 50.75, a variety of mechanisms for providing decommissioning financial assurance that licensees may use, depending upon their circumstances. The revised regulations would also permit the use of "other guarantee methods" that are not specifically identified in the regulations.

B. *Prepayment/Up-Front Assurance*

One commenter addressed the issue of up-front assurance. The commenter stressed that it is unfair for NRC to require up-front funding for licensees that no longer meet the definition of "electric utility." In particular, the commenter argued that licensees have presumed all along that they would be able to gradually fund decommissioning throughout their plants' operating lives and that, as a result, licensees who are no longer considered electric utilities may be unable to remain in business.

NRC's current financial assurance requirements for decommissioning nuclear power reactors are based on the premise that the reactors are owned by regulated or self-regulating entities that recover their decommissioning costs through a rate-setting process overseen by the applicable regulating body. This regulatory oversight provides reasonable assurance that such licensees will recover reactor decommissioning costs and continue paying into external sinking funds for decommissioning.

It is true that those licensees no longer able to recover decommissioning costs through regulated rates and fees or other mandatory charges established by a regulatory body may incur a greater burden by having to provide up-front assurance. This up-front assurance could take the form of prepayment or it could take the form of some type of surety mechanism (e.g., a letter of credit, or a partner or self guarantee). It is possible, under some restructuring scenarios, that this could lead to premature shutdown of some reactors. However, the likelihood of this occurring is highly doubtful. Many PUCs have already indicated their intention to allow for the regulated recovery of decommissioning costs, either through rates or through some type of non-bypassable charge, even for otherwise deregulated entities. For licensees that will not be able to collect funds through such a process after industry restructuring, up-front assurance is necessary to ensure that reasonable financial assurance is provided for all decommissioning obligations. In the more competitive environment that is likely to prevail after restructuring, some of these licensees may not remain financially viable for reasons not related to decommissioning financial assurance, further suggesting the need for up-front assurance.

C. *Accelerated Funding*

In the preamble to its proposed rule, NRC requested comment on whether accelerated funding should be

considered as a financial assurance option for licensees no longer meeting the definition of "electric utility." Several commenters supported accelerated funding, provided that the accelerated funding period would be long enough. They generally stressed that, if the funding period were too short, non-electric utilities would be placed at a competitive disadvantage, potentially leading to insolvency and premature shutdown of plants. One commenter asserted that the burden of accelerated funding would be most severe for licensees with little time remaining before shutdown. Several commenters offered specific suggestions regarding the length of an accelerated funding period, stating that it should last most or all of the remainder of the license period, two-thirds of the remaining license term or 10 years (whichever is greater), or five-eighths of the remaining license period. One suggested that the licensee or the licensee's parent company should have to pass a financial test for any unfunded amount in order to use accelerated funding. Others cautioned that accelerated funding could interfere with licensees' business planning or lead to negative tax consequences.

For licensees with reactors that have remaining operating lives of less than the accelerated funding period, the accelerated funding option would have no impact because licensees' funding schedules would be no different than they are currently. NRC would have less assurance from these licensees, given that they would no longer recover decommissioning costs through regulated rates and fees or other mandatory charges established by a regulatory body. For licensees associated with reactors that have remaining operating lives longer than the accelerated funding period, the accelerated funding option would be a significantly less burdensome means of demonstrating financial assurance than full, up-front funding. In all cases, however, the relative decrease in burden to the licensee must be weighed against the reduced level of financial assurance provided to NRC during any accelerated funding period.

The length of an accelerated funding period would affect individual licensees differently, depending on the amount of unfunded decommissioning obligation and on the time period that the licensees would otherwise have had to complete the funding. The greater the amount of money that must be funded on an accelerated schedule, the more significant the impact will be on a licensee. For example, assuming licensees are otherwise identical and

have been adequately funding an external sinking fund all along, the impact of a 10-year accelerated funding schedule would be greater for a licensee with 25 years of operating life remaining than for a licensee with 15 years of operating life remaining. (This contrasts with the comment asserting that impacts would be most severe for licensees with little time remaining before shutdown. In fact, the opposite is true, except for licensees that have been making inadequate contributions to their decommissioning sinking funds.)

The NRC believes that the alternative of requiring accelerated funding for all plants over a defined period, to cover the possibility of premature shutdown at some plants, would be too arbitrary and would lead to wide variations in impacts on licensees. Accelerated funding results in the inequitable inter-generational problem of the present generation paying for the decommissioning costs, while the future generation may receive the benefits of future electricity generation without incurring the costs of decommissioning. The suggestion that NRC should allow licensees to use accelerated funding only if they or their parent companies have sufficient assets is analogous to combining a self-guarantee or parent company guarantee with the external sinking fund mechanism. This idea has significant advantages to licensees, and is discussed in Section 7.J, "Combinations of Methods."

Another way to reduce the burden of accelerated funding on licensees would be to ensure that the accelerated contributions are tax deductible. Under current Internal Revenue Service (IRS) rules, accelerated payments into decommissioning funds may not be deductible. However, these tax changes are beyond the NRC's mandate and Congressional or IRS action would be required to accomplish them. Consequently, unless these rules are changed, licensees may be ineligible to receive tax breaks on deposited funds.

For the reasons stated above, the NRC does not consider accelerated funding to provide reasonable decommissioning financial assurance.

D. Parent Guarantees/Self-Guarantees

The commenters generally endorsed parent company guarantees and self-guarantees as a reasonable method of assurance for licensees no longer meeting the definition of "electric utility." However, a number of commenters stated that the financial tests specified in appendices A and C to 10 CFR part 30 are inappropriate for these licensees and would be overly burdensome. Several commenters

suggested specific revisions to NRC's existing financial tests:

- One commenter suggested that NRC allow non-electric utilities to use: (1) A parent company guarantee from a parent meeting the criteria for self-guarantees; and (2) a self-guarantee for licensees meeting at least two of the following criteria:

- Licensee has an investment grade bond rating;
- Licensee's pre-tax income (before interest expense) divided by interest applicable to debt is greater than or equal to 2; and
- Licensee's net worth is at least twice the current remaining unfunded cost of decommissioning in current year dollars.

- One commenter stated that the self-guarantee test's "10 times requirement" for assets should be lower, but did not suggest an alternative threshold.

- One commenter suggested that the financial tests should require total assets in the U.S. and tangible net worth to be one to two times the estimated decommissioning costs, rather than what is currently specified in the tests.

- One commenter suggested that the Commission consider ownership of other revenue-generating assets (besides the nuclear power plant).

- One commenter suggested that the NRC should develop a process similar to the one used by bond-rating agencies to assess the ability of firms to continue repaying principal or to continue paying interest or dividends.

- Finally, one commenter suggested that the NRC allow non-electric utilities to use parent company guarantees in conjunction with other allowable financial assurance methods, such as external sinking funds. (The issue of using parent company guarantees in combination with other mechanisms is discussed in Section 7.J, "Combinations of Methods").

NRC's parent company guarantee is based largely on a financial test developed by the EPA more than 15 years ago. EPA's test was intended to assess the financial condition of firms managing hazardous waste that were seeking to assure closure and post-closure care obligations that are substantially smaller than typical decommissioning costs for power reactors. In adopting these tests, the NRC believed that its objectives for financial assurance would be reasonably met, but recognized that the tests were most appropriate for materials licensees, although, at that time, the financial tests were also made applicable to nuclear power plant licensees who were not "electric utilities." The NRC realized

that most power plant licensees would likely use external sinking funds rather than parent or self-guarantees to provide decommissioning funding assurance, and thus did not perform a detailed analysis of their applicability to power plant licensees.

Because deregulation is still in its earliest phases, it is not yet possible to identify or define the financial characteristics of entities that may ultimately be responsible for reactor decommissioning. Consequently, evaluating or improving the test's applicability to those licensees who are no longer able to recover decommissioning costs through regulated rates and fees or other mandatory charges established by a regulatory body may be difficult, and any criteria that might be developed could become outdated or misleading relatively quickly. Finally, developing and implementing alternative tests (such as those suggested by commenters) could place a substantial burden on the NRC. For these reasons, the NRC is considering any changes to financial tests separate from this rulemaking. Nevertheless, the NRC is implementing some changes to parent and self-guarantees that may make these assurance methods more viable for power reactor licensees. Section 7.J describes these changes in more detail.

E. Surety Methods

Three commenters addressed the issue of surety methods of financial assurance (i.e., surety bonds, letters of credit, lines of credit). The predominant issue raised by these commenters pertained to the limited availability of these mechanisms to licensees no longer meeting the definition of "electric utility." One commenter claimed that because the majority of generating companies will have an assured recovery mechanism through non-bypassable charges, there will be no new market created for surety mechanisms after industry restructuring, and that licensees required to obtain these mechanisms will be faced with significant costs. Another argued that NRC should ascertain the availability of these instruments before issuing a final rule based on the assumption of their availability. This commenter proposed the creation of a Government-managed decommissioning insurance plan to provide such mechanisms (discussed in Section 7.G, "Government-Managed Insurance Plan").

NRC recognizes that there are likely to be limits on the availability of surety mechanisms such as letters of credit, lines of credit, and, in particular, surety

bonds, to licensees trying to demonstrate financial assurance. This limited availability would arise from two factors. First, the amount that would need to be assured under such a mechanism (i.e., the difference between the licensee's decommissioning cost estimate and the current balance in its external sinking fund) could in some cases be quite large and could pose a significant risk to potential providers of the mechanisms. Second, mechanism providers also may view some licensees (those that lose the ability to recover decommissioning costs through regulated rates and fees or other mandatory charges established by a regulatory body) as financially risky ventures given their restructured operations and newly deregulated financial characteristics (e.g., licensees may no longer have guaranteed service areas). Some licensees may be able to obtain these mechanisms only after offering significant levels of collateral to the provider as security. Generating subsidiaries without access to substantial assets other than the nuclear plant may find it difficult to provide the necessary collateral and may be unable to obtain a surety mechanism. Even if surety mechanisms are not available to some licensees, licensees may be able to use prepayment mechanisms (e.g., full up-front funding of the external sinking fund), possibly arranging for the necessary funding prior to restructuring (e.g., before a nuclear plant is placed in a generating subsidiary with few other assets). Licensees may also have access to parent and self-guarantees, which are still less costly.

F. Power Sales Contracts

Commenters suggested two possible roles for power sales contracts in the financial assurance program: (1) As a threshold condition for being able to use the external sinking fund; and (2) as a mechanism for demonstrating financial assurance. One commenter recommended that power sales contracts be accepted as a means by which licensees not meeting NRC's proposed definition of electric utility can qualify to use the broader range of assurance mechanisms—such as the external sinking fund. Another commenter concurred, stating that such contracts would be secured by legislation or a regulatory commission order or both. Commenters also recommended that, for licensees not qualified to use the external sinking fund, an assurance mechanism that would allow a licensee to show that power sales contracts are in place, could provide some or all decommissioning funding.

There is an important difference between using power sales contracts as a threshold criterion, for reactor licensees that lose the ability to recover decommissioning costs through regulated rates and fees or other mandatory charges established by a regulatory body, and as a financial assurance mechanism. As a threshold criterion, power sales contracts would represent evidence of the financial status and prospects (e.g., sales backlog) of a company. These contracts would be considered when private financial organizations assess the credit-worthiness of companies. However, power sales contracts have some disadvantages that work against their use as a threshold criterion. First, power sales contracts may have contingencies that make it difficult to project revenues or earnings. Such contracts are not equivalent to a Government-mandated revenue stream that would fully fund decommissioning costs. It also would be very difficult for NRC to define clearly how it would analyze and evaluate such contracts, potentially creating issues of fairness, consistency, and accountability. For example, the NRC would need to assess whether a given contract covers all licensee costs (including decommissioning), how binding it is, and its effective term. Unlike financial statement data, which can be statistically associated with subsequent financial performance, there is no objective basis or validated test for linking sales contracts to future financial performance. By making it easier for licensees that lose the ability to recover decommissioning costs through regulated rates and fees or other mandatory charges established by a regulatory body, or that do not have access to a Government-mandated revenue stream to use the external sinking fund, acceptance of power sales contracts as a threshold criterion may increase the risk that funds will not be available when needed. However, under certain circumstances that the NRC has specified in this final rule, the NRC believes that long-term contracts can provide levels of decommissioning funding assurance that are equivalent to other acceptable methods.

Power sales contracts also are unlikely to make good financial assurance mechanisms, unless they have terms that provide for payment of decommissioning costs under most likely occurrences. They often lack the provisions needed to ensure effective and continuing coverage (e.g., automatic renewal, notice of cancellation). For example, in *Town of Boylston v. FERC* (21 F.3d 1130, 305 U.S.App.D.C. 382),

municipal purchasers successfully challenged an order to pay reactor decommissioning costs as a charge under their power purchase contracts. Moreover, FERC has authority to impose alternative provisions in the public interest if it finds contracts to be unjust and unreasonable. Power sales contracts often contain contingencies that may make it difficult to determine corresponding levels of revenues. Long-term contracts for the supply of uranium, natural gas, and coal have all been subject to litigation at one point or another because of market or regulatory changes, which may be specifically addressed in contracts or covered under "force majeure"¹ clauses. These contracts typically do not themselves effect the setting aside or guarantee of monies, although contracts could be written to serve as guarantees or to require that proceeds be deposited in external sinking funds. The NRC believes that power sales contracts that contain provisions to mitigate these shortcomings can provide reasonable assurance of decommissioning and have been allowed, under specified conditions, in the final rule.

G. Government-Managed Insurance Plan

Two commenters addressed the NRC's decision to eliminate from future consideration the concept of a captive insurance pool to pay unfunded decommissioning costs. One noted only that it agreed with the decision not to pursue this option. The other commenter, however, disagreed with the decision and urged the NRC instead to investigate the creation of a Government-managed decommissioning insurance plan. Under this plan, the licensee would be able to purchase an insurance policy from the Federal Government. The cost of the policy could be determined by each plant's performance history or Systematic Assessment of Plant Performance (SALP) rating, with poorly run plants paying a higher premium and well-run plants paying a lower premium. The commenter noted that Federal Government participation in private insurance markets is not unprecedented, citing the example of Federal flood insurance. The commenter weakened the force of his example, however, by also pointing out that Federal Government participation in private insurance markets takes place "especially where the risk is not readily subject to management or the level of

potential exposure is large." Clearly, basing premiums on plant performance history implies that the commenter would expect poorly-run plants to close more frequently than well-run plants, suggesting that the risk can be managed.

The commenter advocating further examination of an insurance plan did not make clear whether the commenter favored a captive insurance pool entirely funded by the industry or an insurance system that was funded, completely or partially, by the Federal Government.

The arguments against a captive insurance pool are strong. The participants would be able to cause losses simply by not taking action to set aside adequate funds for decommissioning. Delay in setting aside funds could be beneficial because of the use value of the funds that a licensee could reallocate to some other purpose. In addition, the members of the insurance pool would be in competition with each other, and could shift costs to competitors by means of the insurance pool. Thus, an insurance pool for decommissioning would offer no incentive to licensees to reduce the magnitude of their potential claims on the pool, either from an insurance standpoint (because their decommissioning costs are insured) or from an economic standpoint (because of the advantages to them of delaying payment and of shifting costs to their competitors).

The commenter's suggestion that rates should be based on plant performance is unlikely to satisfactorily address the problem of adverse selection. Those posing higher risks might continue to be more likely to enter an insurance pool, despite being assessed higher rates, thus raising the proportion of high-risk insureds. This could increase the price of the insurance and cause other relatively low-risk entities to avoid entering the pool, even if they were being charged less. The nexus between plant performance, however measured, and likelihood of premature closure is not so clear that the Government agency responsible for the insurance would be able to set premiums accurately. Eventually the proportion of high-risk insureds could increase to the point that providing the insurance becomes unprofitable or impossible. Alternatively, mandatory participation by low-risk insureds could lead to situations in which they were subsidizing the high-risk entities, even with a rate differential.

The commenter did not present any arguments supporting Government management of a decommissioning insurance plan. If such a plan were set

up without the inclusion of Federal funds, there seems to be little reason to assign a Government agency to manage it.

Finally, insurance that is partially or wholly subsidized by the Federal Government, such as flood insurance, would require Congressional action, and is outside the scope of an NRC rulemaking. Thus, the Commission is not pursuing this option further.

H. Regulatory Certification

Only one commenter suggested that NRC should reconsider its dismissal of the possibility of PUC or FERC certification that licensees within their jurisdiction would be allowed to collect sufficient revenues through rates to complete decommissioning funding. That commenter noted that NRC had relied upon the views expressed to the NRC that "no current commission can bind a future commission" and that a PUC "could not give a blanket guarantee that all licensees would be allowed to collect revenues to complete decommissioning funding."

This commenter argued that these uncertainties are "no greater than those associated with cost of service regulation, which certainly does not constitute a 'guarantee' of availability of sufficient decommissioning funds," noting also that the underlying regulatory standard is only one of "reasonable assurance".

The commenter, however, did not address a number of important considerations. First, the opponents of certification are particularly well informed. The comments upon which NRC relied in dismissing certification as an option came from the National Association of Regulatory Utility Commissioners (NARUC) and several State PUCs, that are particularly good sources of information concerning the limits of their own authorities and their ability to bind their successors. Second, the commenter did not address the argument, presented by NEI and endorsed by several PUCs, that new Federal legislation would be necessary to make such certifications binding. Third, the commenter did not address limitations on FERC's jurisdiction, and consequent limitations on FERC's ability to make binding certifications. Finally, the commenter suggested that NRC had adopted a "guarantee of availability" standard rather than the underlying regulatory standard. Given the weight of arguments in opposition to certification, however, NRC has concluded that certification is not a viable financial assurance mechanism.

¹ "Force majeure" refers to items largely beyond the control of the contracting parties (e.g., recession, inflation, severe market changes) that make it equitable to terminate or renegotiate contract terms.

I. "Any Other Method"

A number of commenters stated that NRC should permit more flexibility in the allowable methods for demonstrating reasonable assurance of decommissioning funding, particularly for licensees no longer meeting the definition of "electric utility." Several commenters suggested that NRC review and evaluate licensee-specific funding proposals on a case-by-case basis. Another commenter recommended that NRC allow non-electric utilities to use mechanisms developed by governmental authorities and approved by NRC. Finally, one commenter suggested that NRC grant individual licensees or States the flexibility to develop initiatives/mechanisms for providing reasonable assurance of funding.

Licensees, as discussed in Sections 7.B and 7.E of this statement of considerations, may well encounter cost and availability issues in trying to use some of the financial mechanisms allowed by NRC. In addition, the applicability of the NRC's parent company guarantees and self-guarantees to power reactor licensees is questionable (as discussed in Section 7.D.) because the underlying financial tests were developed primarily for other types of entities assuring smaller decommissioning obligations. Consequently, a case-by-case approach, through which reactor licensees that lose the ability to recover decommissioning costs through regulated rates and fees or other mandatory charges established by a regulatory body, could provide assurance equivalent to the other methods that the NRC is allowing. However, the NRC will need to ensure that the mechanisms used will, in fact, provide adequate financial assurance. Although, the NRC expects that only a very-limited number of licensees will use a case-by-case approach, this will potentially place a resource burden on the NRC to review individual "non-standard" mechanisms.

J. Combinations of Methods

Several commenters stated that NRC should allow utility licensees and, in particular, non-utility licensees to use combinations of mechanisms to demonstrate financial assurance for decommissioning. Two commenters suggested specifically that NRC allow non-electric utility licensees to use parent company guarantees or self-guarantees or both in conjunction with other allowable methods.

NRC's current requirements already allow combinations of mechanisms,

except that two mechanisms—the self-guarantee and the parent company guarantee—may not be used in combination with other mechanisms. Allowing combinations of funding methods increases the regulatory flexibility to licensees trying to meet the requirements. (Note, however, that a licensee using a combination of mechanisms faces a greater administrative burden to obtain its mechanisms and, similarly, NRC faces an increased burden in reviewing multiple mechanisms.) For mechanisms that guarantee payment (e.g., trust fund, payment surety bonds, letters of credit), a combination of mechanisms that equals the total decommissioning cost estimate is unlikely to lead to any difficulty in assuring that decommissioning funds will be used for their intended purpose.

Some mechanisms, however, guarantee performance rather than payment. These mechanisms are self-guarantees, parent company guarantees, performance surety bonds, and some insurance. The terms of these mechanisms promise that the issuer will complete required decommissioning activities if necessary. It can be problematic to combine a performance mechanism with another mechanism (payment or performance) because of the inherent subjectivity in valuing performance. For example, a licensee may wish to combine a \$100,000 parent company guarantee with a \$100,000 letter of credit to assure a decommissioning cost estimate totaling \$200,000. If the guarantor proves to be inefficient in conducting decommissioning, it may spend \$100,000 on activities that should have cost less. In this case, the letter of credit would be inadequate to fund the remaining activities, even though the guarantor could claim to have fulfilled its performance guarantee.²

However, the NRC believes that this problem is of less concern in the specific case of a self-guarantee being used in combination with an external sinking fund because, in this case, the

² In addition, firms providing guarantees must pass an underlying financial test which is not "divisible" under the regulations. For example, parent company guarantors must meet a criterion that they have tangible net worth at least equal to six times "the current decommissioning cost estimates (or prescribed amount if a certification is used)." Either a potential guarantor passes this criterion (and other similar and related criteria) in its entirety or the guarantor fails the test. If the guarantor cannot pass the criteria, then it is ineligible to provide a guarantee in any amount. In this case, combining the guarantee with another mechanism would not be an option. This final rule amends the financial test sections in Appendices A and C to 10 CFR Part 30 to address, in part, this issue.

guarantor has no incentive or ability to shift costs or to avoid greater responsibility. However, if the self-guarantee were to be combined with a mechanism such as a letter of credit, that required the licensee to offer collateral to the issuer, then it is possible that if NRC were to draw on the letter of credit, the bank might seize the licensee's collateral which, in turn, might prevent the licensee from performing under the self-guarantee.

The combination of a parent or self-guarantee and an external sinking fund also appears to provide a relatively low-cost means for licensees to demonstrate financial assurance while continuing to gradually fund decommissioning costs over time (either on the current schedule or on an accelerated schedule). Because of the low costs of guarantees, however, allowing this combination of mechanisms could create an incentive for licensees to delay or cease payments into the sinking fund and, instead, to rely on the guarantee for as much of the cost as possible. Given the magnitude of typical decommissioning costs for reactors, this possibility could hinder the timely conduct of decommissioning. In other words, decommissioning could be significantly delayed if, because of a licensee's inadequate contributions to its sinking fund, a guarantor had to come up with large amounts of money at the time of decommissioning.

The NRC generally believes that it should not allow licensees to use parent company guarantees and self-guarantees in combination with each other to assure decommissioning obligations. Because parent companies typically consolidate the financial statements of all their subsidiaries into their own financial statements, combining parent company guarantees and self-guarantees could result in double counting of the same limited financial strength to pass separate financial tests (e.g., one for costs covered by a parent company guarantee, and one for costs covered by a self-guarantee).

In sum, the NRC has eliminated the prohibition on combining parent company or self-guarantees with external sinking funds. The NRC will also consider other combinations of mechanisms on a case-by-case basis when the aforementioned concerns are addressed.

K. Required Timing of Alternative Methods

Several commenters wrote that the NRC should allow affected licensees an extended period of time to secure alternative financial assurance mechanisms. One commenter stated that NRC's current regulations allow a

licensee 30 days to develop a submittal describing how decommissioning funding will be assured if the licensee no longer satisfies a given criterion (e.g., the definition of "electric utility"). This commenter recommended that NRC allow licensees 180 days in these instances, and also suggested that NRC allow licensees to continue making payments to their existing decommissioning funds until NRC approves the alternative funding submittal. Another commenter stressed that NRC should allow "adequate transition time for legislative and regulatory changes to accommodate the new definition of 'electric utility'."

The comments presented the argument that licensees will need more time to obtain alternative financial assurance mechanisms (e.g., 180 days) than they would in the event of the cancellation of an existing mechanism (only 30 days). This argument ignores the fact that deregulation will not occur instantly and unexpectedly. Licensees are likely to have months or even years to evaluate whether they may be able to recover decommissioning costs through regulated rates and fees or other mandatory charges established by a regulatory body and what mechanisms they might use to demonstrate financial assurance if and when that occurs. Consequently, no additional time should be provided to licensees in response to this comment.

8. Federal Licensees

A. Applicability to Federal Licensees

A number of commenters argued that financial assurance requirements for electric utilities should apply equally to Federal licensees, that no special treatment should be afforded Federal licensees, and that all licensees should satisfy the same requirements. One stated explicitly that "Federal" licensees should be required to provide the same level of financial assurance as other power reactor licensees, but qualified his comment by stating that "the proposed rule should ensure that at such time as these Federal entities become private enterprises, they are subject to the definition of 'electric utility.' In doing so, they must provide the same measures of financial assurance currently required to electric utilities, i.e., they must provide the same level of external funding or other assurance that would otherwise have been required of them from the initial issuance of their operating license." This commenter apparently did not oppose the use of statements of intent by Federal licensees, until the point at which they become private.

The Tennessee Valley Authority (TVA), the only current Federal licensee for a nuclear power reactor, was the sole commenter that argued in favor of special provisions that would apply only to Federal licensees. It noted, in particular, that under Federal law it is required to charge rates for power that will produce gross revenues sufficient to cover all operating expenditures of the power system, and that such operating expenses are considered to include decommissioning costs. TVA's arguments are evaluated below.

B. Definition of "Federal Licensee"

Several commenters made identical, or almost identical, recommendations concerning the definition of Federal licensee. Each supported the intent of the definition, which they considered to be to exclude from the definition any Federal agency whose obligations do not constitute the obligations of the United States. However, each recommended that the definition be modified to define a Federal licensee as "any NRC licensee, the obligations of which are guaranteed by and supported by the full faith and credit of the United States Government." Each argued, without explaining fully, that the term "full faith and credit backing" is neither defined nor commonly used in other legislation relating to Federal agencies.

Presumably, the commenters who found the phrase "full faith and credit backing" ambiguous did so because it does not specify that *all* obligations of the entity are backed by the credit of the Federal Government, nor does it say explicitly that the obligations are "guaranteed," as does the proposed replacement definition. The proposed replacement definition thus is slightly more precise. Much of the suggested definition has been used previously and commonly in legislation pertaining to Federal agencies. Thus, it would have the advantage of removing any ambiguity that might arise from using a totally new definition. A preliminary search of the United States Code, Annotated, uncovered a number of situations in which the proposed phrase is used. For example, under Chapter 50 of Title 7, the Secretary of Agriculture is empowered under 7 U.S.C.A. 1928, to guarantee certain agricultural credit real estate loans and emergency loans. Section 1928 specifies that contracts of insurance or guarantee executed by the Secretary under Chapter 50 "shall be an obligation supported by the full faith and credit of the United States." Similarly, the Secretary of the Interior is empowered under Title 16 of the U.S. Code to insure certain loans of private lenders. Section 470d of Title 16

provides that "Any contract of insurance executed by the Secretary under this section * * * shall be an obligation supported by the full faith and credit of the United States. * * *" Finally, under Title 42, Chapter 7 (Social Security) of the U.S. Code, the Secretary of the Treasury can issue obligations for purchase by the social security trust fund. Section 401 of Title 42 provides that "the obligation is supported by the full faith and credit of the United States. * * *" The commenters appear to have identified the phrase generally used to describe such an obligation, and therefore replacement of the current definition of "Federal licensee" with the definition suggested by the commenters appears warranted.

TVA argued against the proposed definition of Federal licensee because the proposed definition would preclude TVA's use of the statement of intent. In its view, there are "ample reasons" to support the continued use of the statement of intent by TVA. In particular, TVA argued that with respect to decommissioning funding assurance, "the key fact is that Federal law requires TVA to adequately fund the conduct of TVA's power activities, and this includes operating, maintaining, and decommissioning its nuclear facilities." TVA pointed out that even before decommissioning funding assurance requirements from NRC, TVA was taking action to ensure that funds would be available to decommission its nuclear units. TVA argues, in effect, that a financial assurance requirement other than the statement of intent amounts to "imposing separate regulatory requirements to oversee the manner in which TVA is meeting its statutory requirements. * * *"

These arguments amount, in sum, to an assertion that because TVA is subject to an existing statutory requirement to fund decommissioning, the Commission should not impose any different, or additional, requirements. TVA maintains that the NRC should have reasonable assurance that TVA will have adequate funding to ensure the conduct of decommissioning activities "because Federal law requires TVA to provide such funds." (emphasis in original)

It also could be correctly said, however, that Federal law requires other reactor licensees to provide reasonable assurance of decommissioning funding. The purpose of financial assurance is to present a second line of defense, if the financial operations of the licensee are insufficient, by themselves, to ensure that sufficient funds are available to carry out decommissioning. TVA

apparently concedes that its obligations are not supported by the full faith and credit of the United States Government; therefore, if TVA cannot fund the decommissioning, the Federal Government is not obligated to do so. Although the TVA board has the authority to set electric power rates to meet power system obligations, including decommissioning, it may not, contrary to its assertions, have the "unfettered ability" to do this, because its markets may not support such rates. TVA noted that its current business plan recommends an offer to its distributor customers to change their power contracts after 5 years from a rolling 10-year term to a rolling 5-year term.

TVA appears to misunderstand the purpose of the statement of intent, which is to obtain a commitment by another, and superior, governmental entity that the obligations of the subordinate governmental entity will be paid by the superior entity if the subordinate entity cannot pay them. Absent such a commitment, which would be represented by support for the obligations by the full faith and credit of the United States, there is no "statement of intent" upon which TVA can "continue to be able to rely."

Following publication of this rule, the NRC will review TVA's current decommissioning financial assurance arrangements and determine whether any actions are required in light of the added definition of "Federal licensee." The publication of this rule, by itself, does not constitute an action of the NRC with respect to TVA's current decommissioning financial assurance.

9. Reporting on the Status of Decommissioning Funds

A. Use of Financial Accounting Standards Board (FASB) Standard

The commenters generally did not oppose reporting to NRC on the status of decommissioning funding assurance in accordance with the requirements of a final FASB promulgation, on the grounds (as expressed by NEI) that a standard reporting mechanism should be used that does not add unnecessary burden. However, several commenters did oppose a requirement that they use the preliminary FASB exposure draft, or any other FASB-based position that is not final. They argued that changes from the proposed to the final FASB standard, which cannot be predicted because the standard is still under development, could make it inappropriate for meeting NRC's endorsement. Unless the FASB standard is adopted soon, these commenters argued, other reporting options should

be adopted. Some commenters suggested that regulatory language need not be changed, but that the contents of DG-1060 would need to be amended to reduce the reliance on the FASB draft.

Some commenters went further, and expressed criticisms of the FASB exposure draft, indicating that even if it became final in its current form they would not find it appropriate for use. In the view of these commenters, merely recognizing the liability and periodic expense for decommissioning, which is the focus of the FASB draft, is not sufficient to ensure adequate funding. In their view, the FASB standards establish accounting procedures but are not the appropriate computations for determining necessary cash flows for funding external trusts. One commenter stressed that the focus of the FASB draft, as well as issues concerning the appropriate discount rate, also made the FASB standard questionable for NRC's purposes.

Neither the timing nor the ultimate contents of a FASB standard can be predicted at this time, and therefore the conclusion is warranted that alternative requirements should be found. According to a FASB report of January 14, 1998, the Board reviewed the status of the project in its October 2, 1997, meeting and decided it should proceed toward either a second Exposure Draft or a final Statement. However, at its November 26, 1997, meeting, the Board eliminated certain key provisions in the exposure draft relating to the scope of the Statement. According to FASB's "Current Developments and Plans for 1998":

FASB will be developing a refined definition of closure/removal costs that would be applicable to a more general class of long-lived assets than those covered by the Exposure Draft. The Board will also be addressing the question of whether the costs of closure/removal obligations should be capitalized and will develop criteria to identify constructive obligations. At this time, there is no time frame regarding the issuance of a document or final statement.

Although the timing of future action on the draft is uncertain, reanalysis of the scope issue by the FASB staff during the first quarter of 1998, as well as FASB's statement that it is postponing other issues raised on the Exposure Draft until further progress is made on another Exposure Draft, suggests that action by FASB to issue a final Statement, or even a revised Exposure Draft, will be delayed for a considerable time. Notwithstanding any final FASB action, the NRC can proceed with its own requirement for reporting on the status of decommissioning funds.

B. Frequency of Reports

Most commenters endorsed "periodic" reports to monitor the status of decommissioning assurance. Several commenters, particularly those from State PUCs, supported requiring a report soon (nine months) after the rule becomes effective, and at least every two years thereafter. (Other commenters from utilities suggested every three years or every 5 years thereafter. The 5-year period was suggested to correspond to the recommended 5-year adjustment to site-specific cost estimates specified in Regulatory Guide 1.159.) A majority of the commenters also endorsed that utilities nearing decommissioning or in the process of decommissioning submit reports annually. However, commenters noted ambiguity in the requirement that reports should be submitted annually by licensees of plants that are within 5 years of their projected end of operations. Although agreeing with the concept of such annual reporting, they noted that "the projected end of operations" should be clarified so that it clearly covered premature shutdowns and not just plants within 5 years of the end of their operating licenses. Several State commissions submitted almost identical proposed language amending § 50.75(f) of the proposed rule to require reporting by licensees for a plant within 5 years of the projected end of operations, "or where conditions have changed such that it will close within 5 years (before the end of its licensed life) or has already closed (before the end of its licensed life) * * *." Requiring annual reporting on a calendar-year basis would, in the opinion of one commenter, reduce the administrative burden of annual reporting because that is how licensees generally gather and accumulate the required information. Another argued that reporting trust fund balances on an annual basis suggested that reports should be required by March 31 for the previous calendar year.

Other commenters noted that when State regulatory bodies require annual reporting on the status of decommissioning funds, as many do, NRC's interests are already protected. One commenter could find no added safety justification for requiring annual reporting within 5 years of decommissioning. A complete report could be required every 5 years, in the opinion of this commenter, with updates annually or biennially.

Another commenter recommended that NRC delay the reporting requirements until a Pacific Northwest National Laboratory (PNNL) study is final. However, the Commission's position is that such a delay would deny

the NRC and the public the benefits of the information required to be reported while conferring negligible benefits on licensees.

Given NRC's information needs, and the multi-million-dollar size of the contributions that utilities make annually to their decommissioning funds, the potential pay-off per hour of staff labor that NRC invests in monitoring of funds is likely to be significant. Thus, the NRC is adopting a biennial reporting requirement. NRC also is adopting commenter suggestions that the reporting frequency be increased for plants approaching the end of commercial operation and for plants where conditions have changed such that they will prematurely close within 5 years or have already prematurely closed before the end of their licensed life, or for plants involved in mergers/acquisitions.

C. Contents of Reports

Most of the commenters who addressed reporting did not question the need for reports on the status of decommissioning funds and they did not address in detail the contents of such reports. Similarly, most of the commenters who raised questions about reliance on the FASB draft for decommissioning status reporting did not recommend alternative reporting standards. Several commenters implicitly suggested that the contents of reports submitted to State PUCs would be sufficiently similar to NRC's requirements, by recommending that copies of State reports should be acceptable to NRC.

One commenter argued that NRC's proposed "per unit" reporting was unclear about whether individual licensees of a jointly owned plant would each be required to submit their own status reports, or whether the plant operator could submit reports on behalf of all co-licensees. The commenter suggested that having the operator submit the data for all owners could be the most efficient approach, assuming the aggregate of available funds is the most important question. In contrast, another commenter believed that it would be "prudent" for NRC to require annual filings from all co-owners. Requiring filings by all co-owners would provide NRC with more detailed information, but would also place on it the burden of combining and assessing the data. The NRC believes that plant owners and operators should decide who will submit the required information. However, even if all information is submitted by the operator, the information will need to be broken down by owner in order to

evaluate each owner's contributions to decommissioning.

One commenter recommended a clarification to ensure that the amount accumulated to the date of the report means the "as of" date, and not the date of the report. The same commenter wanted to limit the report to the single item of accumulated trust fund balances, unless NRC had concerns, based on its knowledge of the plant, about whether the amount accumulated for decommissioning is sufficient. In that case, more detailed information could be required.

The comments did not address several issues raised by commenters on the NRC's Advance Notice of Proposed Rulemaking (ANPR) of April 8, 1996 (61 FR 15427) concerning the information needed by NRC to monitor the status of decommissioning funds. In particular, the comments on the proposed rule did not address the 50-plus reporting items suggested by commenters in response to the ANPR.

How the industry will understand the core concept of the reporting requirement, the "status of the decommissioning fund," is not clarified by the comments on the proposed rule. At least one commenter suggested that "status" means simply the "amount" of the decommissioning trusts. Other commenters may be suggesting, by their emphasis on the responsibility of an operator to coordinate information from several co-owners, and on the possibility that NRC might need to obtain follow-up information, that "status" can include a quantitative or qualitative assessment of the "adequacy" of the fund relative to required or estimated decommissioning costs. The extent of that assessment is not clarified by the comments received, which do not address whether "status" implies a general discussion provided by the licensee or a specific report prepared by the trustee. The NRC has addressed some of the commenters' concerns discussed above by modifying the final rule. Because of their level of detail, other potential concerns are better addressed by a regulatory guide. The NRC will consider issuing such guidance after evaluating the first set of reports received.

10. Rate of Return

NRC's proposed language in 10 CFR 50.75(e)(1)(i) and (ii) allows licensees to take credit for earnings on their prepaid decommissioning trust funds or external sinking funds using a 2 percent annual real rate of return from the time of the funds' collection through the decommissioning period. If the licensee's rate-setting authority

authorizes the use of another rate, that rate would be used in projected earnings. By specifying that earnings can be credited "through the decommissioning period," NRC is allowing licensees to assume earnings credits for both the safe storage period and the period when funds flow out of the decommissioning financial assurance mechanisms.

Many commenters generally supported NRC's proposed changes in 10 CFR 50.75. Some described the rate as being reasonable, conservative, and consistent with FERC's policy of recognizing earnings and inflation. One commenter specifically endorsed the provision that allows licensees to use assumed rates of return that are approved by State regulatory bodies. A few commenters supported the changes but stated that licensees also should be given the flexibility to use a rate that is less than the proposed rate.

Other commenters did not support NRC's selection of the 2 percent rate. One commenter claimed that the proposed 2 percent rate might result in underfunding if it does not account for the effect of income taxes. More typically, commenters argued that the rate is too low and should be increased. Suggested rates were 3 percent and 7 percent. Two commenters noted that 3 percent and 7 percent discount rates are used in NRC's regulatory analysis guidance (in NUREG/BR-0058 and SECY 93-167). Other commenters stated that NRC should allow licensees to use any "realistic" rate of return or any rate they can justify, possibly in conjunction with periodic reevaluation of the funds collected. A few commenters argued that NRC should not specify a 2 percent rate of return during the period following operations (i.e., the safe storage and outflow periods) and that different rates should be allowed if specifically approved by a rate-setting authority.

As stated in the preamble to the proposed rule, the 2 percent real rate of return suggested by NRC is based on historical data on returns from U.S. Treasury issues, and represents "as close to a 'risk-free' return as possible." Although this rate may seem relatively low given that higher interest rates are frequently paid on common stocks and corporate bonds, the lower rates paid on Government securities pose considerably less risk and are likely to be achieved on a more consistent basis.

Given the need for "reasonable" assurance of decommissioning funding, there is little justification for selecting a rate greater than 2 percent. As shown in the table below, the historical average real return on long-term U.S.

Government bonds has been very close to 2 percent, and the historical average

real return on "risk-free" U.S. Treasury Bills has been less than 1 percent. Based

on this information, NRC would have difficulty justifying a higher rate.

REAL RATES OF RETURN FOR SAMPLE TIME PERIODS

Rate	U.S. treasury bills (percent)	Long-term government bonds (percent)
Current (1997)	3.49	13.91
Contemporary Average (1975–1994)	1.96	7.65
Long-Term Average (1926–1997)	0.6	2.1

Source: Ibbotson Associates, Chicago. Stocks, Bonds, Bills and Inflation: 1998 Yearbook, Table 4–1 and Table 6–8. Averages are calculated as geometric means.

The commenter's concern that 2 percent is less than the 7 percent and 3 percent discount rates called for in NRC's regulatory analysis guidance is not relevant.³ Discount rates are used for capital investment analysis and other decision-making purposes but, if used to calculate contributions to decommissioning funds, could result in financial assurance levels that are not adequate to pay for all assured obligations.

11. Other

A. Cost Recovery through Rates

Several commenters opposed the inclusion of any mechanism that provides for a stranded cost bailout of the nuclear industry by ratepayers, arguing, among other things, that such a bailout would be unfair, destroy real competition, inhibit employment gains, slow the economic growth of more viable, cost effective, and less polluting power generating technologies, and harm the environment by allowing the continued operation of nuclear power stations that might otherwise shut down. These comments may reflect a misunderstanding of the roles played by NRC relative to State PUCs and FERC. Specifically, PUCs and FERC can determine whether decommissioning costs are stranded or whether they must be paid by ratepayers. NRC, unlike the PUCs, does not have the authority to prevent or to allow licensees to pass decommissioning costs on to customers. Thus, the issue of a "bailout" is not relevant to NRC. In the event that NRC allows financial assurance mechanisms whereby licensees recover decommissioning costs from ratepayers (e.g., external sinking funds funded by wire charges), the mechanism for rate

recovery (e.g., the wire charges) must be authorized by a PUC or by FERC. Furthermore, the asserted consequences of a "stranded cost bailout" are unsupported.

B. Rate Recovery of Stranded Costs Using PNPL's Formula

One commenter suggested that utilities be allowed to recover in their rates only a portion of their decommissioning costs. Specifically, the commenter suggested allowing decommissioning costs to be recovered up to a maximum amount determined using PNPL's 1993 generic decommissioning cost formula. Estimated costs in excess of the generic PNPL estimate could not be recovered in rates and would have to be funded by shareholders. Also, in the event of premature shutdown, the commenter would make shareholders (rather than ratepayers) responsible for all decommissioning costs that are not yet funded, including any unfunded portion of the generic PNPL estimate.

The comment described above addresses how decommissioning costs, including stranded decommissioning costs, might equitably be divided between ratepayers and shareholders. However, the comment is not directly relevant to decommissioning financial assurance. From NRC's standpoint, it does not matter whether the source for a licensee's financial assurance is the licensee's ratepayers or its shareholders, but only that the licensee has provided adequate financial assurance for decommissioning. The question of how much of the decommissioning cost should be borne by ratepayers as opposed to shareholders is one that has traditionally been answered by State PUCs. NRC, unlike the PUCs, does not have the authority to direct licensees to recover costs from ratepayers. Although the NRC did sponsor the development of PNPL's 1993 generic decommissioning cost formula, this formula, like its predecessor in 10 CFR 50.75(c), was designed to help answer a different question, namely, what

constitutes a reasonable minimum level of decommissioning assurance for a given reactor. Within this more limited context (and outside the scope of this rulemaking), NRC is currently evaluating the 1993 formula relative to 10 CFR 50.75(c).

Finding of No Significant Environmental Impact: Availability

The NRC is amending its regulations on financial assurance requirements for the decommissioning of nuclear power plants. The amendments are in response to the likelihood of deregulation of the power generating industry and resulting questions on whether current NRC regulations concerning decommissioning funds and their financial mechanisms will need to be modified. The amendments allow a broader range of assurance mechanisms than under existing regulations for reactor licensees that lose the ability to recover decommissioning costs through regulated rates, add definitions of "Federal licensee" to address the issue of which licensees may use statements of intent and other relevant terms, and require power reactor licensees to report periodically on the status of their decommissioning funds and on the changes in their external trust agreements. Also, the amendments allow licensees to take credit for the actual and projected earnings on decommissioning trust funds.

These changes would have the following effects on nuclear power reactor licensees: (1) Potentially requiring licensees who have been "deregulated" to secure decommissioning financial assurance instruments that provide full *current* assurance for projected decommissioning costs, (2) limiting the types of licensees that can qualify for the use of Statements of Intent to satisfy decommissioning financial assurance requirements, (3) requiring periodic reporting on the status of their accumulation of decommissioning funds, thus leading to the potential for the NRC to require some remedial action

³ NUREG/BR-0058 generally calls for the use of a 7 percent discount rate, which is the rate recommended by the Office of Management and Budget (OMB), in the estimation of values and impacts of a regulatory action. NUREG/BR-0058 also suggests use of an alternative discount rate of 3 percent for sensitivity analysis purposes and for cases in which costs occur over a period of more than 100 years.

if the licensee's actions are inadequate, and (4) permitting licensees to assume a real rate of return up to 2 percent per annum, or such other rate as is permitted by a PUC or the FERC, on their accumulated funds. These actions are of the type focused upon financial assurances and mechanisms to ensure funding for decommissioning and are not actions that would have any effect upon the human environment. Neither this action nor the alternatives considered in the Regulatory Analysis supporting this final rule would lead to any increase in the effect on the environment of the decommissioning activities considered in the final rule published on June 27, 1988 (53 FR 24018), as analyzed in the "Final Generic Environmental Impact Statement on Decommissioning of Nuclear Facilities" (NUREG-0586, August 1988).⁴

Promulgation of these rule changes will not introduce any impacts on the environment not previously considered by the NRC. Therefore, the Commission has determined, under the National Environmental Policy Act of 1969, as amended, and the Commission's regulations in subpart A of 10 CFR part 51, that this rule is not a major Federal action significantly affecting the quality of the human environment and, therefore, an environmental impact statement is not required. No other agencies or persons were contacted in reaching this determination, and the NRC staff is not aware of any other documents related to consideration of whether there would be any environmental impacts from the action. The foregoing constitutes the environmental assessment and finding of no significant impact for this final rule.

Paperwork Reduction Act Statement

This final rule amends information collection requirements that are subject to the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 et seq.). These requirements were approved by the Office of Management and Budget, approval number 3150-0011.

The public reporting burden for this information collection is estimated to average 8 hours per response, including the time for reviewing instructions,

searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the information collection. Send comments on any aspect of this information collection, including suggestions for reducing the burden, to the Information and Records Management Branch (T-6 F33), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by Internet electronic mail at bjs1@nrc.gov; and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-(3150-0011), Office of Management and Budget, Washington, DC 20503.

Public Protection Notification

If an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

Regulatory Analysis

The Commission has prepared a Regulatory Analysis of this regulation. The analysis examines the costs and benefits of the alternatives considered by the Commission. Interested persons may examine a copy of the Regulatory Analysis at the NRC Public Document Room, 2120 L Street NW (Lower Level), Washington, DC. Single copies of the analysis may be obtained from Brian J. Richter, Office of Nuclear Reactor Regulation (O-10 H5), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, telephone (301) 415-1978, e-mail bjr@nrc.gov.

Regulatory Flexibility Certification

As required by the Regulatory Flexibility Act of 1980, 5 U.S.C. 605(b), the Commission certifies that this rule will not have a significant economic impact on a substantial number of small entities. This rule affects only the licensing and operation of nuclear power plants. The companies that own these plants do not fall within the scope of the definition of "small entities" set forth in the Regulatory Flexibility Act or the Small Business Size Standards set out in regulations issued by the Small Business Administration at 13 CFR part 121.

Backfit Analysis

The Regulatory Analysis for the final rule also constitutes the documentation for the evaluation of backfit requirements, and no separate backfit analysis has been prepared. As defined in 10 CFR 50.109, the backfit rule applies to

* * * modification of or addition to systems, structures, components, or design of a

facility; or the design approval or manufacturing license for a facility; or the procedures or organization required to design, construct or operate a facility; any of which may result from a new or amended provision in the Commission rules or the imposition of a regulatory staff position interpreting the Commission rules that is either new or different from a previously applicable staff position * * *.

The amendments to NRC's requirements for the financial assurance of decommissioning of nuclear power plants allow a broader range of assurance mechanisms for reactor licensees who lose their ability to recover decommissioning costs through regulated rates and fees or other mandatory charges established by a regulatory body than previously, and define "Federal licensee." The amendments also add several associated definitions; add new reporting requirements pertaining to the use of prepayment and external sinking funds; impose new reporting requirements for power reactor licensees on the status of decommissioning funding that specify the timing and contents of such reports; and permit power reactor licensees to take credit for up to a 2 percent annual real rate of return (or another rate if permitted by their rate regulators) on funds set aside for decommissioning from the time the funds are set aside through the end of the decommissioning period.

Although some of the changes to the regulations are reporting requirements, which are not covered by the backfit rule, other elements in the changes are considered backfits because they would modify, supplement, or clarify the regulations with respect to: (1) Acceptable decommissioning funding options under various scenarios; and (2) which licensees may use statements of intent. The Commission has concluded, on the basis of the documented evaluation required by 10 CFR 50.109(a)(4) and set forth in the Regulatory Analysis, that the new or modified requirements are necessary to ensure that nuclear power reactor licensees provide for adequate protection of the health and safety of the public in face of a changing competitive and regulatory environment not envisioned when the reactor decommissioning funding regulations were promulgated and that the changes to the regulations are in accord with the common defense and security. Therefore, the NRC has determined to treat this action as an adequate protection backfit under 10 CFR 50.109(a)(4)(ii). Consequently, a backfit analysis is not required and the cost-benefit standards of 10 CFR 50.109(a)(3)

⁴ Copies of NUREG-0586 are available for inspection or copying for a fee from the NRC Public Document Room at 2120 L Street NW. (Lower Level) Washington, DC 20555-0001; telephone (202) 634-3273; fax (202) 634-3343. Copies may be purchased at current rates from the U.S. Government Printing Office, PO Box 370892, Washington, DC 20402-9328; telephone (202) 512-2249; or from the National Technical Information Service by writing NTIS at 5285 Port Royal Road, Springfield, VA 22161.

do not apply. Further, these changes to the regulations are required to satisfy 10 CFR 50.109(a)(5).

Small Business Regulatory Enforcement Fairness Act

In accordance with the Small Business Regulatory Enforcement Fairness Act of 1996, the NRC has determined that this action is a major rule and has verified this determination with the Office of Information and Regulatory Affairs of the Office of Management and Budget.

List of Subjects

10 CFR Part 30

Byproduct material, Criminal penalties, Government contracts, Intergovernmental relations, Isotopes, Nuclear Materials, Radiation protection, Reporting and recordkeeping requirements.

10 CFR Part 50

Antitrust, Classified information, Criminal penalties, Fire protection, Intergovernmental relations, Nuclear power plants and reactors, Radiation protection, Reactor siting criteria, Reporting and recordkeeping requirements.

For the reasons set out in the preamble and under the authority of the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974, as amended and 5 U.S.C. 552 and 553, the NRC is adopting the following amendments to 10 CFR parts 30 and 50.

PART 30—RULES OF GENERAL APPLICABILITY TO DOMESTIC LICENSING OF BYPRODUCT MATERIAL

1. The authority citation for part 30 continues to read as follows:

Authority: Secs. 81, 82, 161, 182, 183, 186, 68 Stat. 935, 948, 953, 954, 955, as amended, sec. 234, 83 Stat. 444, as amended (42 U.S.C. 2111, 2112, 2201, 2232, 2233, 2236, 2282); secs. 201, as amended, 202, 206, 88 Stat. 1242, as amended, 1244, 1246 (42 U.S.C. 5841, 5842, 5846).

Section 30.7 also issued under Pub. L. 95-601, sec. 10, 92 Stat. 2951 as amended by Pub. L. 102-486, sec. 2902, 106 Stat. 3123, (42 U.S.C. 5851). Section 30.34(b) also issued under sec. 184, 68 Stat. 954, as amended (42 U.S.C. 2234). Section 30.61 also issued under sec. 187, 68 Stat. 955 (42 U.S.C. 2237).

2. In 10 CFR part 30, appendix A paragraphs II.A.1(ii), (iv), II.A.2(ii), and (iv) are revised to read as follows:

Appendix A—Criteria Relating to Use of Financial Tests and Parent Company Guarantees for Providing Reasonable Assurance of Funds for Decommissioning

* * * * *

II. Financial Test

A. * * *

1. * * *

(ii) Net working capital and tangible net worth each at least six times the current decommissioning cost estimates for the total of all facilities or parts thereof (or prescribed amount if a certification is used), or, for a power reactor licensee, at least six times the amount of decommissioning funds being assured by a parent company guarantee for the total of all reactor units or parts thereof (Tangible net worth shall be calculated to exclude the net book value of the nuclear unit(s)); and

* * * * *

(iv) Assets located in the United States amounting to at least 90 percent of the total assets or at least six times the current decommissioning cost estimates for the total of all facilities or parts thereof (or prescribed amount if a certification is used), or, for a power reactor licensee, at least six times the amount of decommissioning funds being assured by a parent company guarantee for the total of all reactor units or parts thereof.

2. * * *

(ii) Tangible net worth each at least six times the current decommissioning cost estimates for the total of all facilities or parts thereof (or prescribed amount if a certification is used), or, for a power reactor licensee, at least six times the amount of decommissioning funds being assured by a parent company guarantee for the total of all reactor units or parts thereof (Tangible net worth shall be calculated to exclude the net book value of the nuclear unit(s)); and

* * * * *

(iv) Assets located in the United States amounting to at least 90 percent of the total assets or at least six times the current decommissioning cost estimates for the total of all facilities or parts thereof (or prescribed amount if a certification is used), or, for a power reactor licensee, at least six times the amount of decommissioning funds being assured by a parent company guarantee for the total of all reactor units or parts thereof.

* * * * *

3. In 10 CFR part 30 appendix C, paragraphs II.A.(1) and (2) are revised to read as follows:

Appendix C—Criteria Relating to Use of Financial Tests and Self Guarantees for Providing Reasonable Assurance of Funds for Decommissioning

* * * * *

II. Financial Test

A. * * *

(1) Tangible net worth at least 10 times the total current decommissioning cost estimate for the total of all facilities or parts thereof (or the current amount required if

certification is used), or, for a power reactor licensee, at least 10 times the amount of decommissioning funds being assured by a self guarantee, for all decommissioning activities for which the company is responsible as self-guaranteeing licensee and as parent-guarantor for the total of all reactor units or parts thereof (Tangible net worth shall be calculated to exclude the net book value of the nuclear unit(s)).

(2) Assets located in the United States amounting to at least 90 percent of total assets or at least 10 times the total current decommissioning cost estimate for the total of all facilities or parts thereof (or the current amount required if certification is used), or, for a power reactor licensee, at least 10 times the amount of decommissioning funds being assured by a self guarantee, for all decommissioning activities for which the company is responsible as self-guaranteeing licensee and as parent-guarantor for the total of all reactor units or parts thereof.

* * * * *

PART 50—DOMESTIC LICENSING OF PRODUCTION AND UTILIZATION FACILITIES

4. The authority citation for Part 50 continues to read as follows:

Authority: Secs. 102, 103, 104, 105, 161, 182, 183, 186, 189, 68 Stat. 936, 937, 938, 948, 953, 954, 955, 956, as amended, sec. 234, 83 Stat. 1244, as amended (42 U.S.C. 2132, 2133, 2134, 2135, 2201, 2232, 2233, 2236, 2239, 2282); secs. 201, as amended, 202, 206, 88 Stat. 1242, as amended, 1244, 1246 (42 U.S.C. 5841, 5842, 5846).

Section 50.7 also issued under Pub. L. 95-601, sec. 10, 92 Stat. 2951 (42 U.S.C. 5851). Section 50.10 also issued under secs. 101, 185, 68 Stat. 955 as amended (42 U.S.C. 2131, 2235), sec. 102, Pub. L. 91-190, 83 Stat. 853 (42 U.S.C. 4332). Sections 50.13, 50.54(dd), and 50.103 also issued under sec. 108, 68 Stat. 939, as amended (42 U.S.C. 2138). Sections 50.23, 50.35, 50.55, and 50.56 also issued under sec. 185, 68 Stat. 955 (42 U.S.C. 2235). Sections 50.33a, 50.55a and Appendix Q also issued under sec. 102, Pub. L. 91-190, 83 Stat. 853 (42 U.S.C. 4332). Sections 50.34 and 50.54 also issued under sec. 204, 88 Stat. 1245 (42 U.S.C. 5844). Section 50.37 also issued under E.O. 12829, 3 CFR 1993 Comp., p. 570; E.O. 12958, as amended, 3 CFR, 1995 Comp., p. 333; E.O. 12968, 3 CFR 1995 Comp., p. 391. Sections 50.58, 50.91, and 50.92 also issued under Pub. L. 97-415, 96 Stat. 2073 (42 U.S.C. 2239). Section 50.78 also issued under sec. 122, 68 Stat. 939 (42 U.S.C. 2152). Sections 50.80-50.81 also issued under sec. 184, 68 Stat. 954, as amended (42 U.S.C. 2234). Appendix F also issued under sec. 187, 68 Stat. 955 (42 U.S.C. 2237).

5. In § 50.2, the definitions of *Cost of service regulation*, *Federal licensee*, *Incentive regulation*, *Non-bypassable charges*, and *Price-cap regulation* are added in alphabetical order to read as follows:

§ 50.2 Definitions.

* * * * *

Cost of service regulation means the traditional system of rate regulation, or similar regulation, including "price cap" or "incentive" regulation, in which a rate regulatory authority generally allows an electric utility to charge its customers the reasonable and prudent costs of providing electricity services, including capital, operations, maintenance, fuel, decommissioning, and other costs required to provide such services.

* * * * *

Federal licensee means any NRC licensee, the obligations of which are guaranteed by and supported by the full faith and credit of the United States Government.

* * * * *

Incentive regulation means the system of rate regulation in which a rate regulatory authority establishes rates that an electric generator may charge its customers that are based on specified performance factors, in addition to cost-of-service factors.

* * * * *

Non-bypassable charges mean those charges imposed over an established time period by a Government authority that affected persons or entities are required to pay to cover costs associated with the decommissioning of a nuclear power plant. Such charges include, but are not limited to, wire charges, stranded cost charges, transition charges, exit fees, other similar charges, or the securitized proceeds of a revenue stream.

* * * * *

Price-cap regulation means the system of rate regulation in which a rate regulatory authority establishes rates that an electric generator may charge its customers that are based on a specified maximum price of electricity.

* * * * *

6. In § 50.43, paragraph (a) is revised to read as follows:

§ 50.43 Additional standards and provisions affecting class 103 licenses for commercial power.

* * * * *

(a) The NRC will:

(1) Give notice in writing of each application to the regulatory agency or State as may have jurisdiction over the rates and services incident to the proposed activity;

(2) Publish notice of the application in trade or news publications as it deems appropriate to give reasonable notice to municipalities, private utilities, public bodies, and cooperatives which might have a potential interest in the utilization or production facility; and

(3) Publish notice of the application once each week for 4 consecutive weeks in the **Federal Register**. No license will be issued by the NRC prior to the giving of these notices and until 4 weeks after the last notice is published in the **Federal Register**.

* * * * *

7. In § 50.54, the introductory text of paragraph (w) is revised to read as follows:

§ 50.54 Conditions of licenses.

* * * * *

(w) Each power reactor licensee under this part for a production or utilization facility of the type described in §§ 50.21(b) or 50.22 shall take reasonable steps to obtain insurance available at reasonable costs and on reasonable terms from private sources or to demonstrate to the satisfaction of the NRC that it possesses an equivalent amount of protection covering the licensee's obligation, in the event of an accident at the licensee's reactor, to stabilize and decontaminate the reactor and the reactor station site at which the reactor experiencing the accident is located, provided that:

* * * * *

8. In § 50.63, paragraph (a)(2) is revised to read as follows:

§ 50.63 Loss of alternating current power.

(a) * * *

(2) The reactor core and associated coolant, control, and protection systems, including station batteries and any other necessary support systems, must provide sufficient capacity and capability to ensure that the core is cooled and appropriate containment integrity is maintained in the event of a station blackout for the specified duration. The capability for coping with a station blackout of specified duration shall be determined by an appropriate coping analysis. Licensees are expected to have the baseline assumptions, analyses, and related information used in their coping evaluations available for NRC review.

* * * * *

9. In § 50.73, paragraph (b)(2)(ii)(J)(2)(iv) is revised to read as follows:

§ 50.73 Licensee event report system.

* * * * *

(b) * * *

(2) * * *

(ii) * * *

(J) * * *

(2) * * *

(iv) The type of personnel involved (i.e., contractor personnel, licensed

operator, nonlicensed operator, other licensee personnel).

* * * * *

10. In § 50.75, paragraphs (a), (b), (d), and (e) are revised, and paragraphs (f)(1), (2), and (3) are redesignated as paragraph (f)(2), (3), and (4) and a new paragraph (f)(1) is added to read as follows:

§ 50.75 Reporting and recordkeeping for decommissioning planning.

(a) This section establishes requirements for indicating to NRC how a licensee will provide reasonable assurance that funds will be available for the decommissioning process. For power reactor licensees, reasonable assurance consists of a series of steps as provided in paragraphs (b), (c), (e), and (f) of this section. Funding for the decommissioning of power reactors may also be subject to the regulation of Federal or State Government agencies (e.g., Federal Energy Regulatory Commission (FERC) and State Public Utility Commissions) that have jurisdiction over rate regulation. The requirements of this section, in particular paragraph (c) of this section, are in addition to, and not substitution for, other requirements, and are not intended to be used, by themselves, by other agencies to establish rates.

(b) Each power reactor applicant for or holder of an operating license for a production or utilization facility of the type and power level specified in paragraph (c) of this section shall submit a decommissioning report, as required by § 50.33(k) of this part.

(1) The report must contain a certification that financial assurance for decommissioning will be (for a license applicant) or has been (for a license holder) provided in an amount which may be more but not less than the amount stated in the table in paragraph (c)(1) of this section.

(2) The amount to be provided must be adjusted annually using a rate at least equal to that stated in paragraph (c)(2) of this section.

(3) The amount must use one or more of the methods described in paragraph (e) of this section as acceptable to the NRC.

(4) The amount stated in the applicant's or licensee's certification may be based on a cost estimate for decommissioning the facility. As part of the certification, a copy of the financial instrument obtained to satisfy the requirements of paragraph (e) of this section must be submitted to NRC.

* * * * *

(d)(1) Each non-power reactor applicant for or holder of an operating license for a production or utilization

facility shall submit a decommissioning report as required by § 50.33(k) of this part.

(2) The report must:

(i) Contain a cost estimate for decommissioning the facility;

(ii) Indicate which method or methods described in paragraph (e) of this section as acceptable to the NRC will be used to provide funds for decommissioning; and

(iii) Provide a description of the means of adjusting the cost estimate and associated funding level periodically over the life of the facility.

(e)(1) Financial assurance is to be provided by the following methods.

(i) Prepayment. Prepayment is the deposit made preceding the start of operation into an account segregated from licensee assets and outside the licensee's administrative control of cash or liquid assets such that the amount of funds would be sufficient to pay decommissioning costs. Prepayment may be in the form of a trust, escrow account, Government fund, certificate of deposit, deposit of Government securities or other payment acceptable to the NRC. A licensee may take credit for projected earnings on the prepaid decommissioning trust funds using up to a 2 percent annual real rate of return from the time of future funds' collection through the projected decommissioning period. This includes the periods of safe storage, final dismantlement, and license termination, if the licensee's rate-setting authority does not authorize the use of another rate. However, actual earnings on existing funds may be used to calculate future fund needs.

(ii) External sinking fund. An external sinking fund is a fund established and maintained by setting funds aside periodically in an account segregated from licensee assets and outside the licensee's administrative control in which the total amount of funds would be sufficient to pay decommissioning costs at the time termination of operation is expected. An external sinking fund may be in the form of a trust, escrow account, Government fund, certificate of deposit, deposit of Government securities, or other payment acceptable to the NRC. A licensee may take credit for projected earnings on the external sinking funds using up to a 2 percent annual real rate of return from the time of future funds' collection through the decommissioning period. This includes the periods of safe storage, final dismantlement, and license termination, if the licensee's rate-setting authority does not authorize the use of another rate. However, actual earnings on existing funds may be used to calculate future fund needs. A

licensee, whose rates for decommissioning costs cover only a portion of such costs, may make use of these methods only for that portion of such costs that are collected in one of the manners described in this paragraph, (e)(1)(ii). This method may be used as the exclusive mechanism relied upon for providing financial assurance for decommissioning in the following circumstances:

(A) By a licensee that recovers, either directly or indirectly, the estimated total cost of decommissioning through rates established by "cost of service" or similar ratemaking regulation. Public utility districts, municipalities, rural electric cooperatives, and State and Federal agencies, including associations of any of the foregoing, that establish their own rates and are able to recover their cost of service allocable to decommissioning, are assumed to meet this condition.

(B) By a licensee whose source of revenues for its external sinking fund is a "non-bypassable charge," the total amount of which will provide funds estimated to be needed for decommissioning pursuant to §§ 50.75(c), 50.75(f), or 50.82 of this part.

(iii) A surety method, insurance, or other guarantee method:

(A) These methods guarantee that decommissioning costs will be paid. A surety method may be in the form of a surety bond, letter of credit, or line of credit. Any surety method or insurance used to provide financial assurance for decommissioning must contain the following conditions:

(1) The surety method or insurance must be open-ended, or, if written for a specified term, such as 5 years, must be renewed automatically, unless 90 days or more prior to the renewal day the issuer notifies the NRC, the beneficiary, and the licensee of its intention not to renew. The surety or insurance must also provide that the full face amount be paid to the beneficiary automatically prior to the expiration without proof of forfeiture if the licensee fails to provide a replacement acceptable to the NRC within 30 days after receipt of notification of cancellation.

(2) The surety or insurance must be payable to a trust established for decommissioning costs. The trustee and trust must be acceptable to the NRC. An acceptable trustee includes an appropriate State or Federal government agency or an entity that has the authority to act as a trustee and whose trust operations are regulated and examined by a Federal or State agency.

(B) A parent company guarantee of funds for decommissioning costs based

on a financial test may be used if the guarantee and test are as contained in appendix A to 10 CFR part 30.

(C) For commercial companies that issue bonds, a guarantee of funds by the applicant or licensee for decommissioning costs based on a financial test may be used if the guarantee and test are as contained in appendix C to 10 CFR part 30. For commercial companies that do not issue bonds, a guarantee of funds by the applicant or licensee for decommissioning costs may be used if the guarantee and test are as contained in appendix D to 10 CFR part 30. For non-profit entities, such as colleges, universities, and non-profit hospitals, a guarantee of funds by the applicant or licensee may be used if the guarantee and test are as contained in appendix E to 10 CFR part 30. A guarantee by the applicant or licensee may not be used in any situation in which the applicant or licensee has a parent company holding majority control of voting stock of the company.

(iv) For a power reactor licensee that is a Federal licensee, or for a non-power reactor licensee that is a Federal, State, or local government licensee, a statement of intent containing a cost estimate for decommissioning, and indicating that funds for decommissioning will be obtained when necessary.

(v) Contractual obligation(s) on the part of a licensee's customer(s), the total amount of which over the duration of the contract(s) will provide the licensee's total share of uncollected funds estimated to be needed for decommissioning pursuant to §§ 50.75(c), 50.75(f), or § 50.82. To be acceptable to the NRC as a method of decommissioning funding assurance, the terms of the contract(s) shall include provisions that the electricity buyer(s) will pay for the decommissioning obligations specified in the contract(s), notwithstanding the operational status either of the licensed power reactor to which the contract(s) pertains or force majeure provisions. All proceeds from the contract(s) for decommissioning funding will be deposited to the external sinking fund. The NRC reserves the right to evaluate the terms of any contract(s) and the financial qualifications of the contracting entity(ies) offered as assurance for decommissioning funding.

(vi) Any other mechanism, or combination of mechanisms, that provides, as determined by the NRC upon its evaluation of the specific circumstances of each licensee submittal, assurance of decommissioning funding equivalent to

that provided by the mechanisms specified in paragraphs (e)(1)(I)-(iv) of this section. Licensees who do not have sources of funding described in paragraph (e)(1)(ii) of this section may use an external sinking fund in combination with a guarantee mechanism, as specified in paragraph (e)(1)(iii) of this section, provided that the total amount of funds estimated to be necessary for decommissioning is assured.

(2) The NRC reserves the right to take the following steps in order to ensure a licensee's adequate accumulation of decommissioning funds: review, as needed, the rate of accumulation of decommissioning funds; and, either independently or in cooperation with the FERC and the licensee's State PUC, take additional actions as appropriate on a case-by-case basis, including modification of a licensee's schedule for the accumulation of decommissioning funds.

* * * * *

(f)(1) Each power reactor licensee shall report, on a calendar-year basis, to the NRC by March 31, 1999, and at least once every 2 years thereafter on the status of its decommissioning funding for each reactor or part of a reactor that it owns. The information in this report must include, at a minimum: the amount of decommissioning funds estimated to be required pursuant to 10 CFR 50.75(b) and (c); the amount accumulated to the end of the calendar year preceding the date of the report; a schedule of the annual amounts remaining to be collected; the assumptions used regarding rates of escalation in decommissioning costs, rates of earnings on decommissioning funds, and rates of other factors used in funding projections; any contracts upon which the licensee is relying pursuant to paragraph (e)(1)(ii)(C) of this section; any modifications occurring to a licensee's current method of providing financial assurance since the last submitted report; and any material changes to trust agreements. Any licensee for a plant that is within 5 years of the projected end of its operation, or where conditions have changed such that it will close within 5 years (before the end of its licensed life), or has already closed (before the end of its licensed life), or for plants involved in mergers or acquisitions shall submit this report annually.

* * * * *

Dated at Rockville, MD this 16th day of September, 1998.

For the Nuclear Regulatory Commission.

John C. Hoyle,

Secretary of the Commission.

[FR Doc. 98-25278 Filed 9-21-98; 8:45 am]

BILLING CODE 7590-01-P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 98-ANE-55-AD; Amendment 39-10761; AD 98-19-20]

RIN 2120-AA64

Airworthiness Directives; CFM International CFM56-7B and -7B/2 Series Turbofan Engines

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule; request for comments.

SUMMARY: This amendment adopts a new airworthiness directive (AD) that is applicable to CFM International CFM56-7B and -7B/2 series turbofan engines. This action requires initial and repetitive inspections of certain hydromechanical unit (HMU) overspeed governor (OSG) spool valves for out-of-specification conditions or the presence of heavy contact or galling on the spool valve, and optional installation of an improved HMU as a terminating action to the inspections. This amendment is prompted by a report of a flameout that occurred on a flight test engine due to a failed HMU OSG spool valve shaft. The actions specified in this AD are intended to prevent failure of the HMU OSG spool valve shaft, and subsequent engine flameout.

DATES: Effective October 7, 1998.

The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of October 7, 1998.

Comments for inclusion in the Rules Docket must be received on or before October 7, 1998.

ADDRESSES: Submit comments in triplicate to the Federal Aviation Administration (FAA), New England Region, Office of the Regional Counsel, Attention: Rules Docket No. 98-ANE-55-AD, 12 New England Executive Park, Burlington, MA 01803-5299. Comments may also be sent via the Internet using the following address: "9-ad-engineprop@faa.dot.gov". Comments sent via the Internet must contain the docket number in the subject line.

The service information referenced in this AD may be obtained from CFM

International, Technical Publications Department, 1 Neumann Way, Cincinnati, OH 45215; telephone (513) 552-2981, fax (513) 552-2816. This information may be examined at the FAA, New England Region, Office of the Regional Counsel, 12 New England Executive Park, Burlington, MA; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

FOR FURTHER INFORMATION CONTACT:

Robert Ganley, Aerospace Engineer, Engine Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803-5299; telephone (781) 238-7138; fax (781) 238-7199.

SUPPLEMENTARY INFORMATION: The Federal Aviation Administration (FAA) has received a report of an engine flameout on a CFM International CFM56-7B series turbofan flight test engine. Due to the similarity of the engines, CFM56-7B/2 series engines could also be affected. Investigation revealed that the flameout occurred as a result of a failed hydromechanical unit (HMU) overspeed governor (OSG) spool valve shaft. The shaft failed as a result of the spinning spool's contact with the valve sleeve inner diameter. Further investigation revealed out-of-specification conditions may exist that can contribute to rotor contact. This condition, if not corrected, could result in a failure of the HMU OSG spool valve shaft, and subsequent engine flameout.

The FAA has reviewed and approved the technical contents of CFM International CFM56-7B Service Bulletin (SB) No. 73-016, Revision 2, dated August 10, 1998, that describes procedures for inspection of HMU OSG spool valves for out-of-specification conditions or the presence of heavy contact or galling on the spool valve.

Since an unsafe condition has been identified that is likely to exist or develop on other engines of the same type design, this AD is being issued to prevent a failure of the HMU OSG spool valve shaft, and subsequent engine flameout. This AD requires initial and repetitive inspections of HMU OSG spool valves for out-of-specification conditions or the presence of heavy contact or galling on the spool valve. The optional installation of an improved HMU, Part Number (P/N) 1853M56P06 (AlliedSignal P/N 442098), constitutes terminating action to the inspection requirements. The actions are required to be accomplished in accordance with the SB described previously.

Since a situation exists that requires the immediate adoption of this regulation, it is found that notice and