



Contribution ID: 98

Type: **Oral**

Periodical Radiological Crime Scene Management exercises in Germany

Tuesday, 8 July 2014 14:00 (20 minutes)

The role of the German Federal Office for Radiation Protection (BfS) in the entire system for the defence against nuclear hazards in Germany has been described previously [1] and will be described only very briefly in this contribution. The BfS engages in many exercises and training courses on the topic of nuclear security measures of nuclear and other radioactive material out of regulatory control [2]. It also provides assistance at major public events at the request of the security authorities [3].

This contribution will describe ongoing periodical radiological crime scene management exercises between the BfS, the German Federal Criminal Police (BKA) and the German Federal Police (BPol) in the framework of the Central Federal Support Group in Response to Serious Nuclear Threats (ZUB). After the investigation of the Polonium-incident in Hamburg in 2006 [4], such exercises were established and carried out periodically. They are conducted at least once a year on a large scale to practise the cooperation and team work between BfS, BKA and BPol. This paper will focus on the practical procedures at a contaminated crime scene depending on the main objectives of the exercise for example decontamination procedures, buried sources or data recovery from contaminated electronic devices but will also include certain aspects that are constantly being practised, like inter-office communication, medical emergencies in a contaminated environment or general health and safety issues. Additionally, examples of the equipment used by the BfS for radiological crime scene management will be discussed. This contribution will also point out the importance of having experienced personnel present and the importance of learning about the professional skills of the partners.

The experience and best practice knowledge gained by the BfS over the years through organizing and participating in these exercises together with the German security authorities will be shared. Within the framework of the ZUB, BfS is responsible for all aspects of radiation protection, including the radiological safety and dosimetry of all personnel involved in the actual crime scene management. To fulfill these tasks, BfS is training its personnel to take over pre-defined roles and responsibilities, developed together with the police and defined by experience gathered in different exercises, including

- On-scene commander for all BfS personnel
- Detection / Search teams
- Air lock operators
- Glove box operators
- Radiological advisors for the decontamination unit of the police
- Documentation officers
- Radiological advisors on questions of risk assessment, handling of and transportation of contaminated evidence

Additionally BfS is training with the DVI unit of BKA to prepare for the possibility of a dirty bomb crime scene with casualties or a crime scene with contaminated corpses. There is also training to investigate contaminated evidence in a glove box and to pack and transport contaminated evidence to an external partner (ITU).

The main lessons learned by the Federal Office for Radiation Protection will be presented at the conclusion of the contribution. These are based around the following general points:

- Personnel and equipment resources needed for radiological crime scene management
- Early coordination between police authorities and radiation protection authorities is essential;
- Written procedures and measurement protocols for the radiation protection staff must be developed and exercised on a regular basis
- Surveillance of the exercise by video equipment is important to allow supervisors and observers to view the performance of the personnel while letting them perform their duties unrestrained
- Necessity for experienced personnel who have worked together previously

In conclusion, maintaining an annual radiological crime scene management exercise is the basis for BfS, BKA and BPol to be well prepared in case of a radiological emergency. The roles and responsibilities have been defined by experience and personnel is being trained specifically for these tasks.

References

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Session Classification: Technical Session 2F