Staff Response to Alternate View

A staff member provided an alternate view proposing an approach to reduce the burden of the reporting requirements in Title 10 of the *Code of Federal Regulations* (10 CFR) 50.72(b)(2)(iv)(A), on emergency core cooling system discharge notifications; 10 CFR 50.72(b)(3)(iv)(A), on notifications of events or conditions resulting in valid actuation; and 10 CFR 50.72(b)(3)(v), on notifications of events or conditions preventing fulfillment of safety functions The alternate view also proposes to retain the requirements of 10 CFR 50.72(b)(3)(xiii), on notifications of events that result in a major loss of communications or emergency assessment capability.

The alternate view asserts that elimination of the reporting requirements in 10 CFR 50.72(b)(2)(iv)(A), 10 CFR 50.72(b)(3)(iv)(A), and 10 CFR 50.72(b)(3)(v) could degrade the NRC's operational awareness of risk-important events by removing a defense-in-depth layer that exists under the current system, which includes both licensee reporting and NRC inspection follow-up. The staff member's view is that a more balanced approach would be to maintain the above reporting requirements while extending the 8-hour timeframe for completing the notifications. This approach would better preserve the NRC's oversight and awareness of degraded plant conditions while reducing unnecessary licensee burden.

The alternate view raises the following issues:

(1) Resident inspectors are on site for only limited periods time and are tasked to perform audit and sampling inspections in selected areas. They are not resourced to provide a continuous onsite presence and cannot be expected to be aware of every plant condition or anomaly that may develop. While resident inspectors attend many meetings and review plant documents to gain information on plant events, they may reasonably fail to detect some plant events.

(2) The staff position seems to define "prompt action" by the NRC for these risk-significant events as being associated specifically with the dispatch of a special inspection team (SIT). However, the NRC has a much broader range of possible prompt follow-up actions for reported events, not just the dispatch of a SIT.

(3) It is not acceptable for the NRC to rely on the report under 10 CFR 50.73, "Licensee event report system," as a backstop for learning of a plant anomaly, because this report may be issued as late as 60 days after the event. This is too late to ensure that the NRC can perform timely and complete follow-up inspections of degraded conditions and can take all necessary actions to assess licensee safety performance.

(4) The current guidance for emergency action level (EAL) reporting, in Nuclear Energy Institute (NEI) 99-01, Revision 6, "Development of Emergency Action Levels for Non-passive Reactors," issued November 2012, excludes the reporting of a loss of emergency assessment capability. The basis for this exclusion is that these conditions are to be assessed and reported in accordance with 10 CFR 50.72, "Immediate notification requirements for operating nuclear power reactors."

(5) The historical information provided in the draft *Federal Register* notice (FRN) on the proposed elimination of the requirement in 10 CFR 50.72(b)(3)(xiii) does not reflect the impact on offsite response organizations or any additional actions or plans that past

reports may have triggered. The NRC's expertise is focused on onsite emergency preparedness; in the event of an emergency at an operating facility, the actual responsibility to take action to protect the public lies with State and local authorities, which have the operating and response procedures and the facilities and equipment to do so, as well as the necessary authority to direct first responders.

(6) The staff's analysis relies in part on resident inspector awareness of any major loss of emergency assessment capability. However, there is no formal process in place to notify State officials of this type of loss so they can adjust their planning and response preparedness efforts.

Staff Response

The alternate view recommends that the NRC consider extending the 8-hour reporting time requirement to allow licensees to focus on plant safety immediately after an event. It further states that eliminating the 10 CFR 50.72 reporting requirements would not significantly reduce licensee burden, because investigations would still be required to meet the 10 CFR 50.73 reporting requirements. The staff agrees that extending the 8-hour timeframe would be a viable option. The option was considered by the working group and is documented in the regulatory basis for the proposed rulemaking, but was ultimately rejected in favor of elimination of the 10 CFR 50.72 reporting requirements in question. As discussed in the regulatory basis, the staff estimated that extending the reporting time limit would result in costs to licensees to revise their procedures and training, as well as costs to the NRC to amend its regulations, guidance, and NRC Form 391, without substantially benefiting the NRC, licensees, or other stakeholders.

Item 1: Resident Inspector Role

Summary of Alternate View

While resident inspectors attend many meetings and review plant documents to gain information on plant events, they may reasonably fail to detect some plant events.

Staff Response

The staff agrees that resident inspectors are not on site full-time and may therefore be unaware of off-normal events. There are historical examples of inspectors missing risk-significant anomalies. Inspection Manual Chapter (IMC) 2515, "Light Water Reactor Inspection Program," states that resident inspectors provide the major onsite NRC presence for direct observation and verification of licensees' ongoing activities. Appendix D, "Plant Status," outlines the responsibilities of a resident inspector, as the NRC's onsite representative, for being aware of major activities and plant status. Resident inspectors are also the primary NRC onsite evaluators for events or incidents. They carry out most of the initial event-related inspection effort, although other inspectors may join them depending on the type and significance of the event. Whether an immediate event notification is made or not has no bearing on the resident inspector's responsibility to gather and verify information on activities that could affect safe plant operation. One of the first things resident inspectors do when reporting on site is to review the control room logs covering the previous 24 hours (or more, depending on how long they were absent), and these logs would capture any off-normal events.

Moreover, the alternate view disregards the fact that, in general, licensees voluntarily notify resident inspectors of off-normal conditions. The original petition for this rulemaking provides data showing that nearly all of the 10 CFR 50.72 reports filed in the past state that the resident inspector has been or will be notified. The defense-in-depth mechanisms already in place (e.g., voluntary notification of resident inspectors, control room logs, corrective action programs) make it unlikely that resident inspectors will miss nonemergency events covered by 10 CFR 50.72, and if they do miss a nonemergency event that does not lead to an emergency declaration, the consequences are relatively low.

Item 2: Prompt Follow-up Actions

Summary of Alternate View

The alternate view states that the events covered by 10 CFR 50.72 are "risk important." It also states that the staff position seems to define "prompt action" by the NRC as being associated with the dispatch of a SIT. However, the NRC has a much broader range of possible prompt follow-up actions for reported events, not just the dispatch of a SIT.

Staff Response

The alternate view states that the events covered by 10 CFR 50.72 are "risk important." While these events do increase a plant's baseline risk, the data provided in the regulatory basis suggest that individually, these events are less risk-significant than originally thought. Only 13.8 percent of events reportable under 10 CFR 50.72 for which an evaluation under Management Directive (MD) 8.3, "NRC Incident Investigation Program," was completed led to the initiation of a reactive inspection. Unless certain deterministic criteria are tripped, the initiation of a reactive inspection is based on conditional core damage probability. Very few safety-significant inspection findings resulted from the reactive inspections performed. (In contrast, 23.5 percent of events not reportable under 10 CFR 50.72 for which an MD 8.3 evaluation was completed led to the initiation of a reactive inspection.)

The alternate view also states that the staff position in the rulemaking seems to define "prompt action" by the NRC as being associated with the dispatch of a SIT. The staff disagrees. Resident inspectors have primarily responded to these events through routine baseline inspection activities, and the FRN states that event follow-up will continue to be through routine inspection activities. If an event is determined to be safety significant, then a reactive inspection may be initiated.

Item 3: 10 CFR 50.73 Reporting as a Backstop

Summary of Alternate View

The alternate view states that 10 CFR 50.73 reports cannot serve as a backstop, because they may be submitted as late as 60 days after an event, which is too late to enable the NRC to perform timely and complete follow-up inspections of degraded conditions.

Staff Response

The staff disagrees. First, the alternate view assumes that licensees will end their existing

practice of voluntarily notifying resident inspectors of off-normal conditions. While not required by regulation, this practice is universal, and the supposition that the practice may be terminated without warning is only speculation. Daily plant status activities by resident inspectors include reviewing control room logs, reviewing corrective action program entries, and attending daily plant status meetings, making it unlikely that inspectors would be unaware of one of these nonemergency events for up to 60 days. In addition, while inspectors will review nonemergency events under appropriate baseline inspection processes whenever they become aware of them, such events will not be thoroughly evaluated or closed out for the purposes of assessing licensee performance until the 10 CFR 50.73 report is closed out in an inspection report, consistent with existing practice. Inspectors will continue to review licensee causal evaluations and corrective actions associated with these events to identify any performance deficiencies before closing them out.

Item 4: NEI Guidance for EALs

Summary of Alternate View

The alternate view states that NEI 99-01 excludes the reporting of a loss of emergency assessment capability, on the basis that these conditions will be assessed and reported in accordance with 10 CFR 50.72.

Staff Response

The staff considers the selective failure of several primary and backup (alternative) assessment equipment, which would also not be reportable under other requirements and not further observed by a resident inspector, to be highly improbable given NEI 99-01, the additional criteria in NEI 13-01 for defining emergency action levels, the diversity and redundancy provided in licensee emergency plans, and the review of past event reports.

NRC-approved licensee emergency plans have a significant number of alternatives and backups, particularly for those planning standard functions considered to be risk-significant (i.e., classification of emergency events, development of projected radiological dose consequences, development of effective protective action recommendations, and the communication of these to the offsite response organizations (OROs) and to the NRC). As endorsed by the NRC in a memorandum to NEI dated March 28, 2013 (ML12346A463), NEI 99-01 describes an unplanned loss of control room indications for 15 minutes or longer, for which an unusual event should be declared. This is described in 10 CFR 50.72 as an example of a major loss of emergency assessment capability. The basis for the emergency declaration rests on a selected subset of plant parameters associated with the key safety functions of reactivity control, core cooling or reactor pressure vessel level (as appropriate), and heat removal from the reactor containment system. The loss of the ability to determine one or more of these parameters from within the control room is reportable as an EAL.

Section 3.1 of NEI 13-01, Revision 0, “Reportable Action Levels for Loss of Emergency Preparedness Capabilities,” issued July 2014, as endorsed by the staff in NUREG-1022, Revision 3, Supplement 1, “Event Report Guidelines 10 CFR 50.72(b)(3)(xiii),” dated September 2014, provides detailed guidance on types of reportable examples of a major loss of emergency assessment capabilities. An unplanned major loss of emergency assessment capability is

defined as “loss of a structure or equipment, including indications, display systems and annunciators, that prevents the evaluation of all EALs for an emergency initiating condition.” A planned loss is defined as “loss of a structure or equipment, including indications, display systems and annunciators, that prevents the evaluation of all EALs for an emergency initiating condition for greater than 24 hours, and any of the following: no viable compensatory measure is in place; lost structures or equipment necessary to evaluate at least one EAL are not expected to be restored within 72 hours from the start of the outage; or lost structures or equipment necessary to evaluate at least one EAL are not restored within 72 hours from the start of the outage.”

The alternate view correctly points to the fact that the existing Developer Notes section in NEI 99-01 states, in part, that “a loss of plant annunciators will be evaluated for reportability in accordance with 10 CFR 50.72 (and the associated guidance in NUREG-1022), and reported if it significantly impairs the capability to perform emergency assessments” and “with respect to establishing event severity, the response to a loss of radiation monitoring data (e.g., process or effluent monitor values) is considered to be adequately bounded by the requirements of 10 CFR 50.72 (and associated guidance in NUREG-1022).” This previously endorsed guidance will need to be updated if any changes to reporting regulations are approved. For potential equipment and safety functions not explicitly covered in NEI 99-01 EALs schemes, the staff considers that the likelihood of selective failures of equipment that would constitute a major loss of assessment capability while not simultaneously triggering other EALs is very low. Moreover, the likelihood that NRC inspectors would not become aware of such major conditions in their daily interactions, would also be very low.

Item 5: Impact to Offsite Response Organizations

Summary of Alternate View

The alternate view states that the FRN does not reflect the impact on offsite response organizations and any additional actions or plans that past reports under 10 CFR 50.72 may have triggered, as described by comments received from several State organizations.

Staff Response

The staff agrees that the NRC’s expertise is focused on onsite emergency preparedness, and that in the event of an emergency at an operating facility, the actual responsibility to take action to protect the public lies with State and local authorities, which have the operating and response procedures and the facilities and equipment to do so, as well as the necessary authority to direct first responders. Three States submitted comments on the Regulatory Basis related to the alternate view which the staff considered as described in the FRN. The comments did not provide any examples of NRC-level actions that would be impeded or unacceptable degradation in NRC's situational awareness in the absence of the nonemergency event notifications recommended for elimination through the rulemaking. The staff notes in the proposed FRN that event notifications are useful for awareness of external parties, however, the situational awareness of State and local officials for nonemergency events is outside the scope of the NRC’s regulatory authority. The NRC cannot compel reports that are unnecessary for NRC actions only to facilitate State- and local-level awareness. The staff incorporated changes to the regulatory analysis to account for the States that have indicated that they would initiate procedures to require any nonemergency event notification requirements at a State level that are eliminated by the proposed rule. The resulting costs did not change the NRC staff’s

recommendations in the regulatory basis in response to these comments. Finally, the staff notes that, in this proposed rulemaking, State and local governments are invited to provide additional comments on specific impacts, benefits, costs, and other views in removing this requirement.

Item 6: Resident Inspector Role in Communicating with Offsite Organizations about Major Losses of Emergency Assessment Capability

Summary of Alternate View

The alternate view states that the staff's analysis relies in part on resident inspector awareness of any major loss of emergency assessment capability; however, there is no formal process in place to notify State officials of this type of loss so they can adjust their planning and response preparedness efforts. It further states that given the reliance on resident inspectors described in the FRN, the agency should develop a formal process or procedure for promptly communicating any resident inspector awareness of degraded conditions in this area to State and local response officials.

Staff Response

Resident inspectors are not currently required to directly communicate with States on potential changes in a licensee's emergency assessment capabilities. For licensee Emergency Planning programs, it is therefore not expected that any different actions by resident inspectors or NRC staff would be required in communicating with State and local officials as result of this rule. EAL declarations serve to inform OROs and the NRC of significant losses of emergency assessment capabilities or communication capabilities, as does the subsequent emergency event report per 10 CFR 50.72(a)(i). This emergency event report is intended to inform the OROs and the NRC of potential impediments to effective implementation of the approved emergency plan, (i.e., emergency assessment capability), before an actual radiological emergency occurs. As discussed above, the staff considers that the likelihood of selective failures of equipment that would constitute a major loss of assessment while not simultaneously triggering other EALs is very low. Finally, as discussed in MD 5.2, "Cooperation with States at Commercial Nuclear Power Plants and Other Nuclear Production or Utilization Facilities," NRC staff formally and informally communicate with States (e.g., State Liaison Officer communication) on events and major issues, especially those of mutual interest. In the highly unlikely event that there are conditions that may be considered a major loss of emergency assessment, the resident inspectors will notify their Branch Chief and Regional State Liaison Officer (RSLO) as with any other major plant issue. The RSLO will notify State and local response organizations in accordance with their normal protocols.