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January 21, 2022

Ms. Lisa M. Regner
Chief, Operating Experience Branch
Division of Reactor Oversight
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Subject: Additional Information for Staff Consideration in Developing the Regulatory Basis for Rulemaking on Reporting Requirements for 10 CFR 50.72(b) Nonemergency Events at Nuclear Power Plants¹

Project Number: 689

Dear Ms. Regner:

The Nuclear Energy Institute (NEI),² on behalf of its members, is submitting this additional information for the staff's consideration in developing the regulatory basis for rulemaking on reporting requirements for nonemergency events at nuclear power plants found in the Code of Federal Regulations, Title 10, Part 50.72(b).³ This information adds to the data we shared with the NRC in our August 2, 2018, petition for rulemaking (NRC PRM-50-116);⁴ our February 1, 2019, public comments on the rulemaking;⁵ and our remarks at public meetings on November 3 and December 9, 2021. In those public meetings we indicated that our supplemental response would address five areas: (1) alignment with technical specifications, (2) risk significance of the nonemergency notifications, (3) NRC follow-up on nonemergency notifications, (4) impacts on plant resources and (5) complementary communications with state and local stakeholders. This letter addresses four of those areas and statusses the fifth.

¹ Regulations.gov docket ID NRC-2020-0036.

² The Nuclear Energy Institute (NEI) is responsible for establishing unified policy on behalf of its members relating to matters affecting the nuclear energy industry, including the regulatory aspects of generic operational and technical issues. NEI's members include entities licensed to operate commercial nuclear power plants in the United States, nuclear plant designers, major architect and engineering firms, fuel cycle facilities, nuclear materials licensees, and other organizations involved in the nuclear energy industry.

³ 10 CFR 50.72(b), "Immediate Notification Requirements for Operating Nuclear Power Reactors," available at the NRC website, <https://www.nrc.gov/reading-rm/doc-collections/cfr/part050/part050-0072.html>

⁴ See ADAMS ML18247A204.

⁵ See ADAMS ML19032A642.

Alignment with Technical Specifications

The requirement for notifications under 10 CFR 50.72 was promulgated to ensure NRC is timely notified of “significant” events. The decades of experience with 10 CFR 50.72 nonemergency notifications challenge the premise that these are “significant” events. For example, the plant technical specifications⁶ are what NRC considers to be truly significant.

Technical specifications assure the safe operation of NRC-licensed plants. Technical specifications include safety limits, required actions when safety systems are not operable, and limiting conditions for operation. Maintaining compliance with technical specifications provides reasonable assurance of adequate protection of public health and safety for the host of events and conditions addressed in those specifications.

Attachment 1 presents an analysis of the nonemergency notification requirements in 10 CFR 50.72(b)(3)(v) and (vi) for an event or condition that could have prevented fulfillment of a specified safety function. Our analysis explains how such situations are governed by technical specifications. The technical specifications provide NRC approved actions to be taken when structures, systems or components are inoperable. Technical specifications allow the specified plant condition or configuration for a specified period. The plant configurations allowed by the technical specification Required Actions are evidence that these do not represent a significant safety concern that warrants immediate NRC notification and response. Therefore, when the plant configuration is consistent with the technical specifications, an inoperable structure, system, or component that could impact a safety function does not represent a significant or serious safety concern that warrants immediate NRC notification.

Risk Significance

In keeping with the NRC’s and industry’s application of risk-informed decision-making wherever practical, we are seeking to quantify the risk significance of the events or conditions described in the nonemergency notification criteria. We believe this may be helpful to the NRC’s consideration of options in the 10 CFR 50.72 rulemaking. We have solicited support from industry probabilistic risk assessment experts through an Owners’ Group initiative. This project is expected to yield insights later this spring. If those insights prove useful, we would expect to share them with the NRC during the period of public comments on the draft Regulatory Basis for the 10 CFR 50.72 rulemaking this summer.

NRC Situational Awareness and Follow-Up to Nonemergency Notifications

We would benefit from a more detailed understanding of the actions the NRC takes in response to nonemergency notifications, how plant status and plant issues are routinely communicated throughout the NRC, and the NRC’s concerns that changes to 10 CFR 50.72 would impose additional burden on the resident inspectors. While we have a general outline of the NRC’s process for evaluating notifications in NRC Management Directive 8.3,⁷ knowing the internal NRC processes that detail the flow of information and actions following receipt of nonemergency notifications would enable us better to assess how our proposal would affect the NRC.

⁶ Defined in 10 CFR 50.36, “Technical Specifications.”

⁷ NRC Management Directive 8.3, “NRC Incident Investigation Program, DT-17-158,” June 25, 2014, ADAMS ML18073A200.

As noted in our August 2, 2018, petition,⁸ publicly available data continue to show that it is rare for the NRC to dispatch a Special or Augmented Inspection Team after receiving a nonemergency notification. In Attachment 2, the publicly available data on the NRC follow-up to nonemergency notifications in recent years is examined. We found that the NRC response to notification of one of the more significant of the nonemergency notifications (i.e., an unplanned reactor shutdown) typically takes about 10 days to get organized. We understand the NRC may be taking steps out of public view during the days leading up to announcement of a reactive inspection. Nevertheless, the publicly available information indicates that the NRC's organized response in these cases begins substantially later than the one-day timeframe presented as the basis for the eight-hour notification requirement in the NRC's last revision of this portion of the rule.⁹ There the NRC said that the nonemergency events requiring notification within eight hours "...are events where there may be a need for the NRC to take an action within about a day, such as initiating a special inspection or investigation." With the publicly available information we have on the NRC's response to nonemergency notifications, we are unable to reconcile the need for NRC notification within eight hours with the timing of the NRC's reactive inspections.

We have noted previously but it bears repeating that the NRC monitors the station's corrective action programs and operator logs on a routine basis. This is discussed in NRC Inspection Manual Chapter 2515, Appendix D,¹⁰ as part of the resident inspectors' routine monitoring of plant status.¹¹ In addition, the NRC is made aware of plant events such as reactor trips or system actuations through the communications discussed below under "Complementary Communications." Those communications would typically contain more detail than the formal 10 CFR 50.72 nonemergency notification, so if the NRC chooses to follow-up at that point, prior to the 60-day LER, it could. Otherwise, waiting for the additional detail provided in an LER to make a follow-up decision should still meet the NRC's needs as we understand them. The advantage of the LER is that it provides a more complete picture of the situation than is possible in the timeframe of the prompt notification. We would urge the NRC to reconsider the timing and need for nonemergency notifications to better align them with the significance conveyed by the level and pace of NRC response to such notifications.

Focus on Safety

Throughout this matter, we have stressed that our primary purpose in asking the NRC to reconsider the requirements for nonemergency notifications is to protect the attention of site operators, staff and management from distractions that potentially challenge the essential, constant focus on plant safety;¹² that remains our priority today.

⁸ Letter from Bill Pitesa (NEI) to Annette L. Vietti-Cook (NRC), "Petition to Amend 10 CFR 50.72, 'Immediate Notification Requirements for Operating Nuclear Power Plants.'" ADAMS ML18247A204, Enclosure, §B.1, page 4, showing the analysis of data from January 1, 2011, to April 18, 2016.

⁹ Federal Register, Volume 65, No. 207, page 63774, Wednesday, October 25, 2000.

¹⁰ NRC Inspection Manual Chapter 2515, Appendix D, "Plant Status," Effective January 13, 2021, ADAMS ML20323A037.

¹¹ Per IMC 2515, App. D, Section 2515D-01, the frequency of the plant status review effort is determined by the inspector based on current plant conditions and activities.

¹²The importance of site management attention was discussed in a May 11, 2017, briefing for the Commissioners on risk-informed regulation (the transcript is available in ADAMS under accession number ML17135A407). Former Chairman Kristine Svinicki described the challenge of allocating management attention units on transcript page 36, lines 12-14. Former Executive Director of Operations Victor McCree responded on transcript page 78, lines 2-7.

Our outreach to NEI members confirms that the evaluation of events and conditions that might potentially meet the nonemergency notification criteria still consumes significant time and attention from a cross-section of plant staff. In our petition, we estimated that nonemergency notifications take approximately 10-to 25-manhours or more to prepare and provide to the NRC.¹³ Our subsequent investigation of the impact on licensees confirms that those numbers were very likely conservative estimates.

The more challenging of the notification criteria are the following:

1. Analysis of a potentially degraded or unanalyzed condition (10 CFR 50.72(b)(3)(ii),
2. System actuations and determining whether an actuation was or was not "valid" (10 CFR 50.72(b)(3)(iv), and
3. An event or condition that could have prevented the fulfillment of a safety function (10 CFR 50.72(b)(3)(v).

The challenge in making decisions involving these notification criteria in particular is the time and effort it takes collect and consider all the relevant facts and records. Evaluating this information against the notification criteria can involve difficult judgment calls. Hence, these situations can require more manhours (typically 30 to 40 manhours) than do decisions on situations involving notification criteria less subject to interpretation (such as an onsite fatality, transporting a potentially contaminated individual, or a shutdown required by technical specifications). The situations subject to the three criteria enumerated above also appear better addressed through the submission of a Licensee Event Report. The LER process allows time for the licensee to thoroughly investigate, determine causes, and identify corrective actions for these more complicated situations. While the LER process is unfolding, the NRC can follow developments through the licensee's corrective action system and updates to resident and regional personnel. Once the LER is submitted, the NRC gains the full picture that is needed for inspection, operating experience, and trending or further regulatory response.

Complementary Communications

The NEI petition broadly described the licensees' communication with their NRC resident inspectors when making a notification to the NRC. The details of those interactions show numerous channels of routine communications between the licensee and resident inspectors first and then with state and local stakeholders associated with a reportable occurrence.

When a licensee identifies an off-normal situation, one of the first communications is to the NRC resident inspector and, depending on the situation, to the regional office. As the licensee's investigation, decision-making and response to the situation progresses – initially hour-by-hour then shift-by-shift and day-by-day, the licensee continues to update the resident inspectors as substantial new information becomes available. In addition, the resident inspector(s) may communicate this information to their regional office or NRC headquarters through routine periodic calls.¹⁴ These early communications between the licensee and NRC representatives and between the resident inspectors and their regional and headquarters counterparts

¹³ Petition enclosure, Section B.2, page 5 of 15.

¹⁴ Part of the purpose of routine calls between the resident inspectors and their regional and Headquarters counterparts is to maintain NRC awareness of plant status and concerns. Situations that meet or are trending towards meeting the nonemergency notification criteria are exactly the type of emerging concern the residents would communicate during these routine conversations with management and peers.

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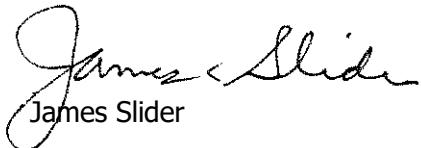
enable the NRC to begin assessing the situation against the rapid response criteria in Management Directive 8.3. Subsequent communications to state and local agencies and stakeholders take place at agreed upon steps in the licensee's process for addressing the off-normal situation. The criteria for what is communicated to state and local stakeholders and the timing of those communications are established through negotiated agreements, memoranda of understanding, licensee policies and site procedures. These criteria reflect state and local interests and priorities, allowing for communications that are more tailored to site stakeholder needs than are the NRC's mandated nonemergency notification requirements. For resource-strapped state and local agencies, the site-tailored protocols can assure they receive notifications on what they truly need without the distraction of notifications that are either irrelevant or insignificant to their greatest needs.

Conclusions

As the staff proceeds in development of the regulatory basis, we urge the NRC to carefully consider the impact on plant operators, staff and management involved in decisions regarding nonemergency notifications. We strive at all times to maintain focus on what matters most to safety. We believe that the NRC has an opportunity to reinforce this emphasis on safety-first by considering options to reduce or eliminate nonemergency notifications that are no longer necessary for the NRC to maintain situational awareness. We believe the data shows that NRC's situational awareness of plant issues and nonemergency events subject to these criteria is provided by a combination of the NRC's routine monitoring of plant status and the numerous channels through which licensees communicate with NRC and other stakeholders on these events.

If you have any questions on this matter, please contact me at 202-739-8015 or jes@nei.org.

Sincerely,



James Slider

Attachments

1. Alignment with Technical Specifications
2. Follow-up to Nonemergency Notifications

c: NRC Document Control Desk

Mr. George M. Tartal, NMSS/REFS/MRPB, NRC

Mr. Christopher M. Regan, Acting Director, DRO/NRR, NRC

Mr. Michael F. King, Deputy Director, NRR, NRC

Attachment 1 – Alignment Between Nonemergency Notification Requirements and Technical Specifications

Introduction

The nonemergency notifications required by the U.S. Nuclear Regulatory Commission (NRC) were conceived for one purpose more than 40 years ago. That purpose involved notifying NRC of “significant” events. For one of those notification requirements, i.e., the requirement to notify NRC of an event or condition that could have prevented the fulfillment of a safety function, the NRC-allowed response conveys a different view of the purported significance of such events or conditions. This attachment describes this inconsistency.

Background

In 1980, the NRC promulgated a new regulation on “Notification of Significant Events,” in Title 10, Code of Federal Regulations, Part 50.72 (10 CFR 50.72).¹ The NRC’s announcement of the new regulation emphasized the following rationale:

1. The purpose of this regulation was to ensure “[t]he capability of the NRC to make timely decisions and to provide adequate assurances regarding actual or potential threats to public health and safety...” [emphasis added]
2. This capability “...depends heavily on the rapidity with which significant events are communicated...” to the NRC. [emphasis added]
3. The NRC has an important obligation to collect facts quickly and accurately about significant events, assess the facts, take necessary action, and inform the public about the extent of the threat, if any, to public health and safety.
4. The events described in the regulation include serious events that could result in an impact on the public health and safety such as those leading to initiation of the licensee’s emergency plan, the cause of the nuclear power plant to be in an uncontrolled condition, the exceeding of a safety limit, an act of sabotage, or an uncontrolled release of radioactivity.

In 1983, the NRC amended the notification requirements in 10 CFR 50.72² to more clearly specify the significant events requiring a licensee to immediately notify the NRC. While the statements of consideration (SOCs) for this rule change provided clarity on the notification requirement related to events where a safety system could be prevented from performing its intended function (i.e., 50.72(b)(2)(iii)³), the purpose of the reporting requirement did not change.

Applicability to Equipment Outages

Plant technical specifications⁴ define requirements for considering key plant systems to be operable.⁵ Technical specifications also prescribe limits on the inoperability of plant systems including allowed lengths

¹ Federal Register, Volume 45, No. 42, pages 13434-13435, “Immediate Reporting of Significant Events at Operating Nuclear Power Reactors,” Friday, February 29, 1980.

² Federal Register, Volume 48, No. 168, pages 39039-39046, “Immediate Notification Requirements of Significant Events at Operating Nuclear Power Reactors,” Monday, August 29, 1983.

³ 10 CFR 50.72(b)(2)(iii) was the CFR section cited in the 1983 Federal Register notice. Today, the similar criterion for notifying NRC of an event or condition that could have prevented the fulfillment of a safety function is found in paragraph 50.72(b)(3)(v) and (vi).

⁴ Technical specifications are part of an NRC license authorizing operation of a nuclear power plant. Technical specifications establish requirements for safety limits, limiting safety system settings, limiting control settings, limiting conditions for operation, surveillance requirements, design features and administrative controls.

⁵ The term “operable” has a specific meaning in the context of plant technical specifications. For this discussion, the definition of “operable” presented in improved Standard Technical Specifications (found in NUREG-1430, NUREG-1431, NUREG-1432, NUREG-1434, and NUREG-2194) applies. That definition of “operable” is as follows: “A system, subsystem, train, component, or device shall be OPERABLE when it is capable of performing its specified safety function(s) and when all necessary attendant instrumentation, controls, normal and emergency electrical power, cooling and seal water, lubrication, and

of time for plant operation to continue with a particular plant system not operable. Technical specifications require that an inoperable system be restored to service within the allowable outage time, or the licensee shut down the operating plant.⁶ The length of time allowed depends on the safety significance of the system addressed in the applicable technical specification. Nevertheless, according to the statements of consideration associated with the notification rule change (10 CFR 50.72), NRC notification requirements still apply.

The NRC provides guidance for meeting the notification rule (10CFR 50.72) in NUREG-1022⁷. This NUREG states structures, systems, and components (SSCs) within the scope of the regulation include only safety-related SSCs required by technical specifications to be operable that are intended to mitigate the consequences of an accident. These SSCs are described in the Updated Final Safety Analysis Report or UFSAR⁸, Chapters 6 and 15. NUREG-1022 further states that SSCs within the scope of the regulation require a report when that SSC is inoperable in a required mode or other specified condition of the technical specification applicability statement. This means that the reporting requirement is directly tied to the operability of an SSC and the plant configuration is governed by the technical specifications when an SSC is inoperable.

Inconsistency with Original Intent

The industry reviewed the eight-hour notification requirement pertaining to discovery of a condition that could have prevented fulfillment of a safety function (i.e., 10 CFR 50.72(b)(3)(v))⁹ and the plant conditions that exist when the reports are required. This review determined this nonemergency notification requirement is not consistent with the original intent of the notification rule because such conditions do not represent the significant or serious threat to safety stated to be the purpose of the rule. We also note that other reporting requirements assure the NRC receives the information needed for oversight, trending, and public communications. These include the companion requirement for submitting a written Licensee Event Report (LER) for such situations (per 10 CFR 50.73(a)(2)(v)). For these reasons, we believe that the requirement for an eight-hour nonemergency notification for discovery of a condition that could have prevented fulfillment of a safety function (10 CFR 50.72(b)(3)(v) and (vi)) is unnecessary and can be deleted from the CFR.

As noted above, the principal purpose of the 10 CFR 50.72 notification requirements is to provide the NRC with information on significant or serious plant conditions so that the NRC can assess the situation or threat and determine necessary response actions. The 50.72(b)(3)(v) and (vi) reporting requirement and associated guidance necessitate an Emergency Notification System (ENS) report within eight hours for plant configurations related to equipment inoperability that are described and allowed by the plant technical specifications for specified periods of time. It is incongruous that plant and equipment configurations that are allowed and managed by the approved plant technical specifications should be considered situations that represent a significant or serious threat to safety. When equipment is declared inoperable for any

other auxiliary equipment that are required for the system, subsystem, train, component, or device to perform its specified safety functions are also capable of performing their related support function(s)."

⁶ Note that the initiation of a plant shutdown required by technical specifications requires both an ENS notification within four hours (per 10 CFR 50.72(b)(2)(i)) and submittal of a Licensee Event Report within 60 days (per 10 CFR 50.73(a)(2)(i)(A))

⁷ U.S. Nuclear Regulatory Commission report NUREG-1022, "Event Reporting Guidelines 10 CFR 50.72 and 50.73," Revision 3, January 2013, ADAMS accession number ML13032A220.

⁸ Updated Final Safety Analysis Report (UFSAR), the document describing a licensed nuclear power plant to the NRC. Chapter 6 of the UFSAR describes plant safety systems (known as Engineered Safety Features) and Chapter 15 describes analysis of design basis accidents and the design features necessary to mitigate those accidents.

⁹ Specifically, paragraph (b)(3)(v) requires notification within eight hours of "Any event or condition that at the time of discovery could have prevented the fulfillment of the safety function of structures or systems that are needed to: (A) Shut down the reactor and maintain it in a safe shutdown condition; (B) Remove residual heat; (C) Control the release of radioactive material; or (D) Mitigate the consequences of an accident." Paragraph (b)(3)(vi) explains that "Events covered in paragraph (b)(3)(v) of this section may include one or more procedural errors, equipment failures, and/or discovery of design, analysis, fabrication, construction, and/or procedural inadequacies. However, individual component failures need not be reported pursuant to paragraph (b)(3)(v) of this section if redundant equipment in the same system was operable and available to perform the required safety function."

reason, the plant is maintained in the technical specification condition or is shutdown within the required Completion Times. These are configurations that are reviewed and approved by the NRC. Moreover, these configurations are documented in the plant's NRC docket¹⁰ with a Safety Evaluation. The Safety Evaluation demonstrates the technical specification allowances do not represent significant or serious threats to safety. If they did, the NRC would not have approved the technical specification.

The plant technical specifications are required per 10 CFR 50.36 and are part of the plant operating license with which a licensee is obligated to conform. The technical specifications, and the plant configurations that are allowed and controlled by them, are available to the public and may only be amended by NRC approval through the 10 CFR 50.90 license amendment process. The NRC would not approve a technical specification that allows a plant condition or configuration that would represent a significant threat to plant safety warranting immediate NRC response.

In addition to the fundamental point that plant configurations allowed and regulated by technical specifications do not represent significant or serious threats to safety, other considerations also support removal of the 10 CFR 50.72(b)(3)(v) and (vi) reporting requirement. These are:

1. The regulation and associated NUREG-1022 guidance do not require NRC notification for plant configurations that are part of a preplanned evolution performed in accordance with plant procedures and the technical specifications. However, in most cases both emergent and preplanned evolutions have the same impact on plant safety and risk management. It is not clear why one situation would warrant an ENS notification and the other would not. The requirements of technical specifications do not differentiate between situations that are emergent versus those that are preplanned. Plant configurations that comply with the technical specifications do not represent significant or serious situations requiring an eight-hour NRC notification or further NRC response "within about a day."
2. There are two other regulatory reporting requirements that assure timely communication with the NRC regarding the licensee's implementation of technical specifications. These ensure the NRC's awareness of situations that challenge technical specification compliance and the associated safety that technical specifications assure:
 - a) If a licensee fails to comply with the technical specifications, 10 CFR 50.73(a)(2)(i)(B) requires a Licensee Event Report (LER) to be submitted within 60 days of the non-compliance to inform the NRC and public. Therefore, if the licensee fails to control or configure the plant as required by technical specifications, the NRC is notified, and further NRC actions can be taken.
 - b) If the inoperable equipment is not returned to service or the required plant configuration not restored within the time limit specified in technical specifications, then technical specifications require a plant shutdown. This means that the NRC believes that a plant shutdown is the most effective way to assure public health and safety in these circumstances. The initiation of a plant shutdown required by technical specifications requires both an ENS notification within four hours (per 10 CFR 50.72(b)(2)(i)) and submittal of a Licensee Event Report within 60 days (per 10 CFR 50.73(a)(2)(i)(A)). This combination of requirements provides the NRC with prompt notice of conditions significant enough to dictate a plant shutdown and with written follow-up after sufficient time has passed to permit a thorough investigation of the situation and identification of appropriate corrective actions. In our view, this provides adequate assurance that the NRC can maintain situational awareness for conditions involving technical specification compliance, including a Loss of Safety Function that cannot be corrected within the Technical Specification Completion Times.
3. The 10 CFR 50.72(b)(3)(v) reporting requirement is redundant to NRC Reactor Oversight Process (ROP) Performance Indicators (PI). The NRC PIs related to Mitigating Systems monitor the availability,

¹⁰ The legal docket is available for public inspection in the NRC records system (e.g., the ADAMS document database).

reliability, and capability of systems that mitigate the effects of initiating events to prevent core damage. Specifically, the Safety System Functional Failure (SSFF) PI (MS05) under the Mitigating Systems cornerstone quantitatively monitors events or conditions that alone prevented, or could have prevented, the fulfillment of the safety function of structures or systems, which are reported as required by the Licensee Event Report rule, 10 CFR 50.73(a)(2)(v). The reporting of these events, the NRC's inspection of this performance indicator, and the ability of the NRC to increase oversight based on the number of these events, is another regulatory mechanism the NRC uses to monitor and oversee licensee performance in situations where the safety function of a system may have been lost.

4. The same requirement for reporting the details of the situation that prevented the fulfillment of a safety function is found in 10 CFR 50.73(a)(2)(v) and (vi) (i.e., submittal of a Licensee Event Report). However, the Licensee Event Report, which is also available to the public, provides significantly more details regarding the situation, the cause, and the associated corrective actions. This information is better suited for the NRC to evaluate and trend safety system issues as it provides details that are not found in the prompt 10 CFR 50.72 notifications.

Conclusions

Plant configurations with inoperable equipment that are consistent with the allowances of technical specifications should not require immediate prompt nonemergency notifications as they do not represent significant or serious threats to safety. Failure to follow the technical specifications, a plant shutdown driven by a technical specification, the ROP performance indicator related to safety system functional failures, and the reporting of these conditions via an LER, all provide the necessary NRC situational awareness, information for trending or generic evaluation, and public notification without adding any additional actions or burden to the site resident inspectors. On this basis, we believe the NRC should consider eliminating the 10 CFR 50.72(b)(3)(v) and (vi) notification requirements.

Attachment 2 –Follow-up on Nonemergency Notifications

To the present time, much of the NRC's follow-up to receipt of nonemergency notifications occurs out of public view. The one internal procedure available to the public that describes what NRC does in response to "significant events involving reactor and materials facilities" is NRC Management Directive 8.3.¹ This directive outlines how the NRC determines the level of response needed based on the facts and an estimate of the significance of the situation. The best proxy we have for NRC response to nonemergency notifications that NRC might judge to be "significant" is the initiation of an inspection triggered by MD 8.3, such as an incident investigation team (IIT), an augmented inspection team (AIT), or a special inspection team (SIT), depending upon the level of response required. For this reason, NEI reviewed the record of NRC special inspections initiated in the past several years to determine which were associated with nonemergency notifications and how much time elapsed between the nonemergency notification to the NRC and initiation of the special inspection. Following is a summary of our findings and data.

Findings

- For reactor scrams during this period (Davis-Besse, Turkey Point, Grand Gulf, Pilgrim), there was typically about a 10-day lapse between NRC receiving the nonemergency notification and announcing the initiation of a special inspection.
- For special inspections associated with mitigating system concerns during this period (River Bend, Cooper, Fermi), there appears to be no connection to a nonemergency notification. This is not surprising considering the routine communications that take place between licensees and their site resident inspectors and with the NRC regional office when plant status changes or off-normal situations arise.
- In one instance (Browns Ferry), the special inspection was not associated with any nonemergency notification. As above, this likely reflects the high tempo of routine communications between the licensee and its resident inspectors and regional office.

Data

In the years 2015-2021, the industry submitted over 1,600 nonemergency notifications under 10 CFR 50.72.² Just a handful of these notifications appear linked to NRC follow-up according to our review of publicly available data. This handful of cases is described in the table below. Of the examples found, five appeared to have no clear link to a prior notification. The remainder that was clearly linked to notifications were tied to a notification of unplanned shutdown or actuation of the reactor protection system. Such events are also subject to the requirement to submit a Licensee Event Report within 60 days.

In addition to the announced reactive inspections, the NRC follow-up likely included routine duties of the resident inspectors as part of their plant status review (i.e., IMC-2515, Appendix D); their ongoing review of entries into the licensee's corrective action program; and their semiannual trend review and annual review of selected issues under Inspection Procedure 71152.³ This routine follow-up is not determined by the generation of a nonemergency notification, but by the licensee's routine communications with the resident inspectors and regional offices, the residents' routine observation of plant status and meetings, and the licensee's ongoing generation of condition reports that are entered into the corrective action process.

Based on the foregoing, it appears that nonemergency notifications rarely trigger an immediate response from the NRC and even more rarely are the basis for NRC management to escalate its response.

¹ U.S. Nuclear Regulatory Commission Management Directive 8.3, "NRC Incident Investigation Program – DT-17-158," Approved June 25, 2014, ADAMS ML18073A200.

² Source: NEI query of Certrec database, January 18, 2022.

³ NRC Inspection Manual, Inspection Procedure 71152, "Problem Identification and Resolution," Effective January 1, 2022, ADAMS ML21281A181.

Attachment 2 –Follow-up on Nonemergency Notifications

Nonemergency Notifications and Special Inspections 2015-2021⁴

Plant	Special Inspection	ENS Date	ENS #	Description	Notes
Davis-Besse	Special Inspection Announced July 27, 2021 ⁵ for Multiple EDG Failures During Testing Over Past 24 months and Maintenance and Complicated Reactor Trip on July 8	7/8/2021 5/4/2021	55346 53381	55346 was for the reactor trip. 53381 was in lieu of submitting an LER for a 3/8/21 invalid EDG actuation.	Mixed Picture. The special inspection announced July 27, 2021, was being planned before the July 8 reactor trip that required Energy Harbor to submit an ENS nonemergency notification for the plant shutdown. However, until the July 8 reactor trip, the planned special inspection was to focus on Emergency Diesel Generator challenges documented over the preceding 24 months (four failures of EDGs during testing and one station blackout EDG failure during maintenance). Following the July 8 reactor trip, the NRC added the reactor trip to the scope of the previously planned special inspection.
Vogtle 3	Special Inspection Announced June 21, 2021 ⁶ for Electrical Cable Raceway Concerns	None	None	None	Not Linked to ENS. The special inspection announced June 21, 2021, was initiated in follow up to licensee-identified structural/seismic issues found in late 2020 and subject of a licensee-issued stop-work order in March 2021. These construction issues were not subject to ENS notification requirements for this not yet operating unit.
Turkey Point 3	Special Inspection Announced August 31, 2020 ⁷ for Unit 3 Trips	8/17/2020 8/19/2020 8/20/2020	54839 54844 54847		Clearly Linked. The special inspection announced on August 31, 2020, was chartered to focus on three Unit 3 unplanned shutdowns that occurred between August 17 and 20. These three events required prompt nonemergency notifications to the NRC.
River Bend	Special Inspection Announced May 18, 2020 ⁸ to Review FLEX EDG Failures	None	None	None	Not Linked to ENS. The special inspection announced May 18, 2020, was initiated in response to five portable diesel generator failures during testing. The testing failures occurred in September and October 2019, and April 2020. The report from this special inspection was issued September 3, 2020. ⁹
Cooper	Special Inspection Announced January 2, 2020, to review Plant Service Water System ¹⁰	None	None	None	Not Linked to ENS. The initiating event (service water discharge line clogging) occurred on December 8, 2019. Final Report of the special inspection was issued on April 22, 2020. ¹¹ The inspection report describes the Technical Specification Limiting Conditions for Operation that governed this situation.
Fermi	Special Inspection at Fermi Nuclear Power Plant Announced July 11, 2019, to examine Torus Coating ¹²	None	None	None	Not Linked to ENS. The inspection report ¹³ indicates the adverse condition was discovered on May 29, 2019, during a Design Basis Assurance Inspection. The inspection report includes a detailed sequence of events documenting NRC's awareness of the torus coating problem and the licensee's actions to monitor and address the problem.

⁴ A 2018 special inspection of the San Onofre Independent Spent Fuel Storage Installation was excluded from this list because the notification was made under a similar requirement, Part 72.75(d)(1), per the terms of the facility license, not under Part 50.72, the subject of the current rulemaking.

⁵ NRC Press Release III-21-017, “NRC Launches Special Inspection at Davis-Besse Nuclear Power Plant,” July 27, 2021, ADAMS ML21208A161.

⁶ NRC Press Release II-21-020, “NRC Launches Special Inspection at Vogtle Unit 3,” June 21, 2021, ADAMS ML21183A139.

⁷ NRC Press Release II-20-017, “NRC Launches Special Inspection at Turkey Point Nuclear Power Plant,” August 31, 2020, ADAMS ML20351A223.

⁸ NRC Press Release IV-20-006, “NRC Begins Special Inspection at River Bend Nuclear Power Plant,” May 18, 2020, ADAMS ML20139A121.

⁹ “River Bend Station – Special Inspection Report 05000458/2020050,” September 3, 2020, ADAMS ML20240A258.

¹⁰ NRC Press Release IV20-001, “NRC to Conduct Special Inspection at Cooper Nuclear Power Plant,” January 2, 2020, ADAMS ML 20002A022.

¹¹ “Cooper Nuclear Station – NRC Special Inspection Report 05000298/2020050,” April 22, 2020, ADAMS ML20113F037.

¹² NRC Press Release III-19-018, “NRC Launches Special Inspection at Fermi Nuclear Power Plant,” July 11, 2019, ADAMS ML19192A219

¹³ “Fermi Power Plant, Unit 2 – Special Inspection Reactive Report 05000341/2019050,” January 31, 2020, ADAMS ML20031D253.

Attachment 2 –Follow-up on Nonemergency Notifications

Plant	Special Inspection	ENS Date	ENS #	Description	Notes
Grand Gulf	Special Inspection at Grand Gulf Nuclear Power Plant for Unplanned Shutdown ¹⁴	12/12/2018	53788		Clearly Linked to ENS. The inspection report ¹⁵ provides a detailed sequence of events for this complicated scram. Per ENS #53788, the event touched on multiple criteria for making a nonemergency notification, such as actuation of the reactor protection system.
Browns Ferry	Special Inspection at Browns Ferry for Dose to Diver ¹⁶	None	None	None	Not Linked to ENS. The special inspection ¹⁷ followed a November 7, 2018, event involving radiation exposure to a diver working in an equipment pit.
Pilgrim	Special Inspection at Pilgrim Nuclear Plant to Review Response to Winter Storm Juno ¹⁸	1/27/2015	50769		Linked to ENS. The NRC initiated this special inspection to review an unplanned shutdown that occurred six days earlier on January 27. The nonemergency notification was made for actuation of the reactor protection system and specified safety systems, and for offsite notifications made. The ENS notes that the NRC resident inspector has been informed. ENS #50771 was submitted later on January 27 when the High-Pressure Coolant Injection system was isolated by operators and declared inoperable. The inoperability of this single train system triggered this nonemergency notification.

¹⁴ NRC Press Release IV-18-016, “NRC Begins Special Inspection at Grand Gulf Nuclear Power Plant,” December 18, 2018, ADAMS ML18352A558.

¹⁵ “Grand Gulf Nuclear Stations – NRC Special Inspection Report 05000416/2018050,” March 29, 2019, ADAMS ML19088A335.

¹⁶ NRC Press Release II-18-035, “NRC Launches Special Inspection at Browns Ferry Nuclear Power Plant,” November 14, 2018, ADAMS ML18318A267.

¹⁷ “Browns Ferry Nuclear Plant, Unit 1 – NRC Special Inspection Report 05000259/2018050,” January 23, 2019, ADAMS ML19023A539.

¹⁸ NRC Press Release I-15-003, “NRC Initiates Special Inspection at Pilgrim Nuclear Power Plant,” February 2, 2015, ADAMS ML15033A156.