IAEA Technical Meeting on Integrated Approaches to the Back End of the Fuel Cycle

Overview of Approach to Back End Transport in WNTI

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World Nuclear Transport Institute
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17th – 19th July 2018, IAEA, Vienna
History

The WNTI was established by Industry in 1998 to represent the collective interests of the radioactive materials transport sector. The WNTI has grown to nearly 50 Members to date from a wide range of industry sectors (radioisotopes producers, major utilities, fuel producers, transport companies, package designers, package producers and mines and other industry transport stakeholders...)

WNTI supports the work of key intergovernmental organisations, such as the IMO and the IAEA, in promoting an efficient, harmonised international transport safety and security regime.

Exchanges within intergovernmental organisations, with national competent authorities and collaboration with related industry organisations are essential for the WNTI.
History - 20th Anniversary

Around 5% of Class 7 Radioactive Material transported worldwide per year are related to the Nuclear Fuel Cycle (The rest include medicine, agriculture, research, manufacturing, non-destructive testing and in the exploration of minerals).
All operations concerned with the spent fuel which leaves the reactors, including the shipment of spent fuel elements from nuclear power plants to reprocessing facilities for recycling, and the subsequent transport of the products of reprocessing. Alternatively, if the once-through option is chosen, the spent fuel is transported to interim storage facilities pending its final disposal.

**Characteristics**: limited volume transported in tailor made packages and dedicated conveyances

Spent fuel cask on dedicated rail transport and being loaded onto a ship
Members

30/06/2018

Reactor Operators, Associated Vendors, Waste Management Organization etc. are joining.

Organisation & Governance

BOARD OF DIRECTORS
Founder Members representatives (UK, France, Japan)

ADVISORY COMMITTEE
Founder Members representatives (UK, France, Japan)

SECRETARY GENERAL
• John Mulkern

LONDON OFFICE STAFF
• Chris Chen – Finance and Operations Manager
• Francesca Houslander – Communications Officer
• Ayomide Agbaje – Finance & Admin Assistant
• Amy Northage – Membership Secretary and Events Executive

LONDON OFFICE SPECIALISTS ADVISORS
• Anne Presta – Safety
• Hirotaka Nojima – EPR
• Simon Chaplin – Security

REGIONAL REPRESENTATIVES
• Eileen Supko – North America
• Ko Sugiura – Japan
• Frank Boulton – Australasia
• Captain Sanjoy Sen – Southern Africa
• Steven Shi – China
Mission

- The voice of the radioactive materials transport industry
- Industry Representation at International Organisations
- Factual information – factsheets, website www.wnti.co.uk
- Good practice guides & Standards for the industry
- Working groups for industry members
- Thematic / Regional Workshops
A permanent involvement and active participation in International Organisations in charge of the Regulations

- ALL RELEVANT COMMITTEES AND SUB COMMITTEES
- TRANSPORT SAFETY STANDARDS COMMITTEE
- EMERGENCY PREPAREDNESS & RESPONSE STANDARDS COMMITTEE
- NUCLEAR SECURITY GUIDANCE COMMITTEE
- UN ECONOMIC AND SOCIAL COUNCIL Sub-Committee of Experts on the Transport of Dangerous Goods
- Technical Committee 85 (Nuclear)
- DANGEROUS GOODS PANEL WG

WNTI: OBSERVER STATUS
WNTI
Expanding and sharing the knowledge

• WNTI delivers lectures and courses
WNTI develops a wide range of publications, which are shared among industry stakeholders for wider implementation.

- WNTI publications freely available on www.wnti.co.uk
Implementation of standards brings confidence to all parties involved, from Authorities to Service Providers to stakeholders.
WNTI Publications on Back End Transport

【Fact Sheet】
• Transport of Large Objects and Special Arrangements
• The INF Code and purpose built vessels
• Nuclear Fuel Cycle transport- Back end materials
• Quick facts on the transport of Nuclear Fuel cycle Transport
• Nuclear Liability for Transport

【Good Practice Guide】
• Communicating radioactive Material Transports
• WNTI transport principles

【Glossary】
• WNTI Glossary
### WORKING GROUPS

#### WNTI PERMANENT WORKING GROUPS

<table>
<thead>
<tr>
<th>BACK END TRANSPORT</th>
<th>SCOPE 2018/2019</th>
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</table>
| Chairmanship : SELLAFIELD Ltd | • Waste Inventory Forecasting & Characterisation  
• Cask decommissioning  
• Waste Transport Regulatory Framework  
• Dual Use casks  
• Consignee Duty Holding |

<table>
<thead>
<tr>
<th>URANIUM ORE CONCENTRATES</th>
<th>WNTI Uranium Concentrate Good Practice Guide to a Standard</th>
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<tbody>
<tr>
<td>Chairmanship : CAMECO</td>
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| HEX-T  | UF6 Cylinder Standards ANSI N14.1 ISO 7195, ISO 12807, ISO 10276 
Socket Head plug – Implementation, Experiences and challenges  
Load Securing for UF6 Transport |
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<td>Chairmanship : URENCO</td>
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<tr>
<th>SSR-6</th>
<th>IAEA SSR-6 and SSG-26 Revision Cycle</th>
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<td>Chairmanship : AXPO</td>
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| TRANSPORT SECURITY  | Graded approach  
Monitoring of the evolution of IAEA NST 044 and NST 053 |
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<td>Chairmanship : INS</td>
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<tr>
<th>EMERGENCY PREPAREDNESS &amp; RESPONSE</th>
<th>IAEA TS-G-1.2 Revision cycle</th>
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<td>(resuming in progress)</td>
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<th>SUPPLY CHAIN (dormant)</th>
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MEMBERS MEETINGS

Twice a year : SAMM

- June : Member’s Country
- December : London : 12 - 13 Dec 2018

Two days
Day 1 : Working group meetings
Day 2 : Plenary session with special guests
+ Technical tour
Upcoming Event: WNTI Collaboration

PATRAM 2019

Hosted by the Institute of Nuclear Materials Management (INMM)
WNTI supports in the PATRAM 2019.

What is PATRAM?
The International Symposium on the Packaging and Transportation of Radioactive Materials (PATRAM) is a series of symposia that brings together worldwide experts from government, industry, and research organizations.

Date and Place
4 - 9 August 2019 – New Orleans, USA
THANK YOU

The World Nuclear Transport Institute

www.wnti.co.uk

Extensive freely available publications and information.
Sonar location equipment is fitted to aid any salvage operation.
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<tr>
<th>No</th>
<th>Workstream</th>
<th>Aim</th>
<th>Objective</th>
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<tbody>
<tr>
<td>1</td>
<td>Waste Inventory Forecasting &amp; Characterisation</td>
<td>To develop a means of predicting waste arising’s in the nuclear industry and drive discussion on how the derived data can be exploited to develop worked examples on the characterisation, categorisation and classification of materials for transport to interim and final disposal facilities.</td>
<td>Factsheet</td>
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<td></td>
<td>Lead: Sellafield Ltd, UK.</td>
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<td>2</td>
<td>Cask Decommissioning</td>
<td>To explore the cask decommissioning methodologies available to the world-wide nuclear industry, promote discussion on the relative strengths/weaknesses of identified processes and develop thinking on what constitutes current best practice.</td>
<td>Good Practice Guide</td>
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<td>3</td>
<td>Waste Transport Regulation Framework</td>
<td>To engage the nuclear industry and take their views on the aspects of the current transport regulatory framework that constrain waste operations.</td>
<td>IAEA Engagement</td>
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<td></td>
<td>Lead: RWM, UK.</td>
<td>To use the derived data in order to develop proposals for regulatory change.</td>
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<td>4</td>
<td>Dual-Use Casks</td>
<td>To drive discussion and share industry practice on the best practice standards and expectations in relation to the design, manufacture, use and maintenance of dual-use (transport and storage) casks.</td>
<td>IAEA Draft TECDOC on DPCSC</td>
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<td>Lead: Orano, France.</td>
<td>To engage with the regulatory community in order to ensure that future regulatory revision is sensitive to the views of industry.</td>
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<td>5</td>
<td>Consignee Duty-Holding</td>
<td>To explore the duties and expectations of the transport role of consignee, promote discussion on the relationship between consignor &amp; consignee and develop the thinking on what constitutes good practice.</td>
<td>Factsheet</td>
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