

SONGS Security

ISFSI-Only Security Plan – Non Safeguards Summary

Southern California Edison (SCE) is licensed by the U.S. Nuclear Regulatory Commission (NRC) as the decommissioning agent for the San Onofre Nuclear Generating Station (SONGS). When all spent nuclear fuel at SONGS has been safely transferred to the on-site passive dry storage facility (the Independent Spent Fuel Storage Installation or “ISFSI”), SONGS will become an “ISFSI-Only” site.

Regulatory Requirements

The ISFSI at SONGS is operated under a General License, and per 10 CFR 72.212 SCE is required to safely protect the spent nuclear fuel against the design basis threat of radiological sabotage in accordance with the same provisions and requirements set forth in SCE’s physical security plan pursuant to § 73.55, with the following additional conditions and exceptions:

1. Storage of spent fuel must be (and is) within a protected area, in accordance with § 73.55(e) of this chapter, but need not be within a separate vital area.
2. Personnel searches required by § 73.55(h), may be (and are) performed by physical pat-down searches of persons in lieu of firearms and explosives detection equipment.
3. The observational capability required by § 73.55(i)(3), may be provided by a guard or watchman on patrol in lieu of video surveillance technology.
 - a. SONGS will continue using what is known as a “volumetric intrusion detection system” that detects when something as small as a raccoon enters the proximity of the ISFSI perimeter and then triggers an alarm. This system is used in conjunction with automated video surveillance that generates immediate video playback to indicate the cause of the alarm, whether an animal or a human. This integrated system goes above and beyond NRC requirements for observational capability as it relates to the ISFSI.
4. Exempt from requirements to interdict and neutralize threats described in § 73.55.
 - a. SONGS will continue to take action to neutralize threats as appropriate, in parallel with engaging support from local law enforcement agencies, which goes above and beyond NRC regulatory requirements.
5. Protect Safeguards Information (essentially, classified information about the details of security features, specific threats and correlating response plans) against unauthorized disclosure in accordance with the requirements of § 73.21 and the requirements of § 73.22 or § 73.23.

Safety

By NRC regulation, the SONGS ISFSI design and ISFSI-Only Security Plan provide physical protection to allow SCE to maintain control of the facility and to defend against a terrorist attack. The federal code—10 CFR 72.212—for a General Licensed-ISFSI such as the one at SONGS does not specify a dose limitation for a worst-case potential event, although the SONGS ISFSI complies with a 5-rem dose limit at the SCE-controlled boundary or “fence line.” That dose limit complies with the NRC’s implied order to meet the same safe level of protection as a “Specific-License ISFSI.”

The Design Basis Threat (DBT) describes adversary characteristics that may be used to commit radiological sabotage or theft or diversion of nuclear material from an ISFSI. Licensees including SCE are required to develop site-specific physical protection measures to defend against the DBT. These measures are outlined in Security Plans which are reviewed and approved by the NRC. The SONGS ISFSI-Only Security Plan has been reviewed and approved by the NRC.

Insider Mitigation

Protective measures used at SONGS include an insider mitigation program for any and all personnel authorized access to the ISFSI, with elements described in Regulatory Guide 5.77 to include the following:

1. Security determination (clearance or access authorization/background investigation).
2. Psychological assessments which may include a medical evaluation (initial and every 5 years as a minimum).
3. Continuous behavior observation with no gaps in observation greater than 30 days, including an annual review by the immediate supervisor of each individual who has access to the ISFSI.
4. Background reinvestigation every 5 years for personnel with access to the ISFSI, and 3 years for critical group members such as security personnel.
5. Elements of the physical protection program include monitoring the area adjacent to the ISFSI Protected Area to identify unauthorized activities (e.g., surveillance or pre-staging personnel or equipment to support an attack).

Physical Protections

The SONGS ISFSI is protected by a robust vehicle barrier system (VBS) to provide protection against vehicle-borne explosives. The design, construction and placement of the VBS was determined by an engineering analysis that is based on DBT characteristics, including vehicle size, weight, speed and explosive payloads, along with other factors such as ISFSI design, approach routes and terrain features.

The SONGS Protected Area perimeter is equipped with an integrated volumetric intrusion detection and integrated camera system that provides the ability to detect and assess intruders prior to their entry into the Protected Area and signal an alarm to alert security personnel.

On- and Off-Site Response Forces

SONGS maintains an armed and specially trained on-site response force and maintains a Law Enforcement Response Plan that details Law Enforcement Response actions by off-site agencies, equipment, communication protocols, chain of command, and response timelines. SONGS conducts a review of this plan annually and provides training for local law enforcement personnel to help ensure understanding of response actions and any associated hazards. SONGS also conducts drills and exercises and anticipates the FBI will participate in those drills and exercises, while local law enforcement agencies will vary with respect to their frequency and level of participation.