

Cybersecurity, Fitness for Duty, and Physical Security During Decommissioning

Purpose: This exhibit will discuss the NRC staff's proposed graded approach for cyber, fitness for duty (FFD), and physical security at commercial reactors that transition from operation to decommissioning, including the dry storage of spent fuel.

What We Are Doing: During the last decade, several U.S. commercial reactors were shut down before the expiration of their operating licenses, which caused them to enter the decommissioning process for their facilities. The NRC's regulatory framework for security is designed for operating power reactors and has historically not taken into account the different levels of decommissioning and protections necessary for a facility that has ceased operations and defueled. To address this configuration, the NRC is completing a rulemaking to adopt a graded approach for regulating security for facilities that transition to decommissioning, commensurate with the reduction of radiological risk for these types of facilities.

Graded Approach During Decommissioning Rulemaking

Termination of operations
and removal of fuel
from reactor vessel

Sufficient decay
10 months (BWR) or
16 months (PWR) have elapsed

All fuel
in dry
storage

All fuel
removed
from the
site

LEVEL 1

LEVEL 2

LEVEL 3

LEVEL 4

Security Program				
Physical Security	Allow certain physical security feature changes without prior NRC approval (e.g., removal of control room as a vital area)	Protection maintained for the storage of spent fuel before dry storage	Allow transition from 10 CFR 73.55 to 10 CFR 73.51 requirements	
Cybersecurity	Cybersecurity requirements still apply for licensees	Removal of cybersecurity requirements	Cybersecurity requirements have been removed	Cybersecurity requirements have been removed

Cybersecurity During Decommissioning

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Cybersecurity Requirements apply to
10 CFR Part 50 licensees

Cybersecurity requirements are removed at Level 2 for
10 CFR Part 50 licensees

Cybersecurity
requirements apply
to 10 CFR Part 52
licensees

Cybersecurity requirements will be
extended until Level 2
for 10 CFR Part 52 licensees

Cybersecurity
requirements
expire at
Level 2

ADAPTING TO A
CHANGING LANDSCAPE

Graded Approach for Physical Security During Decommissioning

Level 1

- The removal of requirements for protecting against significant core damage
- The use of a certified fuel handler to suspend security measures during plant and weather emergencies
- The removal of the control room as a vital area
- The removal of security communications with the control room

Level 2

- Protection against spent fuel sabotage
- The use of the security plan change process to evaluate modifications to the physical protection program
- The reduction of target sets consistent with the site configuration

Level 3

- The protection of spent fuel in dry storage through power reactor requirements with exceptions and exemptions

OR

- The protection of spent fuel in dry storage through requirements specific to independent spent fuel storage installation facilities

Fitness for Duty During Decommissioning

A graded approach is being considered for the FFD program applicable to personnel working at decommissioning reactor sites. This approach is based on site access, job function, and commensurate risk.

The same 10 CFR Part 26 FFD program that applies to individuals working at operating power reactor sites (except for fatigue management) would apply to the following:

- individuals with unescorted access to the vital area of the decommissioning site (i.e., spent fuel pool)
- certified fuel handlers
- security personnel
- FFD program personnel

Individuals with unescorted access to the protected area only and not the vital area of a decommissioning site would be subject to a limited FFD program (e.g., preaccess drug and alcohol testing, behavioral observation program).

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