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THE WORK OF THE WNTI SECURITY WORKING GROUP

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Abstract

The World Nuclear Transport Institute's (WNTI) 'Work Programme' is driven by the many and varied interests of its members, and WNTI is committed to maintaining its strong engagement for promoting safety and security standards and practices applied to the international transport of radioactive and nuclear materials.

This paper will look at the areas in which WNTI represents its members through a dedicated working group in the development of international recommendations concerning the security of nuclear and other radioactive material in transport, and will describe its strong cooperation and partnership with the key UN bodies involved in the establishment of the regulatory framework (including IAEA, IMO and ICAO).

It will discuss industry concerns regarding security transparency, the graded approach and public concerns over the perceived lack of security surrounding some transports. Finally, it will provide an insight into the future activities of WNTI security working group in assisting the IAEA and other international organisations in developing technical security guidance and advanced technologies for the secure transport of nuclear and other radioactive materials.

Introduction

Every day, thousands of packages of radioactive and nuclear materials are transported safely and securely around the world, and the transport industry has a proven track record in delivering these transports with the highest levels of safety, security and quality. Many forget, without an experienced and enabled transport industry, the civil nuclear sector would simply stop.

The International Atomic Energy Agency (IAEA) is the central United Nations organisation responsible for overseeing the development of both safety regulations and security guidance concerning the transport of radioactive and nuclear materials. The fundamental treaty concerning the security of nuclear material is the Convention for the Physical Protection of Nuclear Material (CPPNM and amendments), this is supported by its guidance document, the Physical Protection of Nuclear Material and Nuclear Facilities (INFCIRC/225, Revision 5). Further to this, other transport mode-specific instruments exist, such as those of the IAEA Nuclear Security Series; for air transport

the International Civil Aviation Organisation Technical Instruments and Chicago Convention; for maritime transport the International Maritime Organization's "International Ship and Port Facility Security Code" (ISPS Code) and those contained in the "Orange Book" for High Consequence Dangerous Goods in the United Nations Model Regulations. A key principle of the CPPNM and INFCIRC/225 is that the State retains overall responsibility for determining its security requirements but any State who has ratified the CPPNM is legally obligated to comply with the Articles described. Furthermore, States are encouraged, as far as is practicable, to utilise and implement the recommendations of INFCIRC/225 into their own nuclear security regime.

The security of radioactive and nuclear materials both on nuclear facilities and during transport has matured significantly in the last 15 years. This maturity has been a result of the socio-economic and political attention paid to the emerging threat from global terrorism and the potential consequences associated with the theft and/or sabotage of radioactive or nuclear materials. This is reflected not only in the global efforts to improve the security of radioactive and nuclear materials, including those global threat initiatives created and driven by the Nuclear Security Summit, but also in the advice and guidance shared between States via the IAEA.

The World Nuclear Transport Institute (WNTI) was established in 1998 to address issues of concern to the transport of nuclear material industry. It was not until 2001 that security became an area of increased focus for WNTI and its members, although the physical protection of nuclear materials was well established as far back as 1974 and well understood. It was in 2009 that WNTI established a specific Transport Security Industry Working Group (TSWG) to evaluate security issues and concerns based on industry experiences and common interests in assessing the implications and ramifications on operations of State security regulations and requirements. Since then, the TSWG has grown in stature and continues to act as the central platform for industry interaction and sharing of good practice, issues and successes.

Further this paper will describe how WNTI and its TSWG help support the development of international good practice concerning the transport security and it will examine some of the challenges by industry over the past seven years of the WNTI TSWG. Finally, it will reiterate the benefits of having a central TSWG for industry to share good practices, issues and concerns.

Working with the International Atomic Energy Agency (IAEA)

The WNTI Transport Security Industry Working Group is a member of the IAEA's Nuclear Security Guidance Committee (NSGC), and is privileged to help oversee all IAEA publications with a security element and of particular interest publications relating to the security during transport. Importantly, this, in turn, allows WNTI to provide timely information to its members on developments and changes to IAEA guidance and publications. The NSGC is the central committee

of senior representatives from IAEA Member States and relevant international organisations, such as ICAO and IMO and non-governmental bodies, and was established in 2012 by the Director General for greater transparency and consistency in security matters for the IAEA member states. The WNTI Transport Security Industry Working Group Chair or Secretariat has attended the majority of NSGC meetings, reporting back to the TSWG at the WNTI Semi-Annual Members Meetings.

The WNTI is invited by the IAEA’s Nuclear Security Division to nominate experts and participate in IAEA Consultative Meetings (CM’s) and Technical Meetings (TM’s) concerning the development of nuclear security guidance. This ensures that WNTI’s members are appropriately represented at these CM’s and TM’s, and that the industry’s views are taken account of in any published guidance documents. Reports and draft publications are routinely shared between the WNTI Transport Security Industry Working group members and other WNTI members during the process of this development; ensuring that comments from a cross sectional representative of WNTI members is achieved. Furthermore, WNTI has also been invited to present lectures at the various transport security educational courses for international security during transport and has participated in a number of international exercises concerning the transports of radioactive and nuclear materials.

WNTI has participated in the development of the following IAEA documentation and activities: -

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| <p>INFCIRC/225 Revision 5 – Nuclear Security Recommendations on the Physical Protection of Nuclear Material and Nuclear Facilities</p> | <p>The WNTI participated in meetings and provided industry input into the revision of INFCIRC/225 Revision 5. WNTI nominated an industry expert to lead on behalf of its members to ensure their interests were represented appropriately and that the recommendations did not unduly impact their business.</p> <p>Of particular note, WNTI played a key role in developing the recommendations around unacceptable radiological consequences in transport into one clearly understandable section. The new revision also brings physical protection recommendations for domestic transports in line with those previously described for international transport.</p> |
| <p>Nuclear Security Series No. 9 – Security for the Transport of Radioactive Materials</p> | <p>WNTI began working with the IAEA on this guidance document shortly after the events of 9/11 in developing what is now known as NSS</p> |

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| | <p>No. 9. This is the central document focusing on the security of radioactive materials in transport and is widely used by WNTI's members in designing and developing their security activities.</p> |
| <p>IAEA Security Conference</p> | <p>WNTI continues to aid the IAEA in the planning and preparation for their international conference concerning the security of nuclear materials in use, storage and transport.</p> <p>This conference brings together experts from a range of security disciplines, including those from the transport sector. Whilst transport security may not be the main focus of the conference, it is important that the WNTI TSWG is in attendance to represent the industry's transport experience. WNTI will again be present at the 2016 IAEA Security Conference in December.</p> |
| <p>Transport Security Table Top Exercises</p> | <p>WNTI has attended a number of transport security exercises over the past few years, most notably last year's IAEA collaborative exercise with Sweden concerning a transport of nuclear cargo.</p> <p>Exercises provide an ideal opportunity to test and validate security and emergency plans; WNTI will continue to support future exercises and feedback good practice and learning to its members.</p> |

Due to the many and varied interests of our members, the WNTI TSWG's activities aren't simply restricted to those involving the IAEA. Over the past seven years WNTI has built a strong relationship with a number of other institutes, organisations and events that are important to our members. Some examples of these activities include: -

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| <p>Nuclear Industry Security Summit (NISS) & associated activities (including Gift Baskets)</p> | <p>WNTI has played a key role in helping support the development of the NISS; the sister</p> |
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| | <p>conference to the Ministerial Nuclear Security Summit, initiated by the Obama Administration.</p> <p>In 2013, the WNTI TSWG, in alliance with the World Institute of Nuclear Security (WINS) organized a table top exercise hosted in Japan. This table top was agreed at the 2012 NSS in Seoul, Republic of Korea and followed an initial exercise held between Japan and the USA in early 2012. The outcome of these exercises was a ‘Best Practice Guide for the Security of Nuclear Materials in Transport’ which was presented to the 2014 Nuclear Security Summit in The Hague, Netherlands. The best practice guide was a joint publication between WNTI and WINS and is available for free on the WNTI website.</p> |
| <p>Customs-Trade Partnership Against Terrorism (C-TPAT)</p> | <p>The WNTI TSWG members have benefited in many ways in sharing information and with cooperation with other organisations such as the Customs – Trade Partnership Against Terrorism (C-TPAT), which works at detecting and prevent terrorists and terrorist weapons from entering the United States, while facilitating the orderly and efficient flow of legitimate trade and people at and through their borders.</p> |
| <p>USA Department of Energy</p> | <p>When considering the hypothetical releases from a spent nuclear fuel cask as consequence of an act of sabotage which could have significant impacts to the public health and nuclear industry, the WNTI TSWG was happy to share their experiences and knowledge with the DOE on this matter to develop a better understanding of a breach of a type B package. Through the TSWG the WNTI is invited to present lectures at the DOE transport security educational courses for international and domestic transports of radioactive and nuclear materials.</p> |

Key challenges facing the transport sector

The WNTI TSWG acts as a central platform for members to share issues, concerns and good practices concerning the security of radioactive and nuclear materials in transport. Over the years, WNTI has responded to a number of industry concerns and challenges to ensure the sector is not unduly affected or impacted. Whilst it would be improper to discuss every challenge encountered, the following paragraphs serve to describe the top challenges that industry continues to face. They are described in an effort to raise awareness amongst stakeholders when dealing with transport companies in a bid to aid understanding.

A key issue that continues to challenge the transport industry is that of proportionality and consistency, and as described above, WNTI works hard to ensure that the views and comments of industry are included when developing existing or new transport security guidance, recommendations and regulations. However, because States are responsible for designing and implementing security regulations and requirements that fit with their risk appetite and assessment of the threat, these can often be varied and inconsistent. As such, some States can implement very stringent and expansive regulations that can involve significant investment by an operator to comply with. Whilst this causes very little issue domestically, internationally it can cause real disparity. In this scenario, it is very feasible that two vessels could be transiting the same seas, with the same nuclear cargo, with significantly different levels of security. This is most notable at the Category III and Category II level.

In some instances, States from the same region can adopt significantly different security regulations; from the very stringent, to the very basic. In some rare instances, some States do not have regulations at all. For maritime operators particularly, this can be very disruptive and create an uneven commercial playing field. Should an operator transport through many different states, by road, rail or sea, they can be exposed to many different types of regulations. In some instances security can be so inconsistent that it is difficult or not commercially advantageous for an operator to comply with all the different regulations it falls under within one transport.

Another issue that faces WNTI's members is one of transparency around information concerning that transport of nuclear materials. In a world where the safety and security of a nuclear transport is paramount, sharing detailed transport information with the public can often be difficult due to its sensitive nature. WNTI continues to work with its members to ensure as much information is shared as is reasonably practicable without undermining security so that stakeholders can have confidence in the operations our members conduct. WNTI continues to work closely with the IAEA to help support educational activities with other States and stakeholders interested in the transport of nuclear

materials, such as the Coastal States Meeting, and has hosted a number of visits to key industry members such as International Nuclear Services in the UK or AREVA in France. Most recently, a delegation of coastal states visited the INS vessel, the Pacific Grebe for a tour of the vessel and presentations by the Master and senior INS personnel.

WNTI and its TSWG will continue to discuss and monitor challenges faced by its members to ensure their views are reflected on the international scene.

Conclusion

Security in the transport of radioactive and nuclear materials continues to grow exponentially and this has been embraced by the transport community and WNTI's members. The emerging threat from international terrorism is ever adapting, and WNTI has every confidence that the industry will continue to safely and securely transport radioactive and nuclear materials for its customers with the highest levels of quality. As a key facilitator to the nuclear fuel cycle, it is imperative that developments in international good practices is considerate with those who actually carry out the transports so that they can advise on the best way to mitigate new and emerging threats.

The WNTI TSWG acts in a number of ways to help support its members; it is a platform for sharing information; a confidant for helping in times of need; and a central authority for supporting industry voice its views and concerns to the wider industry and its governments, regulators and associations. In doing so, WNTI plays a key role in the development of existing and new transport security guidance at the IAEA and supports a number of other transport security activities in a bid to ensure that guidance, regulations and good practices remains practical, user friendly and most importantly, consistent and proportionate. It will continue to support these initiatives and is thankful to the IAEA and other international organisations for their inclusiveness.