Preventing damage and destruction at nuclear sites

NUCLEAR | Use case

Nuclear power plants and associated assets

A Gap in Perimeter Protection can cause irreversible harm to people, property, assets and the environment

The requirement

Preventing damage and destruction at critical infrastructure sites in the nuclear space is a challenge without the right blend of technologies to harden the perimeter against threats, vandalism and attacks. Cyber attacks and physical unwanted intrusions need robust and reliable protection measures.

The challenge

Nuclear sites in North America face challenges in perimeter protection, namely:

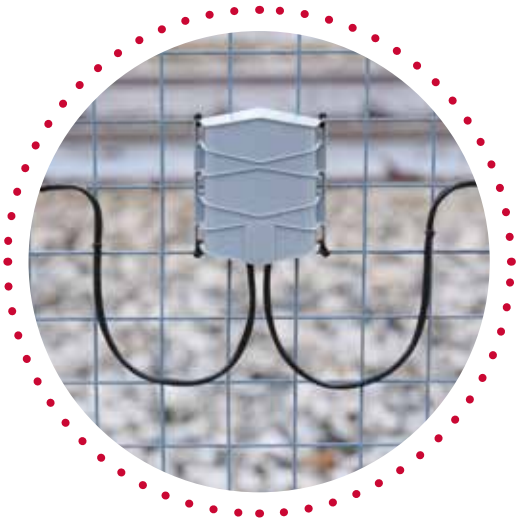
- Site are commonly situated in remote locations, yet response to attack needs to be immediate.
- Sites are composed of a range of buildings and hazardous zones where people and cars need to move securely.
- Environmental conditions can be a challenge to many systems that will cause false alarms.
- Current technologies in play may be on the verge of becoming obsolete.
- Perimeters require a **layered approach** where technologies can work together seamlessly.
- Highly reliable verification is required in order to determine real threats vs false alarms.
- Tight integration between all perimeter security systems is required.
- Redundancy in systems is an absolute.
- One attack can result in outages for a region or entire nation and all threats must be mitigated.

The CIAS solution

For 50 years, CIAS has been protecting the perimeters of national nuclear facilities around the world with its intrusion detection systems. CIAS has been chosen for its optimized risk prevention ability in perimeter breaches with high probability of detection and minimal false alarms.

The CIAS systems also have built-in redundancy whereby a system is never "down".
CIAS offers a range of protection technologies to provided a layered approach and works with third party's systems that work in concert.

- First layer of defense – fence detection with SIOUX PRO2 with unique fuzzy logic analysis technology that rules out erroneous intrusions and only captures real threats and breaches. Works on all fence types.
- Second Layer of Defense – Invisible, volumetric microwave barriers that detect unwanted activity in certain zones with the highest probability of detection. B-static microwave barriers like ERMO 482XPRO work in ALL environmental conditions.
- Dead zone coverage for areas missed or gaps in the perimeter – Microwave radar like the Murena Plus system will cover dead zones of overlapping barriers at corners of the perimeter as well as protecting building front entrances and facades.
- Tight integration to all major third party systems is available with CIAS's technologies and all CIAS's technologies are IP and PoE ready to operate for synergistic supervision.
- 802.1X Cyber standard ensures strengthened authentication of all devices on the Local Area Network (LAN) to reinforce the protection from cyber-attacks.



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