

Independent Spent Fuel Storage Installation Security Regulatory Framework

Most independent spent fuel storage installation (ISFSI) licensees (68 of the current 79) hold a general license issued under Title 10 of the *Code of Federal Regulations* (10 CFR) Part 72, "Licensing Requirements for the Independent Storage of Spent Nuclear Fuel, High-Level Radioactive Waste, and Reactor-Related Greater than Class C Waste."¹ Pursuant to 10 CFR 72.212(b)(9), these general licensees are required to protect the spent fuel against the design-basis threat for radiological sabotage specified in 10 CFR 73.1(a)(1), in accordance with the power reactor security requirements of 10 CFR 73.55, "Requirements for physical protection of licensed activities in nuclear power reactors against radiological sabotage." However, 10 CFR 72.212(b)(9)(v) exempts 10 CFR Part 72 general licensees from the 10 CFR 73.55(b)(3) requirement to "interdict and neutralize threats" (often referred to as the "denial-of-task" protective strategy) that power reactor licensees must meet.

Holders of specific licenses issued under 10 CFR Part 72 (15 of the current 79 ISFSI licensees) are subject to the security requirements in 10 CFR 73.51, "Requirements for the physical protection of stored spent nuclear fuel and high-level radioactive waste." Under 10 CFR 73.51(b)(1), these licensees must provide high assurance that activities involving spent nuclear fuel and high-level waste do not constitute an unreasonable risk to public health and safety. These licensees must "detect and assess unauthorized penetration of, or activities within, the protected area" and "provide timely communication to a designated response force," in accordance with 10 CFR 73.51(b)(2). Under 10 CFR 73.51(b)(3), the licensee's physical protection system must be designed to protect against loss of control of the facility "that could be sufficient to cause a radiation exposure exceeding the dose" described in 10 CFR 72.106, "Controlled area of an ISFSI or MRS [monitored retrievable storage installation]" (i.e., the 0.05-sievert (5 rem) design-basis accident dose limit).

Additionally, ISFSIs of either license type are subject to the ISFSI security orders issued in response to the terrorist attacks of September 11, 2001 (post-9/11 security orders). The orders include access authorization and fingerprinting requirements, and require measures to address, among other things, vehicle barriers to guard against a vehicle bomb attack. The post-9/11 security orders bring all ISFSIs, regardless of license type and location (i.e., within the protected area of an operating power reactor, within the owner-controlled area of an operating power reactor, at a decommissioning power reactor, or away from a power reactor) to the same level of reasonable assurance of adequate protection of public health and safety.

¹ Based on individual operational plans, some ISFSI licensees hold both a specific and a general license.