

**Mitigation of  
Beyond-Design-Basis Events  
(MBDBE) Draft Final Rule  
SECY-16-0142**

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# Background

- Issued MBDBE proposed rule on November 13, 2015, for a 90-day comment period (80 FR 70609)
- Comment period closed on February 11, 2016
- 20 sets of comments provided on the proposed rule that were considered and dispositioned
- Draft Final Rule provided to the Commission in SECY-16-0142 dated December 15, 2016
- Status is predecisional

# Final MBDBE Rule Overview

- The MBDBE final rule:
  - Makes generically applicable Order EA-12-049 (“Mitigation Strategies Order”) and Order EA-12-051 (Spent Fuel Pool Instrumentation – “SFPI Order”)
  - Establishes requirements for an integrated response capability supported with staffing, communications, command and control, drills, training, change control
  - Addresses six petitions for rulemaking
- Section 50.155 contains the majority of requirements and is structured as follows:
  - Applicability and decommissioning provisions in paragraph (a)
  - Integrated response capability in paragraph (b)
  - Supporting equipment requirements in paragraph (c)
  - Training and drills in paragraphs (d) and (e)
  - SFPI Order requirements in paragraph (f)
  - Documentation of changes in paragraph (g)
  - Implementation requirements in paragraph (h)
  - Provisions to rescind orders and facilitate removal of license conditions in paragraph (i)

# MBDBE Rule: Applicability

- The MBDBE rule's applicability requirements are in paragraph 50.155(a)
- Phase in of requirements for new licensees
  - At granting of Operating License under Part 50
  - At making of 52.103(g) finding under Part 52
- Phase out after operations cease
  - Core cooling and containment strategies and SFPI cease with docketing of certification of permanent defueling
  - SFP cooling (FLEX) strategies cease when analysis of low decay heat supports
  - SFP cooling (B.5.b) strategies cease when all irradiated fuel is removed from pool
- Millstone 1 Exemption

# MBDBE Rule: Integrated Response

- Paragraph (b) contains the requirements to develop, implement and maintain an integrated response
- Paragraph (b)(1) is FLEX strategies
- Paragraph (b)(2) requires that:
  - Seismic and flooding reevaluated hazard information be addressed
  - Can result in changes to the mitigation strategies or event-specific approaches can be used
- Paragraph (b)(3) is B.5.b/50.54(hh)(2) strategies
- Paragraph (b)(4) requires integration with EOPs
- Paragraph (b)(5) requires sufficient staffing
- Paragraph (b)(6) requires organizational structure

# **MBDBE Rule: Equipment Requirements**

- Paragraph (c) contains the MBDBE rule equipment requirements.
- Paragraph (c)(1) requires capacity and capability of FLEX and reevaluated hazards equipment (B.5.b in guidance)
- Paragraph (c)(2) requires reasonable protection of FLEX equipment to design basis hazard levels
- Paragraph (c)(3) requires reasonable protection of reevaluated hazards equipment to those hazard levels
- Paragraph (c)(4) requires communications capabilities for FLEX and reevaluated hazards strategies (B.5.b in guidance)

# MBDBE Rule: Training Requirements

- Paragraph (d) contains the MBDBE rule training requirements.
- Use of Systems Approach to Training (55.4 definition)
- Exception for common elements existing in other regulatory training programs
  - Example: Fire protection training for flexible hoses

# MBDBE Rule: Drill Requirements

- Paragraph (e) contains the MBDBE rule drill requirements.
- Paragraph (e)(1) covers initial drill in 12 months prior to issuance of new OL
- Paragraph (e)(2) covers initial drill in 12 months prior to ITAAC completion for COL holders without 52.103(g) finding at effective date of rule
- Paragraph (e)(3) covers recurring (8 years) drills for the above licensees
- Paragraph (e)(4) covers initial (4 years) and recurring (8 years) drills for OL holders and COL holders with 52.103(g) findings at effective date of rule



# MBDBE Rule: Spent Fuel Pool (SFP) Monitoring Capabilities

- Paragraph (f) contains the MBDBE rule requirements for a means to monitor SFPs
- Decoupled from FLEX strategies
- Paragraph (c) applies when SFPI is used for FLEX strategies
- Phase out details:
  - Docketing of certification of permanent defueling of RV (but may still be part of FLEX SFP strategies), or
  - 5 years since last use of fuel in pool for power generation
- Not applicable to GE Mark III upper containment pools

# **MBDBE Rule: Documentation of Changes**

- Paragraph (g) contains the MBDBE rule change control requirements.
- Documentation requirement only
- Discussion in SOC of changes that conform to guidance or approved alternatives applicable to a facility being presumptively acceptable
- Use of other change control processes for changes that are not limited to MBDBE requirements

# **MBDBE Rule: Implementation**

- Paragraph (h) contains the MBDBE rule implementation requirements.
- Paragraph (h)(1) sets implementation time as:
  - Continued compliance for B.5.b strategies to avoid gap
  - Two years for COL holders with 52.103(g) finding and OL holders that did not receive EA-13-109
  - Three years for OL holders that did receive EA-13-109
- Paragraph (h)(2) provides flexible scheduling option
  - Option for OL holders that cannot complete the requirements of paragraph (b)(2) within the 2-year or 3-year period (i.e., reevaluated hazard information)
  - Licensees must provide good cause for not meeting the schedule and a basis for the new schedule
  - Structured to be approved in 120 days unless notified otherwise

# **MBDBE Rule: Rescission of Orders and Removal of License Conditions**

- Paragraph (i) contains the MBDBE rule provisions that rescind orders and facilitate the administrative removal of license conditions
- These provisions in the final rule are a result of CER feedback and reflect the need to clarify the regulatory landscape after the rule makes the orders generically applicable
- These requirements are designed to establish the requirements of § 50.155, as the single set of requirements, for all power reactor licensees and applicants replacing orders and license conditions from both post-Fukushima and post-9/11

## **MBDBE Rule:**

## **Other**

### **Requirements/Changes**

- Application requirements for new reactors (i.e., information needed to support review of mitigation strategies) under paragraphs 50.34(i) and 52.80(d) are simplified
- Administrative correction to applicability of paragraphs 50.34(a)(13) and (b)(12) (Aircraft Impact Assessment) for non-stationary reactors
- Correction to the phase out of 50.54(hh)(1) requirements