

LOOKING TO THE FUTURE: WORKING TO MAKE DENIALS OF SHIPMENT A THING OF THE PAST

Nancy Capadona

International Atomic Energy Agency
IAEA

Ahmad Al Khatibeh

International Atomic Energy Agency
IAEA

Christopher Bajwa

International Atomic Energy Agency
IAEA

ABSTRACT

Denial of shipment has been a concern since the first transport regulations were written; as evidenced in that the first document from the International Atomic Energy Agency's first General Conference mentioned the necessity of common regulations to avoid differences that could make the transport of radioactive material difficult. Nevertheless, it was in 2003 when the International Conference on the Safety of Transport of Radioactive Material noted that industries using radioactive material were facing reduced availability of transport routes, modes and carriers, thus making Denial of Shipment of radioactive material an issue for the IAEA. The Agency's General Conference has been particularly interested in this subject, and this interest was reflected in successive resolutions throughout several years welcoming efforts made, and encouraging and urging further work to facilitate the transport of Class 7 goods complying with IAEA's Regulations for the Safe Transport of Radioactive Material.

An International Steering Committee on Denials of Shipment of Radioactive Material (ISCDOS) was constituted by the end of 2006 with the mandate of developing a comprehensive Action Plan to facilitate the global transport of radioactive materials. Two key actions instituted by the ISCDOS through the IAEA have been the establishment of the National Focal Point (NFP) and Regional Coordinator roles. At present, the main objective of ISCDOS is to reduce the number of denials of shipment to the level of no importance by 2013, the year marking the end of ISCDOS' formal functions.

This paper summarizes the actions taken recently and provisions developed for addressing the issue of denial of shipment of radioactive material in the future.

INTRODUCTION

Following the International Conference on the Safety of Transport of Radioactive Material held by the IAEA in 2003, The International Steering Committee on Denials of Shipment of Radioactive Material, (ISC) was established by the Director General to advise the IAEA on establishing an international work

plan to address issues of denial and delay of shipment. This committee stood since 2006, meeting 8 times and achieving its goal of establishing a sustainable framework for ongoing management of denial by 2013.

The initial work focused on collecting information on the instances of denial and delay. This was mainly carried out by recording information supplied on standard forms in a database managed by IMO. It became apparent that confidentiality of information made data collection difficult, however over time industry made informal reports avoiding this confidential information issue (although this could not be recorded on the database effectively).

The ISC set out a challenging action plan with some 200 actions in six categories (awareness, communication, economic, harmonisation, lobbying and training) to combat denial. Over time many of these actions have been completed and some have been consolidated. In 2012 the outstanding list of actions was reduced to around 15. There have been several successes, and some of the actions completed are useful on an ongoing basis.

The work of the ISC over the past seven years has led to the creation of a network of National Focal Points (NFP), a database recording reports of denials, a set of training packages and a communication strategy. These have been essential elements of the response to denial and provide a strong platform for moving forward.

An analysis carried out on the database identified different reasons for denial which are being used for future recording of denial.

There exist an ongoing number of denials, but there is now a more proactive approach being taken by all involved, building on the noted platform.

WHAT IS A DENIAL

Generally, denial can be defined as a shipment in which a problem was encountered while in transport. Nonetheless, there was still some debate within the ISC on this definition, arriving to the following suggestion:

A denial is “a refusal to carry or allow a shipment of radioactive material though it conforms to all the applicable regulations”. All applicable regulations include international as well as national regulations. Non-compliance with regulations cannot constitute a denial.

National regulations may have additional requirements for transport of radioactive material. If however such additional requirements result in a denial this should also be reported. This applies also to additional operational requirements by carriers which may result in a denial.

In general, there is a lack of agreement around the world about the extent of denial. This is partly because industry is, in fact, finding sub-optimal, costly and time consuming solutions to getting their product from one destination to another, which has economic and social consequences.

For instance:

- Denial and delay to the transport of radiopharmaceuticals is resulting in doctors having to send patients to other locations for treatment.
- Cobalt 60 is difficult to be transported by sea to some countries, e.g. the Far East, causing an immediate problem for the sterilisation of medical products.
- Transport costs for radiopharmaceutical producers are around 14% of production costs in Europe but depend on geography.
- Reports have indicated uranium shipments are being delayed at ports for weeks.

Although alternative routes and longer journeys are often possible and used, these add complexity and cost as well as potential risk to safety and security. This complexity has been shown to be a precursor to absolute denials of shipment.

THE INTERNATIONAL STEERING COMMITTEE

An International Steering Committee on Denials of Shipment of Radioactive Material was constituted to coordinate international efforts at resolution of issues related to the denial of shipments. This Committee satisfied the recommendation of General Conference resolution GC/49/RES/9B.

The objectives of the Committee were to serve as a mechanism to facilitate the coordination of a comprehensive international work plan of activities conducted by the organisations of the Committee membership related to delays and denials of shipments of radioactive material.

Membership of the Committee was drawn from United Nations and other international, governmental and nongovernmental organizations, transport trade organizations and manufacturers of sources of radioactive material.

At its first meeting, the Steering Committee began the development of an Action Plan to address cases of denial of shipment and alleviate the hardships due to denial and delay by reaching out to the concerned organizations and increasing awareness, harmonizing national and international regulations, ensuring coordination among regulators within a State to minimise duplicative, overlapping and sometimes contradictory requirements, providing training and other educative programmes for cargo handlers and public officials on safety of transport of radioactive material and promoting fuller understanding of the implications of denial in the light of the estimated increase in medical and industrial use as well as, in the bulk transport of nuclear material and the future needs of such transport.

THE NATIONAL FOCAL POINTS

In the early stage of the ISC, it was felt that National Focal Points (NFP) should be established in order to ensure that the causes and, in some cases, instances of denials and delays of shipment of radioactive material would be addressed and successfully resolved. A letter was sent to each country requesting that they nominate a National Focal Point and inform the IAEA in order to develop the list of all NFPs.

It was suggested that a senior/high ranking official with appropriate managerial and technical competence to serve as the NFP be appointed and given the appropriate authority, resources and infrastructure by the Member State to fulfil their roles and responsibilities and that the NFP would also acts as the Focal Point for all IAEA matters related to denials and delays of shipment of radioactive material in their country.

National focal points were trained in reporting denials and in responding to denials. The training in how to respond to denial was particularly successful; it involved a role play of different regions and different participants. The role play was based on realistic information. The resulting emphasis on the need for clear accurate information which is communicated between all key stakeholders was an important lesson. More information on the role of the NFP can be found in the Draft handbooks for National Focal Points and Regional Coordinators that have been produced.

REGIONAL COORDINATORS

In addition to the establishment of NFP, Regional Coordinators were also established in an effort further facilitate the exchange of information between the various parties that might be involved in denial of shipments.

The roles and responsibilities of a Regional Coordinator are to Network with UN agencies and NFPs, forming alliances and partnerships to facilitate delivery activities and to address national/regional priorities, organize the preparation and submission of half-yearly/annual reports, provide feedback to other Regional Coordinators and Denials Secretariat on the success or failure of delivered solutions, assist NFPs in facilitating actions, as necessary, through NFP counterparts, keep up to date on progress, problems and actions concerning denials of shipment and facilitate solutions by making interventions as necessary and establish contacts with other Regional Coordinators.

UPDATED MANAGEMENT STRUCTURE

In its 5th meeting, the International Steering Committee (ISC) was challenged to decide who should be the Committee members, how the ISC should be managed and to accept working toward a goal of making sure denial and delay of shipment would be reduced to a level not worthy of reporting by 2013. The structure of the ISC, regional networks and national groups were reviewed and a more cohesive approach was recommended, with a skeleton made up of the national, regional and international government nominated representatives.

This skeleton was fleshed out by adding other representatives from transport industry, suppliers and other relevant bodies. It was recognized that there was a need for continuous cooperation between all involved parts. The diversity of participants was understood as essential to fulfil all of the required actions. In this regard, the relationship among the various actors and stakeholders were to be optimized. In the same way, communication has proven to be a key in this process and credit has been given to it as the valuable tool in solving denials and delays problems.

Facilitation rather than coordination was the main role of the ISC leaving to the Management Team the identification of the need, scope and expected products of meetings. Regional Coordinators and Management Team worked closely in guiding and supporting National Focal Points.

The figure below graphically represents the structure established at the 5th ISC meeting.

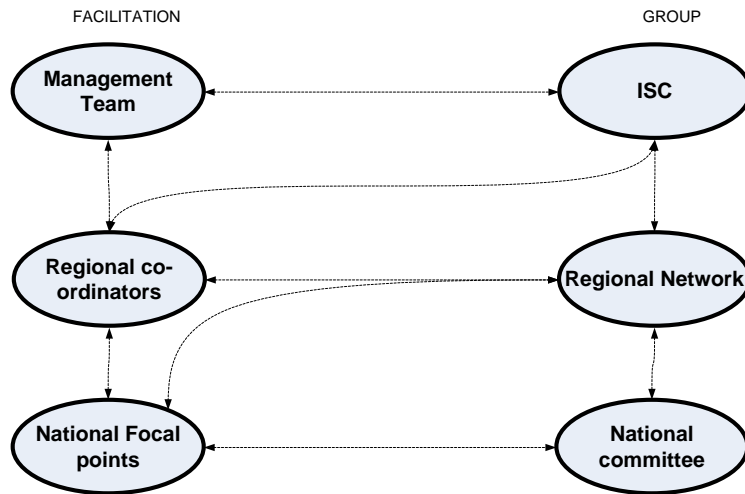


Figure 1. ISC Management Structure

The Action Plan

At the first meeting of the ISC in November 2006, a comprehensive Action Plan was developed. This Action Plan was based on six areas of work:

- awareness, among International Organisations and Member States regarding the events, their consequences, the underlying issues and their resolution;
- training of service providers;
- communication to inform service providers and authorities;
- lobbying for marketing, outreach and promotion of industries requiring transport of radioactive material;
- economic assessment and measures to identify and reduce economic burdens causing sustainability problems; and
- harmonisation of international requirements where industry should notify (in the form of a generic denials report) the UN.

DENYING DENIAL – LACK OF REPORTS

The lack of agreement about the extent of denial is partly because industry is finding sub-optimal, costly and time consuming solutions to getting their product from one destination to another, with economic and social consequences. Further, many instances of denial have gone unreported due to those impacted feeling that they would face reprisals and further problems if they were to name carriers in the report of a denial. To this effect, a report form was developed for reporting sustainability problems in transport of radioactive material.

GOVERNMENT INVOLVEMENT

There are many examples where decisions have been made by local or national government officials, which have resulted in transport of radioactive material being deferred, which in essence can be perceived as a denial. Examples include: national or local elections; international events such as conferences, and sporting competitions. It is considered highly unlikely that such decisions can be influenced to enable

transport of radioactive material. These decisions are short term in nature and it is acceptable that transport schedules have to be adjusted accordingly.

There are examples where a member state will not permit radioactive material to enter or transit unless that material is destined for that member state.

Furthermore in some Member States there are additional legislative requirements which are over and above the requirements of the international transport regulations, e.g. the registration of a carrier for radioactive material. These create a patchwork of different requirements, which may even be mutually conflicting, and that may be impossible to comply with.

INDUSTRY ISSUES

There have been occasions where denial reports have been made, which on further investigation showed that the shipment was non-compliant e.g. due to documentation, labelling, or packaging. These do not fall within the definition of a denial but were initially recorded in the database only to later be identified as inappropriate reports following further detailed, confidential investigation.

There are instances where service providers routinely leave radioactive material to be the last cargo loaded onto an aircraft. This increases in the risk that the aircraft may exceed its load limit and, therefore, the radioactive material may be delayed to a later flight. Unfortunately, however, the radioactive material is often radiopharmaceuticals which are very time sensitive and any delay is in effect a denial as the material will become unusable for medical purposes.

CONFIDENTIAL DENIAL

It became apparent over time that some industry stakeholders were reluctant to report denials due to concerns over maintaining confidentiality, both for exposure to commercial competition and also at the risk of damaging future working relationships with service providers. As a consequence, some instances of denial were not being reported and, as a result, the database presented an incomplete picture of the issue of denial. In order to address the concern over confidentiality, the reporting forms were revised to significantly reduce the amount of sensitive information required in order to report a denial. This will facilitate an agreement over confidentiality to be reached between the reporting organisation and the NFP before further investigation takes place.

CURRENT STATUS

There are a number of positive developments regarding the issue of denial of shipment.

There is an increased acceptance of carrying Class 7 goods by air, attributed to the availability of communication tools, (e.g. the IATA video or the correlation between air transport of medical radioisotopes and cancer therapy), suggesting that the issue with the air mode is more related to one of negative perception of Class 7 goods.

In general there has been a trend towards more pro-active responses by various stakeholders, including industry, National Focal Points and the IAEA, demonstrating the belief in the importance of the issue of denial of shipment and the commitment to reducing its impact.

Following the series of Regional Workshops that were organised by the IAEA in 2007-2009, industry and Regional Co-ordinators have been organising regional workshops which involve a broad cross-section of stakeholders in transport of Class 7 goods, in order to continue the positive experience in providing forums for the exchange of experience in dealing with denial of shipment.

Nevertheless, a number of problem areas remain; overall, there is little improvement in the denial of shipment of Class 7 goods by sea. Maritime transport typically requires a vessel to make many port calls along a transport route and may experience denial from transit ports. If just one transit port along a maritime route prevents entry of Class 7 goods, this prevents transport along that route. Some countries which have important ports of call, create bottlenecks as there are either no ports or a limited number of ports within that country which will accept vessels with Class 7 goods aboard. While countries may have implemented the IAEA Transport Regulations, denial could still be an issue due to the following reasons:

- There may be additional requirements for Class 7 which make the transport unsustainable
- There may be multiple regulatory bodies which could result in conflicting requirements for Class 7
- There may be requirements which conflict with those of other countries along a route

The level of acceptance of Class 7 goods by maritime carriers has also not improved significantly, which may be attributed to the training cost relative to the small number of shipments. Further, there is a significant financial risk that could arise from ad hoc decisions by authorities or cargo handlers leading to delays, denials, and possibly costly re-routing of cargo vessels.

In 2012, there were some incidents involving commodities which had been unknowingly contaminated with radioactive material during their production. This was discovered on arrival at destination or while transiting in route; these materials were then to be repatriated. The denial in these cases arose from carriers being unwilling to carry the radioactive material back to its origin. Difficulties were experienced in dealing with maritime carriers whose head office may be based in a third country. These instances were resolved individually by the regulators in each country by communication with their counterparts in the originating country to obtain acceptance.

CONCLUSIONS

Denial of shipment is a fact of life. Much of the work of the IAEA depends on denial not being a significant barrier to the safe and secure shipment of radioactive material. Denial will continue to exist, but the work of the International Steering Committee has provided mechanisms for managing a response to instances of denial. The network of National Focal Points needs to be consolidated and extended, and should be actively managed to maintain its effectiveness. This network offers significant opportunities for synergies with the work of the IAEA in the area of safety standards, and in the area of technical cooperation support.

Although denial continues, the International Steering Committee has accomplished its goals in establishing international actions that combat denials.