

INTEGRATED SECURITY FACILITY

at the Nuclear Security Technology Complex

A ONE-OF-A-KIND FACILITY

The Integrated Security Facility (ISF), located at Sandia National Laboratories, is a decommissioned Category I nuclear reactor facility that now provides a unique and realistic venue for nuclear security training, technology demonstration, and cutting-edge research and development. With its fully functional physical protection and material accounting systems, ISF allows system engineers and designers, facility operators, security personnel, and regulatory authorities to both investigate individual components in depth and understand the system holistically, which ultimately leads to better integration and increased facility security.

Expert Staff

With more than 75 years of experience safeguarding and securing U.S. nuclear materials and facilities, Sandia National Laboratories is home to a wide range of subject matter experts. Partners that tour, train, test, or conduct research and development at ISF have access to physical protection experts, engineers, analysts, and scientists that have real-world knowledge and a depth of experience found nowhere else.

Integrated Security Facility Elements

- **Perimeter Intrusion Detection & Assessment System (PIDAS).** The PIDAS deters, delays, detects, assesses, and tracks potential or actual unauthorized entry into a secure area, and includes an integrated fenced perimeter enclosure, multiple exterior sensors, video alarm assessment, entry control, and alarm communication. This system sends data to the Alarm Control & Display (AC&D) system within the Central Alarm Station (CAS) to ensure timely response to a security breach.
- **Entry Control Portals (ECP).** Perimeter ECPs, including pedestrian and vehicle entries, complete the PIDAS boundary and provide access control, personnel accountability, and contraband detection to enable operational awareness and control of the PIDAS entrance.



CAPABILITIES

Next-generation technologies
research, development, and
implementation

Physical security design and
evaluation

Vulnerability assessment

State-of-the-art modeling and
simulation

Performance testing and
procedures

Nuclear Material Accounting and
Control (NMAC)

Process monitoring and
measurement control

Entry control access operation and
procedures

Safeguards and security
operations



- **Central Alarm Station (CAS).** The CAS and its state-of-the-art AC&D system gathers the information sent by the security components throughout the facility and monitors the entire ISF security system. The AC&D includes access control, video management, communications, and intrusion detection assessment.
- **Processing Facility.** The Processing Facility for Special Nuclear Material (PUREX and MOX) integrates the physical security and Material Control and Accountability (MC&A) systems. Its intrusion detection, video assessment, and access control systems report back to the AC&D in the CAS.
- **Material Receiving Area.** The Material Receiving Area includes a nuclear material storage vault and a variety of technologies, including interior sensors, cameras video for assessment, biometric access control, and active and passive delay at the target. This system reports back to the AC&D system in the CAS.

Access to Other Sandia Training and R&D Facilities

Other on-site facilities that can be accessed through the ISF include the Sandia Pulse Reactor, the Gamma Irradiation Facility (GIF), the Auxiliary Hot Cell Facility, the Annular Core Research Reactor, the Sensor Testing and Evaluation Center, the Outdoor Test Facility, the Access Delay Bunker, and more. Partnering for increased understanding and security is our specialty.

SANDIA'S DEEP HISTORY IN NUCLEAR SECURITY

Nuclear security is one of Sandia's core missions. For more than 75 years, Sandia experts have been engineering the non-nuclear components of nuclear weapons. In conjunction with this work, Sandia has had to keep these weapons and components secure.

Through generations of research and practice, Sandia has grown into one of the world's foremost authorities on securing nuclear and radiological materials against would-be thieves or saboteurs.

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