



August 2016

## Dams Sector Security Awareness and Protective Measures

### Importance of Security Awareness

Dams Sector assets are a vital part of the Nation's critical infrastructure. They provide a range of economic, environmental, and social benefits, including irrigation, electric power generation, water storage, recreation, navigation, flood damage mitigation, sediment control, mine tailings impoundment, and many other important functions. These benefits, however, may be countered by the risks they pose in the event of failure.

Security awareness is the foundation upon which effective security programs are based as risks posed by deliberate, man-made actions have become an issue of greater concern. Good security practices allow owners and operators to recognize security problems and respond accordingly.

### Risk Reduction Strategies

From a security perspective, risk is defined as a function of three parameters including 1) threat, 2) vulnerability, and 3) consequence. Effective security programs must be based on an overall plan for achieving desired outcomes. Risk assessment results and asset-specific constraints will usually dictate which strategies or combination of strategies will be most appropriate. Several types of risk reduction strategies might be used, alone or in combination, to provide the desired outcomes, such as:

- Deterrence
- Physical security
- Operational measures
- Resiliency
- Consequence mitigation
- Rapid recovery

### Potential Protective Measures

Protective programs and resilience strategies involve measures designed to prevent, detect, deter, and mitigate the threat; reduce vulnerability to an attack or other disaster; minimize consequences; and enable timely, efficient response and restoration in a post-event situation.

The *Dams Sector Security Awareness Handbook (FOUO)* assists owners and operators in identifying security concerns, coordinating proper response, and establishing effective partnerships with local law enforcement and first responder communities.

The *Dams Sector Protective Measures Handbook (FOUO)* helps owners and operators select protective measures addressing the physical, cyber, and human elements; includes recommendations for developing site security plans.



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The best source for determining the appropriate level of security is the owner or operator's knowledge of the history of the asset and a common sense assessment of what measures are appropriate, if any. Input should also be sought from the local law enforcement agency. Other owners and operators may also have suggestions on security measures that they have used. The following is a description of the types of measures that could be considered:

- Installing fencing, gates, or other barriers to restrict access to the asset or support facilities.
- Limiting access to critical facilities or features to authorized persons through measures such as unique or restricted keying systems, remote "smart locks," or access card systems.
- Posting signs in non-public areas to warn persons they are trespassing.
- Marking tools and maintaining an accurate inventory of generators, power tools, and other valuable equipment which will aid in their recovery if stolen.
- Ensuring that metal products such as copper or aluminum are secured at night and marked to help identify them if stolen. (A unique color spray paint, as well as marking and branding of wire reels may help.)
- Installing door alarms or other systems to monitor entry into critical buildings or areas.
- Implementing access control measures to identify and process all personnel, visitors, vehicles, vendors, and contractors (i.e., photo IDs, uniforms, marked vehicles, visitor passes, contractor IDs displayed by all personnel while in critical buildings or areas).
- Implementing recorded closed circuit television systems (CCTV) that can provide surveillance capability of a protected facility.
- Integrating alarm, CCTV, and other security systems that report to a staffed facility or a contract alarm station for incident assessment and dispatch of the appropriate company or law enforcement personnel as needed.
- Placing barriers to delay or stop vehicles, particularly in vital areas where only authorized vehicles should be allowed.
- Lighting critical areas to deter trespass and facilitate observation at night. An alternative would be lighting that is activated by motion detection that also provides a deterrent effect.
- Creating a security awareness program to advise neighbors and employees of the types of problems being experienced and how to report suspicious activities. The local law enforcement agency should be able to assist in this.

### For more information:

Please contact the Dams Sector-Specific Agency at [dams@hq.dhs.gov](mailto:dams@hq.dhs.gov) for additional information.

The National Protection and Programs Directorate/Office of Infrastructure Protection (NPPD/IP) leads the national effort to mitigate risk to America's critical infrastructure from the full spectrum of 21st century threats and hazards. NPPD/IP coordinates with government and critical infrastructure owners and operators across 16 diverse sectors to enhance critical infrastructure resilience, strengthen protective programs, and share vital information.



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