Transportation of Radioactive Materials – from mine to port and beyond

Paydirt Uranium Conference Adelaide 29 April 2013

Presented by Julia Dnistrianski Partner

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Today's presentation

Key issues for transport of radioactive materials:

- Incorporation of international regulations into Australian Code of Practice for Safe Transport of Radioactive Material
- Application within Commonwealth, States and Territories
- Additional requirements for transport and export of uranium
- Current export ports for uranium oxide
- Recent developments

Australian Radiation Protection and Nuclear Safety Agency (ARPANSA)

- CEO of ARPANSA publishes a Radiation Protection Series to promote practices that protect human health and environment from possible harmful effects of radiation
- Within the series are:
 - Radiation Protection Standards
 - Codes of Practice
 - Recommendations
 - Safety Guides

Code of Practice for the Safe Transport of Radioactive Material

- Based on international requirements published by International Atomic Energy Agency (IAEA)
- The Code of Practice:
 - adopts the IAEA's Regulations for the Safe Transport of Radioactive Material 1996 Edition (revised 2003 & 2005)
 - is adopted by the regulatory frameworks of the Commonwealth, State and Territory jurisdictions
 - has been revised from its 2001 edition to incorporate revised IAEA Regulations (now the 2008 Code of Practice)

Code of Practice for the Safe Transport of Radioactive Material

Jurisdiction	2008 Code	2001 Code
CTH	✓	
SA		✓
NT	✓	
WA		✓
QLD	✓	
NSW	✓	
VIC	✓	
ACT	✓	
TAS	✓	

 The Code of Practice is intended to apply to transport of radioactive material by road, rail and waterways under State and Territory jurisdiction

Special Transport Permit

- Nuclear Non-Proliferation (Safeguards) Act 1987 (Cth)
 - Permit to possess nuclear material for purpose of transporting
 - Applies to certain nuclear material set out in Regulations
 - Does not apply to thorium concentrates or uranium ore concentrates extracted in Australia and containing less than or equal to 10kg element weight of U or Th

(10kg element weight U is 11.8kg U₃O₈)

Exporting certain goods prohibited without permission

- Customs (Prohibited Exports) Regulations 1958 (Cth)
 - Permission of the Minister for Industry, Tourism and Resources required to export:
 - Uranium
 - Thorium
 - Uranium and thorium in form of:
 - metal
 - alloy (Th alloy containing 1.5% of above by weight Th)
 - compound
 - ore or concentrate (containing 0.05% or above by weight U or Th)

Exports and Nuclear Non-Proliferation

- Application required to export nuclear material or transfer domestically
- Required where:
 - Ownership of material changes; or
 - If the material will be either in or out of the permit holder's possession for more than 30 calendar days
- Reflect Australia's stringent nuclear safeguard requirements

Exporting radioactive material

- Ports of Adelaide and Darwin currently only ports exporting uranium oxide
- WA Government policy does not allow exporting through any port
- City of Freemantle has a specific policy banning the transport of uranium in or through the municipality



Picture: Lyndon Mechielsen, PerthNow

Exporting radioactive material - Queensland

- Overturn of uranium mining ban in Qld in October 2012
- Public concern exporting uranium oxide through Great Barrier Reef
- Likelihood of uranium export out of Qld port low at this stage

Conclusion

- Important to be aware of legislative requirements for safe transport of radioactive material
- The Code of Practice may be applied differently in a jurisdiction
- Additional transport and export requirements for uranium
- Current export of uranium from Ports of Adelaide and Darwin but watch this space

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