

Section 9

FINAL SUPPORTING STATEMENT FOR FIRE PROTECTION

10 CFR 50.48, 10 CFR 50.48(a), 10 CFR 50.48(b), 10 CFR 50.48(c), 10 CFR 50.48(f),
10 CFR 50.48(f)(2), 10 CFR 50.48(f)(3) and 10 CFR 50 Appendix R

DESCRIPTION OF THE INFORMATION COLLECTION

10 CFR 50.48, Fire protection, requires certain provisions for fire protection in operating and permanently shutdown nuclear power plants. This regulation upgrades fire protection at nuclear power plants licensed to operate prior to January 1, 1979, by requiring resolution of certain contested generic issues in fire protection safety evaluation reports. The program for plants licensed to operate prior to January 1, 1979, on which this part is dependent is 10 CFR 50 Appendix R, "Fire Protection Program for Nuclear Power Facilities Operating Prior to January 1, 1979," which makes requirements of certain items of fire protection guidance that have been used by the staff to evaluate the adequacy of fire protection programs at operating nuclear power plants.

A. JUSTIFICATION

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

10 CFR 50.48(a) requires that each operating nuclear power plant have a fire protection plan that satisfies Criterion 3 of 10 CFR 50 Appendix A. This fire protection plan must describe the overall fire protection program for the facility, identify the various positions within the licensee's organization that are responsible for the program, state the authorities that are delegated to each of these positions to implement those responsibilities, and outline the plans for fire protection, fire detection and suppression capability, and limitation of fire damage. The plan must also describe specific features necessary to implement the program described above, such as administrative controls and personnel requirements for fire prevention and manual fire suppression activities, automatic and manually operated fire detection and suppression systems, and the means to limit damage to structures, systems, and components important to safety so that the capability to safely shut down the plant is ensured. Licensees shall retain the fire protection plan and each change to the plan as a record until the Commission terminates the reactor license and shall retain each superseded revision of the procedures for three years from the date it was superseded.

10 CFR 50.48(b) requires that plants licensed to operate before January 1, 1979, meet sections III.G, III.J, and III.O of 10 CFR Part 50, Appendix R; and fire protection features accepted by the staff in fire protection safety evaluation reports.

10 CFR 50.48(c) was implemented in 2004 to provide licensees with the option to transition their fire protection programs to ones based on National Fire Protection Association Standard NFPA 805, "Performance-Based Standard for Fire Protection for Light Water Electric Generating Plants, 2001 Edition" [69 FRN 33536, June 16, 2004]. The NRC has received 32 Letters of Intent covering 47 units. Forty-five units are scheduled to complete the transition by January of 2016. All 47 are scheduled to be completed by June of 2016, 2 sites (4 units) have already completed the transition. The ultimate expectation is that approximately 60 nuclear units will adopt and need to maintain performance-based fire protection programs under 10 CFR 50.48(c).

10 CFR 50.48(f) requires licensees that have submitted 10 CFR 50.82(a)(1) certifications to maintain a fire protection program to address the potential for fires which could cause the release or spread of radioactive materials.

10 CFR 50.48(f)(2) requires that the fire protection program be assessed by the licensee on a regular basis and revised, as appropriate, during decommissioning.

10 CFR 50.48(f)(3) permits the licensee to make changes to the fire protection program without prior NRC approval if the changes do not reduce the effectiveness of fire protection for facilities, systems, and equipment which could result in a radiological hazard.

10 CFR 50 Appendix R, "Fire Protection Program for Nuclear Power Facilities Operating Prior to January 1, 1979," includes sections III.G, III.J, and III.O that are required to be met by plants licensed to operate before January 1, 1979. Section III.G requires the capability to safely shut down. III.J requires emergency lighting. III.O requires the reactor coolant pump oil collection systems.

10 CFR 50 Appendix R, "Fire Protection Program for Nuclear Power Facilities Operating Prior to January 1, 1979," also require each nuclear power plant to have a fire brigade (III.H), documented drills (Section III.I.3.d) and documented training records for each fire brigade member (Section III.I.4). Portions of 10 CFR 50 Appendix R were backfit to nuclear power plant licensees, however Sections III.H and III.I were not. All 104 nuclear power plants have fire brigades, drills and training, but those features are not based on the rule requirements captioned above. Therefore there is no burden associated with this section of 10 CFR 50, Appendix R.

Approximately sixty nuclear units are expected to transition to performance-based fire protection programs under 10 CFR 50.48(c). These may comply with requirements analogous to those under 10 CFR 50 Appendix R, Section III.G, as part of their new fire protection programs or provide justification using performance-based methods for other means of complying with GDC 3 of Appendix A to 10 CFR 50 (Responses on the part of the NFPA 805 licensees can be assumed to be incorporated into their reporting requirements under Section 50.48(c).)

2. Agency Use of Information

These records are required to enable the NRC staff to evaluate the effectiveness of each licensee's fire protection plan and issues related to the generic communications.

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 50% 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

This regulation does not affect small businesses.

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

This information is required so that the NRC can determine that licensee fire protection programs are adequate in the event there is a fire emergency. Other information is collected according to the dictates of the licensees' approved fire protection programs and response requirements as stipulated in the generic communications. The frequency cannot be further reduced. The health and safety of the public could be affected adversely if this information is not available as specified.

7. Circumstances Which Justify Variation from OMB Guidelines

Licensees must retain the fire protection plan until the NRC terminates the license in order to ensure the health and safety of the public.

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

Confidential and proprietary information is protected in accordance with NRC regulations at 10 CFR 9.17(a) and 10 CFR 2.390(b). However, no information normally considered confidential or proprietary is requested.

11. Justification for Sensitive Questions

This regulation does not request sensitive information.

12. Estimated Industry Burden and Burden Hour Cost

There is no reporting burden.

Recordkeeping:

One time Recordkeeping Requirements (Annualized), Transition of Records				
Requirement	No. of Plants Affected (Recordkeepers)	Burden Hours	Total Burden	Cost @ \$274/hr
10 CFR 50.48(c)	47	640	30,080	\$8,241,920

Annual Recordkeeping Requirements				
Requirement	No. of Plants Affected (Recordkeepers)	Burden Hours	Total Burden	Cost @ \$274/hr
Appendix R: Section III.I.3.d + Section III.I.4	104	0	0	\$0
10 CFR 50.48(a)	104	48	4,992	\$1,367,808
10 CFR 50.48(c)	4	80	320	\$87,680
10 CFR 50.48(f)	20	72	1,440	\$394,560
TOTAL	104		6,752	\$1,850,048

* The number of recordkeepers for 50.48(c) represents the average number of recordkeepers over the three year clearance period. Year 1 = 8 recordkeepers

Year 2 = 15 recordkeepers, and Year 3 = 35 recordkeepers, for an average of 19.33 recordkeepers per year.

a. Based on maximum estimates for McGuire units over three years (3,840 hours ÷ 2 units ÷ 3 years = 640 hours/unit-yr) from EPRI TR-1010981, *Transition Process Pilot Report: NEI 04-02 Guidance for Implementing a Risk-Informed, Performance Based Fire Protection Program Under 10 CFR 50.48(c)*.

b. Since NFPA 805 grants licensees the ability to perform plant changes without

special approval or submittal to the NRC, except where these changes may involve significant increases in risk, and few, if any, such risk-significant changes are anticipated, a maintenance and update burden per plant of 20 hrs/change for 4 changes/yr is assumed.

The estimated burden of 36,832 hours is based on the NRC staff's experience. The total estimated cost to industry is \$10,091,968 (\$274/hour x 36,832 hours).

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 36,832 hours, the storage cost for this clearance is \$4,037 (36,832 hours x 0.0004 x \$274/hour).

14. Estimated Annualized Cost to the Federal Government

a. Records Transition

The NRC staff will expend time to review the information captured by the licensees for the 47 units adopting NFPA 805, pursuant to 50.48(c), as estimated in the table below.

b. Maintenance and Update

The NRC staff will expend time to review the information captured by the licensees for: (1) the 47 units adopting NFPA 805, pursuant to 10 CFR 50.48(c); (2) records retained and changes submitted to the fire protection plan pursuant to 10 CFR 50.48(a) and, (3) records maintained by the 20 permanently shutdown plants, pursuant to 10 CFR 50.48(f), as estimated in the table below. Thus, the total cost to the Government is \$14,331,296 (52,304 hours x \$274/hour).

This cost is fully recovered by fee assessments to NRC licensees pursuant to 10 CFR 170 and/or 10 CFR 171.

Staff Review Estimates	No. of Plants	Hours/Plant/Yr	Total Burden	Cost @ \$274/hr
Appendix R: Section III.I.3.d + Section III.I.4	104	0	0	0
50.48(a) Annual Records	104	2	208	\$56,992
50.48(c) Transitional Records	47	975	45825	\$12,556,050
50.48(c) Annual Records	47	133	6,251	\$1,712,774
50.48(f)	20	1	20	\$5,480
TOTAL	104		52304	\$14,331,296

c. Based on estimate from July 2004 Briefing by John Hannon, Chief, Plant Systems

Branch, to NRC Executive Team regarding NFPA 805.

- d. Based on assuming 400 staff hours/plant every three years, including Regional triennial inspections, i.e., $400/3 = 133.33$ staff-hours/plant-year, shown as 133 in table above. Note that 133.33 is used in the burden calculation.

15. Reasons for Changes in Burden or Cost

The overall burden has decreased by 12,800 hours, from 49,632 hours to 36,832 hours. This decrease reflects a reduction of 8,320 hours in transition records and 4,480 hours in maintenance records. Although the ultimate expectation is that approximately 60 nuclear units will adopt and need to maintain performance-based fire protection programs under 10 CFR 50.48(c) and we used this calculation in the previous submittal, with information the agency has received from industry we expect during this clearance period this number to be 47, a reduction of 13 units from the previous submittal resulting in an overall reduction of 12,800 hours.

Further, a correction has been made in this submittal where previously recordkeeping was incurred under III.I.3.d for 104 recordkeepers at 48 hrs per recordkeeper for a total of 4,992 hours. 10 CFR 50 Appendix R, "Fire Protection Program for Nuclear Power Facilities Operating Prior to January 1, 1979," also require each nuclear power plant to have a fire brigade (III.H), documented drills (Section III.I.3.d) and documented training records for each fire brigade member (Section III.I.4). Portions of 10 CFR 50 Appendix R were backfit to nuclear power plant licensees, however Sections III.H and III.I were not. All 104 nuclear power plants have fire brigades, drills and training, but those features are not based on the rule requirements captioned above. Therefore there is no burden associated with this section of 10 CFR 50, Appendix R. This burden has been removed.

Lastly, this submittal corrects a previously omitted oversight not captured recordkeeping burden under 10 CFR 50.48(a) that licensees shall retain the fire protection plan and each change to the plan as a record until the Commission terminates the reactor license and shall retain each superseded revision of the procedures for three years from the date it was superseded. This burden affects 104 recordkeepers at 48 hrs per recordkeeper for a total of 4,992 hours.

The decrease in burden resulted in a decrease in fees of \$2,663,456 from \$12,755,424 to \$10,091,968. There is an increase in cost due to the change in the fee rate from \$257 to \$274.

16. Publication for Statistical Use

The collected information is not published for statistical purposes.

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

None.

A. COLLECTIONS OF INFORMATION EMPLOYING STATISTICAL METHODS

Not applicable.