

Section 8

FINAL SUPPORTING STATEMENT FOR EMERGENCY PLANNING

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

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 [10 CFR 50.34(a)(10)] and the Final Safety Analysis Report [10 CFR 50.34(b)(6)(v)] to address the emergency planning requirements of 10 CFR 50.47, 10 CFR 50.54, and Appendix E, "Emergency Planning and Preparedness for Production and Utilization Facilities," to 10 CFR Part 50. Copies of State and local government radiological emergency response plans for the emergency planning zones around each site are also required to be submitted by each applicant for an operating license [10 CFR 50.33(g)].

Section 50.47 contains emergency planning standards that must be met in onsite and offsite emergency plans for a nuclear power reactor. Appendix E to 10 CFR Part 50 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.

Section 50.54 establishes license conditions for licenses issued by the NRC. Section 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, 10 CFR 50.54, and requirements in Appendix E to 10 CFR Part 50. Section 50.54(q) establishes the record keeping and reporting requirements for changes to emergency plans. Section 50.54(t) requires the licensee 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 emergency plans and implementing procedures must be submitted to the NRC within 30 days after the change is put into effect 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 examined by the NRC. The NRC could be unaware of potential reductions in the adequacy of emergency preparedness for an extended period of time, such that the revised plans might fail to meet the required level of protection to the health and safety of the public and the environment.

Inspection Reporting Requirements for Emergency Preparedness

Inspections are an important element of NRC's reactor oversight process (ROP), in that they ensure that licensees continue to meet applicable regulatory requirements. The NRC evaluates plant performance by analyzing two distinct inputs: (1) inspection findings resulting from NRC's inspection program, and (2) performance indicators (PIs) reported by the licensee. There are three emergency preparedness PIs: (1) drill and exercise performance, (2) emergency response organization drill and exercise participation, and (3) alert and notification system reliability. The data which make up the PIs are generated by the licensees, and reported to the NRC on a quarterly basis.

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

Written communications associated with emergency plans are addressed in 10 CFR 50.4(b)(5). Specifically, written communications relating to an emergency plan under 10 CFR 50.34, changes to an emergency plan under 10 CFR 50.54(q), and emergency implementing procedures under Section V, "Implementing Procedures," of Appendix E to 10 CFR Part 50, must be submitted to the NRC in accordance with 10 CFR 50.4(b)(5).

A. JUSTIFICATION

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

The submission of emergency plans to the NRC is required, in order to allow the NRC to determine that they provide reasonable assurance that adequate protective measures can and will be taken in the event of a radiological emergency pursuant to 10 CFR 50.47(a).

10 CFR 50.47 (power reactors)

Section 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 address (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 emergency 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, development of evacuation time estimates and periodic updates to the estimates; (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 either possess or operate a nuclear power reactor must follow and maintain in effect emergency plans that meet the standards in 10 CFR 50.47(b) and the requirements in Appendix E to 10 CFR Part 50. A licensee authorized to either possess or operate a research reactor or a fuel facility must follow and maintain in effect emergency plans that meet the requirements in Appendix E to 10 CFR Part 50.

Licensees may make changes to their emergency plans without Commission approval only if the changes do not reduce the effectiveness of the plans, and the plans continue to meet the applicable requirements. Section 50.54(q)(3) requires licensees to retain an analysis demonstrating that the changes do not reduce the plan's effectiveness and the plan, as changed, continues to meet the applicable requirements. Section 50.54(q)(5) requires licensees to retain a record of changes to the emergency plan that are made without prior Commission approval for a period of three years from the date of the change, and submit a report of each change, including a summary of its analysis, within 30 days after the change is put into effect as specified in 10 CFR 50.4.

Per 10 CFR 50.54(q)(4), proposed changes that would reduce the effectiveness of approved emergency plans may not be implemented without prior approval by the Commission. A licensee desiring to make such a change must submit an application for a license amendment under 10 CFR 50.90. In accordance with 10 CFR 50.54(q)(6), licensees must retain the emergency plan, and any approved changes that reduce the effectiveness of the plan, as a record until the Commission terminates the license.

10 CFR 50.54(t) (power reactors)

A licensee must provide for the development, revision, implementation, and maintenance of its emergency preparedness program. This includes ensuring 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 (but no longer than 12 months) after a change occurs in personnel, procedures, equipment, or facilities that could adversely affect emergency preparedness. 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 of the 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 five years. The part of the review involving the evaluation of the adequacy of interface with State and local governments must be made available to the appropriate State and local governments.

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

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 requirements of Section IV, "Content of Emergency Plans," of Appendix E and the planning standards of 10 CFR 50.47(b).

Pursuant to Section V of Appendix E, 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 after such changes are put into effect.

Inspection Reporting Requirements for Emergency Preparedness (power reactors)

Inspections are an important element of the ROP because they ensure that licensees continue to meet NRC's regulatory requirements. The NRC evaluates plant performance by analyzing two distinct inputs: (1) inspection findings, resulting from NRC's inspection program, and (2) PI data reported by the licensee. The data that makes up the PIs are generated by the licensees, and reported to the NRC on a quarterly basis. There are three emergency preparedness PIs: (1) drill/exercise performance (DEP), (2) emergency response organization (ERO) drill participation, and (3) alert and notification system (ANS) reliability.

The DEP indicator monitors timely and accurate licensee performance in drills and exercises when licensees are 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 in a timely and accurate manner 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, PAR development, and radiological assessment. This indicator measures the percentage of key ERO members who have recently participated in drills, exercises, or 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 during the previous eight calendar quarters.

The ANS reliability indicator monitors the reliability of the offsite ANS. It provides the percentage of sirens that are capable of performing their safety function, based on regularly scheduled tests. The licensee is required to report 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 provide reasonable assurance that adequate protective measures can and will be taken in the event of a radiological

emergency. The emergency planning information submitted by licensees enables the NRC to determine the adequacy of the emergency plan, in regard to compliance with the emergency planning regulations. This includes whether additional regulatory oversight is needed. The information is further used to update information in the NRC Emergency Operations Center in support of NRC's response during an actual emergency, 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 15% of the potential responses are filed electronically.

4. Effort to Identify Duplication and Use Similar Information

No sources of similar information are available. 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 regulations cited previously affect both commercial power reactor licensees and non-power reactor licensees (e.g., research and test reactors operated by colleges and universities). Appendix E to 10 CFR Part 50 states that Regulatory Guide 2.6¹ will be used as guidance for the acceptability of research and test reactor emergency response plans. Regulatory Guide 2.6 endorses ANSI/ANS-15.16-1982.² The American Nuclear Society revised ANSI/ANS-15.16-1982 on September 13, 2008, and the NRC is pursuing endorsement of ANSI/ANS-15.16-2008 with a revision to Regulatory Guide 2.6. In addition, NUREG-0849³ addresses emergency plans for research and test reactors. Together, these documents present the non-power reactor emergency planning and preparedness requirements.

The emergency planning record keeping and reporting burden for non-power reactors is less than for power reactors, because the requirements are based on the potential risks associated with the specific reactor, and the corresponding need to protect the health

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

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

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

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 failure to maintain an effective emergency plan, could adversely affect emergency preparedness and response without the NRC imposing required corrective measures.

7. Circumstances that Justify Variations from OMB Guidelines

Section 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 offices, and an NRC Resident Inspector located at the site.

Section 50.54(q)(6) requires that licensees retain their emergency plan and each change that reduces the effectiveness of the plan as a record until the Commission terminates the reactor license, which is initially issued for 40 years. Section 50.54(t) requires that the results and recommendations from emergency plan and emergency preparedness program reviews be retained for five years. This ensures that the plans will be maintained and will provide appropriate documentation that will support NRC review.

8. Consultations Outside the NRC

Opportunity for public comment on the information collection requirements for this clearance package was published in the Federal Register on May 14, 2013 (78 FR 28244). No comments were received.

9. Payment or Gift to Respondents

Not applicable.

10. Confidentiality of Information

NRC regulations at 10 CFR 9.17(a) and 10 CFR 2.390(b) provide for the protection of confidential and proprietary information.

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 are shown in Table 1, "Annual Reporting Requirements," and Table 2, "Annual Recordkeeping Requirements." 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 286,438 hours for reporting and recordkeeping, with an annualized cost to the industry of \$78,484,012.

The results are summarized below:

Total Burden 286,438 hours (139,050 hours reporting plus 147,388 hours recordkeeping)

Total Cost: \$78,484,012

Total Respondents: 117

Total Responses: 2,184.5 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 NRC has determined that 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. Because the recordkeeping burden is estimated to be 147,388 hours, the storage cost for this clearance is \$16,154 (147,388 hours x 0.0004 x \$274/hour).

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 Part 170 and 10 CFR Part 171.

Summary of Federal Government's Estimated Annual Burden/Costs

	Hours/Reactor Site	Total Hours	Total Cost (\$274/Hour)
Power Reactors			
Operating power reactor sites (65)	80	5,200	\$1,424,800
Power reactor sites being decommissioned (10)	20	200	54,800
Non-Power Reactors			
Operating non-power reactors (31)	8	248	67,952
Permanently shutdown non-power reactors (11)	2	22	6,028
TOTALS		5,670	\$1,553,580

15. Reasons for Changes in Burden or Cost

The burden increased for the emergency planning requirements in 10 CFR 50.47, 10 CFR 50.54, and Appendix E to 10 CFR Part 50 by 12,810 hours, from 273,628 hours to 286,438 hours. This increase was due to changes to NRC emergency preparedness regulations affecting 10 CFR Part 50 licensees that were codified in a final rule published in the *Federal Register* (FR) on November 23, 2011 (76 FR 72560), with an effective date of December 23, 2011. The final rule resulted in additional annual reporting and recordkeeping requirements which are necessary to help ensure that an adequate level of emergency preparedness is maintained by these licensees. These additional reporting and recordkeeping requirements were approved by the Office of Management and Budget under Approval Number 3150-0011. The additional annual reporting requirements were incorporated into Table 1. The additional annual recordkeeping requirements were incorporated into Table 2.

The operating nuclear power reactors affected by the final rule are located at 65 sites. As a result, this supporting statement includes the estimated increased annual burden due to the final rule associated with reporting and recordkeeping for these 65 sites. In addition, operating non-power reactors and decommissioned sites are affected by one of the regulatory initiatives that was included in the final rule (i.e., the amended emergency plan change requirements and associated reporting and recordkeeping requirements in 10 CFR 50.54(q)). There are 31 operating non-power reactor sites, 10 power reactor sites being decommissioned, and 11 non-power reactor sites being decommissioned. Therefore, this supporting statement also reflects the estimated increased annual burden associated with reporting and recordkeeping for these additional 52 sites.

The factors that account for the increased annual burden include the following items: (1) nuclear power reactor licensees shall update and submit to the NRC evacuation time estimates on a periodic basis in accordance with 10 CFR 50.47(b)(10); (2) nuclear power reactor licensees shall submit exercise scenarios to the NRC in accordance with

Sections IV.F.2.a and IV.F.2.b of Appendix E to 10 CFR Part 50; (3) nuclear power reactor licensees shall maintain a record of exercises conducted in each exercise cycle that documents the content of scenarios used to comply with the requirements of Section IV.F.2.j of Appendix E to 10 CFR Part 50; and (4) nuclear power reactor and other licensees shall submit changes in emergency plans that would reduce the effectiveness of the plans to the NRC for prior approval under 10 CFR 50.90 per the requirements of 10 CFR 50.54(q)(4).

The total cost increase was due to the increase in the fee rate from \$257/hour to \$274/hour.

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.

A. 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 @ \$274/Hour
Operating Power Reactor Sites						
50.47(b)(1)-(9) 50.47(b)(11)-(16) App. E.IV App. E.V, E.VI	65	10	650	130	84,500	23,153,000
50.47(b)(10)	65	1	65	1	65	17,810
50.54(q)(4)	12	1	12	40	480	131,520
50.54(q)(5),(6)	65	1	65	162	10,530	2,885,220
50.54(t)	65	1	65	80	5,200	1,424,800
App. E.IV.F.2.a,b	32.5	1	32.5	40	1,300	356,200
ROP PI DEP	65	4	260	30	7,800	2,137,200
ROP PI ERO	65	4	260	30	7,800	2,137,200
ROP PI ANS	65	4	260	60	15,600	4,274,400
Operating Non-Power Reactors						
App. E.IV App. E.V	31	5	155	2	310	84,940
50.54(q)(5),(6)	31	5	155	2	310	84,940
Power Reactor Sites Being Decommissioned						
50.47(b)(1)-(16) App. E.IV App. E.V	10	10	100	17.5	1,750	479,500
50.54(q)(5),(6)	10	5	50	67	3,350	917,900
Non-Power Reactors Being Decommissioned						
App. E.IV 50.54(q)(5),(6)	11	5	55	1	55	15,070
TOTALS	117		2184.5		139,050	\$38,099,700

Table 2 - ANNUAL RECORDKEEPING REQUIREMENTS

Section	Number of Recordkeepers	Burden Hours per Recordkeeper	Total Annual Burden Hours	Cost @ \$274/Hour
Operating Power Reactor Sites				
50.47(b)(1)-(9) 50.47(b)(11)-(16) App. E.IV App. E.V, E.VI	130	648	84,240	23,081,760
50.47(b)(10)	65	111	7,215	1,976,910
50.54(q)(3),(4)	130	80	10,400	2,849,600
50.54(q)(5),(6)	65	4	260	71,240
50.54(t)	130	40	5,200	1,424,800
App. E.IV.F.2.j	65	48	3,120	854,880
ROP PI DEP	130	60	7,800	2,137,200
ROP PI ERO	130	60	7,800	2,137,200
ROP PI ANS	130	120	15,600	4,274,400
Operating Non-Power Reactors				
App. E.IV App. E.V	31	7.5	232.5	63,705
50.54(q)(3),(4)	31	7.5	232.5	63,705
50.54(q)(5),(6)	31	4	124	33,976
Power Reactor Sites Being Decommissioned				
50.47(b)(1)-(16) App. E.IV App. E.V	20	88	1,760	482,240
50.54(q)(3)-(6)	20	168	3,360	920,640
Non-Power Reactors Being Decommissioned				
App. E.IV 50.54(q)(3)-(6)	11	4	44	12,056
TOTALS	192		147,388	\$40,384,312

Table 3 - SUMMARY - TOTAL BURDEN/COST

Total Burden:	286,438 Hours (139,050 hours reporting plus 147,388 hours recordkeeping)
Total Cost:	\$78,484,012
Total Respondents:	117
Total Responses:	2,184.5 responses