

RN monitoring of Airports, harbours and other restricted areas

Every day a huge amount of nuclear and radiological materials are handled and used in the nuclear power plants, industry, hospitals and medical science. Opportunities for the material to become misplaced, stolen or an accident with the radiological material are numerous. Terrorist activities cannot be neglected – Radiation dispersion devices are effective for contaminating buildings, airplanes, trains, cruisers or even blocks of the city. On the other hand natural background radiation varies due to environmental conditions and also legit medical radioactive sources, such as radiotherapy patients, may be found in public places.

Handling of these threats and separating natural background variation from the variation caused by unnatural radioactive sources poses high demands for reliable radiological monitoring. RaniDPort portal monitoring network integrated with EnviScreen system software are intended to face this challenge and to ensure reliable radiological detection and identification.

Integrated smart video surveillance system helps to trace up suspected radiation source. EnviScreen monitoring system software enables to expand the system to cover all areas of the CBRN-field.

Radiation detection and identification

- Based on RaniDPort spectrometric portals monitors
- Neutron and gamma radiation identification with large volume NaI(Tl) scintillation probe
- Low false alarm rate due to sophisticated nuclide identification algorithms
- Complete reachback capabilities: Compatibility with Linssi-database, Expert analysis available on-line from competent authority
- Operational concept designed and in use at STUK (Radiation safety authority in Finland)
- Possibility to include Chemical and Biological detection capabilities into the same system

Video surveillance

- Supports different types of cameras
- Integrated Mirasys video surveillance system synchronized with radiation levels for source tracing
- Smart VCA-algorithms for video analysis e.g. motion detection, speed analysis or shape detection

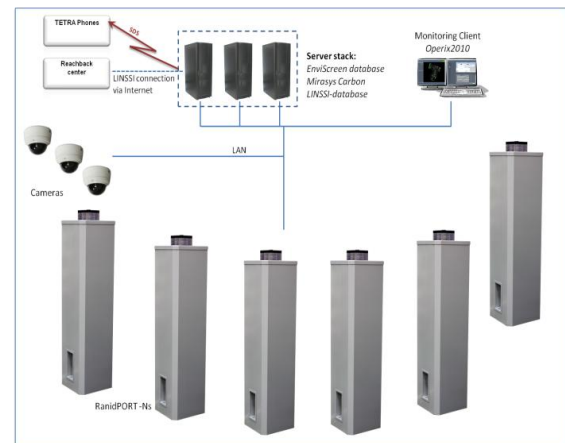


Fig. 1. Airport monitoring system



Fig. 2. EnviScreen view in Alarm-On

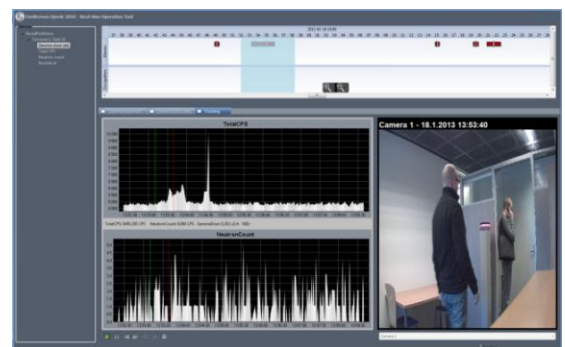


Fig. 3. EnviScreen tracking view: video record played together with synchronized radiation

Applications

- Radiological safety of
 - Harbours
 - Airports
 - Industry sites
- Portal monitoring
 - Entry control
 - Border control
- Environmental monitoring