Purpose and Expectations of the Workshop

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R²D²Project: Workshop on “Decommissioning Technologies”

Forschungszentrum Karlsruhe; Germany 06-10 July 09

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Safety + Technology

- IAEA Safety Standards are set up to promote “Safety”
- Safety can only be provided if appropriate technology is in place
- Technology must be used in accordance with well-designed procedures
- New technologies may help to improve safety

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Purpose of Workshop

- ‘Planning’ was the focus of past WSs
- ‘Technologies’ is leading to ‘implementation’
- The main decommissioning task is to dismantle an obsolete facility into manageable pieces for storage / transport / disposal or for release from regulatory control, e.g. after decontamination
- Many technologies are available for dismantling and decontamination
- Get an overview over technologies; experience a demonstration of FZK technologies; learn to adopt technologies to smaller sized facilities

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Goals of workshop (I)

1. Primary / Overall Goals

- Get an overview over existing technologies
- Be able to select technologies suited for the national situation
- Learn to adopt technologies to smaller work scale
- Learn how to develop and apply practical procedures for safe and effective work ‘in the field’
- Receive information on costs and suppliers and the checking for the availability of used equipment
- Understand the importance of an integrated approach to decommissioning and materials management (clearance; conditioning, storage, transport and disposal of radioactive waste)

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Goals of workshop (II)

- Understand the influence of German boundary conditions on the selection of technologies

2. Specific Goals / Radiological Issues

- Learn how to establish and maintain a clear separation between radioactive areas and non-radioactive areas, even in a changing environment
- Learn to avoid potential spread of contamination
  - Enforce strict access and exit controls of people
  - Control radioactive material; removal by permission only
  - Apply physical protection (intrusion, theft, sabotage, …)
- Learn to cope with constant change/barrier break up
  - Provide (preliminary) shielding
  - Provide (mobile) containment
  - Keep doses ALARA

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Goals of workshop (III)

- Learn to ensure that radioactive material is only released within the strict limits for releases from nuclear regulatory control
  - Apply strict technical + procedural controls because 'clearance' is, in general, 'irreversible'
  - Develop radionuclide relationships / vectors between gamma emitters (Cs-137, Co-60) and other radionuclides by sampling and analysis ('fingerprinting')
  - Use such 'fingerprinting' also for the management of radioactive waste (Dual purpose!)
  - Use tested and calibrated equipment for clearance measurements

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Goals of workshop (IV)

- Allow independent measurements (regulator) at all time
- Materials should only be released with regulatory approval
- Determine the overall uncertainties and apply appropriate safety margins
- Establish a detailed documentation in order to be able to provide proof and evidence when necessary

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Expectations (I)

- Be able to make informed technological and cost effective choices for the decommissioning of national facilities in a well defined project, including
  - Well defined end-points;
  - Adequate and qualified staff;
  - Proper project management;
  - Integrated technological approach between dismantling and the management of materials; and
  - Proper waste management practice (segregation, clearance, processing, storage and disposal)

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Expectations (II)

- Be aware of suppliers for and costs of equipment
- Procure technology that can be safely applied in the actual situation
- Apply technology in a way as to avoid incidents and accidents and minimise consequences should they occur
- Plan or implement the decommissioning of facilities in accordance with the lessons learned at this workshop or review and, if necessary revise existing plans or implementation routes

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THANK YOU

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