

Appendix B

INSPECTION PROGRAM FOR AN ISFSI LOCATED AWAY FROM ANY REACTOR SITE

1. SCOPE

This appendix describes the inspection program for AFR ISFSI activities authorized by a site-specific license. Guidance is provided on the scheduling and conducting inspections of the applicant's programs that support operation of the ISFSI and of design, fabrication, construction, preoperational testing, loading and unloading, and storage-monitoring activities. Guidance is also provided on the frequency of performing periodic inspections, once the spent fuel has been placed in the ISFSI. For the purposes of Appendix B, AFR ISFSI activities are viewed as occurring in five phases. Note: Phases 4 and 5 may occur concurrently. Sections 2, 3, and 4 provide guidance for conducting routine and reactive inspections for AFR ISFSI activities.

Phases of ISFSI Activities

- Phase 1 - Program implementation
- Phase 2 - Design, fabrication, and construction activities
- Phase 3 - Preoperational testing and dry runs
- Phase 4 - Spent fuel loading and unloading operations
- Phase 5 - Storage monitoring of the loaded ISFSI

2. INSPECTIONS OF PROGRAMS THAT SUPPORT OPERATION OF THE ISFSI

During Phase 1 activities, inspection of the applicant's programs that support operation of the ISFSI should be performed. These programs include, but are not limited, to the following:

- Quality Assurance Program
- Operations Program
- Maintenance Program
- Radiation Protection Program
- Radioactive Waste Management Program (Radwaste)
- Radiological Effluents and Environmental Monitoring Program (REMP)
- Packaging, Shipping, and Transportation Program
- Emergency Preparedness Program
- Training Program
- Security Program
- Material Control and Accounting Program
- Fitness for Duty Program
- 10 CFR Part 21 Program
- Fire Protection
- Administration

The applicant for a site-specific ISFSI license has provided information on these programs as part of its application and SAR. After the SFPO has reviewed the applicant's programs as part of the licensing process, a list of the programs that require inspection of implementing procedures should be provided to the Regional Branch Chief for inclusion as elements in the IIP (see Section 05.07 of the IMC). For each program that is required to be inspected, the SFPO and the Region should identify which NRC Inspection Manual IPs or sections of IPs will be used to perform the inspections. This information should be included in the IIP.

When establishing the scope of these inspections any questions raised during review of the SAR and the applicant's previous experience and performance should be considered. Questions on applicant programs that support operation of the ISFSI should be referred to the SFPO/PM for further assistance, if required. For RITS purposes, all inspection time spent in inspecting the implementation of these programs should be charged to IP 60855.

03.01 CONDUCT OF ROUTINE INSPECTIONS

- a. Table B-2 provides milestones for completing Phases 2, 3, and 4 inspection activities. These inspections should be conducted before initial storage of spent fuel in the ISFSI. While performance of these IPs is mandatory, individual sections may be omitted to avoid duplication of inspection activities. The scope and dates of these inspections should be defined in the IIP.

The completion milestones in Table B-2 should be viewed as "by no later than (NLT)" dates for completion of the IPs. Conversely, sections of specific IPs may need to be completed before the overall milestone specified in Table B-2.

This may be necessary because of the need to observe in-process work or because prior performance has been weak in some areas. If a number of 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 B-1 should be re-performed if a licensee intends to use a new model or type of DCSS. Specifically, portions of IPs 60854 and 60855 should be re-performed to verify that the licensee can safely use the new model or type of DCSS.

Table B-1

IP Number	Title	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	Preoperational 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

- b. During Phases 4 and 5 activities - once initial loading of the ISFSI has occurred - inspections should focus on loading or unloading activities, modifications, 10 CFR 72.48 safety evaluations, and surveillance monitoring of loaded ISFSIs. Inspection guidance for these activities is contained in IPs 60851 and 60855. Table B-2 provides guidance on scheduling inspections during Phases 4 and 5 activities. Scheduling and performance of these inspections should be tracked in accordance with Section 05.05 of this IMC.

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

Table B-2

IP Number	Licensee Activity	Frequency
60851	Modifications to the ISFSI	W
60855	Loading Additional Casks (each occurrence)	W
60855	Performing surveillances	SC
60855	Unloading Casks (each occurrence)	W

- c. During Phases 4 and 5 activities, periodic reinspection of programs reviewed in Section 02.01 should be performed at the frequencies given in Table B-3. Scheduling of these inspections should be tracked in accordance with Section 05.05 of this IMC. These repeat inspections are intended to verify that the licensee's programs are still being effectively implemented.

The Regional Division Director should adjust the inspection frequency of these inspections based on the licensee's performance and the presence of activity (e.g., review of the transportation program should be deferred if no shipments of radioactive material are occurring). Similarly, the licensee's fire protection program should only be reinspected if the ISFSI has significant fire hazards (e.g., a radwaste storage area or maintenance area where flammable liquids are stored). The Regional Branch Chief should inform the SFPO/PM of any changes to inspection frequencies.

Table B-3

IP Number	Title	Frequency
35701	Quality Assurance Program Annual Review	TA
64704	Fire Protection Program	TA
82701	Operational Status of the Emergency Preparedness Program	BA
83728	Maintaining Occupational Exposures ALARA	TA
86740	Inspection of Transportation Activities	TA

4. CONDUCT OF REACTIVE INSPECTIONS

- a. The SFPO/PM and the Regional Branch Chief should coordinate with each other regarding the conduct of reactive inspections at AFR ISFSIs. Reactive inspections of abnormal situations and events may use the IPs given in Table B-2. However, this inspection guidance may be supplemented by other IPs from the IMC 2515 and IMC 2561 inspection programs, as appropriate.
- b. The SFPO/PM and the Regional Branch Chief should coordinate with each other regarding the conduct of Augmented Inspection Team (AIT) inspections at AFR ISFSIs. The conduct of AITs should be in accordance with IMC 0325, "Augmented Inspection Team," and IP 93800, "Augmented Inspection Team Implementing Procedure."

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