Sustaining Shipments

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Introduction

We are currently witnessing a rapidly changing supply-demand equation for fuel cycle services: substantial new nuclear build planned or underway in several countries, twenty-first century "gold rush" fever in uranium exploration and mining, proposed new mechanisms to assure fuel supply to more countries while minimising proliferation risks. But, can supply to meet demand be assured, unless and until transport can be assured? And is it reasonable to expect that transport can be assured to meet the emerging demand-side of the fuel cycle equation when industry already is facing increased instances of shipment delays and denials?

It is a worrisome trend for global supply of Class 7 radioactive materials that some shipping companies, air carriers, ports and terminals, have instituted policies of not accepting radioactive materials. Let's define our terms here, when we talk about denial or delay of shipment. In short, we in the World Nuclear Transport Institute (WNTI) understand shipment denials and delays as those impediments to transport occasioned in particular by the radioactive properties of the materials for transport, and outside the normal regulatory and operational processes and requirements. For this purpose we exclude those impediments than can and do arise for a host of other reasons, and which could apply equally to any other consignment.

Experience has shown that many things can affect the willingness of carriers to accept Class 7 consignments- maybe the potential service providers are unsure about insurance implications. Perhaps they worry about the perception of other customers whose goods they want to carry. Maybe they think special handling procedures or reporting requirements are too complicated, or too onerous. Perhaps they are put off by problems with ports, or terminals, which themselves are not prepared to accept Class 7 cargoes, or raise seemingly complex issues. In short, the decisions taken by shipping companies are based in considerable part on maximising profit; if the return from carrying Class 7 materials does not seem substantial enough, then why bother?

Our member companies tell us that in some regions service availability and acceptance levels have rapidly declined in recent years. Consignors increasingly confront departure, transit, trans-shipment, and discharge port limitations or restrictions. It is difficult sometimes to get a clear understanding, and, therefore, consistent interpretation of the regulations, within and between jurisdictions. Shipping companies fear that the carriage of Class 7 cargo will result in unexpected delays with port clearance processes or, at worst, refusal to dock. And, in some instances this is becoming a reality.

Producer shippers accordingly are being denied options for competitive choice of services. Shippers too often are met by a lack of standardisation in documentation. And, of course, worst of all, is when shipping lines deny, or withdraw from services. This situation inevitably can drive consignors to consider charter options; but this is not a panacea. Charters can mean reduced shipping schedules, and a lack of delivery flexibility. This, in turn, results in increased overall inventory holdings, and increased total shipping and other related business costs.

I hasten to say that the problems of denial and delay are not specific to only select sectors of radioactive materials transport. The hazards associated with the transport of such materials are related to the properties of the consignment, and not to its end use. Certain materials are time urgent; for example, consignments having a short half life intended for medical applications. Other materials also can be time-sensitive; for example, those that are related to inventory holdings of essential materials for electric power generation, or the requirement to ship certain materials for repair to maintain production.

Responses to the denial and delay problem

The shipment denial and delay problem has become serious enough to show up on the international radar screen. The International Atomic Energy Agency (IAEA) took up the matter at its International Conference on the Safety of Transport of Radioactive Material in 2003 and since, hosted a Fact-Finding Forum to scope the nature and dimension of the issues that lead to denials and delays of shipments. The IAEA since has developed a range of initiatives within its mandate including training and information materials. The IAEA International Steering Committee on Denial of Shipments has done excellent work, and the IAEA-hosting of a series of regional workshops, in which the WNTI has participated, has played an important role in creating wider understanding of the problems of shipment denials and delays, and in developing regional strategies to address them, including the identification of regional focal points. The World Nuclear Transport Institute (WNTI) continues to be engaged actively in the work of the IAEA Steering Committee. The establishment of a database of denial and delay incidents is another important initiative – inputs to the database from those experiencing denials and delays help to identify the generic causes which are a necessary prerequisite to determining how best to respond to them. Work is going on elsewhere to address the denial and delay problems multilaterally-in the International Maritime Organization (IMO) for example.

Industry efforts

What about industry's own responsibilities in this regard? The World Nuclear Transport Institute (WNTI) represents forty-eight member companies world wide involved in or dependent on the safe, efficient and reliable transport of radioactive materials. Our membership is drawn from a wide range of industry sectors, including major utilities, fuel producers and fabricators, transport companies, package producers and producers of large sources. WNTI created a Carriers Working Group several years ago, and more recently established an industry-led Sustaining Shipments Task Force to address the subject in a pro-active and positive way. We prefer in WNTI to accentuate the positive; and hence the name "Sustaining Shipments" rather than "Denial and Delay".

The easiest part of the task always seems to be to define the nature and extent of the problems. WNTI, like other bodies, has its growing inventory of denial and delay incidents. These incidents have been categorised and analysed but, then comes the hard part- what to do about the problems.

First of all, WNTI has sought, on behalf of its industry members, to support international efforts to address the issues of denial and delay, in the IAEA, and also, in modal organisations such as the International Maritime Organization (IMO) and International Civil Aviation Organization (ICAO). We have initiated exchanges with port authorities in a number of countries. We meet with the insurance industry, maritime authorities and liner services. We undertook an initiative as a contribution to the work of the IAEA Steering Committee on Shipment Denials to take a sample survey of existing training possibilities for dangerous goods transport including, of course, Class 7, to see what ideas could emerge from best practices- training the trainers for example, or e-learning to sustain training once the trainers have gone away.

Within WNTI we have developed what we call an "Industry Knowledge Base" for the benefit of our member companies. This Knowledge Base comprises straight-forward, plain-speaking, factual information on the kinds of issues that can arise for the operator in dealings with transport service providers; it might be insurance requirements, the international nuclear liability regime as it applies to transport, the physical properties and packaging characteristics of Class 7 materials, radiation protection requirements, segregation distances on carriers, and so on. We have sought to equip WNTI member companies to give information and assurance to potential service providers to allay any potential concerns. We also are equipped to support our Member companies in their dealings with service providers with the back-up of technical experts to help inform and educate.

Some suggestions for further actions

So, some suggestions for further action. Just as the problems of denial and delay are varied and multi-layered, so too are the possibilities for responding to them at all levels-international, regional, national and local. Here are some suggestions, some of which, I accept, may indeed reflect to varying degrees efforts already being made in various quarters.

(a) Cast the Training Net Wider

First of all, let's cast the training net wider. WNTI has applauded the IAEA programme of training in transport safety regulation, and the training programmes of many other authorities. We have

indicated industry's preparedness, through the WNTI, to support such training programmes with the provision of trainers drawn from industry, who can bring the operational experience to the table. We would encourage the broadest scope for such training courses so they will include a wide cross-section of stakeholders, not only nuclear regulatory competent authorities but also, other authorities from within government having a potential impact on Class 7 transports- customs officials for example, officials from security and health agencies and ministries at various levels of government. We also would encourage continued efforts to include in such courses representatives from industry whose job it is to operate within the regulations, including transport service providers, cargo handlers, port and terminal officials.

(b) Joined-Up Regulation

Next, I want to make a suggestion for what I call "Joined –up Regulation". We tend in our industry to refer to national competent authorities as a kind of short-hand for those in government whose particular responsibility it is to regulate for Class 7 transport safety. In fact, there are a great many officials beyond the nuclear regulatory authorities who have jurisdiction in areas that can impact directly on the ability to transport safely and cost effectively such as security, customs or health officials. How many such officials do we see, or indeed invite to Class 7 industry gatherings?

It seems from industry experiences I have heard about that sometimes, joined-up regulation is not always apparent or easily accessed. For example, it could be that a security official at an international border crossing may interpret requirements in a different way from authorities at the centre. There may be differing expectations as to cleanliness standards for containers. The rationale for where maritime requirements end, and inland waterway requirements begin, may not be well understood by all parties.

There appears to be a fairly widespread view among potential transport service providers that the transport safety and security regulatory regimes are onerous or too complicated. It is the operator who experiences at first hand the differences of interpretation and approach not only within, but also, between national jurisdictions. Such differences potentially can jeopardise safety and adversely affect cost-effective transport through confusion, duplication of effort, delays in obtaining approvals, and consequent inefficiencies for both industry and the authorities.

Designation within national governments of a centralised contact point – an IAEA initiative – has been a welcome development; providing an easily identifiable access point to address problems of denial and delay when they arise. National directories of prime contacts across government for use by operators, and yes, by regulators too could be helpful - this would give the operator some well established points of reference. More ambitious still would be a designated centralised, first access point, perhaps through the office of the nuclear regulatory authority that would provide a coordinated government response when issues cut across responsibility centres such as customs, security and so on. Such a co-ordinated approach to resolving issues could help to ensure consistency of interpretation and application of requirements, and a better understanding of the impact of one set or requirements on another.

(c) More Inclusive Consultations

What about more regular, collective exchanges within countries, between those whose job it is to develop and to enforce the regulations and standards for Class 7 transport, and those whose job it is to operate within those regulations and standards. This might be, for example, an annual or semi-annual meeting of officials drawn from a host of government departments and agencies on the one hand, and the various industry sectors on the other, for an exchange of information. Such exchange could include latest changes to the national and international transport regulations, current security, customs and other requirements as they potentially affect Class 7 transport, and importantly, their relationship to each other, and as well, a sharing of industry experiences of operating within the regulatory regime.

(d) Greater Harmony through Harmonisation and Stability

We can only applaud continuing efforts to harmonise regulations that affect Class 7 transport. Good work has been done to bring the IAEA Transport Safety Standards, and the United Nations Model Regulations, the so-call Orange Book, into harmony. I suggest similar efforts would be welcome to harmonise, to the extent possible, the growing body of transport security guidelines and regulations.

As we well know, the foundation for the transport safety regulatory regime are the over-arching United Nations Model Regulations and the IAEA Class 7 Transport Safety Regulations (TS-R-1). While the IAEA regulations are reviewed every two years, it has been accepted that this does not imply they should change substantially every two years. In this regard, the World Nuclear Transport Institute has for long espoused the principle, "change if necessary, but not necessarily change". Because stability in the international regulatory regime enhances safety-it does so through predictability and familiarity. And this in turn gives assurance to transport service providers.

By the way, an IAEA list of national divergences in Class 7 transport safety regulation would be helpful.

(e) Keep it Simple

Let's keep regulation simple. Clarity and even, simplicity, in the iteration of the regulations and their

supporting guidance material would assist in making them more user-friendly and so help to avoid the kinds of confusion that can impact both on safety, and on the willingness of carriers to accept Class 7 consignments. In this regard, to the extent that domestic regulations can actually be a direct reference to international regulations helps. Indeed, actually repeating the language of international regulations in national regulations can enhance clarity and thereby, increase understanding.

Conclusions

And so, to conclude. Clearly there is no one answer or magic solution to the many problems of denial and delay. But, all who care about making the benefits of radioactive materials available to where they are wanted the world over have an interest in sustaining cost-effective transport options. As I said earlier, it is not all bad news. There still are carriers on some routes prepared to accept Class 7 consignments. But If we are to have sustainable, cost-effective and safe shipping options for the future, then all of us, all stakeholders, intergovernmental organisations, national governments and industry, have an imperative to work together, without let up, to exchange experiences, ideas and to develop responses.

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