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Engaging Law Enforcement Responders to Ensure Effective Security for Radiological Materials

The U.S. Department of Energy/National Nuclear Security Administration's Office of Radiological Security (ORS) cooperates with partner countries throughout the world to enhance the security of radioactive sources used for legitimate purposes. As codified in the IAEA's Nuclear Security Series Number 11, Security of Radioactive Sources, effective radiological source security is based upon systems that can properly perform the key security functions of detection and assessment, delay, and response. Each of these security functions is dependent upon a human factor for successful execution, but the response function, which "encompasses the actions undertaken following detection to prevent an adversary from succeeding…,"is based almost completely on personnel supported by equipment, rather than equipment supported by personnel.

In order to optimize the effectiveness of response to attempted unauthorized removal of radioactive material, response personnel must understand three key concepts: first, understanding the consequences associated with the malicious use of radiological or nuclear material in order to accord associated response activities an appropriate level of importance and prioritization; second, recognizing both the risks associated with ionizing material and the measures they can take to mitigate those risks in order to effectively interrupt an adversary without facing unnecessary personal risk; and third, understanding the realities of security systems that protect the target material in order to properly analyze the adversary timelines and take measures needed to ensure appropriate response times can be achieved.

One additional complication must also be overcome in order to ensure a reliable response function: engaging a critical mass of law enforcement personnel in order to be confident that responders who may be on-shift during a theft event have the proper training and awareness to respond effectively.

To address these challenges, ORS engages its partner country stakeholders through multiple training courses for law enforcement personnel to convey the key response concepts to a broad constituency. This strategy serves to address the need to expose a critical mass of law enforcement personnel to the necessary ideas, as well as initiate the growth of a security culture among law enforcement personnel that encompasses radiological material and develop appropriate advocates who will ultimately champion the adoption of this response training as part of a broader law enforcement training curriculum.

In Poland, ORS has experienced success with this approach to response engagement and training. As a component of the broader ORS Global Cesium Security Initiative (GCSI), ORS trainers undertook a regional approach to responder engagement. This broader and deeper approach resulted in a highly effective partnership with Polish response stakeholders. The joint cooperation has led to the cultivation of a broad cadre of trained response personnel. More importantly, Polish response stakeholders have led a successful effort to both adapt radiological theft response training to meet the country's particular needs and to integrate the training curriculum into the existing training programs at police academies and training facilities in Poland. The partnership between Poland and ORS offers a number of lessons for response engagement initiatives to ensure investment of training resources in this area will bear fruit and achieve intended objectives.

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