

February 24, 2012

MEMORANDUM TO: Chairman Jaczko  
Commissioner Svinicki  
Commissioner Apostolakis  
Commissioner Magwood  
Commissioner Ostendorff

FROM: Mark A. Satorius, Director /RA/  
Office of Federal and State Materials  
and Environmental Management Programs

SUBJECT: INTERNATIONAL DEVELOPMENTS ON RADIATION PROTECTION  
OF THE ENVIRONMENT

In Staff Requirements Memorandum for SECY-08-0197, the Commission agreed with the staff and the Advisory Committee on Reactor Safeguards (ACRS) that the current U.S. Nuclear Regulatory Commission (NRC) regulatory framework continues to provide adequate protection of the health and safety of workers, the public, and the environment. The Commission also agreed with the ACRS that there is no evidence that the current set of radiation protection controls is not protective of the environment, and that the NRC should not develop separate radiation protection regulations for plant and animal species. The Commission directed the staff to continue to monitor international developments in this regard and keep the Commission informed.

On December 11, 2009, March 8, 2010, and again on March 4, 2011, the staff provided updates on international developments (Agency Documents Access and Management System (ADAMS) Accession Numbers ML093410405, ML100560337, and ML100460149). This memorandum provides a further update on activities.

The International Commission on Radiological Protection (ICRP) conducts its work through various task groups and working parties between meetings of the Main Commission and meetings of the committees. The most recent meeting was held in the Bethesda North Marriott Hotel and Conference Center, October 23 – 30, 2011. During that meeting, the ICRP also held its first Symposium on the International System of Radiological Protection, October 24 – 26, 2011. The symposium announcement, agenda, and many of the presentations are publically available on the ICRP web site [www.icrp.org](http://www.icrp.org).

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ICRP Committee 5, Protection of the Environment, is the focal point of the ICRP activities in the area of protection of the environment. The most recently published report is "Environmental Protection: Transfer Parameters for Reference Animals and Plants", ICRP Publication 114. The report focused on the approaches used to model the transfer of radionuclides through the environment, and detailed an approach to calculating generic radionuclide uptake in plants and animals, as part of ICRP's framework to assess dose impact of radioactivity on nonhuman species.

The Committee is currently developing a draft report on the ICRP approach to protection of the environment and its application under different exposure situations. The report is intended to develop principles allowing an integration of the protection of humans and the biota, and ensure that the approach is easy to implement operationally for demonstrating the relevance of the choices of protection actions and verifying the compliance of these choices to dose criteria. A draft report has not yet been made available for public consultation.

The Committee is also developing several additional topics, including the application of radiation weighting factors for reference animals and plants, and improving dosimetric modeling. The NRC staff will continue to monitor the work of ICRP, and review and provide comments when draft reports become available.

The NRC staff is currently developing a policy paper in response to SRM-SECY-08-0197. The paper will address key issues in increasing alignment of the NRC radiation protection framework with international recommendations. The staff expects to deliver the policy paper at the end of April, 2012.

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EDO

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