

Appendix A

INSPECTION PROGRAM GUIDANCE FOR REACTOR SITE ISFSIs

A. SCOPE

This appendix describes the inspection program for ISFSI activities authorized under the provisions of the general license, or a site-specific license, for an ISFSI located at a Part 50 reactor site. Guidance is provided on the scheduling and conduct of inspections during various phases of ISFSI activities: design, fabrication, and construction; preoperational testing; loading and unloading; and storage monitoring. Guidance is also provided on the frequency of performing periodic inspections once spent fuel has been placed in the ISFSI for storage. For the purposes of this Appendix, ISFSI activities are viewed as occurring in the following four phases: (NOTE: Phase 3 and 4 activities may occur concurrently)

- Phase 1 - Design, fabrication, and construction
- Phase 2 - Preoperational testing, including dry runs
- Phase 3 - Spent fuel loading and unloading operations
- Phase 4 - Storage monitoring of the loaded ISFSI

Because the ISFSI is located at a Part 50 reactor site, the licensee's programs (e.g., quality assurance, safety evaluations, radiation protection, emergency preparedness, or security) that support operation of the ISFSI were previously reviewed under the IMC 2500 series inspection programs. Consequently, for an ISFSI located at a reactor site, the IMC 2690 inspection program has been simplified with regard to reviewing these licensee or applicant programs. Inspection efforts should be directed at verifying that activities relating to the ISFSI have been properly incorporated into the existing licensee programs such that a full reinspection of the licensee's or applicant's programs is not required. In contrast, activities specifically related to the ISFSI (e.g., DCSS fabrication, support pad construction, and loading and unloading procedures) are unique and should be reviewed in depth. The scope and time frame of these inspections should be defined in the IIP (See Section 05.05 of the IMC).

B. CONDUCT OF ROUTINE INSPECTIONS

Table A-1 provides milestones for completing inspection activities during Phases 1, 2, and 3, before initial storage of spent fuel in the ISFSI. Although performance of these IPs is mandatory, individual sections may be omitted if the licensee has recently demonstrated satisfactory performance in the inspected area or if this would duplicate inspection activities. The scope and dates of these inspections should be defined in the IIP.

The completion milestones in Table A-1 should be viewed as "by no-later-than (NLT)" dates for each IP. Conversely, sections of specific IPs may need to be completed before the overall milestone specified in Table A-1 due to the need to observe in-process work or because of weak prior performance in some areas. If several casks are being fabricated at one time, then the milestone associated with IP 60852 should be completed before the fabricator finishes manufacturing the last of that series of casks.

Selected IPs from Table A-1 should be re-performed if a licensee intends to use a new model or type of DCSS. Specifically, portions of IPs 60854 through 60856 should be re-performed to verify that the licensee can safely use the new model or type of DCSS.

TABLE A-1

IP NUMBER	IP SUBJECT	NLT MILESTONE
60851	Design control of ISFSI components	Beginning of fabrication
60852	ISFSI component fabrication by outside fabricators	Completion of fabrication
60853	On-Site fabrication of components and construction of an ISFSI	Completion of construction
60854	Pre-operational testing of an ISFSI	Completion of preop testing
60855	Operation of an ISFSI (other than initial fuel loading, unloading, and surveillances)	Before loading begins ¹
60856	Review of 10 CFR 72.212(b) Evaluations	Completion of preop testing ²
60857	Review of 10 CFR 72.48 evaluations	As needed to support above IPs

Subsequent to initial cask loading, Phases 3 and 4 inspection activities should focus on loading/unloading activities, modifications, 10 CFR 72.48 safety evaluations, 10 CFR 72.212(b) evaluations if new DCSS designs are used, and surveillance monitoring of active ISFSIs. Inspection guidance for these activities is contained in IPs 60851, 60855, 60856, and 60857. Table A-2 provides guidance on scheduling Phase 3 and 4 inspection activities. Scheduling and performance of these inspections should be tracked in accordance with Section 05.05 of this IMC.

Table A-2

IP NUMBER	INSPECTION ACTIVITY	FREQUENCY
60851	Modifications to the ISFSI	W
60855	Loading additional casks (each occurrence), performing surveillances, and unloading casks (each occurrence)	W
60856	First use of different DCSS design	W
60857	Modifications to the ISFSI or DCSS design	W

¹ Note: All loading and unloading procedures should be reviewed before initial loading of spent fuel into the ISFSI.

² Note: Review of the licensee's 10 CFR 72.212(b) evaluations of the ISFSI support pad should be completed before the licensee begins construction of the support pad. IP 60856 should be used to accomplish this review.

Licensee programs that support ISFSI operations are under the Part 50 license and are subject to periodic reinspection by the IMC 2515 and IMC 2561 programs. Consequently, these licensee programs that support operation of the ISFSI need not be periodically reinspected per IMC 2690 until after the Part 50 license has been terminated. These licensee programs should then be periodically reinspected using the guidance for an AFR ISFSI contained in Appendix B, Table B-3, of this IMC.

C. CONDUCT OF REACTIVE INSPECTIONS

The SFPO/PM and the Regional Branch Chief should coordinate with the cognizant NRR/PM, as necessary, regarding the conduct of reactive inspections at ISFSIs located at Part 50 licensees. Reactive inspections of abnormal situations and events may use the IPs given in Table A-1. However, this inspection guidance may be supplemented by other IPs from the IMC 2515 and IMC 2561 inspection programs, as appropriate.

The SFPO/PM and the Regional Branch Chief should coordinate with the cognizant NRR/PM, as necessary, regarding the conduct of Augmented Inspection Team (AIT) inspections at ISFSIs located at Part 50 licensees. The conduct of AITs should be per IP 93800, "Augmented Inspection Team Implementing Procedure."

END