



Physical Security for Decommissioning Plants

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Agenda

- Recent Decommissioned Facilities
- Physical Security Decommissioning Licensing Actions
- Lessons Learned from previous submittals
- Physical Security Review Process
- Decommissioning Rulemaking

Agenda

- Transition from wet to dry storage
- Lessons Learned from ISFSI submittals



Recently Decommissioned Facilities

2013

Kewaunee, Crystal River, San Onofre

2015

Vermont Yankee

2016

Fort Calhoun

2018

Oyster Creek

Announced Sites for Decommissioning

2019

Pilgrim, Three Mile Island

2020

Duane Arnold, Davis Besse

2021

Perry, Beaver Valley

Dates for announced closures taken from news articles



Announced Sites for Decommissioning

2021

Indian Point

2022

Palisades

2025

Diablo Canyon

Dates for announced closures taken from news articles

Exemptions

10 CFR 73.5

The Commission may, upon application of any interested person or upon its own initiative, grant such exemptions from the requirements of the regulations in this part as it determines are authorized by law and will not endanger life or property or the common defense and security, and are otherwise in the public interest.

Licensing Actions

- The use of a Certified Fuel Handler
(10 CFR 73.55(p))
- EA-02-026, “Interim Compensatory Measures Order,” issued February 25, 2002
- A system of communication with the control room
(10 CFR 73.55(j)(4)(ii))

Licensing Submittals

1) Physical Security Plan, Training and Qualification Plan, Safeguards Contingency Plan (**Security Plan**)

2) Supplemental information that describes the changes to descriptions captured within the plan

Supplemental Information

- 1) Summary to describe current condition of the facility
- 2) Review of operating Protective Strategy
- 3) Current Protective Strategy
- 4) Diagrams
- 5) Photographs
- 6) Engineering Analysis
- 7) Tables
- 8) Scenarios

Physical Security changes

- Reconfiguration of backup power
- # of Armed Responders and Armed Security Officers
- Reduction of vital areas
- Unattended Openings

Review Process for Physical Security Program

- Communication
- Demonstrate safeguards effectiveness through the descriptions provided in the NEI 11-08 revision 0 process
- Alignment of activities with physical security plan descriptions

- Regulatory Requirements
- Order Requirements
- SRP 13.6.1, Physical Security – Standard Review Plan for Combined License and Operating Reactors
- LIC 0800 – (NSIR Internal Procedure)
- NEI 11-08, “Security Plan Changes” Revision 0 (ML12216A194)
- NSIR/DSP-ISG-03 (ML15106A737), Review Of Security Exemptions/License Amendment Requests For Decommissioning Nuclear Power Plants

Decommissioning Rulemaking

- The rulemaking package is currently with the Commission.
- 5/22/18, The proposed rulemaking package for decommissioning was made publicly available.
- [SECY-18-0055 \(ML18012A019\)](#)

Decommissioning Rulemaking

Proposed changes for Physical Security during Decommissioning

Suspension of Security Measures

- § 73.55 (p)(1)(i) and (ii) The licensee may suspend implementation of affected security requirements under the following conditions:
- Emergency conditions
- Severe weather

Suspension of Security Measures

Approval for suspension of security measures:

- Emergency conditions – licensed senior operator.
- Severe weather - licensed senior operator with input from the security supervisor.

Suspension of Security Measures

Proposed Change for 10 CFR 73.55(p)(1)(i)-(ii)

- At a decommissioned reactor, a certified fuel handler or a licensed senior operator would approve the suspension of security measures.

Significant Core Damage

- **§ 73.55(b)(3) The physical protection program must be designed to prevent significant core damage and spent fuel sabotage.**

Proposed change for 10 CFR 73.55(b)(3):

- The removal to prevent significant core damage for decommissioned reactors.

Security Order EA-02-026, Training

- Additionally in the area of significant core damage:

Repeal of

- section B.1.a – training for the loss of ultimate heat sink.

Vital Areas

10 CFR 73.55(e)(9)(v) requires certain vital areas or certain equipment to be contained within vital areas:

- **Control Room**
- Spent Fuel Pool
- Central Alarm Station
- Secondary Alarm Station (Part 50 and 52 Applicants)
- Secondary power supply systems for alarm annunciation equipment
- Secondary power supply for non-portable communications equipment

Control Room

Proposed change

- The reactor control room would not be a vital area at a decommissioned reactor when:
 - All vital equipment is removed from the control room.
 - The control room does not serve as the vital area boundary for other vital areas.

Communications

- § 73.55(j)(4) Continuous communication capabilities must terminate in both alarm stations.

Proposed Change

At decommissioned reactors, a system of communication would be established with the certified fuel handler or the senior on-shift licensee representative that is responsible for overall safety and security.

Conditions and Exceptions

- General License ISFSI Security
 - § 72.212 (b)(9) Protect the spent fuel against the design basis threat of radiological sabotage in accordance with the same provisions and requirements as are set forth in the licensee's physical security plan pursuant to § 73.55 of this chapter with the following additional conditions and exceptions:
 - (i) through (vi)

Conditions and Exceptions

Proposed Change

- (9) (vii)
 - (A) Upon NRC docketing of the certifications required under § 50.82(a)(1) or § 52.110(a) of this chapter, and revision of the final facility safety analysis report to reflect that all spent fuel has been placed in dry cask storage at the facility (including a prohibition against storage of fuel in the spent fuel pool), the licensee may, as an alternative to the requirements of § 72.212(b)(9)(i) - (vi), provide for physical protection of the spent fuel under Subpart H of this part and § 73.51 of this chapter.
 - (B) A licensee who elects to provide physical protection under Subpart H of this part and § 73.51 of this chapter will notify the NRC of this decision using the provisions of **§ 50.54(p)(2)** of this chapter.

Policy Formalized

- Relief from NRC triennial evaluated Force-on-Force Inspection
 - *Upon docketing of the certifications of permanent cessation of operations and permanent removal of fuel from the reactor vessel pursuant to § 50.82 or § 52.110, the NRC will notify licensees by letter of their relief from this inspection program*

Transition To Dry Storage

- Meet with NRC staff to discuss the transition.
- Determine how the existing security plan will be impacted during the transition.
- When all spent fuel is in dry storage

Lessons Learned from ISFSI 50.90 submittals

- Meeting 10 CFR 73.55, Appendix B and Appendix C requirements.
- Licensees ISFSI Order responses.
- Revision of the Order responses to reflect the site current configuration.

Lessons Learned from ISFSI 50.90 submittals

- IMP and Access Authorization
- Search
- Suspension of Security Measures
- Secondary Alarm Station
- Vital Area



Questions