

The Integrated Security Facility (ISF)

PHYSICAL PROTECTION SYSTEMS RESEARCH, DEVELOPMENT, TESTING, AND TRAINING

Material Protection Control & Accounting is an essential component in the first line of defense against threats to nuclear and radioactive material in use, storage, and transport. The advancement of best practices and human capacity building is a core element of NNSA's Global Material Security mission and the International Atomic Energy Agency's (IAEA) mission.

Sandia National Laboratories (Sandia) supports these missions by providing a systems-level hands-on demonstration, training, and evaluation facility for physical security, nuclear materials management, and nuclear safety.

What is the Integrated Security Facility?

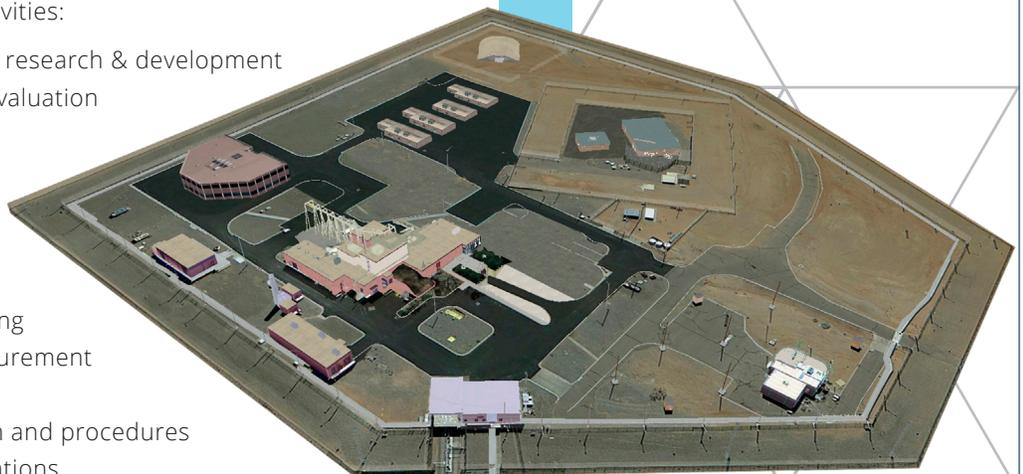
The Integrated Security Facility (ISF) is comprised of security systems originally designed to protect Category I nuclear material. Technologies, such as ground radar and multiple Alarm Control and Display platforms, have been integrated into the ISF. This facility is a research, development, testing, and training environment that includes fully functional, integrated physical protection and material accounting systems.

This unique site has state-of-art nuclear security systems available for the development of next-generation technologies and for training security professionals and engineers. Subject matter experts, associated facilities, and other infrastructures across Sandia offer customers an engineered approach to resolving the challenges of nuclear security.

What are its Capabilities?

At the ISF, domestic and international users have the opportunity to participate in Physical Protection Systems (PPS) demonstration, training, testing, design, and evaluation activities:

- Next-Generation technologies research & development
- Physical security design and evaluation
- Vulnerability assessment
- State-of-the-art modeling and simulation
- Performance testing and procedures
- Material Control and Accounting
- Process monitoring and measurement control
- Entry control access operation and procedures
- Safeguards and security operations



The ISF's key elements:



The Material Receiving area includes a nuclear material storage vault that employs technologies such as interior sensors, video assessment cameras, biometric access control, active delay measures, and passive delay measures. Systems in the Material Receiving area report back to the ISF's Central Alarm Station (CAS) Alarm Control and Display (AC&D).

The perimeter Entry Control Point (ECP) enables authorized entry through the Perimeter Intrusion Detection and Assessment Systems (PIDAS) boundary by providing access control, personnel accountability, and contraband detection. An ECP enables operational awareness over what enters and exits the area under protection.

Perimeter Intrusion Detection and Assessment Systems (PIDASes) are designed to deter, detect, delay, assess, and track suspected or actual intrusions into a secure area. The ISF's PIDAS implements fenced perimeter enclosures, exterior sensors, video alarm assessment tools, entry control systems, and alarm communications. The PIDAS reports to an Alarm Control and Display (AC&D) system at the Central Alarm Station (CAS), thus ensuring timely responses to suspected or confirmed security breaches.

The Central Alarm Station (CAS) monitors the entire ISF security system via the AC&D console. Effective AC&D consoles regulate access control, video record management, communications, and intrusion detection and assessment.

The ISF's Processing Facility for Special Nuclear Material (SNM) integrates physical security with Material Control and Accountability (MC&A) practices. The facility's dedicated intrusion detection, video assessment, and access control systems report back to the ISF's CAS AC&D.

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