



MARYLAND NAVAL WARFARE CENTER

Customer Case Study

- Simple and efficient system with reporting functionality
- Cost-effective, safe alternative to existing systems

TECHNOLOGY/PRODUCTS:

- HID ProxPro® proximity readers
- HID ProxCard® II proximity card tags
- HID ProxKey® II key-chain proximity tags

It's Anchors Away for Navy Base's Access Control System

The munitions group at Maryland's Naval Surface Warfare Center was in an access control quandary. A Sign-in/out log had proved impractical and electronics were too expensive or too dangerous due to the potential of explosion. The unlikely solution came from a nearby cow pasture.

Call it bovine intervention. That's the best way to describe the solution ESTECH, an electronic security systems integrator located in Annandale, Va., selected to solve the access control quagmire served up by the munitions testing group within the U.S. Naval Surface Warfare Center in Indian Head, Md. The installation's environment demanded a creative approach because of the frequent handling of reactive substances and volatile chemicals.

Before the Navy made all the security experts they had enlisted walk the plank, ESTECH climbed aboard and righted the ship. The company devised a solution based upon a most unorthodox impetus. The result was a simple, efficient system that was also cost-effective.


Job Takes Dealer to Historic U.S. Site

Indian Head, the site of the Naval Surface Warfare Center, sits on a 3,500-acre peninsula in the Potomac River, 30 miles south of Washington, D.C., with a rich history of security concerns. Nowadays, this secure government facility is the center for numerous core technical capabilities for the U.S. Navy. The Indian Head Division is the largest employer in Charles County with more than 1,800 employees, 800 of which are scientists and engineers. The base has a \$1.6 billion plant asset value with more than 1,600 buildings on site. Activities carried out at the Warfare Center include: research and development for surface warfare, fleet support for rocket, missile and gun propulsion, manufacturing technology for energetics, development, engineering, manufacturing and fleet support for cartridges, cartridge- and propellant-actuated devices, and aircrew propulsion escape systems. The facility's most critical mission is navy-wide explosive safety engineering.

Integrator Earns a Reputation for Creativity

ESTECH currently monitors approximately 500 accounts, primarily combination video surveillance and intrusion detection systems for federal law enforcement. Perhaps the most creative solution ESTECH has dreamt up was the one it implemented for the Warfare Center's munitions testing group, which is responsible for conducting low-level testing of military explosives under development.

The level of security on the naval base is extremely high and exhaustive safety procedures must be followed due to the highly volatile explosives being tested. Each visitor, regardless of rank or security clearance, must receive an intensive hazard control briefing and is escorted at all times. No



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transmitting devices — including two-way radios, car phones and electronic keys — are permitted on the base. Firearms, cameras and smoking products are confiscated at the main gate and returned when the person leaves. "The commander of the Military Police unit has been quoted as saying that 'Safety is our highest priority. Security is twice as important,'" says Smith.

The munitions testing group's extremely hazardous environment and the dangerous nature of the work require maximum external security and internal safety. Workers must wear respirators and protective clothing as well as be decontaminated as they enter and exit the laboratories. Within the labs, each different compound has to be kept in its own locked container.

Previously, keys were signed in and out on a traditional sign-in log. However, because it's cumbersome to use a pen and paper while wearing protective clothing, the log was disregarded. Keys ended up being either misplaced or lost. Officials at the center decided they wanted a system that offered the secure and convenient benefits of card access without interfering with or activating the base's radio frequency-based (RF) detonation systems. Such a system necessitated all components being triple-protected from any electronic short, which could set off an explosion.

Since card and reader technology typically uses RF transmissions, the facility's access control needs required a unique approach. The Warfare Center contacted several major electronic security companies in an attempt to purchase an intrinsically safe access control system for the application. However, the only apparent viable solution was a cost-prohibitive one exceeding the department's one-year budget involving six-dozen keypads and laboratory shut downs.

When ESTECH assessed the situation, seven employees were assigned to key management, manually locking and unlocking cabinets each workday - an extremely inefficient regimen. "Initially, we had no better suggestions to handle the problem than anyone else," reveals Smith. "But during a drive through the Virginia countryside, on the way to an estate installation, I noticed cows by the roadside wearing large, brightly numbered tags. That was the answer! Each cow was a key and the meadow gate was the reader."

Since a proximity key tag is a passive electronic device, it does not pose an explosive hazard. ESTECH simply attached an HID proximity tag with the key on a cow-tag key ring. The solution turned out to be quite simple and very cost-effective. It consisted of two HID ProxPro card readers, several Pokey II key-chains and ProxPro II card proximity tags, and Ademco's PassPoint operating system. The assembly of an access control key box and a drop box took just a few hours and were fully functional in less than an hour.

Before an employee enters the laboratory, he or she passes his or her proximity tag, which is attached to the breast pocket of their protective suit, by the reader. This registers the specific keys out to that worker, noting the time and date read. At the conclusion of the worker's shift, the keys are put into a drop box, where another reader records them. Before the shift ends, all the keys can be accounted for.

"ESTECH has relied on HID products in the past to install systems in secure facilities," says Smith. "To date, the HID products have performed flawlessly. In this instance, reliability was as important as safety." Most importantly, it poses no threat to the well-being of the employees.