

DRAFT SUPPORTING STATEMENT
FOR 10 CFR PART 50 AND PART 52
MITIGATION OF BEYOND-DESIGN-BASIS EVENTS
PROPOSED RULEMAKING

3150-0011

Description of the Information Collection

The U.S. Nuclear Regulatory Commission (NRC) is proposing to amend its regulations to establish regulatory requirements to mitigate beyond-design-basis events (BDBEs). As a result of the recommendations of the Fukushima Near-Term Task Force (NTTF) report, the NRC is proposing a rule with the following regulatory objectives:

- (1) Make the requirements of Order EA-12-049, *Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events*, and Order EA-12-051, *Order Modifying Licenses with Regard to Reliable Spent Fuel Pool Instrumentation*, generically applicable.
- (2) Establish regulatory requirements for an integrated response capability to promote consistency across industry.
- (3) Incorporate enhanced onsite emergency response capabilities into the regulations.
- (4) Address a number of petitions for rulemaking (PRMs) submitted in the aftermath of the March 2011 Fukushima Dai-ichi event.

This analysis addresses only those proposed rule requirements that contain an incremental change in burden relative to existing rules, Orders, and industry initiatives. The proposed rule encompasses provisions that are currently being implemented via Order EA-12-049, Order EA-12-051, and related industry initiatives. The paperwork burden associated with the proposed rule largely results from licensee's review of the rule to confirm compliance with the requirements (i.e., a comparison of the rule requirements with the Orders and related industry initiatives and updates to procedures, programs, or plans).

This paperwork burden analysis does not estimate the recordkeeping and reporting burden resulting from the Orders. Upon renewal of this Office of Management and Budget (OMB) clearance, the NRC anticipates accounting for additional paperwork burden due to of the Orders and implementation of specific rule provisions (e.g., drills or exercises). As part of the proposed rule, the NRC is seeking external stakeholder feedback on the recordkeeping and reporting burden associated with the Orders so as to inform future updates to the recordkeeping and reporting burdens associated with the proposed rule.

Affected Entities

The proposed rule requirements would impact nuclear power plants (NPPs) at the site level. Therefore, the incremental burdens are expressed in terms of NPP sites. Two of the operating sites (i.e., V.C. Summer and Vogtle) are constructing new AP1000 reactor units onsite. Because incremental costs are estimated at the site-level, the new reactors are accounted for as part of the operating site on which they are located.

A. JUSTIFICATION

1. Need for and Practical Utility of the Information

The NRC has developed the proposed rulemaking, in large measure, to make generically applicable the regulatory actions taken following the Fukushima event. Current NRC regulations do not incorporate requirements to implement the diverse and flexible coping strategies (FLEX support guidelines) to provide additional capability to respond to events that could lead to an extended loss of ac power (e.g., events arising from severe natural phenomena). A proposed rulemaking would make generically applicable requirements similar to those imposed by Order EA-12-049, Order EA 12-051, and other post-Fukushima industry initiatives.

The NRC has determined that the proposed information collection requirements are necessary in order to place the requirements in Order EA-12-049 and Order EA-12-051 into the NRC's regulations to provide regulatory clarity to operating reactors and to ensure that they apply to all current and future power reactor applicants. Operating reactor licensees and three combined license (COL) holder reactor sites currently are subject to the Order requirements. Any future licensees would not be covered by the Order requirements. In making the requirements of Order EA-12-049 generically applicable, this proposed rule would also consider the reevaluated hazard information from the March 12, 2012, NRC letter issued under 10 CFR 50.54(f) as part of providing reasonable protection for mitigation strategies equipment for external flooding or seismic hazards. In the absence of a rule, these requirements would need to be implemented for new reactor sites through additional Orders or license conditions (as was done for the Enrico Fermi Nuclear Plant Unit 3, Virgil C. Summer Nuclear Station Units 2 and 3, and Vogtle Electric Generating Plant Units 3 and 4 COLs), which would impose additional costs on the NRC.

The proposed rulemaking also would enhance regulatory efficiency by reflecting stakeholder feedback and lessons learned from the implementation of the Orders, including any challenges or unintended consequences associated with implementation.

The specific recordkeeping requirement associated with the proposed revisions and amendments to Part 50 is identified below.

Section 50.155 would require licensees to review FLEX support guidelines (FSGs), extensive damage mitigation guidelines (EDMGs), and emergency operating procedures (EOPs) to confirm compliance with the proposed rule requirements. Sites would incur a one-time recordkeeping burden to review procedures, programs, and plans to confirm that they are consistent with the rule requirements. The incremental one-time recordkeeping burden associated with this requirement is included in Table 1.

2. Agency Use of the Information

NRC staff would review this information to ensure that licensees consistently develop, maintain, and implement their strategies and guidelines; ensure that FSGs and EDMGs are integrated with EOPs; ensure that licensees document command and control structures for directing and performing strategies and guidelines required under the proposed rule; ensure the training and qualification of key personnel; and confirm that licensees allow for demonstration and evaluation of a site's capability to execute strategies and guidelines in light of the specific plant damage state and operational conditions presented by the initiating event.

3. Reduction of Burden Through Information Technology

There are no legal obstacles to reducing the burden associated with this information collection. The NRC encourages respondents to use information technology when it would be beneficial to them. The NRC issued a regulation on October 10, 2003 (68 FR 58791), consistent with the Government Paperwork Elimination Act, which allows its licensees, vendors, applicants, and members of the public the option to make submissions electronically via CD-ROM, e-mail, special Web-based interface, or other means. No potential responses will be filed electronically.

4. Effort to Identify Duplication and Use Similar Information

There is no duplication of requirements. The NRC has in place an ongoing program to examine all information collections with the goal of eliminating all duplicate and/or unnecessary information collections.

5. Effort to Reduce Small Business Burden

The NRC has determined that the affected entities are not small entities or businesses as those terms are used in the Regulatory Flexibility Act.

6. Consequences to Federal Program or Policy Activities if the Collection Is Not Conducted or Is Conducted Less Frequently

If the information were not collected, or collected less frequently, the NRC would be unaware for extended periods of time whether licensees have integrated FSGs and EDMGs with EOPs; documented command and control structures; developed training materials as well as documented training; developed drill or exercise programs in accordance with the rule; or developed change control procedures, programs, or plans.

7. Circumstances which Justify Variations from OMB Guidelines

This section identifies incremental recordkeeping and reporting burdens as a result of the proposed rule that vary from OMB guidelines established in 5 CFR 1320.5(d)(2).

Operating reactors would be required to comply with the information collections until the Commission terminates the license, which is initially issued for 40 years and may be subsequently renewed for an additional 20 years. Decommissioning reactors must comply with the information collection requirements until the spent fuel pools (SFPs) are empty of all irradiated fuel (or until an exemption is granted by the NRC). These requirements vary from the OMB guidelines in 5 CFR 1320.5(d)(2)(i) and (iv) by requiring licensees and other entities to report information to the NRC more often than quarterly and to retain records for more than 3

years, respectively. The specific provisions of the proposed rule that vary from OMB guidelines are Sections 50.155(a)(1) through (a)(3).

Per proposed Section 50.155(a)(1) and (2), the proposed requirements in Section 50.155 apply throughout the life of each site's operating license, until the proposed requirements are removed in accordance with the proposed provisions in Section 50.155(a)(3) as discussed below.

Section 50.155(a)(3) would establish a phased compliance requirement for licensees of decommissioning power reactors. This section would allow licensees to end compliance with the portions of this proposed rule that would apply to the reactor source term and associated fission product barriers when all fuel has been permanently removed from the reactor vessel and placed in the SFP (i.e., no further requirement to comply with provisions that are associated with maintaining or restoring core cooling or primary containment functional capabilities). This section would maintain SFP cooling and secondary containment requirements (for reactor designs that employ this feature as a fission product barrier) for the SFP source term. This section would allow licensees to end compliance with all the provisions in this proposed rule once the SFP is empty of irradiated fuel.

These variations from the OMB guidelines are justified because the information collections are needed to ensure that the sites have the strategies and guidelines available to assist with the mitigation of BDBEs.

8. Consultations Outside the NRC

Opportunity for public comment on the information collection requirements has been published in the Federal Register.

This proposed rulemaking consolidates two previous rulemaking efforts: the Station Blackout Mitigation Strategies (SBOMS) rulemaking and the Onsite Emergency Response Capabilities rulemaking. Both regulatory efforts offered extensive external stakeholder involvement opportunities, including public meetings, Advance Notices of Proposed Rulemaking (ANPRs) issued for public comment, and draft regulatory basis documents issued for public comment. The following were the major opportunities for stakeholder involvement:

- Station Blackout ANPR (77 FR 16175; March 20, 2012);
- Onsite Emergency Response Capabilities ANPR (77 FR 23161; April 18, 2012);
- SBOMS draft regulatory basis and draft rule concepts (78 FR 21275; April 10, 2013). The final regulatory basis was subsequently issued on July 23, 2013 (78 FR 44035);
- Onsite Emergency Response Capabilities draft regulatory basis (78 FR 1154; January 8, 2013). The final Onsite Emergency Response Capabilities regulatory basis, with preliminary proposed rule language, was subsequently issued on October 25, 2013 (78 FR 63901); and
- Preliminary proposed rule language for Onsite Emergency Response Capabilities (78 FR 68774; November 15, 2013).

The public has had additional opportunities to engage in these regulatory efforts for the consolidated rulemaking. Most noteworthy were the following:

- Consolidated rulemaking proof of concept language published on February 21, 2014 (Agencywide Documents Access and Management System (ADAMS) Accession

- No. ML14052A057);
- Preliminary proposed rule language for consolidated rulemaking published August 15, 2014 (ADAMS Accession No. ML14218A253); and
- Preliminary proposed rule language for consolidated rulemaking published November 13, 2014 (ADAMS Accession No. ML14316A297), and December 8, 2014 (ADAMS Accession No. ML14336A641), to support public discussion with the Advisory Committee on Reactor Safeguards (ACRS).

9. Payment or Gift to Respondents

Not applicable.

10. Confidentiality of Information

Confidential and proprietary information is protected in accordance with NRC regulations at 10 CFR 9.17(a) and 10 CFR 2.390(b).

11. Justification for Sensitive Questions

There are no sensitive questions included in these information collections.

12. Estimate of Industry Burden and Cost

The burden associated with the information collections is given in Table 1 (one-time recordkeeping burden). The one-time costs are annualized in this analysis by dividing by the number of years covered by the clearance (3 years). Based on the NRC staff's best estimate, the incremental industry burden to generate, maintain, retain, disclose, and provide information related to onsite emergency response procedures covered by this proposed rule is estimated to total 6,500 hours in one-time recordkeeping (Table 1) with an annual cost estimate to the industry of \$1.7 million (6,500 hours x \$268 per hour).

**Table 1
Estimated One-Time Recordkeeping Burden**

| Section | Number of Recordkeepers | Burden Hours per Recordkeeper (Annualized) | Total Burden Hours (Annualized) | Total Cost (Annualized) |
|--|--------------------------------|---|--|--------------------------------|
| 50.155: Review rule requirements and update procedures, programs, or plans | 65 | 100 | 6,500 | \$1,742,000 |
| Table 1 Total | 65 | 100 | 6,500 | \$1,742,000 |

Note: The burden hours per recordkeeper are based on the estimates used in the regulatory analysis for the proposed rule. The NRC burden hours in this supporting statement reflect the hours required for recordkeeping activities only, while the regulatory analysis includes hours for additional activities.

TOTAL BURDEN: 6,500 hours (6,500 hours one-time recordkeeping (annualized)) for a total cost of \$1.7 million

TOTAL RESPONSES: 65 (65 recordkeepers)

NUMBER OF RESPONDENTS: 65 (65 recordkeepers)

THIRD-PARTY DISCLOSURE BURDEN: 0

13. Estimate of Other Additional Costs

The quantity of records to be maintained is roughly proportional to the recordkeeping burden and therefore can be used to calculate approximate records storage costs. Based on the number of pages maintained for a typical clearance, the records storage cost has been determined to be equal to $0.0004 \times$ the recordkeeping burden cost. Therefore, the annual records storage cost in Table 1 is estimated to be \$697 ($0.0004 \times 6,500 \text{ hours} \times \$268/\text{hour}$).

14. Estimated Annualized Cost to the Federal Government

None.

15. Reasons for Changes in Burden or Cost

The estimated incremental burden of the proposed rule is 6,500 hours. This estimate is composed of one-time requirements of the proposed rule.

The proposed rule would require licensees to review the rule provisions to ensure that current practices satisfy the requirements of the proposed rule. The NRC anticipates that some changes may be needed to procedures, programs, or plans.

16. Publication for Statistical Use

This information will not be published for statistical use.

17. Reason for Not Displaying the Expiration Date

These proposed requirements would be contained in a regulation. Amending the *Code of Federal Regulations* to display information that could become obsolete in an annual publication would be unduly burdensome and too difficult to keep current.

18. Exceptions to the Certification Statement

There are no exceptions.

B. COLLECTION OF INFORMATION EMPLOYING STATISTICAL METHODS

Statistical methods are not used in this collection of information.