

April 22, 2005

MEMORANDUM TO: Michael T. Lesar, Chief
Rules and Directives Branch
Division of Administrative Services
Office of Administration

FROM: Scott Flanders, Deputy Director */RA/*
Division of Waste Management
and Environmental Protection
Office of Nuclear Material Safety
and Safeguards

SUBJECT: FEDERAL REGISTER NOTICE ANNOUNCING AVAILABILITY OF
TWO INTERAGENCY STEERING COMMITTEE ON RADIATION
STANDARDS' REPORTS CONCERNING RADIOACTIVITY IN
SEWAGE SLUDGE

Attached please find one signed original, five copies, and an electronic version on a floppy diskette of a Federal Register notice (FRN) announcing availability of the subject reports. This notice is for your transmittal to the Office of the Federal Register for publication.

Attachments:

1. Signed original of FRN
2. 5 copies of FRN
3. FRN on diskette

CONTACT: Duane Schmidt, NMSS/DWMEP
(301) 415-6919

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DATE	04/15/2005	04/13/2005	04/19/2005	04/22/2005

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U.S. NUCLEAR REGULATORY COMMISSION

AVAILABILITY OF INTERAGENCY STEERING COMMITTEE ON RADIATION STANDARDS' REPORTS ON RADIOACTIVITY IN SEWAGE SLUDGE AND ASH

AGENCIES: U.S. Nuclear Regulatory Commission and U.S. Environmental Protection Agency.

ACTION: Announce the issuance of two final reports concerning radioactivity in sewage sludge and ash.

SUMMARY: This Federal Register notice announces the availability of two final reports, prepared by the Sewage Sludge Subcommittee of the Interagency Steering Committee on Radiation Standards (ISCORS), addressing radioactivity in sewage sludge and ash at publicly owned treatment works (POTWs). The first report, "ISCORS Assessment of Radioactivity in Sewage Sludge: Modeling to Assess Radiation Doses," assesses the potential levels of radiation doses to people from radioactivity in sewage sludge, by modeling the transport of radioactivity from sludge into the local environment. The report also provides a complete description and justification of the dose assessment methodology. The second report, "ISCORS Assessment of Radioactivity in Sewage Sludge: Recommendations on Management of Radioactive Materials in Sewage Sludge and Ash at Publicly Owned Treatment Works," is written for POTW operators. This report is intended to (1) alert POTW operators and others to the possibility of radioactive materials concentrating in sewage sludge and incinerator ash, (2) inform operators how to determine if there are elevated levels of radioactivity in their sludge, and (3) assist POTW operators in identifying further actions that may be taken to reduce potential radiation exposures from sludge and ash.

SUPPLEMENTARY INFORMATION:

Background: The purpose of ISCORS is to foster early resolution and coordination of regulatory issues associated with radiation standards. Agencies represented on ISCORS include the U.S. Nuclear Regulatory Commission (NRC), the U.S. Environmental Protection Agency (EPA), the U.S. Department of Energy, the U.S. Department of Defense, the U.S. Department of Transportation, the Occupational Safety and Health Administration of the U.S. Department of Labor, the U.S. Department of Health and Human Services, and the Department of Homeland Security. The Office of Science and Technology Policy, the Office of Management and Budget, and State representatives may be observers at meetings. The objectives of ISCORS are to: (1) facilitate a consensus on allowable levels of radiation risk to the public and workers; (2) promote consistent and scientifically sound risk assessment and risk management approaches in setting and implementing standards for occupational and public protection from ionizing radiation; (3) promote completeness and coherence of Federal standards for radiation protection; and (4) identify interagency radiation protection issues and coordinate their resolution.

Discussion: There have been a number of well-publicized cases of radionuclides discovered in sewage sludge and ash, and some of these have led to expensive cleanup projects. These incidents made clear the need for a comprehensive determination of the prevalence of radionuclides in sewage sludge and ash at POTWs around the country, and of the level of potential threat posed to human health and the environment by various levels of such materials.

In response to this need, ISCORS formed a Sewage Sludge Subcommittee to coordinate, evaluate, and resolve issues regarding radioactive materials in sewage sludge and

ash. To estimate the amounts of radionuclides that actually occur in sewage sludge and ash, the Subcommittee performed a survey of radioactivity in sludge and ash across the United States. The final report of the survey effort, "ISCORS Assessment of Radioactivity in Sewage Sludge: Radiological Survey Results and Analysis" (ISCORS Technical Report 2003-02, NUREG-1775, EPA 832-R-03-002, DOE/EH-0669), was issued in November 2003 and is available on the ISCORS web site at <http://www.iscours.org>.

The Subcommittee also undertook a dose assessment to help assess the potential threat that these materials may pose to human health. The first final report that we are issuing, "ISCORS Assessment of Radioactivity in Sewage Sludge: Modeling to Assess Radiation Doses" (ISCORS Technical Report 2004-03, NUREG-1783, EPA 832-R-03-002A, DOE/EH-0670), describes the methodology and results of the dose modeling effort. The radionuclides considered were based on the results of the ISCORS survey, and include manmade and naturally-occurring isotopes. The general approach used in the report is a standard one that consists essentially of two steps. First, seven scenarios were constructed to represent typical situations in which members of the public or POTW workers are likely to be exposed to sludge. Second, assuming a unit specific activity of a radionuclide in dry sludge, environmental transport models were employed to obtain doses. A draft of this report was published for peer review and public comment in November 2003. Changes were made, as appropriate, to address comments in developing the final report.

The other major task of the Subcommittee was to develop recommendations for POTW operators. The second final report being issued, "ISCORS Assessment of Radioactivity in Sewage Sludge: Recommendations on Management of Radioactive Materials in Sewage Sludge and Ash at Publicly Owned Treatment Works" (ISCORS Technical Report 2004-04,

DOE/EH-0668, EPA 832-R-03-002B), is for use by POTW operators in evaluating whether the presence of radioactive materials in sewage sludge could pose a threat to the health and safety of POTW workers or the general public. A draft of this report was published for public comment in November 2003. Changes were made, as appropriate, to address comments in developing the final report.

Based on the survey and dose modeling, ISCORS concludes that the levels of radioactive materials detected in sewage sludge and ash in the ISCORS survey indicate that, at most POTWs, radiation exposures to workers or to the general public are not likely to be a concern.

ADDRESSES: The two ISCORS reports on radioactivity in sewage sludge and ash being issued are available electronically from the ISCORS web page at: <http://www.iscors.org>. Hard copies may also be obtained by calling or writing to Duane Schmidt, U.S. Nuclear Regulatory Commission, NMSS/DWMEP/DCD, MS: T-7E18, Washington, DC 20555-0001, 301-415-6919, or dws2@nrc.gov; or to Robert Bastian, U.S. Environmental Protection Agency, Office of Wastewater Management (4204M), Rm. 7220B EPA EAST, 1200 Pennsylvania Ave., NW. Washington, DC 20460, 202-564-0653, or bastian.robert@epa.gov.

FOR FURTHER INFORMATION, CONTACT: Duane Schmidt, U.S. Nuclear Regulatory Commission, NMSS/DWMEP/DCD, MS: T-7E18, Washington, DC 20555, telephone 301-415-6919, fax 301-415-5398, e-mail dws2@nrc.gov; or Robert Bastian, U.S. Environmental Protection Agency, Office of Wastewater Management (4204M), Rm. 7220B EPA EAST, 1200

Pennsylvania Ave., NW. Washington, DC 20460, telephone 202-564-0653, fax 202-501-2397,
e-mail bastian.robert@epa.gov.

Dated at Rockville, Maryland, this 22 day of April, 2005.

FOR THE U.S. NUCLEAR REGULATORY COMMISSION,

/RA/

Scott Flanders, Deputy Director
Division of Waste Management
and Environmental Protection
Office of Nuclear Material Safety
and Safeguards