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January 31, 1992

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Washington, DC 20555

RE: Comments On NUREG-1022, Revision 1, "Event Reporting Systems, 10 CFR 50.72 and 50.73, Clarification of NRC Systems and Guidelines for Reporting," (Draft Report), 56 Fed. Reg. 50,598 (October 7, 1991)

I. Introduction

On behalf of the undersigned power reactor licensees,^{1/} this letter provides comments on Draft NUREG-1022, Revision 1, "Event Reporting Systems, 10 CFR 50.72 and 50.73, Clarification of NRC Systems and Guidelines for Reporting," in accordance with the request for comments (see 56 Fed. Reg. 50,598 (Oct. 7, 1991)), and the subsequent extension of the comment period (see 56 Fed. Reg. 59,303 (Nov. 25, 1991)).

In general, we commend the NRC Staff for its efforts to consolidate and clarify the existing reporting guidance. We also appreciate the NRC Staff's continuing efforts to improve the reporting guidance by seeking to address industry concerns and questions with regard to the interpretation and application of the requirements. This is a process that most emphatically should continue.

However, our review of draft NUREG-1022, Rev. 1, has identified, in several sections, new NRC Staff positions that are inconsistent with either or both the regulations and the existing reporting guidance contained in the original NUREG-1022, and its two supplements. While not all changes from existing guidance

^{1/} These comments are submitted on behalf of the following power reactor licensees: Duke Power Company, Niagara Mohawk Power Corporation, Northeast Utilities, Public Service Electric & Gas Company, Rochester Gas and Electric Corporation, Tennessee Valley Authority, TU Electric, and Washington Public Power Supply System.

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would be inappropriate, the impact on licensees from the specific changes discussed below would be significant. Our comments address these issues and offer recommendations for improvements in the proposed reporting guidance.

II. Discussion

A. Background

Since the promulgation of the current version of the NRC's reporting obligations under 10 C.F.R. §§ 50.72 and 50.73, and the accompanying NRC Staff guidance regarding the interpretation and implementation of those provisions,^{2/} substantial experience has been gained by licensees in the application of those reporting criteria. Over this period, licensees have been able to evaluate and apply the reporting criteria in a reasonable manner, on a case-by-case basis. However, interpretations of the regulations both within the industry and within the NRC have been noticeably inconsistent. Licensees have also noted that there have been a number of occasions in which the NRC has sought, either informally or in enforcement actions, to modify previously accepted interpretations of these requirements. Inconsistent Staff interpretations of the reporting requirements has resulted in unwarranted uncertainty on the part of licensees as to the reportability of what are often insignificant events or conditions.

The uncertainty over reporting thresholds has also led to an informal lowering of those thresholds. This tendency is counterproductive. It could result in flooding the NRC with unnecessary reports of insignificant information. It also leads to the unwarranted negative publicity often associated with formal reports of "incidents" or "events" at nuclear power plants.

These concerns were reflected in licensees' responses to the 1989 Regulatory Impact Survey. In response, the NRC Staff informed the Commission and licensees that it would undertake efforts to address these issues. The announced intent of this effort was to address both apparent inconsistencies in reporting and the underlying thresholds for reporting to ensure that the thresholds

^{2/} See 48 Fed. Reg. 39,039 (Aug. 29, 1983) (Section 50.72) and 48 Fed. Reg. 33,850 (July 28, 1983) (Section 50.73); see also "Licensee Event Reporting System, Description of System and Guidelines for Reporting", NUREG-1022 (September 1983) and Supplements 1 and 2 (Feb. 1984, and Sept. 1985, respectively). For convenience and clarity herein, we will refer to the current NUREG-1022, together with its supplements, as NUREG-1022, Rev. 0.

established an appropriate level of significance.^{3/} To this end the Staff indicated that it was pursuing these issues with the industry and would hold Regional Workshops to obtain further feedback from licensees and the public. These workshops were conducted in the Fall of 1990. At the workshops, licensees expressed similar concerns as had been reflected in the Regulatory Impact Survey responses.

B. Overview of Comments

We support the NRC Staff's efforts to consolidate existing reporting guidance. It is important to licensees and the Staff that consistent interpretations of those provisions be applied by both licensees and the NRC. However, such guidance must also be consistent with the underlying regulatory provisions and the intent of the Commission in adopting those provisions. We find that many sections of the draft guidance reflect positions that are either inconsistent with the regulations or the original intent of the reporting requirements. We believe some of the guidance also represents new or different Staff interpretations of what is required by the reporting regulations. In these cases, we believe the new guidance would substantially increase the number of reports licensees would be obligated to submit.

Significantly, the overall direction of the proposed new Staff guidance appears to be towards the formal reporting of normal operational occurrences, rather than focusing reporting on events or conditions with actual or potential safety significance. This new focus not only is inconsistent with the reporting regulations, but would redirect licensee and NRC resources away from the review, evaluation, and reporting of safety-significant events or conditions. To the extent some of these new events or conditions that might be reported under the new guidance are viewed as having marginal safety-significance, we note that virtually all of this information is already available to the NRC in other forms. If the NRC feels the need to collect and review this data, it should do so outside of the formal reporting system and in a manner that does not carry the negative implications of that system.

As also discussed below, many of the proposed changes to the reporting guidance may not be properly implemented without modification of the existing regulations because they directly conflict with those regulations. Other portions of the proposed new guidance would so alter the previous Staff positions that backfitting analyses should be performed. It is our view that many

^{3/} See, e.g., "Draft Regulatory Impact Survey Report," SECY-90-080 (March 9, 1990), at pp. 8-9.

of those changes would not survive the scrutiny of new rulemaking or backfitting analyses.

Accordingly, we recommend substantial changes to the proposed new reporting guidance before issuance in final form. To this end, we recommend that the Staff undertake new discussions with interested persons, including additional, more interactive, workshops. In addition, before implementation of final guidance, we recommend that a further opportunity for comment be afforded in view of the substantial changes that are needed.

C. Specific Comments

The following section addresses six specific areas where NUREG-1022, Rev. 1, does not reflect the language and/or intent of 10 C.F.R. §§ 50.72 and 50.73, and/or departs from existing NRC Staff guidance interpreting these sections to require licensees to report certain minor events and/or conditions that are not currently reportable, and should not be reportable. Despite assertions that substantial changes are not expected in the number of industry-wide notifications as a result of the new guidelines (see Executive Summary, at p. xii), NUREG-1022, Rev. 1, these six areas would broaden NRC expectations for reporting in such a way that a significant increase in the number of notifications would occur. This increase would not only impose a significant burden on licensees, but would unnecessarily divert licensee and NRC resources from attention to more safety-significant efforts.

The following discussion addresses our comments and offers recommendations for resolving the inconsistencies.

1. Contrary To The Regulations, The Proposed New Reporting Guidance Would Require Licensees To Report Degraded Component-Level Conditions, Rather Than Degraded Plant Conditions.

REGULATORY FRAMEWORK: 10 C.F.R. § 50.72(b)(1)(ii) requires, in pertinent part, that licensees report within one hour:

Any event or condition during operation that results in the condition of the nuclear power plant, including its principal safety barriers, being seriously degraded; or results in the nuclear power plant being . . . (B) [i]n a condition that is outside the design basis of the plant (Emphasis added.)

In addition, licensees must file a Licensee Event Report (LER) within 30 days for such events or conditions, pursuant to the requirement of 10 C.F.R. § 50.73(a)(2)(ii).

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Of most relevance to the discussion below, these reporting requirements focus on events or conditions that result in a condition that affects "the nuclear power plant."

EXISTING NRC GUIDANCE: The Statements of Consideration accompanying the issuance of both these requirements clearly articulate an NRC position that licensees were not generally expected to report component-level events or conditions pursuant to these subsections:

It is not intended that this paragraph apply to minor variations in individual parameters, or to problems concerning single pieces of equipment.

48 Fed. Reg. at 39,042, col. 2, and 48 Fed. Reg. at 33,856, col. 1. Instead, the Commission envisioned the need to report component-level conditions "only if they involve functionally related components or if they significantly compromise plant safety" (*id.*). This interpretation is reprinted verbatim in the existing reporting guidance for these requirements, see NUREG-1022, Rev. 0, at p. 12.

PROPOSED NEW GUIDANCE: As currently drafted, the proposed new reporting guidance specifically requires licensees "to report events and conditions pertaining to **components**, **s**ystems, and **structure**." that meet the criteria of Section 50.72(b)(1)(ii) (see § 3.2.4, at p. 41 (emphasis added)). In addition, the new guidance would require the reporting of any seriously degraded component or any component outside its design basis, regardless of its affect on the nuclear power plant. For example, the guidance states that "[t]he phrase 'plant being seriously degraded' refers to a condition of a system, structure, or **component** in which there has been **some** loss of quality or functional capability" (§ 3.2.4, at p. 43 (emphasis added)). Furthermore, the guidance states that conditions outside the plant's design include those in which "a structure, system, or **component** is unable to perform its intended safety function . . . [or] is exceeding the specific value or range of values that were chosen for controlling parameters" (§ 3.2.4, at p. 45 (emphasis added)), irrespective of the effect on plant conditions, as directed by the regulations.

SPECIFIC CONCERN: The proposed new reporting guidance would substantially increase the existing reporting obligations of Sections 50.72(b)(1)(ii) and 50.73(a)(2)(ii) by requiring licensees to report conditions involving individual structures, systems, or components when there has been some loss of quality or functional capability, or some condition exceeding specified controlling

parameters.^{4/} However, the new reporting guidance does not consider whether the system, structure, or component's condition has seriously degraded the plant or has placed the plant in a condition outside its design basis as provided in the regulation. Thus, the new guidance would unnecessarily extend the licensee's obligation to report beyond the existing regulatory requirements.

As currently articulated, this draft guidance would also lead to prompt reports of all inoperable equipment, regardless of applicable Technical Specifications. This guidance is particularly absurd, given that violations of Technical Specifications currently are (under the regulations) reportable only as a 30-day report under 10 C.F.R. § 50.73(a)(2)(B). We do not believe that the Commission intended that all non-conforming component-level anomalies be promptly reportable.

RECOMMENDATION: We recommend that the Staff revise the guidance to return to the approach suggested by the current NUREG-1022. Reporting of losses of quality to individual components is contrary to the regulations contained in 10 C.F.R. §§ 50.72(b)(1)(ii) and 50.73(a)(2)(ii). Further, we do not believe the Commission may cure this defect through the performance of a backfitting analysis in that the proposed guidance is, simply, in conflict with current regulations.

2. Contrary To The Regulations, The Proposed New Reporting Guidance Would Require Licensees To Report When Structures, Systems, Or Components Are In A Condition Outside Their Engineering Design Basis Or Licensing Basis, Rather Than When The Plant Is In A Condition Outside Its Design Basis.

REGULATORY FRAMEWORK: 10 C.F.R. § 50.72(b)(1)(ii) requires, in pertinent part, that licensees report within one hour:

Any event or condition during operation that . . . results in the nuclear power plant being . . . (B) [i]n a condition that is outside the design basis of the plant (Emphasis added.)

A licensee must also file an LER within 30 days of such an event or condition pursuant to 10 C.F.R. § 50.73(a)(2)(ii)(B).

^{4/} These types of conditions are typically associated with the entry into an applicable Technical Specification action statement for an inoperable system, structure, or component, which should not, on its own, warrant reporting.

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In the discussion below, we focus on the aspect of these reporting requirements associated with an event or condition that places "the plant" outside its "design basis," where "design basis" is an explicitly defined term, see 10 C.F.R. § 50.2.

EXISTING NRC GUIDANCE: The NRC Staff recently described in detail what constitutes the design basis of the plant, and contrasted the concept of design basis with the concept of licensing basis and engineering design basis. Specifically, SECY-91-364, "Design Document Reconstitution," (Nov. 12, 1991) provided the following relevant NRC statement (at p. 3):

From a regulatory point of view, the design bases of a facility are a subset of the licensing basis In NUREG-1397, "An Assessment of Design Control Practices and Design Reconstitution Programs in the Nuclear Industry," the staff defined "engineering design basis" to include both the design basis as defined by 10 CFR 50.2 and other design considerations implemented to optimize the system design

Even clearer, NUREG-1397 (Feb. 1991), (at p. 4-11, (emphasis added)) states that "[t]he 10CFR50.2 definition of design bases is used in determining immediate notification requirements under 10CFR50.72 and licensee event report requirements under 10CFR50.73."

PROPOSED NEW GUIDANCE: Contrary to the regulation, and the NRC Staff's own statements in NUREG-1397, the proposed new reporting guidance informs licensees that "[w]hen evaluating the reportability of conditions that appear to be outside the design basis of the plant, 'engineering design bases' as defined in NUREG-1397 . . . should be used" (§ 3.2.4, at p. 44, (emphasis added)). The proposed new guidance also would require licensees to consider "the current licensing bases" (§ 3.2.4, at p. 44, and § 3.3.2, at p. 80 (emphasis added)) when addressing reportability. Further, as an example of the extent to which the NRC Staff would now expect licensees to report under these regulations, the new guidance states that if "a structure, system, or component is unable to perform its intended safety function(s), . . . the plant is considered to be outside the bounds of its design basis" (§ 3.2.4, at p. 45 (emphasis added)).

SPECIFIC CONCERN: The proposal that licensees consider for purposes of reporting, under Sections 50.72(b)(1)(ii)(B) and 50.73(a)(2)(ii)(B), the plant's engineering design basis and licensing basis directly conflicts with the explicit language of the regulations. By their terms, the regulations contemplate only the plant design basis. In addition, the proposed new reporting guidance directly conflicts with the positions reflected in SECY-

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91-364 and NUREG-1397, and the industry practice in place since issuance of Sections 50.72 and 50.73.

In fact, under the proposed guidance, any design or engineering constraint would need to be reviewed, as well as all information in the FSAR and on the plant's docket, to ascertain whether the event or condition in any manner placed any individual structure, system, or component outside some basis, whether engineering, licensing, or design.^{3/} This would lead to prompt reporting of all degraded or non-conforming conditions, of all inoperable equipment otherwise covered by Technical Specifications, as well as all Technical Specification violations. Again, such a result would be inconsistent with current regulations that explicitly require only 30-day reports for Technical Specification violations. Such guidance would also result in a flood of unnecessary and non-informative reports.

RECOMMENDATION: We recommend the removal of any discussion suggesting a requirement to report events or conditions that are outside a structure, system, or component's individual engineering design basis and/or licensing basis. The proposed new reporting guidance is contrary to the regulations contained in 10 C.F.R. §§ 50.72(b)(1)(ii)(B) and 50.73(a)(2)(ii)(B), and would substantially increase the number of prompt reports needed. Instead, the reporting threshold should require reports only when the design basis of the plant is exceeded -- where the term "design basis of the plant" relates (as it has historically been treated) to performance of principal safety barriers. Further, we do not believe the Staff may cure this defect in the draft guidance through the performance of a backfitting analysis. The proposed guidance is, simply, in conflict with the regulation itself.

3. Contrary To The Regulations, The Proposed New Reporting Guidance Would Require Licensees To Report Events Or Conditions That Result In An Unanalyzed Condition That Has The Potential To Significantly Compromise Plant Safety.

REGULATORY FRAMEWORK: 10 C.F.R. § 50.72(b)(1)(ii) requires, in pertinent part, that licensees report within one hour:

^{3/} In addition, Section 3.3.1 of the draft guidance (at p. 76), which addresses seriously degraded or unanalyzed conditions found while the plant is shutdown, refers licensees to the guidance contained in Section 3.2.4. Thus, by reference, the new guidance implies that "engineering design basis" and "licensing basis" should also be considered when assessing reportability pursuant to the requirements of 10 C.F.R. § 50.72(b)(2)(i).

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Any event or condition during operation that . . . results in the nuclear power plant being: (A) [i]n an unanalyzed condition **that significantly compromises** plant safety (Emphasis added.)

Licensees must also file an LER within 30 days for such events or conditions, see 10 C.F.R. § 50.73(a)(2)(ii).

We focus below on the aspect of this reporting requirement associated with an event or condition that affects the plant in such a manner as to "significantly compromise[] plant safety."

EXISTING NRC GUIDANCE: The Statements of Consideration underlying both these reporting requirements explains, by example, that "small voids in systems designed to remove heat from the reactor core which have been shown through analysis not to be safety significant need not be reported" (48 Fed. Reg. at 39,042, col. 2, and 48 Fed. Reg. at 33,856, col. 1). This example is reiterated verbatim in the existing reporting guidance (see NUREG-1022, Rev. 0, at p. 12). When separately questioned on a related concept regarding whether licensees need to report if the "plant could have potentially been in an unanalyzed condition," the existing NRC reporting guidance provides the following answer: "The event is **not reportable** [under this subsection] if the plant **was never in an unanalyzed condition**" (NURFG-1022, Rev. 0, Supp. 1, Question and Answer 4.1, at p. 6 (emphasis added)).

PROPOSED NEW GUIDANCE: The proposed new reporting guidance states that the intent of Section 50.72(b)(1)(ii) is "to ensure that **potentially significant conditions or events**" are reported (§ 3.2.4, at p. 47 (emphasis added)). With regard to subsection (A), the new guidance also states that an unanalyzed condition exists

if (1) the condition **potentially** affecting a component, system, or structure is of more than minor safety significance; and (2) the condition **potentially** could (a) increase the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the safety analysis report, or (b) create a **reasonable potential** for an accident or malfunction of a different type than any evaluated previously in the safety analysis report, or (c) reduce the margin of safety as defined in the basis for any technical specification.

§ 3.2.4, at pp. 43-44 (emphasis added). For example, the guidance expects licensees to report "spills that create conditions that **could affect** component operability, qualification, or design life" (§ 3.2.4, at p. 47 (emphasis added)). The new guidance would also require a licensee to report an in-plant spill or flood that

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"potentially affects vital equipment" (see § 3.2.8, at p. 69 (emphasis added)).

SPECIFIC CONCERN: In sum, the proposed new reporting guidance would require licensees to report an event or condition that results in an unanalyzed condition that has the **potential** to significantly compromise plant safety. This new guidance therefore adds an additional layer of reportability by requiring licensees to consider not only whether the event or condition actually results in an unanalyzed condition that "significantly" compromises plant safety, but also to assess the "potential" to "significantly" compromise safety. Returning to the small void example in the Statements of Consideration for Sections 50.72 and 50.73, even if a licensee concludes that the voids would not result in an unanalyzed condition that significantly compromises plant safety, they could nonetheless conclude that the voids would be reportable because there was a "potential," perhaps under other "hypothetical conditions," to significantly compromise plant safety.

In another case, in real time, a licensee using the new guidance may determine that it needs to report a condition because of a potential impact long before the impact becomes a fact (which could then be assessed for reportability). Thus, the inclusion of the term "potential" or any other language involving possibilities, expands the reportability threshold to include events and conditions not otherwise reportable by the explicit language of the regulations.

This guidance is completely contrary to current regulations, existing guidance, and existing practice. Stated directly, nothing in the language of the regulations suggests the need for filing potential reports. The regulations are written in the present (Section 50.72) and past (Section 50.73) tenses -- meaning quite plainly that the event or condition to be reported actually exists or existed. No other aspect of these requirements suggests the need for anticipatory reports.

RECOMMENDATION: We recommend the deletion of any references to **potentially** significant events or conditions as an element of the discussion in Section 3.2.4 of NUREG-1022, Rev. 1, because the proposed new reporting guidance is contrary to the applicable regulations, i.e., 10 C.F.R. §§ 50.72 b)(1)(ii) and 50.73(a)(2)(ii). While we submit that the language of the regulation itself precludes this interpretation, and thus the defect cannot be cured through the completion of a backfitting analysis, should the NRC decide to issue NUREG-1022, Rev. 1, despite this inconsistency, the NRC should justify why the new information sought is needed, and should comply with the requirements of 10 C.F.R. § 50.109 (i.e., by addressing the change in Staff position from the original clarifications associated with

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these reporting requirements contained in the underlying Statements of Consideration and existing guidance provided in NUREG-1022).

4. Contrary To The Regulations, The Proposed New Reporting Guidance Would Require Licensees To Report Internal And External Events With A Potential For, Rather Than Having The Actual Effect Of, Significantly Hampering Site Personnel.

REGULATORY FRAMEWORK: 10 C.F.R. § 50.72(b)(1)(vi) requires, in pertinent part, that licensees report within one hour:

Any event that poses an actual threat to the safety of the nuclear power plant or **significantly hampers** site personnel in the performance of duties necessary for the safe operation of the nuclear power plant
(Emphasis added.)

Licensees must also file an LER within 30 days for such events, pursuant to 10 C.F.R. § 50.73(a)(2)(x).

Similarly, 10 C.F.R. § 50.72(b)(1)(iii) requires, in pertinent part, that licensees report within one hour:

Any natural phenomenon or other external condition that poses an actual threat to the safety of the nuclear power plant or **significantly hampers** site personnel in the performance of duties necessary for the safe operation of the plant. (Emphasis added.)

Licensees must also file an LER within 30 days for such phenomenon, pursuant to 10 C.F.R. § 50.73(a)(2)(iii).

We focus below on the aspect of these reporting requirements associated with an event or condition that "significantly hampers" site personnel.

EXISTING NRC GUIDANCE: The Statements of Consideration underlying Section 50.72(b)(1)(vi) indicate that "[t]his provision requires reporting of events, particularly those caused by acts of personnel, which endanger the safety of the plant or interfere with personnel in [the] performance of duties necessary for safe plant operations" (48 Fed. Reg. at 39,043, col. 2). In the context of a plant fire, the existing reporting guidance states: "To be reportable, the test is whether the plant is **actually** threatened or personnel **are** significantly hampered" (NUREG-1022, Rev. 0, Supp. 1, Question and Answer 9.3, at p. 17 (emphasis added)). Similarly, the Statements of Consideration for Section 50.73(a)(2)(x) notes that a licensee need report "only those events **which** significantly

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hamper the ability of site personnel to perform safety-related activities. . . ." (48 Fed. Reg. at 33,853, col. 1 (emphasis added)).

The Statements of Consideration underlying both Section 50.72(b)(1)(iii) and Section 50.73(a)(2)(iii) indicate that licensees should report external plant conditions or natural phenomenon involving "an actual threat to the plant . . . and where the threat or damage challenges the ability of the plant to continue to operate in a safe manner" (48 Fed. Reg. at 39,042, col. 3, and 48 Fed. Reg. at 33,856, col. 2). The same statement is reiterated verbatim in the existing reporting guidance, see NUREG-1022, Rev. 0, at p. 13. Then by way of an example (a snowstorm), the existing reporting guidance notes that "[i]f the snow significantly hampered personnel in the conduct of their activities, the event is reportable" (NUREG-1022, Rev. 0, Supp. 1, Question and Answer 5.2, at p. 7 (emphasis added)).

PROPOSED NEW GUIDANCE: The proposed new reporting guidance would require licensees to report toxic gas releases with the "potential to significantly hamper personnel" or with the "potential of the gas to spread" (§ 3.2.8, at p. 68 (emphasis added)). Likewise, licensees would be required to report radioactive releases with the "potential to significantly hamper personnel and the potential for an offsite release" (§ 3.2.8, at p. 68 (emphasis added)).^{6/} In addition, the new guidance defines the phrase "significantly hampering site personnel" by requiring licensees to consider events simply "hindering or interfering with" site personnel (§ 3.2.8, at p. 65), without regard to actuality or significance, and then throughout Section 3.2.8 expects licensees to evaluate reportability by considering activities that "may prevent," "may require," or "may result" in significantly hampering site personnel.^{7/} The new guidance would also require licensees to report "[i]f a snowstorm, hurricane, or other similar event could significantly hamper or is expected to significantly hamper

^{6/} Similar guidance is contained in a separate but related reporting requirement. Specifically, 10 C.F.R. § 50.72(b)(2)(v) requires licensees to report "[a]ny event requiring the transport of a radioactively contaminated person to an offsite medical facility for treatment." However, the new guidance extends this reporting requirement to include events involving "the transport of a potentially contaminated individual offsite to a medical facility" (§ 3.3.6, at p. 107 (emphasis added)).

^{7/} As an example of this approach, the new guidance states that licensees need to report fires that "would typically involve hampering of personnel . . . and perhaps a secondary side initiated transient" (§ 3.2.8, at p. 71 (emphasis added)).

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personnel in the conduct of their activities" (§ 3.2.5, at p. 53 (emphasis added)).

SPECIFIC CONCERN: In sum, the language used in the proposed new reporting guidance would direct licensees to report internal events and external conditions with the potential for significantly hampering site personnel. This new guidance would add an additional layer of reportability by requiring licensees to consider not only whether the event or condition "significantly" hampers, but also to assess the "potential" to "significantly" hamper. This new guidance places an obvious additional burden on the licensee and can only increase the number of reports. In addition, many of the potential reports to be required would be unnecessary. These events may never develop into a situation where personnel are indeed hampered. Thus, the report of potential events provides no meaningful or significant data.

We recognize as does the Staff that "significantly hampering" necessarily entails some judgment. However, to redefine this element of the reporting test by including a "potential" for hampering actually precludes judgment by requiring that all potential conditions be reported. Moreover, the addition of a requirement for potential reports in real time would conflict directly with the present tense in the language of the regulation (i.e., "significantly hampers"). The term suggests that the hampering at issue is already occurring or has occurred.

Moreover, the re-definition of "significantly hampered" as "hindering or interfering with" significantly lowers the reporting threshold. The guidance is directly contrary to the reporting standard. In fact, we see no basis to require such a low reporting threshold.

RECOMMENDATION: We recommend the deletion of any references to potential events or conditions, with respect to significantly hampering site personnel, as an element of reporting. We also recommend deleting the language in the guidance that would lower the reporting threshold by redefining "significantly hampered" as something other than just that standard. In these two areas, the proposed new reporting guidance is contrary to the regulations contained in 10 C.F.R. §§ 50.72(b)(1)(iii) and (vi), and 50.73(a)(2)(iii) and (x). While we submit that the language of the regulation itself precludes this interpretation, and thus the defect cannot be cured through the completion of a backfitting analysis, should NRC decide to issue NUREG-1022, Rev. 1, despite this inconsistency, NRC should justify why information regarding potentially significant events or conditions is needed and comply with the requirements of 10 C.F.R. § 50.109.

5. Contrary To The Intent Of The Regulations, The Proposed New Reporting Guidance Would Require Licensees To Report Events That Pose A Threat To NonSafety-Related Equipment Or That Significantly Hamper Site Personnel In The Performance Of NonSafety-Related Activities.

REGULATORY FRAMEWORK: 10 C.F.R. § 50.72(b)(1)(vi) requires, in pertinent part, that licensees report within one hour:

Any event that poses an actual threat to the safety of the nuclear power plant or significantly hampers site personnel in the performance of duties necessary for the safe operation of the nuclear power plant

In addition, licensees must file an LER within 30 days for such events, pursuant to the requirements of 10 C.F.R. § 50.73(a)(2)(x). These two reporting obligations focus on the "safety" or "safe operation" of the nuclear power plant.

EXISTING NRC GUIDANCE: The Statements of Consideration underlying Section 50.73(a)(2)(x) specifically limit the extent of the regulation by stating that "the scope has been narrowed so that the hazard must hamper the ability of site personnel to perform safety-related activities affecting plant safety" (48 Fed. Reg. at 33,856, col. 3 (emphasis added)). This limitation is also reflected in the existing NRC guidance for these requirements, see NUREG-1.22, Rev. 0, at pp. 17-18. Similarly, by way of example, NUREG-1022, Rev. 0, Supp. 1, addresses the reportability of an internal fire in the refueling bridge: "If the plant is not moving fuel and the fire does not otherwise threaten safety equipment and does not hamper site personnel, the fire is not reportable" (Question and Answer 9.4, at p. 17 (emphasis added)).

Licensees have interpreted these guidelines to preclude reporting events that threatened nonsafety-related equipment or significantly hamper the performance of nonsafety-related activities. Such events would generally not bear on the "safety" or "safe operation" of the plant, i.e., the underlying basis for reporting.^{5/} This philosophy is also reflected in the Statements of Consideration accompanying the issuance of Section 50.72(b)(1)(vi), wherein NRC states that "[t]he licensee must

^{5/} If a safety system was indirectly threatened, such as due to an effect on another non-safety system, that condition would of course be reportable. However, absent an effect on a safety system or safety function, the condition or event is not reportable. Therefore, the relevant reporting consideration is the effect on safety equipment or safety functions, not interim effects on non-safety items.

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exercise some judgment in reporting under this section" (48 Fed. Reg. at 39,043, col. 2).

PROPOSED NEW GUIDANCE: The proposed new guidance defines the events that significantly hamper site personnel without including the limitation from the Statements of Consideration for Section 50.73 that personnel be hampered in "the performance of safety related activities affecting plant safety" (see § 3.2.8, at pp. 65-66). By omission of this previous guidance, the proposed new guidance extends reporting to include events that significantly hamper site personnel in the performance of any duties, regardless of whether safety-related or nonsafety-related.^{2/} In addition, the proposed new reporting guidance extends an "actual threat" to include threats to the plant's "safety-related or other non-safety-related equipment" (§ 3.2.8, at p. 65). The Staff also expects licensees to apply these reporting requirements broadly, "covering more than just safety systems" (*id.*). Finally, licensees would be required to provide followup notification on the "status of any non-safety-related equipment or systems normally used to cool the reactor" (§ 4.3.4, at p. 151).

SPECIFIC CONCERN: Under the proposed new reporting guidance, licensees would need to report events that threaten nonsafety-related equipment, as well as safety-related equipment, or significantly hamper the performance of nonsafety-related activities, as well as safety-related activities. Instead of focusing on the safety or safe operation of the plant, this new guidance would direct licensees to report any activity that threatens the plant regardless of the degree of impact on the plant or plant activities, or even the degree of impact on safety-related plant equipment and activities. In this way, the new guidance focuses on, as a basis of reporting, the mechanism (i.e., the threat) rather than the truly relevant result (i.e., an impact on a safety function or safety-related activity).

RECOMMENDATION: We recommend that only references to safety-related equipment and activities be included in Sections 3.2.8 and 4.3.4 of NUREG-1022, Rev. 1. The inclusion of nonsafety-related equipment and activities is contrary to the intent of the regulations contained in 10 C.F.R. §§ 50.72(b)(1)(iv) and 50.73(a)(2)(x). Should the NRC decide to issue NUREG-1022, Rev. 1, despite this inconsistency, the NRC should justify why information on nonsafety-related equipment and activities is needed

^{2/} As an example of this broader focus, the new guidance states that "[s]ignificant hampering of site personnel in the secondary plant areas is also reportable, because it often increases the reactor transients initiated by secondary system anomalies" (§ 3.2.8, at p. 66, emphasis added).

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and complete a backfitting analysis to address the change in staff position from the original guidance associated with these reporting requirements.

6. Contrary To The Intent And Language Of The Regulations, The Proposed New Reporting Guidance Would Require Licensees: (a) To Report ESF Actuations According To A Generic Definition Of An ESF (Irrespective Of A Plant's Licensing Basis Definition); And (b) To Include Within The Scope Of An "Actuation," And Thereby Report, Both The Movement Of An ESF And A Single Channel Actuation In Multi-Channel ESF Systems.

REGULATORY FRAMEWORK: 10 C.F.R. § 50.72(b)(2)(ii) requires, in pertinent part, that licensees report within four hours:

Any event or condition that results in manual or automatic actuation of any **Engineered Safety Feature (ESF)** . . . [unless] actuation of an ESF . . . results from and is part of the preplanned sequence during testing or reactor operation (Emphasis added.)

Licensees must also file an LER within 30 days for such an event or condition, pursuant to 10 C.F.R. § 50.73(a)(2)(iv).

We focus below on the reporting requirement associated with an "actuation of an ESF" that is not part of a preplanned activity.

EXISTING NPC GUIDANCE: a. **ESF Definition:** The Statements of Consideration underlying both of these regulations do not define an ESF, arguably in recognition that each licensee identifies ESFs at their facilities (e.g., a listing in the licensee's FSAR), and NRC reviews and approves the list with the issuance of the initial operating license (e.g., in the Staff's SER). In fact, in the existing reporting guidance the Staff clearly states that licensees should define their own population of plant systems, components, and structures that serve an ESF purpose.

b. **ESF Actuations:** The Statements of Consideration for Section 50.73(a)(2)(iv) also state that "[t]his paragraph requires events to be reported whenever an ESF **actuates** either manually or automatically, regardless of plant status" (48 Fed. Reg. at 33,834, col. 1 (emphasis added)). This same statement is included verbatim in the existing reporting guidance, see NUREG-1022, Rev. 0, at p. 14. Similarly, the Statements of Consideration for Section 50.72 state that the "intent and scope of this reporting requirement . . . is intended to capture events during which an **ESF actuates**, either manually or automatically, or fails to actuate" (48 Fed. Reg. at 39,043, col. 3 (emphasis added)). However, for multichannel ESF systems, licensees need report only when there has

been an "actuation of enough channels to complete the minimum actuation logic. . . . [S]ingle channel actuations (whether caused by failures or otherwise) are not reportable if they do not complete the minimum actuation logic" (48 Fed. Reg. at 33,854, col. 1, and 48 Fed. Reg. at 39,043, col. 3 (emphasis added)). This latter qualification is also reiterated verbatim in the existing reporting guidance, see NUREG-1022, Rev. 0, at p. 14.

PROPOSED NEW GUIDANCE: a. **ESF Definition:** The proposed new reporting guidance states that "ESFs are defined to be those nuclear power plant systems that function to mitigate the consequences of postulated accidents" (§ 3.3.2, at p. 81 (emphasis added)). The new guidance then proceeds to list "typical" ESF systems (§ 3.3.2, Table 2, at p. 82), and states that "[e]quivalent plant systems with different names are to be considered ESF systems for reportability" (§ 3.3.2, at p. 81 (emphasis added)). Moreover, the new guidance would require the reporting of events, for the first time "imply "[i]f components or systems are taken credit for in [the] safety analysis" (id). Under such guidance, the NRC Staff acknowledges "that some plants have not previously reported actuations of some of these ESFs because the FSAR designations of ESF equipment varies" (§ 3.3.2, Footnote 1, at p. 81).

b. **ESF Actuations:** The proposed new reporting guidance states that the simple physical closure of a main steam isolation valve is within the definition of an ESF actuation (§ 3.3.2, at p. 87). In addition, the new guidance implies that single channel actuation in multi-channel ESF systems are reportable by failing to address the single channel actuation exception at all, see § 3.3.2, at p. 83.

SPECIFIC CONCERNS: By actually defining an ESF, the proposed new reporting guidance in effect ignores the fact that licensees can most effectively define what constitutes an ESF for their own facilities. Moreover, the new reporting guidance equates the purpose served by an ESF with the definition of an ESF. Thus, NUREG-1022, Rev. 1, would effectively classify as an ESF any plant system, structure, or component: (i) that functions to mitigate the consequences of postulated accidents, (ii) for which credit was taken in the safety analysis, or (iii) that performs a function similar to those identified in Table 2 of NUREG-1022, Rev. 1. While licensees indeed may develop their ESF list using these or other types of criteria, to explicitly define an ESF with these criteria contradicts the intent of the regulations -- namely to permit each licensee to define the ESF systems based on plant-specific factors.

In addition, as suggested above, the proposed new reporting guidance would extend the reporting requirements for ESF actuations to simple operator errors involving the incorrect movements of

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redundant ESF components as opposed to actual ESF actuations, as well as to single channel actuations in multi-channel ESF systems. This change would increase the number of reports but, given the significance of the new types of events that would be captured, would provide no new meaningful data.

RECOMMENDATION: We recommend the removal of the detailed ESF definition, including Table 2, from Section 3.3.2 of NUREG-1022, Rev. 1. In the alternative, the guidance should be clear that the Table is only for illustrative purposes; licensees should be free to define ESFs for their own facilities.

We also recommend the revision of Section 3.3.2 to incorporate the existing exception to reporting for single channel actuations in multi-channel ESF actuation systems. In both these areas, the proposed new reporting guidance is contrary to the intent of the regulations contained in 10 C.F.R. §§ 50.72(b)(2)(ii) and 50.73(a)(2)(iv).

Moreover, the guidance directing licensees to report ESF movement, as opposed to actuation, directly contradicts the language in the regulations, and should therefore be appropriately revised.

Should the NRC decide to issue NUREG-1022, Rev. 1, despite these inconsistencies, the NRC should justify why a specific ESF definition and reporting of previously non-reportable actuations is necessary, and should complete a backfitting analysis to address the change in Staff position from the original clarifications associated with these reporting requirements contained in the Statements of Consideration and the existing guidance contained in NUREG-1022.

III. Additional Concerns

The following comments reflect additional concerns associated with NRC positions or guidance as articulated in draft NUREG-1022, Rev. 1.

- A. Contrary To The Requirements Of 10 C.F.R. § 50.109, Draft NUREG-1022, Rev. 1, Contains Several New Or Different Staff Positions On Reporting Without A Supporting Backfitting Analysis.

The proposed new reporting guidance contained in NUREG-1022, Rev. 1, was issued without a backfitting analysis, presumably because the NRC Staff concluded that the "document does not change the reporting requirements in 10 CFR 50.72 and 50.73. . . . [and] because the clarifications do not change the scope or intent of the

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reporting requirements in §§ 50.72 and 50.73" (56 Fed. Reg. at 50,598, col. 3). As shown in the above comments, however, there are several sections in NUREG-1022, Rev. 1, that do not reflect the reporting requirements or their intent as previously developed in the underlying Statements of Consideration and existing reporting guidance. Additional comments are identified in Section III.A.1 below. In order to adopt new or different Staff positions in these areas, the NRC Staff must comply with the requirements of 10 C.F.R. § 50.109 by completing a backfitting analysis prior to adopting new reporting guidance.

The NRC Staff, in the draft revision, has specifically acknowledged that "more analyses need to be performed and new efforts need to be developed to extract further lessons from operational data" (§ 1.2, at p. 2). This implies that the NRC is revising its guidance specifically to seek new data and new lessons from information not previously reported. This is nothing if not an acknowledgement that reporting guidance is being revised and that reporting thresholds are being lowered. We do not agree that new information of the type the Staff apparently seeks is needed or useful. However, in the event the Staff identifies a basis for acquiring more information to support additional analyses and developing further lessons learned, again a backfitting analysis is warranted since licensees currently are not required to provide such information under the requirements and interpretations of Sections 50.72 and 50.73.

It is also our view that the Staff is seeking new information by force-fitting that information into the existing requirements of Sections 50.72 and 50.73. Even assuming the expanded information is useful, this approach to information gathering carries with it the additional burdens imposed by the formal reporting process as well as the negative perceptions created by that process. In fact, it is likely that much of the routine operational information now sought is already available to the Staff by other less formal means.

We also observe that over the course of the past 8 years licensees have made extensive use of the existing guidance contained in NUREG-1022, Rev. 0, at times incorporating text and/or references regarding reportable conditions in specific procedures. The decision to "supersede" the existing guidance would require licensees to revise in a significant manner their existing procedures, as well as devise and conduct associated training, thereby creating substantial burdens for licensees. These burdens also should be assessed by NRC prior to the issuance of NUREG-1022, Rev. 1.

1. Proposed Reporting Guidance Involving New Staff Positions On Reporting.

NUREG-1022, Rev. 1, Section 4.2.1 (at p. 129) contains the following Staff position which establishes a new threshold for reporting a "problem" pursuant to Section 50.72:

If the licensee initially decides that a design or operational problem is significant enough to enter a technical specification limiting condition for operation or to take other compensatory measure, it is immediately reportable on that evidence alone (§ 4.2.1, at p. 129).

In addition, Section 4.3.3 (at p. 150) requires a licensee to make a followup report, pursuant to Section 50.72(c)(1)(i), in the event "TS limiting conditions for operation (LCO) [are] entered or exited." These Staff positions reflect new guidance on reporting, and therefore require the completion of a backfitting analysis.

Another example of a request for information regarding events or conditions not currently required to be reported, involves anticipated transients without scram (ATWS):

The guidance given . . . for RPS and ESF definitions, reportability, and exceptions, also applies to the reporting of ATWS system automatic, manual, or inadvertent actuations or failures to actuate (§ 3.3.2, at p. 84).

The typical ATWS system, a nonsafety-related system, is designed as a backup for the Reactor Protection System (RPS), but is not considered a part of the RPS. Neither the reporting requirements of Sections 50.72(b)(2)(ii) and 50.73(a)(2)(v), nor the current guidance associated with these requirements in NUREG-1022, and its two supplements, explicitly requires reporting of ATWS actuations or failures to actuate. Instead, licensees need only report RPS and ESF actuations.

2. Proposed Reporting Guidance Wherein The Staff Has Proposed Different Positions On Reporting.

NUREG-1022, Rev. 1, also contains different reporting guidance than previously provided in NUREG-1022 and its two supplements as reflected in the following area:

Failure to meet [TS Section 6] administrative requirements is prohibited by the TS. Whether it is reportable as an LER depends upon whether it results in a condition covered by the LER rule. If a variance from the administrative requirements of TS results in

operations or conditions prohibited by the TS, then the variance is reportable (§ 3.2.2, at p. 36). If a change in the plant's organizational structure is made that has not yet been approved as a TS change, an LER is required (§ 3.2.2, at p. 38, emphasis added).^{10/}

We recommend the removal of any new or different Staff positions on reporting guidelines contained in NUREG-1022, Rev. 1, unless the Staff first completes a backfitting analysis.

B. NUREG-1022, Rev. 1, Addresses Regulatory Issues That Are Inappropriate For Inclusion In A Reporting Guidance Document.

NUREG-1022, Rev. 1, addresses several issues unrelated to reporting guidance. These discussions should be removed from the document. First, the draft guidance states that when a licensee provides a 1-hour ENS report for degraded or unanalyzed conditions (Section 50.72(b)(1)(ii)), "[t]he licensee typically may be asked to discuss . . . whether a justification for continued operation (JCO) is necessary or being prepared" (§ 4.3.2, at pp. 140-141). Second, the draft guidance states that when a licensee provides a 1-hour ENS report for an emergency core cooling system discharge into the reactor coolant system (Section 50.72(b)(1)(iv)), "the licensee typically may be asked to discuss . . . [the] basis for continued operation" (§ 4.3.2, at pp. 141-142).

Contrary to this guidance, the licensee's decision to develop either a JCO or bases for continued operation (BCO) has no bearing on the reportability of a particular event or condition. As recognized in other recent Staff guidance, reportability is a matter separate from JCO/BCO considerations. We recommend the

^{10/} Compare NUREG-1022, Supp. 1, Question and Answer 2.9, at p. 4, which states in pertinent part (emphasis added):

Although failure to meet the administrative requirements of the Technical Specification is a violation, whether it is reportable as an LER depends upon if it results in a condition covered by the rule. If the violation of the Technical Specifications results in operation prohibited by the Technical Specifications, then the event or condition is reportable. . . . However, if the requirement is only administrative and does not affect plant operation, then an LER is not required; for example, a change in the plant's organizational structure that has not yet been approved as a Technical Specification change.

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deletion of these references from NUREG-1022, Rev. 1, Section 4.3.2.

The new reporting guidance also addresses waivers of compliance by noting that "[e]ntry into STS 3.0.3 for any reason or justification is reportable unless a temporary waiver of compliance is obtained" (§ 3.2.2, at p. 36). We agree that entry into Technical Specification 3.0.3 (a/k/a, "motherhood") is generally reportable as operation in a condition prohibited by the Technical Specifications. However, this reference implies that once in the STS 3.0.3, obtaining a waiver of compliance will eliminate the need to report. This implication cannot be correct if the plant is already in a condition prohibited by the technical specifications (see NRC Memorandum from T.E. Murley, "Temporary Waivers of Compliance," (Feb. 22, 1990)). (We agree that if a waiver of compliance has been received in advance, no report should be necessary as the plant would not have entered STS 3.0.3). Moreover, the concept of waivers of compliance relates to enforcement, not reportability. The discussion regarding temporary waivers of compliance should be clarified or removed from NUREG-1022, Rev.1, Section 3.2.2.

Finally, the new guidance states that service water systems leakage is reportable pursuant to Sections 50.72(b)(1)(ii)(B) and 50.73(a)(2)(ii)(B) "if the licensee is not in compliance with Generic Letter 90-05" (§ 3.2.4, at p. 49). We recommend the deletion of this reference since Generic Letters are not considered regulatory requirements.

IV. Conclusion

We appreciate the opportunity to provide the above comments. We urge the NRC to undertake appropriate steps to modify the proposed new reporting guidance prior to issuance, consistent with the above comments. We look forward to a continued opportunity to interact with the Staff on this effort.

Sincerely,



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