

Section 8

DRAFT SUPPORTING STATEMENT FOR EMERGENCY PLANNING

10 CFR 50.47, 10 CFR 50.54(q), 10 CFR 50.54(t)
and 10 CFR 50 Appendix E¹

DESCRIPTION OF THE INFORMATION COLLECTION

The Nuclear Regulatory Commission (NRC) requires that all production and utilization facility licensees shall, as a condition of their license, submit emergency plans for NRC review and approval, and maintain the emergency plans in a continual state of readiness until the Commission terminates the license. Emergency plans are required to be submitted as part of the Preliminary Safety Analysis Report (PSAR) [10 CFR 50.34(a)(10)] and the Final Safety Analysis Report (FSAR) [10 CFR 50.34(b)(6)(v)] to address the emergency planning requirements of 10 CFR 50.47, 10 CFR 50.54, and 10 CFR 50, Appendix E. Copies of state and local government radiological emergency response plans for the emergency planning zones around the site are also required to be submitted by each applicant for an operating license [10 CFR 50.33(g)].

10 CFR 50.47 contains emergency planning standards that must be met in the onsite and offsite emergency plans for a nuclear power reactor. 10 CFR 50, Appendix E, specifies the content of emergency plans for production and utilization facilities and establishes the minimum requirements for emergency plans for achieving an acceptable state of emergency preparedness.

10 CFR 50.54 establishes license conditions for licenses issued by the NRC. 10 CFR 50.54(q) requires nuclear power, research reactor and/or fuel facility licensees to follow and maintain in effect emergency plans which meet the applicable standards in 10 CFR 50.47 and requirements in 10 CFR 50, Appendix E. 10 CFR 50.54(q) also establishes the record keeping and reporting requirements for changes to the emergency plans. 10 CFR 50.54(t) requires licensees to provide for the development, revision, implementation, and maintenance of its emergency preparedness program, and specifies that all program elements must be periodically reviewed by persons who have no direct responsibility for the implementation of the program.

Changes to the emergency plans and implementing procedures must be submitted within 30 days in order to allow the NRC to review the changes in a timely manner. Without a timely review, changes to personnel, procedures, equipment, or facilities that could adversely affect emergency preparedness, including failure to maintain an effective emergency plan, could exist without being identified by the NRC. The NRC would be unaware, for extended periods of time, whether the revised plans are still adequate to protect the health and safety of the public and the environment.

¹See Supporting Statement for 10 CFR 50.72(a), Section 29, for Emergency Response Data System.

Inspection Reporting Requirements for Emergency Preparedness

Inspections are an important element of NRC's reactor oversight process (ROP) to ensure that licensees meet NRC's regulatory requirements. The NRC evaluates plant performance by analyzing two distinct inputs: inspection findings resulting from NRC's inspection program and performance indicators (PIs) reported by the licensee. The data which make up the PIs are generated by the licensees and reported to the NRC on a quarterly basis. There are three emergency preparedness PIs: drill and exercise performance, emergency response organization drill and exercise participation, and alert and notification system reliability.

10 CFR 50.4(b)(5) (Emergency plan and related submittals)

Written communications as defined in 10 CFR 50.4(b)(5) - the emergency plan pursuant to 10 CFR 50.34, a change to an emergency plan pursuant to 10 CFR 50.54(q), and emergency implementing procedures pursuant to 10 CFR 50 Appendix E.V - must be submitted as follows: the signed original (if on paper) to the Nuclear Regulatory Commission, Document Control Desk, Washington, DC 20555, one copy to the appropriate Regional Office, and one copy to the appropriate NRC Resident Inspector if one has been assigned to the site of the facility.

A. JUSTIFICATION

1. Need for and Practical Utility of the Collection of Information

Emergency plans and preparedness are needed to provide reasonable assurance that adequate protective measures can and will be taken in the event of a radiological emergency to protect public health and safety, emergency workers, and the environment.

10 CFR 50.47 (power reactors)

10 CFR 50.47(b) sets forth sixteen standards that must be met in the onsite and offsite emergency plans for a nuclear power reactor. These standards establish (1) primary responsibilities for emergency response by the licensee and offsite emergency response organizations, (2) on-shift facility responsibilities, staffing, and augmentation, (3) arrangements for requesting assistance resources, (4) a standard emergency classification and action level scheme, (5) notification procedures, (6) provisions for prompt communications, (7) periodic information for the public on how they will be notified and what their initial actions should be in an emergency, (8) emergency response facilities, (9) methods, systems, and equipment for assessing the offsite consequences of a radiological release, (10) a range of protective actions for emergency workers and the public including evacuation, sheltering, and the use of potassium iodide, (11) means for controlling radiological exposures for emergency workers, (12) arrangements for medical services for contaminated injured individuals, (13) plans for recovery and reentry, (14) the conduct of periodic drills and exercises, (15) training for emergency radiological response, and (16) responsibilities for plan development and review.

10 CFR 50.54(q) (power and non-power reactors and fuel facilities)

A licensee authorized to possess and operate a nuclear power reactor must follow and maintain in effect emergency plans which meet the standards in 10 CFR 50.47(b) and the requirements in 10 CFR 50, Appendix E. A licensee authorized to possess and/or operate a research reactor or a fuel facility must follow and maintain in effect emergency plans which meet the requirements in 10 CFR 50 Appendix E to this part. Licensees may make changes to these plans without Commission approval only if the changes do not decrease the effectiveness of the plans and the plans, as changed, continue to meet the applicable standards and requirements. The licensee must retain the emergency plan and each change that decreases the effectiveness of the plan as a record until the Commission terminates the license for the nuclear power reactor.

The nuclear power reactor, research reactor, or fuel facility licensee must retain a record of each change to the emergency plan made without prior Commission approval for a period of three years from the date of the change. Proposed changes that decrease the effectiveness of the approved emergency plans may not be implemented without application to and approval by the Commission. If a change is made without approval, the licensee must submit, as specified in 10 CFR 50.4, a report of each change within 30 days after the change is made.

10 CFR 50.54(t) (power reactors)

The licensee must provide for the development, revision, implementation, and maintenance of its emergency preparedness program. The licensee must ensure that all program elements are reviewed by persons who have no direct responsibility for the implementation of the emergency preparedness program either: (I) at intervals not to exceed 12 months or, (ii) as necessary, based on an assessment by the licensee against performance indicators, and as soon as reasonably practicable after a change occurs in personnel, procedures, equipment, or facilities that potentially could adversely affect emergency preparedness, but no longer than 12 months after the change. In any case, all elements of the emergency preparedness program must be reviewed at least once every 24 months.

The review must include an evaluation for adequacy of interfaces with State and local governments and of licensee drills, exercises, capabilities, and procedures. The results of the review, along with recommendations for improvements, must be documented, reported to the licensee's corporate and plant management, and retained for a period of 5 years. The part of the review involving the evaluation for adequacy of interface with State and local governments must be available to the appropriate State and local governments.

10 CFR Part 50, Appendix E (production and utilization facilities)

10 CFR 50, Appendix E, specifies the content of emergency plans for production and utilization facilities and establishes the minimum requirements for emergency plans for achieving an acceptable state of emergency preparedness. The emergency plans must contain, but not necessarily be limited to, information needed to demonstrate compliance with the elements set forth in 10 CFR 50, Appendix E.IV, i.e., the organization for coping with radiation emergencies, assessment action, activation of the

emergency organization, notification procedures, emergency facilities and equipment, training (drills and exercises), maintaining emergency preparedness, and recovery. In addition, the emergency response plans must contain information needed to demonstrate compliance with the planning standards of 10 CFR 50.47(b).

Pursuant to 10 CFR 50 Appendix E.V, Implementing Procedures, the applicant's detailed implementing procedures for its emergency plan shall be submitted to the Commission as specified in 10 CFR 50.4 no less than 180 days prior to the scheduled issuance of an operating license for a nuclear power reactor or a license to possess nuclear material. Licensees who are authorized to operate a nuclear power facility shall submit any changes to the emergency plan or procedures to the Commission within 30 days of such changes.

Inspection Reporting Requirements for Emergency Preparedness (power reactors)

Inspections are an important element of NRC's reactor oversight process (ROP) to ensure that licensees meet NRC's regulatory requirements. The NRC evaluates plant performance by analyzing two distinct inputs: inspection findings resulting from NRC's inspection program and performance indicators (PIs) reported by the licensee. The data which make up the PIs are generated by the licensees and reported to the NRC on a quarterly basis. There are three emergency preparedness PIs: drill/exercise performance (DEP), emergency response organization (ERO) drill participation, and alert and notification system (ANS) reliability.

The drill/exercise performance indicator monitors timely and accurate licensee performance in drills and exercises when presented with opportunities for classification of emergencies, notification of offsite authorities, and development of protective action recommendations (PARs). Licensees are required to calculate and report on a quarterly basis the number of drill, exercise, and actual event opportunities during the previous quarter and the number of drill, exercise, and actual event opportunities performed timely and accurately during the previous quarter.

The ERO drill participation indicator tracks the participation of key members of the ERO in performance enhancing experiences that involves the risk significant activities of classification, notification, and PAR development. This indicator measures the percentage of key ERO members who have participated recently in drills, exercises, and actual events. Licensees are required to calculate and report quarterly the total number of key ERO members and their participation in a drill, exercise, or actual event in the previous eight quarters.

The alert and notification system reliability indicator monitors the reliability of the offsite alert and notification system (ANS). It provides the percentage of the sirens that are capable of performing their safety function based on regularly scheduled tests. The licensee is required to report quarterly the total number of ANS siren tests during the previous quarter and the number of successful ANS siren tests during the previous quarter.

2. Agency Use of Information

The NRC must find that the emergency plans conform to the applicable requirements of 10 CFR 50, and that the plans and state of emergency preparedness provide reasonable assurance that, in the event of an emergency, appropriate measures can and will be taken to protect public health and safety and the environment. The information allows the NRC to determine the effectiveness of the emergency planning regulations, the extent to which licensees comply, and whether additional regulatory scrutiny and oversight is needed for any licensee. The information is further used to update information in the NRC Emergency Operations Center, and to oversee licensees' responses during drills, exercises, and in actual emergencies.

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. 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. It is estimated that approximately 5% of the potential responses are filed electronically.

4. Effort to Identify Duplication and Use Similar Information

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

5. Effort to Reduce Small Business Burden

The provisions of these regulations affect both power reactors and non-power reactors (e.g., research and test reactors operated by colleges and universities). 10 CFR 50 Appendix E indicates that Regulatory Guide 2.6² will be used as guidance for the acceptability of research and test reactor emergency response plans. Regulatory Guide 2.6 endorses ANSI/ANS-15.16-1982.³ In addition, NUREG-0849⁴ addresses emergency plans for research and test reactors. Together, these documents present the non-power reactor emergency planning and preparedness requirements, which are less burdensome than the requirements for power reactors.

²Regulatory Guide 2.6, Emergency Planning for Research and Test Reactors, Rev. 1, March 1983.

³ANSI/ANS-15.16-1982, American National Standard for Emergency Planning for Research Reactors, October 11, 1982.

⁴NUREG-0849, Standard Review Plan for the Review and Evaluation of Emergency Plans for Research and Test Reactors, October 1983.

The emergency planning record keeping and reporting burden for non-power reactors is less than for power reactors, because it is based on the potential risk associated with the specific reactor, and the corresponding need to protect the health and safety of the public and the environment. Non-power reactors are much smaller than power reactors, and, as such, create a lesser risk from credible accidents.

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 could be unaware for extended periods of time whether the existing or revised emergency plans are adequate to protect the health and safety of the public, and the environment. Without a timely review of information, changes to personnel, procedures, equipment, or facilities, or failing to maintain an effective emergency plan could adversely affect emergency preparedness and response, without NRC imposing required corrective measures.

7. Circumstances which Justify Variations from OMB Guidelines

10 CFR 50.4(b)(5) requires that for changes to the emergency plan and implementing procedures, the signed original of written communications must be sent to the NRC Document Control Desk, with one copy to the appropriate Regional Office, and one copy to the appropriate NRC Resident Inspector (if one has been assigned to the site of the facility). This is required because the NRC has both a headquarters and regional office, and an NRC Resident Inspector is also located onsite.

10 CFR 50.54(q) requires that the licensee retain the emergency plan, and each change that decreases the effectiveness of the plan, as a record until the Commission terminates the reactor license, which is initially issued for 40 years. 10 CFR 50.54(t) requires that the results and recommendations from emergency plan and preparedness reviews be retained for five years. This is required to ensure that the plans are maintained, such that they provide for the protection of the health and safety of the public and the environment in case of an emergency. Further, this provides documentation of the adequacy of the licensees' emergency preparedness program, and enables an appropriate level of review by the NRC.

8. Consultations Outside the NRC

The opportunity for public comment on this information collection has been published in the Federal Register.

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

Questions of a sensitive nature and other matters that are commonly considered private, such as personal telephone numbers, are needed in the event of a nuclear emergency. This information is protected from public disclosure under the *Privacy Act of 1974*, as amended, and in accordance with 10 CFR 2.390.

12. Estimate of Annualized Burden and Burden Hour Cost

The total annual burden and cost to licensees to comply with the information collection requirements for emergency planning and preparedness in 10 CFR Part 50 are shown in Table 1, Annual Reporting Requirements, and Table 2, Annual Recordkeeping Requirements. Based on staff's best estimate, the industry burden to generate, maintain, retain, disclose, and provide information related to radiological emergency planning, including annual program reviews and distribution of emergency planning information, is estimated to be 275,738 hours for reporting and recordkeeping with an annualized cost estimate to the industry of \$59,835,146. The results are summarized below:

Total Burden 275,738 hours (137,995 hours reporting plus 137,743 hours recordkeeping)

Total Cost: \$59,835,146

Total Respondents: 203

Total Responses: 2,150 responses

Included in the results above are operating power reactors, power reactors being decommissioned, operating non-power reactors, and non-power reactors being decommissioned or in a possession only status.

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 .0004 x the record keeping burden cost. Therefore, the records storage cost for the emergency planning records is estimated to be \$11,956 (.0004 x 137,743 hours x \$217).

14. Estimated Annualized Cost to the Federal Government

The estimated annualized cost to the federal government is summarized in the table shown below. This total annual cost is fully recovered by fee assessments to NRC licensees, pursuant to 10 CFR 170 and 10 CFR 171.

Summary of Federal Government's - Estimated Annual Burden/Costs

	Hours/Reactor	Total Hours	Total Cost (\$217/Hour)
Power Reactors			
Operating power reactor sites (65)	80	5,200	\$1,128,400
Power reactor sites being decommissioned (12)	20	240	52,080
Non-Power Reactors			
Operating non-power reactors (33)	8	264	57,288
Permanently shutdown non-power reactors (16)	2	32	6,944
TOTALS		5,796	\$1,257,732

15. Reasons for Changes in Burden or Cost

The burden decreased for the emergency planning requirements in 10 CFR 50.47, 10 CFR 50.54, and Appendix E to 10 CFR 50, by 532,497 hours, from 808,235 hours to 275,738 hours. NRC staff with prior experience working in industry has evaluated the burden impact to industry and had determined that it was substantially over estimated. The table above re-estimates the burden based on industry experience.

16. Publication for Statistical Use

This information will not be published for statistical use.

17. Reason for Not Displaying the Expiration Date

The requirement is contained in a regulation. Amending the *Code of Federal Regulations* to display information that, in an annual publication, could become obsolete, 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.

Table 1 - ANNUAL REPORTING REQUIREMENTS

Section	Number of Respondents	Responses per Respondent	Total Responses	Burden per Response Hours	Total Annual Burden Hours	Cost @ \$217/Hr
Operating Power Reactor Sites						
50.47(b)(1) - 50.47(b)(16) App E.IV App E.V, VI	65	10	650	130	84,500	18,336,500
50.54(q)	65	1	65	160	10,400	2,256,800
50.54(t)	65	1	65	80	5,200	1,128,400
ROP PI DEP	65	4	260	30	7,800	1,692,600
ROP PI ERO	65	4	260	30	7,800	1,692,600
ROP PI ANS	65	4	260	60	15,600	3,385,200
Operating Non-Power Reactors						
App E.IV App E.V	33	5	165	1.5	248	53,816
50.54(q)	33	5	165	1.5	247	53,599
Power Reactor Sites Being Decommissioned						
50.47(b)(1) - 50.47(b)(16) App E.IV App E.V	12	10	120	17.5	2,100	455,700
50.54(q)	12	5	60	67	4,020	872,340
Non-Power Reactors Being Decommissioned						
App E.IV 50.54(q)	16	5	80	1	80	17,360
TOTALS			2,150		137,995	\$29,944,915

Table 2 - ANNUAL RECORDKEEPING REQUIREMENTS

Section	Number of Recordkeepers	Burden Hours per Recordkeeper	Total Annual Burden Hours	Cost @ \$217/Hr
Operating Power Reactor Sites				
50.47(b)(1)- 50.47(b)(16) App E.IV App E.V, VI	130	648	84, 240	18,280,080
50.54(q)	130	80	10,400	2,256,800
50.54(t)	130	40	5,200	1,128,400
ROP PI DEP	130	60	7,800	1,692,600
ROP PI ERO	130	60	7,800	1,692,600
ROP PI ANS	130	120	15,600	3,385,200
Operating Non-Power Reactors				
App E.IV App E.V	33	7.5	248	53,816
50.54(q)	33	7.5	247	53,599
Power Reactor Sites Being Decommissioned				
50.47(b)(1) - 50.47(b)(16) App E.IV App E.V	24	88	2,112	458,304
50.54(q)	24	168	4,032	874,944
Non-Power Reactors Being Decommissioned				
App E.IV 50.54(q)	16	4	64	13,888
TOTALS	203		137,743	\$29,890,231

Table 3 - SUMMARY - TOTAL BURDEN/COST

Total Burden: 275,738 Hours (137,995 hours reporting plus 137,743 hours recordkeeping)
 Total Cost: \$59,835,146
 Total Respondents: 203
 Total Responses: 2,150 responses