

April 19, 1999

FOR: The Commissioners

FROM: William D. Travers /s/
Executive Director for Operations

SUBJECT: RULEMAKING TO MODIFY THE EVENT REPORTING REQUIREMENTS FOR POWER REACTORS IN 10 CFR 50.72 AND 50.73

PURPOSE:

The purpose of this paper is to obtain Commission approval to publish a proposed rule to modify the event reporting requirements for power reactors in 10 CFR 50.72 and 50.73.

BACKGROUND:

In SECY-98-036, "Rulemaking to Modify Event Reporting Requirements for Power Reactors," March 4, 1998, the staff proposed a rulemaking plan to modify the event reporting requirements in 10 CFR 50.72, "Immediate notification requirements for operating nuclear power reactors," and 10 CFR 50.73, "Licensee event report system." In a staff requirements memorandum (SRM) dated May 14, 1998, the Commission approved the proposed rulemaking.

An advance notice of proposed rulemaking (ANPR) was published in the Federal Register on July 23, 1998. Among other things, the ANPR requested public comments on several concrete proposals for modification of the event reporting rules. A public meeting was held to discuss the ANPR at NRC Headquarters on August 21, 1998. The ANPR was also discussed, along with other topics, at a public meeting on the role of industry in nuclear regulation in Rosemont, Illinois on September 1, 1998. The public comment period on the ANPR closed on September 21, 1998. A comment from the Nuclear Energy Institute (NEI) proposed conducting "table top exercises" early in the development and review process to test key parts of the requirements and guidance for clarity and consistency. The comment was accepted and a public meeting for that purpose was held at NRC headquarters on November 13, 1998.

DISCUSSION:

The purposes of Sections 50.72 and 50.73 would remain the same because the basic needs remain the same. The objectives of the proposed amendments would be as follows:

- (1) To better align the reporting requirements with the NRC's needs for information to carry out its safety mission. An example is extending the required initial reporting times for some events, consistent with the time at which it is needed for NRC action. Another example is changing the criteria for reporting system actuations, to obtain reporting that is more consistent with the risk-significance of the systems involved.
- (2) To reduce the reporting burden, consistent with the NRC's needs. An example is eliminating the reporting of design and analysis defects and deviations of little or no risk- or safety-significance.
- (3) To clarify the reporting requirements where needed. An example is clarifying the criteria for reporting design or analysis defects or deviations.
- (4) To maintain consistency with NRC actions to improve integrated plant assessments. For example, reports that are needed in the assessment process should not be eliminated.

In the proposed amendments, *declaration of an emergency class* would continue to be reported as soon as practical and in all cases within 1 hour. A *deviation from the plant's technical specifications authorized pursuant to 10 CFR 50.54(x)* would also continue to be reported within this time frame. These criteria capture those events where there may be a need for immediate action by the NRC. Other events that are reportable by telephone under Section 50.72 would be reportable as soon as practical and in all cases within 8 hours (instead of within 1 hour or 4 hours as is currently required). This would capture those events where there may be a need for the NRC to contact the plant to find out more about the event and/or initiate a special inspection or investigation.

Written licensee event reports (LERs) would be due within 60 days after discovery of a reportable event or condition (instead of within 30 days as is currently required). This change does not imply that licensees should take longer than they previously did to develop and implement corrective actions. They should continue to do so on a time scale commensurate with the significance of the issue. However, for those cases where it does take longer than 30 days to complete a root cause analysis, there would be fewer LERs that require amendment (by submitting a revised report).

In the interest of simplicity, the proposed amendments would maintain just three basic levels of required reporting times for reporting under 10 CFR 50.72 and 50.73 (1 hour, 8 hours, and 60 days). However, public comment would be specifically invited on the question of whether additional levels should be introduced to better correspond to particular types of reports.

Reporting a *condition that is outside the design basis of the plant* would no longer be required. However, a condition outside the design basis of the plant would still be reported if it is significant enough to qualify under one or more of the following tests:

- (1) If a design or analysis defect or deviation (or any other event or condition) is significant enough that, as a result, a structure or system would not be capable of performing its safety functions, the condition would be reportable under *Sections 50.72(b)(2)(v) and 50.73(a)(2)(v) [i.e., an event or condition ... that ... could have prevented the fulfillment of the safety function of structures or systems that are needed to: shut down the reactor and maintain ...]*.
- (2) If a design or analysis defect or deviation (or any other event or condition) is significant enough that, as a result, one train of a multiple train system controlled by the plant's technical specifications is not capable of performing its safety functions, and thus the train is inoperable for a period of time longer than allowed by the plant's technical specifications, the condition would be reportable under *Section 50.73(a)(2)(i)(B) [i.e., an operation or condition prohibited by technical specifications]*.
- (3) If a condition outside the design basis of the plant (or any other unanalyzed condition) is such that plant safety is significantly affected, the condition would be reportable under *Sections 50.72(b)(2)(ii)(B) and 50.73(a)(2)(ii)(B) [i.e., an unanalyzed condition that significantly affects plant safety]*.
- (4) If a condition outside the design basis of the plant (or any other event or condition) is significant enough that, as a result, a principal safety barrier is seriously degraded, it would be reportable under *Sections 50.72(b)(2)(ii)(A) and 50.73(a)(2)(ii)(A) [i.e., an event or condition that results in the condition of the nuclear power plant, including its principal safety barriers, being seriously degraded]*.
- (5) Finally, if a condition outside the design basis of the plant (or any other event or condition) results in significantly degraded capability to perform a specified safety function that could involve multiple components, it would be reportable under a new criterion. The new criterion is in *Section 50.73(a)(2)(ii)(C) [i.e., a component in a degraded or non-conforming condition such that its ability to perform its specified safety function is significantly degraded and the condition could reasonably be expected to affect other similar components in the plant.]*

A potential concern with this approach involves public perception. It may appear to some that by eliminating the requirement to report when *the plant is in a condition that is outside the design basis of the plant* the NRC would be eliminating needed reports. However, based on reviewing a sample of previously submitted reports, the staff believes that the changes discussed above would not eliminate reporting for significant events that the NRC needs to review in its efforts to identify and resolve safety issues. Furthermore, public comment would be specifically invited on whether or not this is the case. In particular, it would be requested that any potential examples to the contrary be identified.

The rules and reporting guidelines would be revised to eliminate reporting of a late surveillance test (as an *operation or condition prohibited by the plant's technical specifications*) when the oversight is corrected, the equipment is tested, and found to be still functional. These reports have proven to be of little significance if the equipment in question was determined to be functional when tested.

Reporting a *condition not covered by the plant's operating and emergency procedures* would no longer be required because that criterion does not result in worthwhile reports aside from those that would be captured by other reporting criteria.

Earlier drafts of the proposed rule would have also eliminated the requirement to report an *unanalyzed condition that significantly compromises plant safety* on the grounds that worthwhile reports would be captured by other reporting criteria. The Advisory Committee on Reactor Safeguards (ACRS) recommended in favor of that approach. However, subsequent to the ACRS briefing, the staff reconsidered this proposal. Some significant events that the NRC needs to review were identified which do not satisfy significance tests (1), (2), (4) or (5) discussed above. (Examples are discussed in the Federal Register notice.) Therefore, the proposed rules would retain this criterion [significance test (3) discussed above] in a slightly modified form [*i.e., unanalyzed condition that significantly affects plant safety*].

The term "*any engineered safety feature (ESF), including the reactor protection system (RPS)*," which currently defines the systems for which actuation must be reported, would be replaced by a specific list of systems. The current definition has led to confusion and variability in reporting because there are varying definitions of what constitutes an ESF. At some plants systems that are known to have high risk significance, such as emergency ac power, auxiliary feedwater, and reactor core isolation cooling, are not considered ESFs. Furthermore, in many cases systems with much lower levels of risk significance, such as control room ventilation systems, are considered to be ESFs. The proposed amendments would result in consistent reporting of events that result in actuation of these highly risk-significant systems and eliminate reporting for events of lesser significance, such as actuation of control room ventilation systems.

This proposed change to the requirement to report activation of any ESF is controversial. For example, licensee comments on the ANPR generally opposed such a change recommending, instead, reporting the actuation of systems identified as ESFs in the final safety analysis report (FSAR). On the other hand, the ACRS recommended in favor of using a risk-informed list, but further recommended that the list be plant-specific and not be included in the rule. The Committee to Review Generic Requirements (CRGR) also expressed concerns about the proposed approach. Therefore, public comment would be specifically invited on several alternatives to the proposed rule.

The term "significant" would be used in two places in the proposed event reporting rules. In the first place, the immediate notification rule and the LER rule would require reporting an unanalyzed condition that significantly affects plant safety. In this context the term "significant" would be defined by examples, five of which are discussed in the Federal Register notice. In the second place, the LER rule would require reporting when a component's ability to perform its safety function is significantly degraded and the condition could reasonably be expected to affect other similar components in the plant. Again, the term "significant" would be defined by examples, six of which are discussed in the Federal Register notice.

In related programs, the staff is developing revisions to the process for oversight of operating reactors, including the inspection, assessment and enforcement processes. In connection with this effort, the staff has considered the kinds of event reports that would be eliminated by the proposed rules and believes that the changes would not have a deleterious effect on the oversight process. Public comment would be specifically invited on this question. In addition, the Federal Register notice would describe, for public comment, the specific proposed changes to enforcement policy that the staff believes are appropriate in connection with the proposed amendments.

This proposed rulemaking would change some of the requirements in Section 50.73(b) regarding the format and content of Licensee Event Reports. At the same time, in a rulemaking to make miscellaneous changes to [10 CFR Part 72](#), it has been proposed to adopt, in Section [72.75\(d\)\(2\)](#), format and content requirements comparable to those of Section 50.73(b). If the proposed changes to Section 50.73(b) are adopted in the final rule the staff will, at that time, consider the question of whether or not rulemaking should be initiated to make similar changes in Section [72.75\(d\)\(2\)](#).

In the SRM dated May 14, 1998, in addition to approving the proposed rulemaking to modify the event reporting requirements of 10 CFR 50.72 and 10 CFR 50.73, the Commission provided the following direction:

1. "Public comments on the rulemaking schedule should be solicited as well as comments on the content of the proposed rule."

The ANPR solicited public comments on the rulemaking schedule as well as comments on the content of the proposed rule. Some favored a more aggressive schedule and others favored a less aggressive schedule. The schedule was not changed, except to add 5 weeks to accommodate the additional public meeting ("tabletop exercise") recommended by NEI.

2. "The staff should seek State input on proposed changes to the power reactor reporting requirements."

The ANPR specifically solicited State input. In addition, a letter was sent to each State Liaison Officer soliciting input. Written comments were received from the State of Ohio and the State of Illinois. In addition, representatives from several states attended public meetings on the ANPR. Further discussion is provided in the Federal Register notice (FRN) in the responses to comments 24 through 27. Similar steps will be taken with respect to the proposed rule.

3. "The staff should evaluate current regulations to identify areas where event reporting requirements can be risk-informed and/or simplified. For example, the time limit for reporting could be adjusted based on the safety significance of the event and the need for NRC's immediate action. The burden associated with reporting events or conditions with little or no safety or risk significance should be minimized. The staff should request industry identification of other reporting requirements that are potential candidates for modifying to a more risk-informed approach in the planned ANPR on 50.72, and include this issue in the agendas for the upcoming workshops on 50.72 and DSI 13. Based on the results from these workshops, a schedule and plan of action should be submitted to the Commission."

The staff's proposal regarding other reactor reporting rules, beyond 10 CFR 50.72 and 50.73, was provided separately in [SECY-99-022](#), "Rulemaking to Modify Reporting Requirements for Power Reactors," January 20, 1999. The Commission's directions in response to [SECY-99-022](#) were provided in a [Staff Requirements Memorandum](#) dated March 19, 1999. Rulemaking to address other rules, beyond 10 CFR 50.72 and 50.73, will be pursued separately.

4. "The staff should also consider the merits of using criteria similar to that developed by the Special Projects Office in establishing thresholds for categorizing design deficiencies."

The proposed rule would adopt standards similar to those developed by Special Projects Office for categorizing design deficiencies. For example, as discussed above, a design or analysis defect or deviation would be reportable under both 10 CFR 50.72 and 50.73 if, as a result, a structure or system is not capable of performing its specified safety function. It would be reportable under 10 CFR 50.73 if, as a result, one train of a redundant system is not capable of performing its specified safety function, and thus the train is inoperable for a period of time longer than allowed by the plant's technical specifications. If it does not rise to this level of significance, or meet another reporting criterion such as *unanalyzed condition that significantly affects plant safety*, it would not be reportable under 10 CFR 50.72 and 50.73 on its own accord. However, other regulatory requirements such as [10 CFR 50.59](#), [10 CFR 50.71\(e\)](#), or [Appendix B to 10 CFR 50](#) may be applicable.

5. "If practical, the staff should coordinate the revised reporting with the implementation of ADAMS, to facilitate the use of electronic notifications, when appropriate."

The Federal Register notice for the proposed rule would indicate that the forthcoming Agency-wide Document Access and Management System (ADAMS), will in general provide for electronic submittal of many types of reports, including LERs. Accordingly, no separate rulemaking effort to provide for electronic submittal of LERs is contemplated.

6. "Any changes resulting from this proposed rulemaking should be consistent with agency actions to improve integrated plant assessments."

As discussed above, the staff has considered the kinds of event reports that would be eliminated by the proposed rules and believes that the changes would not have a deleterious effect on the oversight process. In addition, public comment would be specifically invited in this area.

RESOURCES:

Resources to complete this rulemaking (approximately 1.5 full time equivalents (FTE) in FY 1999 and 1.5 FTE in FY 2000) are budgeted. The Office of Nuclear Reactor Regulation (NRR) estimates that it will devote about 2 FTE to the rulemaking effort during the next 12 months. The Office of the General Counsel (OGC), the Office of Nuclear Regulatory Research (RES), and the four regional offices are expected to devote a total of about 1 FTE among them during the same period. The revised reporting requirements would reduce the effort required to review reactor event reports by about 1.5 FTE, as discussed in the draft Regulatory Analysis. Resource savings will be addressed in the FY 2001 internal budget review.

COORDINATION:

OGC has reviewed this paper and has no legal objections. The Office of the Chief Information Officer has reviewed this paper for information technology and information management implications and concurs in it. The Office of the Chief Financial Officer has reviewed this paper for resource implications and has no objections.

The Advisory Committee on Reactor Safeguards was briefed on May 11, 1999. The Committee's recommendations are provided in [Attachment 6](#) and the staff's responses are provided in [Attachment 7](#).

RECOMMENDATIONS:

That the Commission:

1. Approve publication of the notice of proposed rulemaking ([Attachment 1](#)).
2. Note that:
 - a. The proposed rule will be published in the Federal Register for a 75-day public comment period;
 - b. The statement of considerations for the proposed rule sets forth a NRC position that information collection and reporting requirements are not subject to the backfit rule, [10 CFR 50.109](#).
 - c. In accordance with the Regulatory Flexibility Act (5 U.S.C. 605(b)), I certify that this rule will not, if promulgated, have a significant economic impact on a substantial number of small entities. This proposed 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 size standards established by the NRC ([10 CFR 2.810](#));
 - d. The Chief Counsel for Advocacy of the Small Business Administration will be informed of the certification regarding economic impact on small entities and the reasons for it as required by the Regulatory Flexibility Act;
 - e. The proposed rule contains information collection requirements that are subject to review by the Office of Management and Budget (OMB). An OMB review package is being prepared and will be submitted to OMB in the near future;
 - f. A public announcement will be issued when the proposed rule is filed with the Office of the Federal Register ([Attachment 4](#));
 - g. The appropriate Congressional committees will be informed ([Attachment 5](#)); and
 - h. Copies of the Federal Register notice of proposed rulemaking will be distributed to all operating nuclear power plant licensees and all state liaison officers. The notice will be sent to other interested parties upon request.

William D. Travers
Executive Director for Operations

Contact: Dennis P. Allison, NRR/DRIP/RGEB
(301) 415-6835

Attachments:

1. [Federal Register notice](#)
2. [Draft regulatory analysis](#)
3. [Draft NUREG-1022, Revision 2](#)
4. [Draft public announcement](#)
5. [Draft congressional letters](#)

6. Letter providing ACRS recommendations
7. Memorandum responding to ACRS recommendations