

RADIOACTIVE AND NUCLEAR MATERIAL TRANSPORT SECURITY

Awareness and application of new recommendations



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Definition of High Consequence Radioactive Material

- Consistency with the Code of Conduct led to adopting the Category 2 radioactive source threshold (10 D) for those radionuclides covered by the Code
- 3,000 A₂ was adopted for all other radionuclides based on results of the benchmarking exercise

Security Levels for Radioactive Material

- Basic security level – similar to recommendations for security of all dangerous goods
- Enhanced security level – similar to recommendations for “high consequence” dangerous goods
 - Additional security measures may be required by a country based on its design basis threat, assessment of the prevailing threat, or its evaluation of the attractiveness of the material to a potential adversary
- These recommendations have been published as an IAEA Nuclear Security Series “Implementing Guide”, NSS No. 9
- The IAEA has presented the recommendations to the UN Committee of Experts

Security of Nuclear Material During Transport

- Revision of INFCIRC/225/Rev. 4 was initiated in 2008
- Several consultants meetings and two large technical meetings have been held to develop the draft revision
- A Transport Working Group was formed to update and, where possible, strengthen the transport security requirements
- Transport security plans have been recommended for Category II nuclear material (in addition to Category I material)

Security of Nuclear Material During Transport (continued)

- “International transport” recommendations have been updated to reflect
 - Fundamental Principle B “Responsibilities during International Transport” of the Amended CPPNM
 - Current transport operations (carriage arrangements, physical protection responsibilities, etc.)
- Revised document is expected to be published as Nuclear Security Series Recommendations document in late 2010 or early 2011

Interface Between Nuclear and Radioactive Transport Recommendations

- Since nuclear (fissile) material is also radioactive, both recommendations documents should be considered when transporting nuclear material
- In general, for
 - Category I nuclear material: INFCIRC/225 is more stringent (e.g., guards/escorts, surveillance, etc.)
 - Category II nuclear material: INFCIRC/225 and NSS No. 9 enhanced security level are roughly the same
 - Category III nuclear material: INFCIRC/225 and NSS No. 9 basic security level roughly the same
 - Lower than Category III nuclear material: INFCIRC/225 and NSS No. 9 roughly the same for some materials (e.g., low enriched uranium); NSS No. 9 more stringent for some materials (e.g. small masses of plutonium)

Transport Security

- Recommendations radioactive material transport security have been published
 - Presented to the UN Committee of Experts for incorporation into the Model Regulations
- Revised recommendations for nuclear material transport security will be published soon
- Shippers and carriers should be aware of the new and revised recommendations