



Session: Inspection Oversight

Inspection Oversight and Regulatory Experience
Related to the Review of 10 CFR 72.48 Evaluations

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Introduction

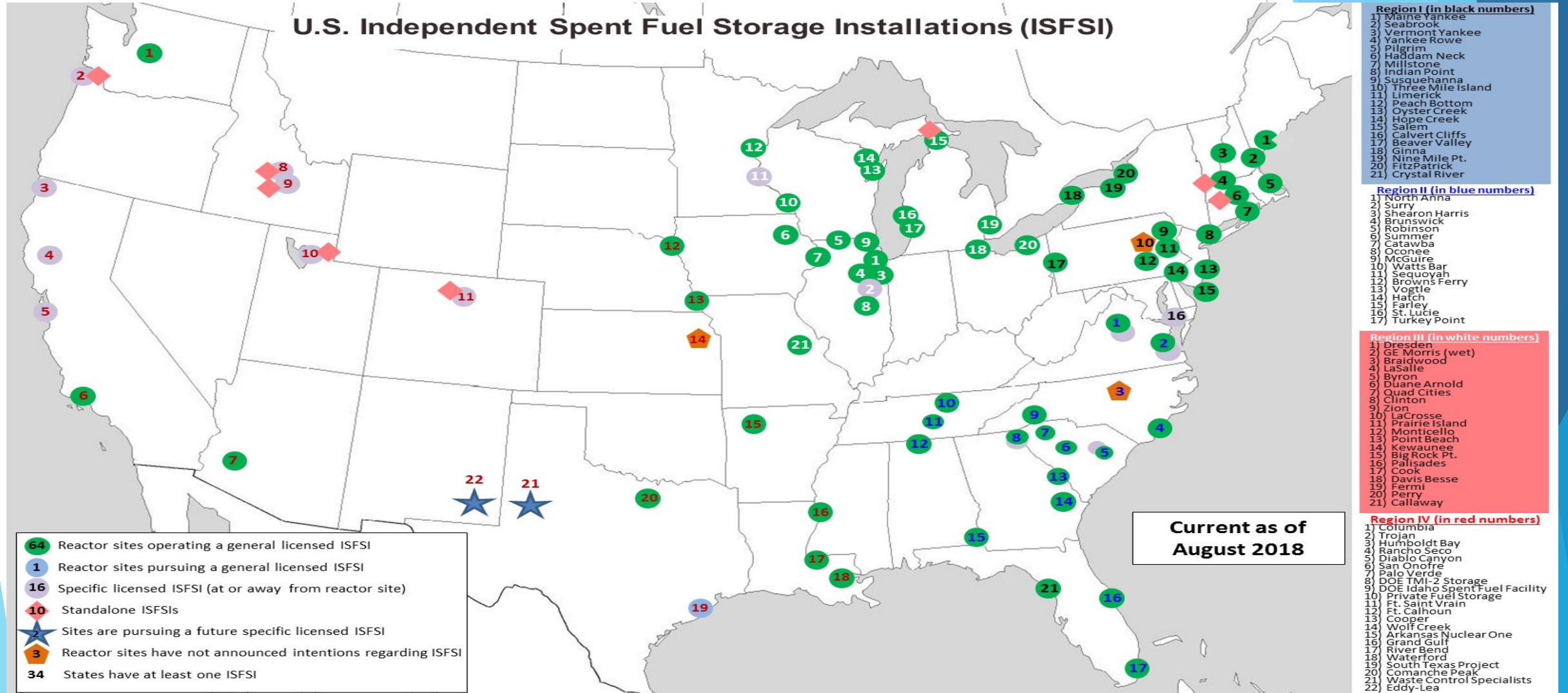
- The purpose of this presentation is to provide a brief overview of the U.S. Nuclear Regulatory Commission (NRC) regulatory experience related to the inspection oversight of the review of 10 CFR 72.48 evaluations and provide information on the endorsement of the new guidance document.
- Success for this presentation is to ensure that all interested parties have a general awareness of recent NRC regulatory experience and provide the status on the new guidance document.



Background

U.S. NRC Regulatory Experience

U.S. Independent Spent Fuel Storage Installations (ISFSI)



Background

Certificate Holders: with NRC-Approved Designs for Use



NAC
International



Holtec
International



Orano
Transnuclear
(TN) Americas



Energy
Solutions



Background

Dry Cask Storage Safety Inspections

NRC Inspection Manual Chapters (IMC)s

- IMC 2690 - Inspection Program Guidance for Dry Storage of Spent Reactor Fuel at Independent Spent Fuel Storage Installations (ISFSI)s
- IMC 2515, Appendix C - Special and Infrequently Performed Inspections

NRC Inspection Procedure (IP)

- IP 60851 - Design Control of ISFSI Components
- IP 60853 - Onsite Fabrication of Components and Construction of an ISFSI
- IP 60854 - Preoperational Testing of an ISFSI
- IP 60855 - Operation of an ISFSI
- IP 60856 - Review of 10 CFR 72.212(b) Evaluations
- **IP 60857 - Review of 10 CFR 72.48 Evaluations**



Background

IP 60857 Inspection Requirements

Inspection Sample Selection

- Review a list of evaluations performed and select a representative sample based on a judgment of risk significance
- Select a sample that were screened out as not requiring a performance of the 10 CFR 72.48 evaluation

Review of Evaluations

- Review the selected sample evaluations to verify that the licensee or certificate holder has appropriately considered the conditions under which the change was made
- Review the selected screen to determine that an evaluation was not required and verify that the conclusions were correct and consistent with the licensee's 10 CFR 72.48 procedure



Background

Inspection Guidance

Regulatory Guide 3.72, “Guidance for Implementation of 10 CFR 72.48, Changes, Test, and Experiments,” Revision 0

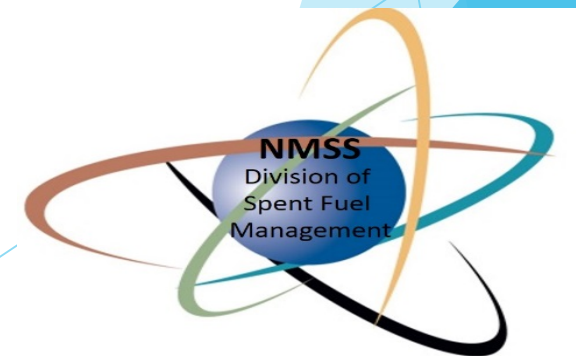
Nuclear Energy Institute (NEI) 96-07, Appendix B dated March 5, 2001



Overview - Applicability Process

Applicability Determination

- Applicability Determination is to determine the correct regulatory change control process, if any for all or part of a proposed activity
- Generally three to four questions to determine if the proposed activity is applicable



Overview - Screening Process

Screening for Adverse Effects

- Screening is the process for determining whether a proposed activity requires a 10 CFR 72.48 evaluation to be performed
- Generally three to four questions to determine if the proposed activity is adversely impacted

Screening for Methods of Evaluation

- Determine if an activity involves a method of evaluation (MOE)
- Distinguishing between input parameters and elements



Overview - 72.48(c)(2) Criteria - Evaluation

10 CFR 72.48 Criterion (c)(2)i

- Does the proposed activity result in more than a minimal increase in the frequency of occurrence of an accident previously evaluated in the FSAR (as updated)?

10 CFR 72.48 Criterion (c)(2)ii

- Does the proposed activity result in more than a minimal increase in the likelihood of occurrence of a malfunction of a system, structure, or component (SSC) important to safety previously evaluated in the FSAR (as updated)?



Overview - 72.48(c)(2) Criteria - Evaluation

10 CFR 72.48
Criterion (c)(2)iii

- Does the proposed activity result in more than a minimal increase in the consequences of an accident previously evaluated in the FSAR (as updated)?

10 CFR 72.48
Criterion (c)(2)iv

- Does the proposed activity result in more than a minimal increase in the consequences of a malfunction of an SSC important to safety previously evaluated in the FSAR?



Overview - 72.48(c)(2) Criteria - Evaluation

10 CFR 72.48
Criterion (c)(2)v

- Does the proposed activity create a possibility for an accident of a different type than any previously evaluated in the FSAR (as updated)?

10 CFR 72.48
Criterion (c)(2)vi

- Does the proposed activity create a possibility for a malfunction of an SSC important to safety with a different result than any previously evaluated in the FSAR (as updated)?



Overview - 72.48(c)(2) Criteria - Evaluation

10 CFR 72.48
Criterion (c)(2)vii

- Does the proposed activity result in a design basis limit for a fission product barrier as described in the FSAR (as updated) being exceeded or altered?

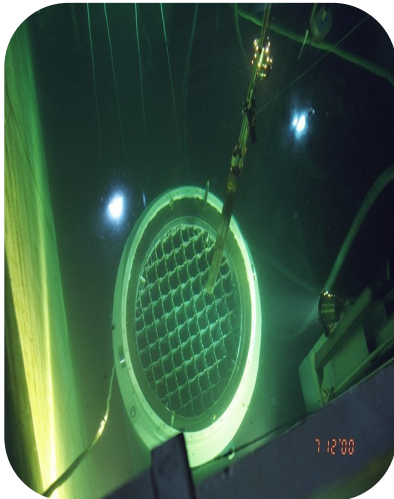
10 CFR 72.48
Criterion
(c)(2)viii

- Does the proposed activity result in a departure from a method of evaluation described in the FSAR (as updated) used in establishing the design bases or in the safety analyses?



Overview

Regulatory Experience



Method of Evaluation
(MOE)



Screenings vs.
Evaluations



Meeting the
applicable criteria of
10 CFR 72.48(c)(2)



Nonconforming or
Degraded Conditions

Overview

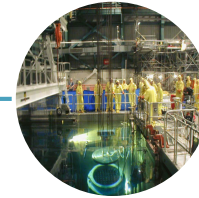
Regulatory Guide 3.72 Update

- The staff developed a Draft Regulatory Guide (DG) for a revision to Regulatory Guide 3.72, "Guidance For Implementation of 10 CFR 72.48, Changes, Test, and Experiments"
- The staff expects the DG to be out for public comment within the next six months.



Summary

Review of 10 CFR 72.48 Evaluations



Method of
Evaluation



Meeting the
applicable criteria of
10 CFR 72.48(c)(2)



Screenings
vs.
Evaluations



Nonconforming
or Degraded
Conditions





References

- ▶ *Code of Federal Regulations* (CFR), Title 10, Part 72 - Licensing Requirements for the Independent Storage of Spent Nuclear Fuel, High-Level Radioactive Waste, and Reactor-Related Greater Than Class C Waste.
- ▶ Inspection Manual Chapter (IMC) 2690, Inspection Program for Dry Storage of Spent Reactor Fuel at Independent Spent Fuel Storage Installations and for 10 CFR Part 71 Transportation Packaging
- ▶ Regulatory Guide 3.72, Guidance for Implementation of 10 CFR 72.48, Changes, Tests, and Experiments

