

TOPIC 14 – TRANSPORTATION OF NUCLEAR MATERIALS

Tuesday, 17 November 2015
Conference Room, Nuclear Fuel Cycle Royal Commission
Level 5, 50 Grenfell Street, Adelaide SA 5000

Dr Edwin Lyman, Union of Concerned Scientists (7.30am, by video-link)

Dr Edwin Lyman is a Senior Scientist in the Global Security Program at the Union of Concerned Scientists. His areas of interest include nuclear proliferation, nuclear terrorism and nuclear power safety and security, and he has published articles in a number of journals and magazines on these topics. Dr Lyman is a member of the Institute of Nuclear Materials Management and has given evidence before the US Congress and Nuclear Regulatory Commission on multiple occasions. Prior to joining the Union of Concerned Scientists, Dr Lyman was president of the Nuclear Control Institute in Washington DC, an organisation concerned with nuclear proliferation.

Topics to be addressed at this public session:

- ⊕ The safety of packages used during the transport of nuclear materials
- ⊕ The extent to which the packages for nuclear materials transportation are subjected to tests which reflect real-world accident conditions

Mr Frank Boulton, Class 7 International Pty Ltd (9am)

Frank Boulton is based in Adelaide and provides consulting services in relation to the management of radioactive material consignments from mine sites to their points export. He provides advice on matters including the practical operation of radioactive material transport supply chains, compliance with regulatory requirements and the establishment of effective communication channels between all relevant bodies during consignments. Mr Boulton is also the Australasian representative for the World Nuclear Transport Institute. Prior to his current role, Mr Boulton worked in the transportation of radioactive and nuclear materials for over 30 years at Olympic Dam.

Topics to be addressed at this public session:

- ⊕ The characteristics of radioactive materials which influence the means and methods of their transportation
- ⊕ The practical steps that are undertaken to transport uranium ore concentrate for export

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Mr Jack Dillich and Dr Samir Sarkar, Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) (12pm)

ARPANSA is the Commonwealth Government's primary authority on radiation protection and nuclear safety. Its functions are multi-faceted and include the promotion of radiation protection standards that are consistent across Australian jurisdictions and in line with international best practice, including those applicable to the transportation of nuclear and radioactive materials. Jack Dillich has been the Chief Inspector and Head of the Regulatory Branch since 2014 and is responsible for licensing, compliance and inspection of all Commonwealth entities using radioactive sources and operating nuclear or radiation facilities. Mr Dillich is a nuclear engineer and has worked for decades in commercial nuclear power, nuclear propulsion and research reactors. Having joined ARPANSA in 1999, Dr Samir Sarkar is currently a Principal Inspector within the Regulatory Branch. He holds a PhD in nuclear science from Kanazawa University in Japan and his areas of expertise include nuclear fuel management, radioactive waste management and the transport of radioactive materials. Dr Sarkar is the Australian Representative at the International Atomic Energy Agency Transport Safety Standard Committee.

Topics to be addressed at this public session:

- ⊕ The different classes of packages which are utilised for the transportation of nuclear materials and the nature of their testing requirements
- ⊕ The processes undertaken to approve packages in Australia as meeting the relevant regulatory requirements
- ⊕ Accident case studies

Mr Hefin Griffiths, Australian Nuclear Science and Technology Organisation (ANSTO) (2.30pm)

ANSTO is a Commonwealth research organisation which provides specialised advice and scientific services. It also manufactures products, including radioisotopes for cancer detection and treatment. ANSTO, and its predecessor the Australian Atomic Energy Commission, has operated nuclear research reactors at Lucas Heights in Sydney since 1958, including the current Open Pool Australian Lightwater reactor since 2007. Hefin Griffiths is the Head of Nuclear Services and Chief Nuclear Officer at ANSTO. He is responsible for all radioactive waste management activities at ANSTO and directs the provision of radiological safety advice and training to commercial entities. Prior to this role, he spent over 20 years working in both the civil and military fields of the nuclear industry in the UK, with a focus on nuclear safety and emergency planning.

Topics to be addressed at this public session:

- ⊕ The arrangements that ANSTO enters into to facilitate the transportation of spent nuclear fuel overseas
- ⊕ The strategies ANSTO employs to provide information relating to the transportation of spent nuclear fuel to the community

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Mr Alastair Brown, International Nuclear Services (INS) (4.45pm, by video-link)

INS is a wholly-owned subsidiary of the Nuclear Decommissioning Authority in the UK. In addition to providing a wide range of consultancy services relating to the management and transportation of irradiated fuel, it undertakes international consignments of specialist nuclear cargoes and manages the associated emergency response measures. Alastair Brown is the Technical Director at INS and has worked in the nuclear industry for 26 years. Since joining INS 15 years ago, Mr Brown has held both operational and technical roles, and participates in the UK delegation for inter-governmental negotiations in relation to nuclear transportation. He is also a Director of the World Nuclear Transport Institute.

Topics to be addressed at this public session:

- ⊕ The specialised assets that are utilised to address safety and security concerns during international shipments of spent nuclear fuel
- ⊕ The practical steps that are carried out in planning and undertaking an international spent nuclear fuel consignment
- ⊕ The incidence of accidents at sea