

Systems and Implementation: Radioactive Material Security – Integrating Law Enforcement into Physical Protection Systems – Romania Gendarmerie

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ABSTRACT

The United States Department of Energy’s National Nuclear Security Administration Office of Radiological Security, Sandia National Laboratories, the Romanian Gendarmerie, the National Commission for Nuclear Activities Control and the Romanian Ministry of Interior have significantly increased Romania’s ability to respond to a potential radiological security event. Through a collaborative effort in policy development, response plan coordination, in-person training, and integration of radiological alarms into Gendarmerie dispatch facilities, Romania has enhanced their response capabilities by providing a timely and trained response force to any attempted theft of high-activity radioactive materials.

INTRODUCTION

Physical protection systems are designed to prevent an adversary from successfully completing a malevolent act against a facility or transport operation. Timely detection of any potential adversary action against a target is an essential element of materials security. The timely detection must then be followed-up by a capable and timely response from law enforcement.

Romanian law number 550/2004 provides specific authority to the Romanian Gendarmerie to be the lead agency for all counter-terrorism activities as well as security for vital installations, including radiological and nuclear facilities and transport operations. The Romanian Ministry of Interior signed an agreement with the National Commission for Nuclear Activities Control (CNCAN) and the Inspector General of the Gendarmerie in 2014 that designated the Gendarmerie as the lead agency responsible for monitoring and responding to alarms at facilities with radiological materials of concern.

The United States Department of Energy’s National Nuclear Security Administration Office of Radiological Security (ORS), Sandia National Laboratories (SNL), CNCAN, Ministry of the Interior, and the Gendarmerie partnered together to equip a state-of-the-art central alarm station (CAS) at the Gendarmerie Headquarters Facility in Bucharest, Romania. Gendarmerie officers assigned to the CAS have received ORS-sponsored training on radiological protocols, policies,

and procedures, and can quickly notify response assets from the closest station in the event of a confirmed alarm. Officers in the CAS can quickly assess the closed-circuit television camera(s) (CCTV) and can then relay critical information to responding officers regarding potential hazards. Additionally, if the CAS discovers a potential system failure or if a power outage occurs, they can dispatch Gendarmerie officers in order to provide compensatory security measures until all technical issues are resolved.

COOPERATION OVERVIEW

Several stakeholder organizations were involved in the integration of radiological alarms into the Gendarmerie dispatch facilities.

Table 1. Primary Roles and Responsibilities

Stakeholder	Role
Romania Ministry of Interior	Developed a National Response Plan and designated roles and responsibilities amongst Romania’s response agencies
CNCAN	Coordinated with all response stakeholders and site representatives for policy and plan development as well as training activities
Romanian Gendarmerie	Alarm monitoring/assessment and response
U.S. DOE/NNSA ORS	Provided funding for central alarm station upgrades and training
Sandia National Laboratories	Provided subject matter experts, contracting, and programmatic support

Stakeholders completed the effort required to integrate the CAS by collaborating on policy development, response plan coordination, and in-person training.

Alarm Monitoring

Communicating high-priority radiological alarms from protected sites to response personnel is a critical component to any effective physical protection system. This detection process starts with a notification that a security sensor has been activated. However, detection is not complete without assessment. Quickly determining what triggered the alarm is key for assessment. Enabling secure alarm communications and video assessment pathways to the Romanian Gendarmerie CAS gives the Gendarmerie the ability to rapidly assess the alarm. The CAS staff can view real-time video footage of the device and the area surrounding the device to determine device/source status, numbers and descriptions of intruders, and possible adversary intent. This rapid alarm assessment significantly reduces response timelines for the Gendarmerie and not only increases the responders’ situational awareness, but also the likelihood of establishing effective containment before any theft of radioactive materials occurs.



Target Folders

Target folders contain information about a radiological device as well as the hazards of the radioactive material in the device. They also contain information regarding authorized users and include contact information for both emergency and non-emergency situations. Information in this folder can be quickly disseminated to officers responding to an alarm.

Target Folder Development Workshop

In 2017, the ORS hosted a Target Folder Development Workshop in Bucharest, Romania. The Gendarmerie in cooperation with CNCAN and site personnel developed target folders for sites with ORS-funded physical security systems. Romanian Gendarmerie officers routinely visit the sites as part of their response pre-planning activities. Gendarmerie officers also accompany CNCAN inspectors when they perform their routine licensing compliance inspections of the facilities.

Response Plans & Policies

Together, ORS, CNCAN, and the Gendarmerie developed specific radiological response policies, plans, and procedures. These policies include, but are not limited to, clarification of roles and responsibilities for alarm communications, assessment protocols for the CAS staff, and response containment strategies. Two examples of radiological-specific policies and protocols are assigning high-priority status to any alarm from a radiological site and ensuring that a sufficient number of officers are immediately dispatched to the radiological site. Notifying specialized units, command staff, and key site personnel have also been included into the established radiological response policies.

Radiological Theft Response Engagement (RTRE)

In September 2019 the ORS hosted a Radiological Theft Response Engagement Workshop in Bucharest, Romania. Officials from the Ministry of Interior, Ministry of Defense, Gendarmerie, and CNCAN began drafting a national response plan in the event radiological materials were stolen or compromised.

ORS Response Training

International Response Training (IRT)

In 2018, the ORS hosted an International Response Training Workshop in Bucharest, Romania. Officers from the Gendarmerie, CNCAN, and site security representatives were in attendance for this four-day workshop that included the following topics:

- Physical Protection System Fundamentals
- Radiological Hazards for First Responders
- Contingency Plan Development
- Radiological Response Tabletop Exercise

Transportation Response Training (TRT)

In 2018, the ORS hosted a Transportation Response Training Workshop in Sinaia, Romania. Officers from the Gendarmerie and CNCAN were in attendance for this three-day workshop that included the following topics:

- Preparatory Activities for the Operator (Pre-Attack)
- Preparatory Activities for Law Enforcement (Pre-Attack)

- Law Enforcement Actions to Prevent Attack
- Response Strategies and Actions (Post-Attack)
- Recapture and Recovery Operations (Post-Attack)
- Management Issues
- Transportation Response Tabletop Exercise

International Response Training – Course Transition (IRT-CT)

In October of 2019 the ORS hosted an International Response Training Course Transition Workshop. This three-day workshop focused on transitioning the IRT curriculum to the Gendarmerie for a customized course specific to Romania.

CONCLUSION

In the event of an attempted theft of radioactive material, rapid law enforcement response time is essential for containing the threat and material onsite. The collaboration between ORS, SNL, CNCAN, and the Romanian Gendarmerie was key in the development of a robust response plan. A detailed communication plan, installation of radiological detection alarms and sensors, access to real-time video surveillance, and creating target folders with pertinent information, all lead to a timely and capable response to an attempted radiological theft.

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