International Atomic Energy Agency (IAEA) 2003 General Conference
On 19 September 2003, the IAEA General Conference, in resolution GC(47))/RES/7.C.;

“Called for discussions to address the problems with refusal of shipments (op. para. 13); and

...requested the Agency to develop an Action Plan ...based on the results of the Conference [International Conference on the Safety of Transport of Radioactive Material, held in Vienna from 7-11 July, 2003] (op. para. 1).”

Action Plan for the Safety of Transport of Radioactive Material
The Action Plan for the Safety of Transport of Radioactive Material, approved by the Board of Governors in March 2004, contained the following actions relevant to the denial of shipments:

“(xi) The Secretariat to establish a fact finding discussion forum addressing the concerns of relevant entities, which may include the IMO, ICAO, IATA, the International Federation of Airline Pilots’ Association (IFALPA), World Customs Organization (WCO), shipping companies (with a specific focus on air and maritime carrier, ports and handling facilities), and national regulatory facilities about how delays and denials in transporting radioactive material might be alleviated (in particular for medical applications).

(xii) The Secretariat to hold a Consultants Meeting (CSM) by August 2004 to analyse these facts and determine what actions may be taken to address them, taking into consideration the approaches identified by the working group on denial of shipments (education/communication, training; standardisation/regulation/harmonisation; facilitation and dispute resolution).

(xiii) The Secretariat to report the summary findings to the 2004 Annual Meeting of the General Conference.”

IAEA Fact Finding Discussion Forum
The IAEA convened at the International Maritime Organization (IMO) headquarters in London 16 July 2004, a Fact Finding Discussion Forum on the delay and denial of shipments of radioactive material. The meeting was attended by 35 participants representing regulatory authorities, manufacturers or producers of radioactive sources, carrier and other transport operators and international organizations and resulted in collection of useful data.

IMO Facilitation Committee (FAL)
At the 19-23 July 2004 IMO FAL meeting held in London, a presentation was made at the Ship/Port Interface Working Group by the International Atomic Energy Agency on the issue of denials of shipments of radioactive materials. The action requested and agreed by the FAL included:
The Committee is invited to approve the report of the Group [Ship/Port Interface], in general and, in particular to:

.19 request the DSC Sub-Committee to consider, at its next session, the issues relating to the transportation of Cobalt-60 with a view of confirming to the Committee that shipments of consignments of Cobalt-60, when in compliance with the relevant provisions of SOLAS chapter VII and of the IMDG Code, should not be denied on grounds of safety; and, to this end, to invite those concerned with the matter to make appropriate submission on the issue to the DSC Sub-Committee (paragraph 33);

.20 encourage the work undertaken in relation to the difficulties encountered in the shipment of consignments of Cobalt-60 within the framework of the IAEA; and to request the IAEA to inform the Organization of the outcomes of its considerations;

.23 agree with the view of the Group that the Organization, in co-operation with the IAEA, if possible, should raise the matter with the World Health Organization (WHO) and should seek the support of the WHO in the efforts undertaken with a view of resolving the issue which has arisen in relation to the transportation of Cobalt-60 (paragraph 37);

International Civil Aviation Organization (ICAO) Dangerous Goods Working Group
It is noted that the ICAO Dangerous Goods Panel Working Group of the Whole will discuss the issue of denials of shipments for radioactive material at its meeting in Abu Dhabi, 4-8 Oct. 2004.

IAEA Consultants Meeting
An IAEA Consultants Meeting was held in Vienna 26-30 July 2004. It was tasked with reviewing all data collected including that from the Fact Finding Discussion Forum (FFDF) sponsored by the IAEA at the IMO headquarters in London and proposing potential solutions. The report of this meeting is attached.

Issues of Interest
Attention is drawn to the following issues of interest from the Consultants Meeting Report:

All of the issues (except for security) related to the denial of shipments can be addressed by accepting the action items in the Transport Action Plan.

- where shipments of radioactive materials are carried out in compliance with the IAEA Transport Regulations, there is no reason to refuse these shipments on safety grounds. On the basis of the information received, for reported instances of denials, none involved the failure to comply with the IAEA regulations;
- the information obtained at the Fact-Finding Discussion Forum was valuable and the convening of further fora is likely to be of continued benefit;
- instances were provided of problems with particular ports by the cobalt-60 industry and the shipping lines by the tantalum-niobium and nuclear fuel cycle
industries. When ports deny the transport of radioactive materials it directly impacts on the ability of shipping lines to get the shipments to destination;

- denials are occurring in all parts of the world with consequences of:
  preventing medical isotopes that are essential for the immediate delivery of healthcare (nuclear medicine and cancer therapy); disrupting the capacity to sterilize surgical and medical supplies and a broad array of other products or applications that prevent disease and the spread of infection; disrupting the use of radioactive materials used for industrial purposes, and, prohibiting the acceptance of such material in one part of the transport chain (e.g. airport or ports) can impact other parts of the transport cycle;

- instances were provided of problems with particular airline operators by the medical isotope industry.

**Actions for Consideration by the General Conference**

The Consultant Meeting requests that the General Conference endorse the following actions on the issue of denial of shipments. All but one of the actions extends directly from the Transport Action Plan.

**Action ii** The Secretariat to continue the current Agency process for the review and, if necessary, revision of the Regulations.

In carrying out this action, it is suggested that Member States ensure that an emphasis is placed on reducing administrative requirements as safety should be in the package and be encouraged to use the review panel process of TRANSSC to address technical issues that result in denial of shipments. The Agency should ensure that the terms of reference for the review panel require that in the justification of proposals the cost/benefit analysis be addressed that may include consideration of the denial of shipments.

**Action iv** The Secretariat to consider the need for additional flexibility in the light of the broad range of materials to which the Regulations apply.

The issue of denial of shipment of NORM, medical isotopes and ores and products in the nuclear fuel cycle should be addressed in order to facilitate shipment of these materials. The threshold for the requirements of a RPP and other administrative requirements should be reviewed.

**Action v** The Secretariat to continue the current Agency process for the review of Safety Series 112 on compliance assurance and Safety Series 113 on quality assurance, revise the text, as appropriate, and publish new guides in the TS-G series.

The Agency should finalise the compliance assurance guide. This action is important because compliance variations could be reduced.

**Action vi** After publishing the guidance document, the Secretariat to develop training course material to assist National Competent Authorities in developing a compliance assurance programme that meets the requirements of TS-R-1, “Regulations for the Safety Transport of Radioactive Material.”

See v above.

**Action viii** The Secretariat to continue to provide TranSAS missions to Member States on request as resources permit.
TranSAS should become a tool to help eliminate denial of shipments because it leads to increased harmonization and provides a method to address lack of acceptance of unilateral approval.

**Action ix** The Secretariat to review and revise, as appropriate, in consultation with Member States, the appraisal methodology and documentation that supports the appraisal and to report on the results of the review and revision.

The questionnaire for a TranSAS mission is possibly too detailed. A shortened appraisal service may alleviate the perception problem that could be part of the unilateral approval concept issue. It could also assist in the compilation of supplementary variations that exist in a Member State. Consideration should be given in creating a more simplified TranSAS mission in order to maximize the information gathered within existing resources. The full appraisal should be retained as an option.

**Action xi** The Secretariat to establish a fact finding discussion forum addressing the concerns of relevant entities, which may include the IMO, ICAO, IATA, the International Federation of Air Line Pilots’ Associations (IFALPA), World Customs Organization (WCO), shipping companies (with a specific focus on air and maritime carriers, ports and handling facilities) and national regulatory authorities, about how delays and denials in transporting radioactive material might be alleviated (in particular for medical applications).

Consideration should be given to convening future Fact Finding Discussion Fora to obtain further information.

**Action xiv** The Secretariat to initiate, in response to Member States commitment, a CRP on the appropriate level of regulatory control for the safe transport of naturally-occurring radioactive material (e.g. ores and other materials).

There has been insufficient Member State interest in the CRP on NORM and it is recommended that Member States consider committing to participating in the CRP.

**Action xv** The Secretariat to complete and publish the existing draft material relating to the establishment of radiation protection programmes and to investigate what further assistance can be provided to Member States. In particular, the Secretariat to consider whether its system for the collection and analysis of data on occupational exposure received during transport of radioactive material (EXTRAM) might be improved to meet the needs of Member States relating to the establishment of effective radiation protection programmes.

A graded approach in the application of the Radiation Protection Programme (RPP) is considered appropriate. The Agency should solicit from Member States for dose assessment information and standardised RPP examples and publish the RPP guidance document with a view to applying a graded approach.

**Action xvii** The Secretariat to publish updated training materials to reflect the latest requirements given in the “Regulations for the Safe Transport of Radioactive Material” in the official UN languages.

The Agency should develop a simplified training course and document for non-functionaries other than competent authorities using the IAEA-TECDOC 1067 as its basis;

To assist this work, the Agency should solicit Member States and other organisations to provide examples of training programs that could be part of a 0.5 half day course specific for radioactive material which could be part of dangerous goods training. These examples should be distributed to modal organizations.
The Agency, through its regional training courses, should bring the issue of denial of shipments to the attention of the regional Competent Authorities;

The Agency and Member States should examine the development of a training program addressing the regional denial issues to include port / airline authorities, the insurance sector and industry;

The Agency should request that ICAO and IATA ensure their basic training program addresses the dangerous goods segregation requirements;

The Agency should request that ICAO and IATA communicate to IFALPA to clarify to its members the correct separation rules for transport of animals, passengers and crews.

**Action xviii** The Secretariat to organize annual regional training courses on the safe transport of radioactive material, subject to the availability of resources.

See xvii above.

**Action xxii** The Secretariat to request that Member States provide updated information on the status of their implementation of TS-R-1, “Regulations for the Safe Transport of Radioactive Material.”

The lack of information on the implementation of TS-R-1 and variations on the regulations may result in denials.

**Action xxiii** The Secretariat together with Member States and relevant groups to continue efforts with the IMO, ICAO, UPU and UNECE to optimise measures and international regulations relevant to the international transport of radioactive materials.

Given the Agency’s mandate to promote the peaceful use of nuclear science and technology, the Agency can address the denial of shipment by adopting the following measures:

a) creating a channel for communication in resolving specific denials of shipments of radioactive material and continuing to engage other relevant entities (e.g. World Health Organization (WHO), modal organisations, industry associations, etc.);

b) working with other organisations to enhance better communication of the significance of the transport of radioactive material in advancing global health and other benefits of radioactive material and approaching WHO, ICAO, IMO and other concerned government and non-government organizations to do similar and enlist their support in producing public information;

c) developing and maintaining a database by soliciting response from Member States to a questionnaire requesting indication of the existence of any supplementary rules and requirements related to the international transport of radioactive material;

d) simplifying training programs and transmitting them to the modal organizations; and

e) highlighting the importance of transport in the Agency and ICRP work concerning non-human biota.

The inter-agency coordination meeting should be convened on an annual basis in order to facilitate these actions as they relate to the denial of shipments.
**Action xxiv** The Secretariat together with Member States and relevant groups to explore the possibility of further harmonization of the international and modal application of the regulations with a view to simplifying multiple licensing processes.

Consideration should be given to the creation of an international approval system for packages.

**Action xxix** The Secretariat to hold a seminar in early 2005 to discuss the latest information on the complex technical issues involving the area of safety, which relate to transport.

The Agency should consider addressing the issue of denial of shipment in the seminar.

**Action not included in Transport Action Plan:**

**Security**

The Agency should finalize the security TECDOC and Member States should be encouraged to harmonize their security requirements for all dangerous goods.