

Rulemaking Comments

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**From:** REED, Joseph [jsr@nei.org] on behalf of KILLAR, Felix [fmk@nei.org]  
**Sent:** Thursday, April 16, 2009 4:19 PM  
**Subject:** Petition to amend 10 CFR Part 70, Appendix A, "Reportable Safety Events"  
**Attachments:** 04-16-09\_NRC\_Petition to amend 10 CFR Part 70 Appendix A Reportable Safety Events.pdf;  
04-16-09\_NRC\_Petition to amend 10 CFR Part 70 Appendix A Reportable Safety  
Events\_Enclosure.pdf

April 16, 2009

DOCKETED  
USNRC

Ms. Annette L. Vietti-Cook  
Secretary  
Attn: Rulemakings and Adjudications Staff  
U.S. Nuclear Regulatory Commission  
Mail Stop O-16C1  
Washington, D.C. 20555-0001

April 20, 2009 (9:30am)

OFFICE OF SECRETARY  
RULEMAKINGS AND  
ADJUDICATIONS STAFF

**Subject:** Petition to amend 10 CFR Part 70, Appendix A, "Reportable Safety Events"

**Project Number:** 689

Dear Ms. Vietti-Cook:

On behalf of the fuel cycle industry and pursuant to 10 CFR 2.802, "Petitions for Rulemaking," the Nuclear Energy Institute (NEI) submits the enclosed petition to amend 10 CFR Part 70, Appendix A, "Reportable Safety Events." The purpose of this petition is to amend Appendix A to further clarify U.S. Nuclear Regulatory Commission (NRC) reporting requirements for certain events that occur at fuel cycle facilities licensed pursuant to Part 70. The lack of clarity with regard to Appendix A requirements has been experienced by licensees and observed by the NRC staff since implementation of the revised Part 70 in 2000. Therefore, it warrants further clarification at this time and we believe that the NRC would be supportive of such amendments.

The adoption of the amendment will help ensure more consistent event reporting and achieve a common understanding of reports required under 10 CFR Part 70; such concerns were originally outlined by industry in the NEI white paper submitted to NRC in June 2007.

We appreciate your attention to this matter. If you have any questions concerning this petition, please contact me or Janet Schlueter (202-739-8098; [jrs@nei.org](mailto:jrs@nei.org)).

Sincerely,

Felix M. Killar, Jr.  
Senior Director, Fuel Supply/Material Licensees  
Nuclear Generation Division

Nuclear Energy Institute

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**nuclear. clean air energy.**

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NUCLEAR ENERGY INSTITUTE

Felix M. Killar, Jr.  
SENIOR DIRECTOR  
FUEL SUPPLY/MATERIAL LICENSEES  
NUCLEAR GENERATION DIVISION

April 16, 2009

Ms. Annette L. Vietti-Cook  
Secretary  
Attn: Rulemakings and Adjudications Staff  
U.S. Nuclear Regulatory Commission  
Mail Stop O-16C1  
Washington, D.C. 20555-0001

**Subject:** Petition to amend 10 CFR Part 70, Appendix A, "Reportable Safety Events"

**Project Number: 689**

Dear Ms. Vietti-Cook:

On behalf of the fuel cycle industry and pursuant to 10 CFR 2.802, "Petitions for Rulemaking," the Nuclear Energy Institute (NEI)<sup>1</sup> submits the enclosed petition to amend 10 CFR Part 70, Appendix A, "Reportable Safety Events." The purpose of this petition is to amend Appendix A to further clarify U.S. Nuclear Regulatory Commission (NRC) reporting requirements for certain events that occur at fuel cycle facilities licensed pursuant to Part 70. The lack of clarity with regard to Appendix A requirements has been experienced by licensees and observed by the NRC staff since implementation of the revised Part 70 in 2000. Therefore, it warrants further clarification at this time and we believe that the NRC would be supportive of such amendments.

The adoption of the amendment will help ensure more consistent event reporting and achieve a common understanding of reports required under 10 CFR Part 70; such concerns were originally outlined by industry in the NEI white paper submitted to NRC in June 2007.

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<sup>1</sup> NEI is the organization responsible for establishing unified industry policy on matters affecting the nuclear energy industry, including the regulatory aspects of generic operational and technical issues. NEI's members include all entities licensed to operate commercial nuclear power plants in the United States, nuclear plant designers, major architect/engineering firms, fuel fabrication facilities, nuclear materials licensees, and other organizations and entities involved in the nuclear energy industry.

Ms. Annette L. Vietti-Cook

April 16, 2009

Page 2

We appreciate your attention to this matter. If you have any questions concerning this petition, please contact me or Janet Schlueter (202-739-8098; jrs@nei.org).

Sincerely,

A handwritten signature in black ink, appearing to read "Felix M. Killar, Jr.", with a stylized, cursive script.

Felix M. Killar, Jr.

Enclosure

c: Mr. Michael Lesar, U.S. Nuclear Regulatory Commission  
Mr. Daniel Dorman, U.S. Nuclear Regulatory Commission  
Ms. Tamara Powell, U.S. Nuclear Regulatory Commission

UNITED STATES  
NUCLEAR REGULATORY COMMISSION

In the Matter of a Proposed Rulemaking  
Regarding Amendment of 10 CFR Part 70,  
Appendix A, "Reportable Safety Events"

Docket No. \_\_\_\_\_

PETITION FOR RULEMAKING

This petition for rulemaking is submitted pursuant to 10 CFR 2.802, "Petitions for Rulemaking" by the Nuclear Energy Institute (NEI) on behalf of fuel cycle facilities licensed pursuant to 10 CFR Part 70. The Petitioner requests that the U.S. Nuclear Regulatory Commission (NRC), following public notice and opportunity for comment, amend 10 CFR Part 70, Appendix A, "Reportable Safety Events" to clarify the existing event reporting requirements based on experience gained since the requirements were implemented in 2000.

I. STATEMENT OF PETITIONER'S INTEREST

NEI's members include entities comprising the fuel cycle industry and other nuclear industries. It is responsible for coordinating the combined efforts of licensed facilities on matters involving generic NRC regulatory policy issues and generic operational and technical regulatory issues affecting the industry operations of every NRC-licensed operating fuel cycle facility and those under construction. Every licensed fuel cycle facility takes its responsibility for regulatory compliance seriously and offers this petition as a means to help ensure that both licensees and NRC continue to support our mutual mission.

II. BACKGROUND

In a June 2007 white paper, NEI documented challenges posed by implementation of the 2000 version of 10 CFR Part 70, particularly Appendix A thereto. The NRC had also observed inconsistent reporting of events under Appendix A and had developed a matrix of reporting issues based on actual events. A working group, consisting of NRC and industry representatives, was formed to achieve a common understanding of reports required under Appendix A.

Industry endorses and is ready to support the specific suggested modifications to 10 CFR Part 70 Appendix A provided in the Attachment to this petition for rulemaking.

III. PROPOSED ACTION

10 CFR Part 70 Appendix A should be amended to clarify the requirements for reportable safety events based on experience to date. Such modifications will help ensure a more uniform understanding of the requirements by licensees and NRC, as well as more consistent reporting of events by licensees. The specific regulatory changes are described in Attachment A.

#### IV. RATIONALE FOR THE CHANGE

Attachment B provides a section by section rationale or basis for and advantage of the proposed change.

#### V. ADDITIONAL CONFORMANCE INFORMATION

##### Environmental Impact Under NEPA

This petition would not constitute or result in a major Federal action significantly affecting the quality of the human environment. Therefore, an environmental impact statement is not required. The petition will not alter the environmental impact of the licensed activities described in the Final Environmental Impact Statement for each facility, as prescribed in the 1969 National Environmental Protection Act and 10 CFR Part 51. The event information required to be reported under the proposed changes remains unchanged and, through implementation of the proposals described in this petition, current event reporting requirements are clarified for the benefit of licensees, NRC and the public.

##### Paperwork Reduction Act Statement

The proposed petition does not contain any new or amended information requirements that would be subject to the 1980 Paperwork Reduction Act.

##### Regulatory Backfit Analyses

There are no backfit issues associated with this petition for rulemaking.

#### VI. CONCLUSION

A granting and implementation of this petition will allow both licensees and NRC to better utilize its resources by updating the reporting requirements to reflect the insights gained from almost 9 years of operating experience under the last major revision of Part 70 completed in 2000. As a result, current event reporting requirements would be clarified for the benefit of licensees, NRC and the public.

## **Attachment A**

### **Revised Language for Appendix A to Part 70—"Reportable Safety Events"**

Licenseses must comply with reporting requirements in this appendix, except for (a)(1), (a)(2), and (b)(4), after they have submitted an ISA Summary in accordance with § 70.62(e)(3)(ii). Licensees must comply with (a)(1), (a)(2), and (b)(4) after October 18, 2000. As required by 10 CFR 70.74, licensees subject to the requirements in subpart H of part 70, shall report:

(a) One hour reports. Events to be reported to the NRC Operations Center within 1 hour of discovery, supplemented with the information in 10 CFR 70.50(c)(1) as it becomes available, followed by a written report within 30 ~~60~~ days:

(1) An inadvertent nuclear criticality. [No change]

(2) An acute intake by an individual of 30 mg\* or greater of uranium in a soluble form by an individual outside the controlled area. (\*Conforming changes to the 30 mg limit may be needed based on NRC's consideration and disposition of a December 2008 industry white paper on a revised intake limit.)

(3) An acute chemical exposure to an individual inside the controlled area from licensed material or hazardous chemicals produced from licensed material that could endanger the life of a worker, or, a chemical release involving licensed material or hazardous chemicals produced from licensed materials that results in a concentration outside of the controlled area that exceeds the quantitative standards established to satisfy the requirements in as required by 70.61(b)(4)(ii).

(4) An event or condition such that no items relied on for safety, as documented in the Integrated Safety Analysis summary, remain available and reliable, in an accident sequence evaluated in the Integrated Safety Analysis, to perform their function: [No change to (4), (4)(i) or (4)(ii)]

(i) In the context of the performance requirements in § 70.61(b) and § 70.61(c), or

(ii) Prevent a nuclear criticality accident (i.e., loss of all controls in a particular sequence).

~~(5) Loss of controls such that only one item relied on for safety, as documented in the Integrated Safety Analysis summary, remains available and reliable to prevent a nuclear criticality accident, and has been in this state for greater than eight hours.~~

(b) Twenty-four hour reports. Events to be reported to the NRC Operations Center within 24 hours of discovery, supplemented with the information in 10 CFR 70.50(c)(1) as it becomes available, followed by a written report within 30 ~~60~~ days:

(1) Any event or condition that results in the facility being in a state that was not analyzed, was improperly analyzed, or is different from that analyzed in the Integrated Safety Analysis, and which results in failure to meet the performance requirements of § 70.61. [Emphasis added]

(2) Loss or degradation of items relied on for safety that results in failure to meet the performance requirement of § 70.61. [No change]

(3) An acute chemical exposure to an individual inside the controlled area from licensed material or hazardous chemicals produced from licensed materials that exceeds the quantitative standards that satisfy the requirements of 70.61(c)(4) requires medical treatment at an off-site medical facility.

(4) Any natural phenomenon or other external event, including fires internal and external to the facility, that has affected or may have affected the intended safety function or availability or reliability of one or more items relied on for safety.

~~(5) An occurrence of an event or process deviation that was considered in the Integrated Safety Analysis and:~~

~~(i) Was dismissed due to its likelihood; or~~

~~(ii) Was categorized as unlikely and whose associated unmitigated consequences would have exceeded those in § 70.61(b) had the item(s) relied on for safety not performed their safety function(s).~~

(c) Concurrent Reports. Any event or situation, related to the health and safety of the public or onsite personnel, or protection of the environment, for which a news release is planned or notification to other government agencies has been or will be made, shall be reported to the NRC Operations Center concurrent to the news release or other notification. [No change]

[65 FR 56231, Sept. 18, 2000]

## Attachment B

### Revised Language and Rationale for Changes to Part 70 Appendix A – “Reportable Safety Events”

| REVISED REPORTING REQUIREMENTS  | RATIONALE FOR THE CHANGES  |
|---|--|
| <p>Licensees must comply with reporting requirements in this appendix, <del>except for (a)(1), (a)(2), and (b)(4), after they have submitted an ISA Summary in accordance with § 70.62(c)(3)(ii). Licensees must comply with (a)(1), (a)(2), and (b)(4) after October 18, 2000.</del> As required by 10 CFR 70.74, licensees subject to the requirements in subpart H of part 70, shall report:</p> | <p>The deleted text is no longer needed as the exemption expired October 18, 2004.</p>   |
| <p>(a) One hour reports. Events to be reported to the NRC Operations Center within 1 hour of discovery, supplemented with the information in 10 CFR 70.50(c)(1) as it becomes available, followed by a written report within <del>30</del> <u>60</u> days:</p>  | <p>A 60 day report provides higher assurance of a more complete report without compromising safety and is consistent with equivalent event reporting requirements for operating nuclear power plants in Part 50.73(a).</p> <p>Changing the time limit from 30 days to 60 days does not mean that licensees will take longer to develop and implement corrective actions, which are done on a time scale commensurate with the safety significance of the issue. However, for those cases where it does take longer than thirty days to complete a root cause analysis, this change will result in fewer reports that require submittal of an amended report.</p> |
| <p>(1) An inadvertent nuclear criticality.</p>  | <p>No Change.</p>  |

| REVISED REPORTING REQUIREMENTS   | RATIONALE FOR THE CHANGES   |
|--|---|
| <p>(2) An acute intake <del>by an individual</del> of 30 mg* or greater of uranium in a soluble form <del>by an individual outside the controlled area.</del></p> <p>*Conforming changes to the 30 mg limit may be needed based on NRC's consideration and disposition of a December 2008 industry white paper on a revised intake limit.</p>  | <p>This change clarifies that the intake is associated with a person located outside of the controlled area to make reporting commensurate with the performance requirements described in 10 CFR 70.61(b)(3) . The allowed risk associated with an individual inside the controlled area is provided in item (3) below.</p>   |
| <p>(3) An acute chemical exposure to an individual <del>inside the controlled area</del> from licensed material or hazardous chemicals produced from licensed material that <del>could endanger the life of a worker; or, a chemical release involving licensed material or hazardous chemicals produced from licensed materials that results in a concentration outside of the controlled area that exceeds the quantitative standards established to satisfy the requirements in as required by 70.61(b)(4)(ii).</del></p> | <p>The proposed wording eliminates potential confusion regarding quantitative values for individuals located inside the controlled area. It also requires reporting if the chemical release concentration is such that it exceeds the quantitative standard for an individual located outside of the controlled area, rather than requiring the licensee to determine if such an exposure actually occurred before being required to make a report.</p> |
| <p>(4) An event or condition such that no items relied on for safety, as documented in the Integrated Safety Analysis summary, remain available and reliable, in an accident sequence evaluated in the Integrated Safety Analysis, to perform their function:</p>  | <p>No Change.</p>   |
| <p>(i) In the context of the performance requirements in 70.61(b) and 70.61(c), or</p>   | <p>No Change.</p>   |

| REVISED REPORTING REQUIREMENTS   | RATIONALE FOR THE CHANGES   |
|--|---|
| (ii) Prevent a nuclear criticality accident (i.e., loss of all controls in a particular sequence).   | No Change.  |
| <del>(5) Loss of controls such that only one item relied on for safety, as documented in the Integrated Safety Analysis summary, remains available and reliable to prevent a nuclear criticality accident, and has been in this state for greater than eight hours.</del>                | Reporting of this type of event is required by (b)(2). Additionally, a one hour reporting requirement for nuclear criticality safety is not consistent with the allowed risk for other high consequence events for which a single IROFS is allowed.   |
| (b) Twenty-four hour reports. Events to be reported to the NRC Operations Center within 24 hours of discovery, supplemented with the information in 10 CRR 70.50(c)(1) as it becomes available, followed by a written report within <del>30</del> <u>60</u> days:                        | A 60 day report provides higher assurance of a more complete report without compromising safety and is consistent with equivalent event reporting requirements for operating nuclear power plants in Part 50.73a.<br><br>Changing the time limit from 30 days to 60 days does not mean that licensees will take longer to develop and implement corrective actions, which are done on a time scale commensurate with the safety significance of the issue. However, for those cases where it does take longer than thirty days to complete a root cause analysis, this change will result in fewer reports that require submittal of an amended report. |
| (1) Any event or condition that results in the facility being in a state that was not analyzed, was improperly analyzed, or is different from that analyzed in the Integrated Safety Analysis, <u>and</u> which results in <u>failure to meet</u> the performance requirements of 70.61. | Emphasis added.   |

| REVISED REPORTING REQUIREMENTS  | RATIONALE FOR THE CHANGES  |
|---|--|
| (2) Loss or degradation of items relied on for safety that results in failure to meet the performance requirement of 70.61.   | No Change.   |
| (3) An acute chemical exposure to an individual <del>inside the controlled area</del> from licensed material or hazardous chemicals produced from licensed materials that <del>exceeds the quantitative standards that satisfy the requirements of 70.61 (c)(4)</del> requires medical treatment at an off-site medical facility. | This proposed change helps ensure event reporting at a threshold that the NRC would generally want to know about and that licensees would generally notify NRC whether or not reporting was required.  |
| (4) Any natural phenomenon or other external event, including fires internal and external to the facility, that has affected <del>or may have affected</del> the intended safety function or availability or reliability of one or more items relied on for safety.   | The deletion of "or may have affected" clarifies NRC's expectation on reporting natural phenomenon. If the safety function or availability of an IROFS has been affected, it is very clear. However, the phrase "or may have affected" is subjective and difficult to interpret for licensees and NRC. For example, a wind storm "may have" impacted an IROFS if it had been more severe. Also, the risk associated with a plant condition where IROFS remained available and reliable was acceptable, but may not have been. The current approach to reporting is not consistent with other event reporting requirements. |
| <del>(5) An occurrence of an event or process deviation that was considered in the Integrated Safety Analysis and;</del>  | Conditions (5), (5)(i) and (5)(ii) were deleted because they are each redundant with (b)(1).   |
| <del>(i) Was dismissed due to its likelihood; or</del>  |  |

| REVISED REPORTING REQUIREMENTS   | RATIONALE FOR THE CHANGES   |
|--|---|
| <p><del>(ii) Was categorized as unlikely and whose associated unmitigated consequences would have exceeded those in 70.61(b) had the item(s) relied on for safety not performed their safety function(s).</del></p>  |   |
| <p>(c) Concurrent Reports. Any event or situation, related to the health and safety of the public or onsite personnel, or protection of the environment, for which a news release is planned or notification to other government agencies has been or will be made, shall be reported to the NRC Operations Center concurrent to the news release or other notification.</p> | <p>No Change—however, industry understands that additional NRC staff guidance is being prepared to clarify this issue. We encourage NRC to issue the guidance for public comment as soon as possible.</p> |

## **Rulemaking Comments**

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**From:** Annette Vietti-Cook  
**Sent:** Monday, April 20, 2009 8:34 AM  
**To:** Rulemaking Comments  
**Subject:** FW: Petition to amend 10 CFR Part 70, Appendix A, "Reportable Safety Events"  
**Attachments:** Petition to amend 10 CFR Part 70, Appendix A, "Reportable Safety Events"

Received: from HQCLSTR01.nrc.gov ([148.184.44.79]) by TWMS01.nrc.gov  
([148.184.200.145]) with mapi; Mon, 20 Apr 2009 08:34:23 -0400  
Content-Type: application/ms-tnef; name="winmail.dat"  
Content-Transfer-Encoding: binary  
From: Annette Vietti-Cook <Annette.Vietti-Cook@nrc.gov>  
To: Rulemaking Comments <Rulemaking.Comments@nrc.gov>  
Date: Mon, 20 Apr 2009 08:34:22 -0400  
Subject: FW: Petition to amend 10 CFR Part 70, Appendix A, "Reportable  
Safety Events"  
Thread-Topic: Petition to amend 10 CFR Part 70, Appendix A, "Reportable  
Safety Events"  
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Accept-Language: en-US  
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