



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

July 24, 2017

MEMORANDUM TO: Chairman Svinicki
Commissioner Baran
Commissioner Burns

FROM: Victor M. McCree */RA/*
Executive Director for Operations

SUBJECT: SUPPLEMENT TO SECY-16-0142, "DRAFT FINAL RULE—
MITIGATION OF BEYOND-DESIGN-BASIS EVENTS
(RIN 3150-AJ49)"

On December 15, 2016, the U.S. Nuclear Regulatory Commission (NRC) staff issued SECY-16-0142, "Draft Final Rule—Mitigation of Beyond-Design-Basis Events (RIN 3150-AJ49)." On February 22, 2017, the staff provided a memorandum supplementing SECY-16-0142 on four issues that had been identified with the documents enclosed with SECY-16-0142. Two additional issues have been identified with the draft final rule text for Title 10 of the *Code of Federal Regulations* (10 CFR), Section 50.155(e), "Drills or exercises." The staff has determined that both issues could be addressed with minor revisions to the rule text and do not constitute substantive changes to the requirements. The enclosure to this memorandum provides revised text that, where designated in this memorandum's enclosure, should be used in place of the text provided in the enclosures to SECY-16-0142 as the basis for Commission deliberation on the draft final rule.

1. Clarify the reference to "associated communications capability" in the drill or exercise requirement.

Draft final § 50.155(e)(1) and (e)(2) require a person subject to the rule to "conduct an initial drill or exercise that demonstrates the capability to transition to and use one or more of the strategies and guidelines in paragraphs (b)(1) and (b)(3) of this section including demonstration of the communications capability required by paragraph (c)(4) of this section...." Draft final § 50.155(e)(4) contains a similar requirement for initial drills or exercises for holders of 10 CFR Part 50 operating licenses or 10 CFR Part 52 combined licenses.

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The “communications capability required by § 50.155(c)(4)” refers to the requirement for a communications capability to support the mitigation strategies for beyond-design-basis events (often referred to as FLEX) under § 50.155(b)(1) and the modified FLEX strategies for reevaluated hazards under § 50.155(b)(2). There is no analogous requirement for the extensive damage mitigation guidelines (EDMGs) under § 50.155(b)(3), as communications capabilities were addressed through guidance for compliance with the requirements that were originally issued in NRC Order EA-02-026, “Order for Interim Safeguards and Security Compensatory Measures,” dated February 25, 2002 (Agencywide Documents and Access Management System (ADAMS) Accession No. ML020510635), in the corresponding license conditions, and in § 50.54(hh)(2). Because the requirement of the draft § 50.155(c)(4) is not associated with the EDMGs, a drill of those strategies would not include a demonstration of the communications capability required by § 50.155(c)(4).

Therefore, under a strict reading of § 50.155(e), licensees choosing to exercise a strategy required by § 50.155(b)(3) to address the drill or exercise requirements in § 50.155(e) would need to additionally demonstrate the communications capability required by § 50.155(c)(4) or request an exemption from the rule. This issue affects the initial drill requirements in § 50.155(e)(1), (e)(2), and (e)(4).¹ This issue could be resolved by making the clarifications provided in the enclosure (i.e., changing the reference to “the associated communications capabilities” without reference to a rule section and revising the statement of considerations). This clarification reflects the staff’s intent in developing the text of the draft final § 50.155(e).

2. Clarify the language associated with which strategies are to be included in drills or exercises.

As described on page 130 of Enclosure 1 to SECY-16-0142 (the draft final *Federal Register* notice):

Paragraph 50.155(e)(4) requires holders of operating licenses or COLs for which the Commission has made the finding under § 52.103(g), as of the effective date of the Mitigation of Beyond-Design-Basis Events (MBDBE) rule, to conduct an initial drill or exercise that demonstrates the capability to transition to and use one or more of the strategies and guidelines in § 50.155(b)(1) and (3) (or § 50.155(b)(1) through (3) as applicable) and demonstrate the communications capability required in § 50.155(c)(4). Paragraph 50.155(e)(4) is the equivalent to § 50.155(e)(1) and (2) for initial drills or exercises, but applies to current licensees. Following this initial drill or exercise, the licensee is required to conduct subsequent drills or exercises in succeeding 8-year intervals to collectively demonstrate a capability to use at least one of the strategies and guidelines in § 50.155(b)(1) or (b)(2), and at least one of the strategies and guidelines in § (b)(3). Paragraph 50.155(e)(4) is equivalent to § 50.155(e)(3) for subsequent drills or exercises, but applies to current licensees under 10 CFR part 50 and those under 10 CFR part 52 for whom the Commission has made the finding under § 52.103(g) as of the effective date of the rule.

¹ Draft final § 50.155(e)(3) also includes a requirement to conduct drills or exercises that include demonstration of the communications capability required by draft final § 50.155(c)(4). This is not an issue because the requirement is a collective demonstration, so the § 50.155(c)(4) requirement could be satisfied by performance of the § 50.155(b)(1) drill or exercise portion of the collective requirement.

In a July 12, 2017, letter to me from Joseph E. Pollock of the Nuclear Energy Institute (NEI) (ADAMS Accession Nos. ML17200D085 and ML17200D086), NEI describes a potential ambiguity regarding which strategies must be included in a single drill or exercise. The staff's intent in developing the draft final rule language is that a single drill or exercise must demonstrate one or more of the three types of strategies that may be applicable to a facility: FLEX strategies under § 50.155(b)(1), modified FLEX strategies for reevaluated hazards under § 50.155(b)(2), or EDMGs under § 50.155(b)(3).

NEI's letter raises a concern that licensees may not feel free to select a single one of these sets of strategies if the draft final rule text of "...strategies and guidelines in paragraphs (b)(1) and (b)(3)...," or "...strategies and guidelines in paragraphs (b)(1) through (b)(3)...," (emphasis added) were included in the final rule. While the staff does not view the current wording in the draft final *Federal Register* notice as ambiguous (and clarification could be provided via guidance), this issue could be resolved by making the clarifications provided in the enclosure (i.e., changing "and" to "or" and changing "through" to refer to all three sections with an "or"). The staff's intent is that the use of the word "or" would also enable licensees to choose more than one set of strategies if desired (i.e., "and" is also allowed). This clarification reflects the staff's intent in developing the text of the draft final § 50.155(e).

The enclosure to this memorandum contains replacement language for the *Federal Register* notice to address both issues, including rule language.

The Office of the General Counsel has reviewed this memorandum and has no legal objection.

Enclosure:

As stated

cc: SECY
OGC
OCA
OPA
CFO

SUBJECT: SUPPLEMENT TO SECY-16-0142, "DRAFT FINAL RULE—MITIGATION OF BEYOND-DESIGN-BASIS EVENTS (RIN 3150-AJ49)," DATED JULY 24, 2017.

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ADAMS Accession Number: ML17194A764

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To address the issues discussed in items 1 and 2 of this memorandum, the text starting with the final paragraph on page 128 extending through page 130 of the draft final *Federal Register* notice (Enclosure 1 to SECY-16-0142) should be replaced with the following text. Revised text is underlined; deleted text is not included. Text enclosed in double square brackets is related to rule text that potentially would not apply to any licensee or applicant, and may be removed if the Commission so directs.

The drills or exercises conducted by licensees are meant to reasonably simulate the interactions between the appropriate emergency facilities, teams, and support groups or individuals that would be expected to occur during the event. For the initial drill or exercise, the licensee is required to demonstrate its capability to transition to and use one or more of the strategies that would be required by either § 50.155(b)(1) or (3) (or § 50.155(b)(1), (b)(2), or (b)(3) as applicable) from the AOPs or EOPs, whichever governs for the initiating event and plant degraded conditions, using the equipment and communication systems used for the EOPs and guidelines.

Paragraph 50.155(e)(1) requires the initial drill or exercise to be conducted within 12 months prior to the issuance of the first operating license (OL) for the unit described in the application. This allows the license applicant to implement any improvements or corrective actions identified during the drill or exercise, and allows the Commission to consider the results of any drill or exercise actions in the decision on whether to authorize the OL. Because § 50.155(e)(1) applies only to applicants for operating licenses, it does not apply to holders of operating licenses under 10 CFR part 50, who are subject to § 50.155(e)(4), or holders of COLs under 10 CFR part 52, who are subject to § 50.155(e)(2) through (4). Following issuance of the operating license, the applicant, as a licensee, is subject to § 50.155(e)(3).

Paragraph 50.155(e)(2) requires the licensee to conduct an initial drill or exercise that demonstrates the capability to transition from the AOPs or EOPs, using one or more of the strategies and guidelines in either § 50.155(b)(1) or (b)(3) of this section, and demonstrates the associated communications capability, no more than 12 months before the date specified for completion of the last inspections, tests, and analyses in the inspections, tests, analyses, and acceptance criteria (ITAAC) completion schedule as required by § 52.99(a). This schedule allows the licensee to implement any improvements or corrective actions identified during the drill or exercise, and allows the Commission to consider the results of any drill or exercise actions. The schedule is referenced to the ITAAC completion date rather than the date on which the Commission makes the finding under § 52.103(g) or the initial fuel load in order to allow licensees to schedule the drill or exercise in advance based on a date certain set by the licensee. The NRC intends this scheduling requirement to allow licensees to schedule the drill or exercise efficiently, capturing potential synergies available by combining it with other required items such as the initial emergency planning exercise.

ENCLOSURE

The § 50.155(e)(2) requirement would apply to any current holders of COLs under 10 CFR part 52 for which the Commission has not yet made the finding under § 52.103(g) as of the effective date of the MBDBE rule, as well as holders of all future issued COLs. **[[A COL holder for whom the Commission has already made the finding under § 52.103(g) as of the effective date of the MBDBE rule is not subject to § 50.155(e)(2), as the schedule referenced to the ITAAC completion date would already have passed, but instead is subject to § 50.155(e)(4) for the initial drill requirements.]]**

Paragraph 50.155(e)(3) applies to holders of operating power reactor licenses issued under 10 CFR part 50 subsequent to the effective date of this final rule, and holders of COLs issued under 10 CFR part 52 for whom the Commission has made the finding under § 52.103(g) subsequent to the effective date of this final rule. These licensees would already have conducted an initial demonstration required by § 50.155 (e)(1) or (e)(2). Paragraph 50.155(e)(3) provides a continuing requirement to conduct subsequent drills or exercises in succeeding 8-year intervals to collectively demonstrate a capability to use at least one of the strategies and guidelines in each of § 50.155(b)(1) and (3) (or § 50.155(b)(1) through (3) as applicable). This requires that the drills or exercises performed to demonstrate this capability include transitions from other procedures and guidelines, as applicable, and demonstrate the associated communications capability. It is structured to require licensees to demonstrate at least one of the strategies and guidelines from each of the guidelines during the 8-year interval.

Paragraph 50.155(e)(4) requires holders of operating licenses **[[or COLs for which the Commission has made the finding under § 52.103(g), as of the effective date of the MBDBE rule,]]** to conduct an initial drill or exercise that demonstrates the capability to transition to and use one or more of the strategies and guidelines in either **[[§ 50.155(b)(1) or (3) (or)]]** § 50.155(b)(1), (b)(2), or (b)(3) **[[as applicable]]** and demonstrate the associated communications capability. Paragraph 50.155(e)(4) is the equivalent to § 50.155(e)(1) and (2) for initial drills or exercises, but applies to current licensees. Following this initial drill or exercise, the licensee is required to conduct subsequent drills or exercises in succeeding 8-year intervals to collectively demonstrate a capability to use at least one of the strategies and guidelines in § 50.155(b)(1) or (b)(2), and at least one of the strategies and guidelines in § (b)(3). Paragraph 50.155(e)(4) is equivalent to § 50.155(e)(3) for subsequent drills or exercises, but applies to current licensees under 10 CFR part 50 **[[and those under 10 CFR part 52 for whom the Commission has made the finding under § 52.103(g) as of the effective date of the rule]].**

Within numbered paragraph 5 on pages 163 and 164, the rule text for the new 10 CFR 50.155(e) should be replaced with the following text. Revised text is underlined; deleted text is not included. Text enclosed in double square brackets is related to rule text that potentially would not apply to any licensee or applicant, and may be removed if the Commission directs.

(e) Drills or exercises. (1) An applicant for an operating license issued under this part shall conduct an initial drill or exercise that demonstrates the capability to transition to and use one or more of the strategies and guidelines in either paragraphs (b)(1) or (b)(3) of this section including demonstration of the associated communications capability, no more than 12 months before issuance of an operating license for the unit described in the license application.

(2) A holder of a combined license issued under part 52 of this chapter before the Commission has made the finding under § 52.103(g), shall conduct an initial drill or exercise that demonstrates the capability to transition to and use one or more of the strategies and guidelines in either paragraphs (b)(1) or (b)(3) of this section including demonstration of the associated communications capability, no more than 12 months before the date specified for completion of the last inspections, tests, and analyses in the inspections, tests, analyses, and acceptance criteria completion schedule required by § 52.99(a) of this chapter for the unit described in the combined license.

(3) Once the Commission issues an operating license to an entity described in paragraph (e)(1) of this section or makes the finding under § 52.103(g) of this chapter for an entity described in paragraph (e)(2) of this section, the licensee shall conduct subsequent drills or exercises that collectively demonstrate a capability to use at least one of the strategies and guidelines in each of paragraphs (b)(1) and (b)(3) of this section in succeeding 8-year intervals. The drills or exercises performed to demonstrate this capability must include transitions from other procedures and guidelines as applicable, including demonstration of the associated communications capability. Each licensee shall not exceed 8 years between any consecutive drills or exercises.

(4) A holder of an operating license issued under this part ~~[[or a combined license under part 52 of this chapter for which the Commission has made the finding specified in § 52.103(g)]]~~ as of [EFFECTIVE DATE OF THE FINAL RULE], shall conduct an initial drill or exercise that demonstrates the capability to transition to and use one or more of the strategies and guidelines in either paragraph (b)(1), (b)(2), or (b)(3) of this section~~[[, or for a combined license holder, paragraphs (b)(1) or (b)(3)]]~~, including demonstration of the associated communications capability, by [DATE 4 YEARS AFTER EFFECTIVE DATE OF THE FINAL RULE]. Following this initial drill or exercise, the licensee shall conduct subsequent drills, exercises, or both that collectively demonstrate a capability to use at least one of the strategies and guidelines under paragraph (b)(1) or (b)(2), and at least one of the strategies and guidelines under paragraph (b)(3)~~[[, or for combined license holders, in each of paragraphs (b)(1) and (b)(3) of this section,]]~~ in succeeding 8-year intervals. The drills or exercises performed to demonstrate this capability must include transitions

from other procedures and guidelines as applicable, including demonstration of the associated communications capability. Each licensee shall not exceed 8 years between any consecutive drills or exercises.