

Demonstration/Exercises

NPP Maintenance Pump Room

Topic: Opportunity for sabotage of pump room during maintenance

Location: Gamma Irradiating Facility (GIF) pump room (Southwest corner of GIF building)

Overview: A demonstration was held at the GIF pump room to illustrate the potential for sabotage during maintenance operations which are different from day-to-day operations. Whether maintenance is performed by facility employees or contractors, all maintenance professionals should be subject to access control and their equipment should be inspected and approved for both ingress and egress. Only tools necessary for performing the maintenance task should be allowed into the area.

Good Practices for Discussion:

Access Control:

- b. Workers (including contractors) require official badge to enter area, which demonstrates:
 - a. Employee is technically qualified to be in area
 - a. Trained on operational procedures
 - b. Safety and security training complete
 - b. Preventive measures (Trustworthiness and Reliability) have been implemented
 - c. Access is authorized to nuclear material, equipment, and data
- c. access control procedure are implemented, and records updated
- d. Inspection of any equipment or materials brought into and out of the vital area
 - a. Contraband detection
 - a. Does the list change with non-employees such as inspectors or contractors?
 - b. What compensatory measures are used when items on the contraband list are required for maintenance?

Insider Threat Mitigation:

- e. Two-person rule
 - a. a tool check-in/check-out or list of cart equipment reviewed and signed by both employees
- f. Use of facility tamper indicating devices to monitor critical valve positions, network cabinets, or security infrastructure
- g. Control of tools entering or present in the area. Only tools needed to complete the job should be brought into vital area
- h. Removal of valve handles to require special tools to make changes in the system
- i. Using standard operation procedures

Physical Security Measures:

- j. Work is performed in a secured and controlled area designated for associated work.
- k. Reinforced concrete building walls, barriers, locked and alarmed doors, guards, cameras