



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

December 17, 1999

MEMORANDUM TO: Chairman Meserve
Commissioner Dicus
Commissioner Diaz
Commissioner McGaffigan
Commissioner Merrifield

FROM: William D. Travers
Executive Director for Operations *Carl Papeiulle*

SUBJECT: FY99 INITIATIVES TO REVISE INTERNATIONAL ATOMIC
ENERGY AGENCY TRANSPORTATION REGULATIONS

By memorandum dated October 21, 1998, I informed the Commission about the International Atomic Energy Agency's (IAEA) regulations for the safe transport of radioactive material. That memorandum included a discussion of a US initiative, to be presented at an October 1998 IAEA Technical Committee Meeting on revising IAEA's transportation regulation development process, to consider the use of risk-informed decisions and cost-benefit analysis. I also indicated that I would keep the Commission informed on the progress of US initiatives on IAEA regulatory reform. I am taking this opportunity to provide the Commission with information on NRC participation at recent transportation-related meetings sponsored by IAEA.

Under a Memorandum of Understanding, the U.S. Nuclear Regulatory Commission (NRC) provides technical support to the U.S. Department of Transportation (DOT) in DOT's role as the official U.S. representative for implementing and revising IAEA transportation regulations. During FY99, NRC staff attended three major technical meetings, in addition to the annual meeting of TRANSSAC (Transportation Safety Standards Advisory Committee). The three technical meetings attended by staff are summarized below.

1. Technical Committee Meeting (TCM) to Consider the Review and Revision of the Regulations for the Safe Transport of Radioactive Materials, October 19-22, 1998.

The United States sponsored two working papers requesting that the IAEA revise the administrative process and the regulatory criteria used to develop international transportation regulations. The first paper (authored by DOT) called for a shortening of the revision (rulemaking) process from ten to two years, and for a clear definition of the roles and responsibilities of the IAEA and individual member states in the rulemaking process. The second paper (authored by NRC) requested that all proposers for amending the regulations be required to submit a regulatory analysis that includes a cost benefit analysis and a determination of how any changes would affect overall risk. The second paper also requested that safety goals be developed for transportation to help assess the need for adopting proposed revisions. DOT's representative, Mr. Richard Boyle served as overall Chairman for the meeting;

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the NRC representative, Mr. Earl Easton, served as Chairman of the working group that dealt with regulatory criteria.

The United States was largely successful in that a well-defined, two-year revision process was adopted, and all future revisions to IAEA transport regulations now require that a regulatory analysis be completed by the sponsoring IAEA member state, including a cost-benefit analysis and a determination of how the change would affect overall risk. The development of transportation safety goals, however, was deferred for later consideration.

2. Coordinated Research Program (CRP) to Develop a Radiological Basis for Transportation of Low Specific Activity (LSA) Material and Surface Contaminated Objects (SCO), March 14-20, 1999.

Members of the IAEA CRP, (Germany, France, United Kingdom, Brazil, South Africa, Canada, and the United States) met to consider possible alternatives to the current regulatory scheme for shipping LSA material and SCO's. A major focus of the meeting was the discussion of a new LSA/SCO proposal developed by Germany, France, and the United Kingdom. The new system is largely based on how LSA/SCO behaves in postulated accident scenarios. The United States, at this point does not favor adopting the proposed new system, based on comments received from U.S. industry and an initial estimate of the cost and benefits. Discussions also focused on how high grade ores (such as those found in Brazil, South Africa, and Canada) should be considered under current or future IAEA regulations. The United States was represented by Mr. Rick Boyle (DOT), and Mr. Earl Easton (NRC). Mr. John Cook, NRC, served as an IAEA paid consultant. Follow-up meetings are planned during the week of December 13, 1999, in Vienna, Austria, and in South Africa during calendar year 2000.

3. Consultants Services Meeting (CRM) on Transport Package Surface Contamination, June 28-30, 1999.

Members of the CRP (United Kingdom, France, Germany, Japan, and the United States) met to consider the basis for the current contamination specifications for transport shipping packages, application of the "as low as practicable" concept to contamination provisions, dose assessments that have been performed, and whether any revisions to the approach used to specify regulatory contamination limits are warranted. A staff member from the Spent Fuel Project Office (SFPO), John R. Cook, represented the United States at this meeting.

The consultant's report concluded that: (a) the original model was and continues to be conservative with regard to the majority of packages shipped; (b) easily removable contamination should be removed; and (c) there has been no strong consensus to change current contamination limits. A number of items were identified for further investigation, including possible special consideration of contamination on remotely handled packages, such as spent fuel casks. SFPO intends to continue to participate, with DOT, in IAEA's reevaluation of package surface contamination limits at future IAEA technical committee meetings. The next meeting is tentatively scheduled for mid-2000.

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