

REVIEW OF 10 CFR 72.48 EVALUATIONS

PROGRAM APPLICABILITY: 2690

60857-01 INSPECTION OBJECTIVE

In 10 CFR Part 72, "Licensing Requirements for the Independent Storage of Spent Nuclear Fuel and High-Level Radioactive Waste," Section 72.48, "Changes, tests and experiments," contains requirements for the process by which licensees (specific and general) and certificate holders may make changes to their facilities, independent spent fuel storage installations (ISFSIs), spent fuel storage cask designs, or monitored retrieval storage installations and procedures, as described in the final safety analysis report (FSAR), as updated, without prior U.S. Nuclear Regulatory Commission (NRC) approval, under certain conditions. This procedure is intended to provide guidance to inspectors in assessing the effectiveness of licensee or certificate holder performance of 10 CFR 72.48 evaluations, and in ensuring that any required license or certificate of compliance (CoC) amendments have been obtained.

60857-02 INSPECTION REQUIREMENTS

02.01 Inspection Sample Selection

- a. Review a list of evaluations performed by the licensee/certificate holder and select a representative sample. Choose samples from changes to facility or cask design, procedures, FSAR, and tests, based on a judgement of their risk significance.
- b. Select a sample of changes, tests, and experiments that were screened out by the licensee/certificate holder as not requiring performance of 10 CFR 72.48 evaluations.

02.02 Review of Licensee/Certificate Holder Evaluations

- a. With respect to 02.01a, review the selected sample evaluations to verify that the licensee/certificate holder has appropriately considered the conditions under which they may make changes to the facility or procedures, or conduct tests or experiments without prior NRC approval. Review analyses for technical content, methods, and process. Verify that the licensee/certificate holder has appropriately concluded that the change, test, or experiment can be accomplished without obtaining a license or CoC amendment.
- b. With respect to 02.01b, review the selected sample of changes, tests, or experiments for which the licensee/certificate holder determined that evaluations were not required and verify that their conclusions were correct and consistent with 10 CFR 72.48.

02.03 Programmatic Review

- a. Based on the results of 02.01 and 02.02, if a significant number of problems are identified in the licensee's or certificate holder's 10 CFR 72.48 evaluations and screenings, then consider performing a programmatic review of the licensee's or certificate holder's 10 CFR 72.48 process.

60857-03 INSPECTION GUIDANCE

Definitions

- a. Refer to 10 CFR 72.48(a)(1) through (7) for the definition of various terms that are specific in their applications to the 10 CFR 72.48 process.
- b. Safety Classification. ISFSI systems, structures, and components (SSCs) are classified as either "important to safety" or "not important to safety" by the ISFSI designer. Further guidance can be found in NUREG/CR-6407, "Classification of Transportation Packaging and Dry Spent Fuel Storage System Components According to Importance to Safety."

If "important to safety," the SSC will typically either

1. maintain the functions or conditions (i.e., confinement, criticality, shielding, and heat removal) necessary to store spent fuel safely;
2. prevent significant damage to the spent fuel container [dry cask storage system(DCSS)] during handling and storage; or
3. provide reasonable assurance that spent fuel can be received, handled, packaged, stored, and retrieved without undue risk to public health and safety.

If an SSC does not perform any of the preceding functions, it may be classified as "not important to safety."

General Guidance

- a. This Inspection Procedure (IP) will normally be used to provide inspector guidance in performing reviews of 10 CFR 72.48 evaluations when directed to do so by IPs 60851 through 60856; however, it can be used as a stand-alone IP if needed.
- b. Questions on ISFSI activities potentially affecting safety-related reactor SSCs should be referred to the cognizant Office of Nuclear Reactor Regulation project manager (NRR PM). All other ISFSI-related technical questions should be referred to the cognizant Spent Fuel Project Office project manager (SFPO PM).
- c. In preparation for inspecting the DCSS used by the licensee, review the commitments and key requirements in the safety analysis report (SAR), the NRC's safety evaluation report (SER), and the CoC. SARs and SERs have been written for each type of approved DCSS and describe the operations of DCSS components. Information about commitments for a particular DCSS may also be found in the associated CoC. In some cases, the CoC may have an attached "Conditions of Use/Technical Specifications" document and design bases. DCSS designs vary and care must be taken to review the correct documentation. Copies of these documents may be obtained from the region or the cognizant SFPO PM. (Note: Although the SER can document or clarify commitments made by the licensee or vendor, the SER is not an independent basis for enforcement actions.)

- d. The inspector should review, and have available during the inspection, a copy of NUREG/CR-6407, Regulatory Guide DG-3020, "Guidance for Implementation of 10 CFR 72.48, Changes, Tests, and Experiments," and NEI-96-07, Appendix B, "Guidelines for 10 CFR 72.48 Implementation." These documents should be referred to when evaluating licensee/certificate holder evaluations against the criteria of 10 CFR 72.48(c)(1) through (4).

Specific Guidance

03.01 Inspection Sample Selection

- a. Include in the sample selection (where possible) evaluations that involve calculations, revisions, design modifications, or content changes, as they relate to the six primary function categories (as defined in Table 3 of NUREG/CR-6407) of spent fuel storage casks. These are: containment, criticality control, shielding, heat transfer, structural integrity, and operations support. Inspector judgment should be used in determining an appropriate and representative sample size for review. As described further in 03.02a, some sampled evaluations should be complex in nature.
- b. No specific guidance.

03.02 Review of Licensee/Certificate Holder Evaluations

- a. As noted above, in "General Guidance", when reviewing licensee/certificate holder evaluations against the 10 CFR 72.48(c) criteria, refer to Regulatory Guide DG-3020 and NEI-96-07, Appendix B, for guidance and examples in assessing whether the licensee/certificate holder evaluations are appropriate.

In the review of the 10 CFR 72.48 analyses, the review effort should focus on the technical content of the analyses. Although it is recognized that inspection resources may be limited, consider reviewing some analyses that are more complex to provide an indication of licensee/certificate holder abilities in performing such analyses. NOTE: Assistance is available from the SFPO Technical Review Directorate should technical questions arise that cannot be resolved with the licensee/certificate holder during the inspection. Requests for assistance should be made through the cognizant SFPO PM.

- b. No specific guidance.

03.03 Programmatic Review

- a. If a review of the licensee's or certificate holder's program for performing 10 CFR 72.48 screenings and evaluations is needed, then refer to IP 37001, "10 CFR 50.59 Safety Evaluation Program," steps 02.01 and 02.02, for guidance. Make appropriate substitutions such as 10 CFR 72.48 for 10 CFR 50.59 and 10 CFR Part 72 ISFSI-related terms for 10 CFR Part 50 reactor-related terms.

60857-04 INSPECTION RESOURCES

Inspection resources are expected to vary. Reviews associated with new cask designs (vendors/certificate holders) or first-time use of a cask design at an ISFSI (licensees) should require one inspector spending 24 hours on in-office review and 36 hours at the site. Subsequent inspections involving the same cask design should require one inspector spending 8 hours on in-office review and 12 hours at the site.

60857-05 REFERENCES

DG-3020, "Guidance for Implementation of 10 CFR 72.48, Changes, Tests, and Experiments" (when issued)

NEI-96-07, Appendix B, "Guidelines for 10 CFR 72.48 Evaluations" (when issued)

IP 37001, "10 CFR 50.59 Safety Evaluation Program", June 1998

NUREG/CR-6407, "Classification of Transportation Packaging and Dry Spent Fuel Storage System Components According to Importance to Safety", February 1996

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