



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

February 26, 2018

Ms. Cathy Stepp, Regional Administrator
U.S. Environmental Protection Agency
Region 5
77 W. Jackson Blvd. (R-19-J)
Chicago, IL 60604

SUBJECT: NOTIFICATION REQUIREMENTS UNDER GREAT LAKES WATER QUALITY
AGREEMENT ARTICLE 6(C)

Dear Ms. Stepp:

This letter responds to issues raised by Mr. Cameron Davis, formerly Regional Administrator of the U.S. Environmental Protection Agency, Region 5 Office, in a letter dated January 10, 2017 (Agencywide Document Access and Management System Accession No. ML17131A345). The letter references Article 6(c) of the Great Lakes Water Quality Agreement which identifies notification requirements.

The U.S. Nuclear Regulatory Commission (NRC) licenses and regulates the civilian use of radioactive material in order to protect the public health and safety, promote common defense and security, and protect the environment. Any organization or individual intending to possess or commercially use nuclear materials that are covered by the NRC's programs must obtain a license from the NRC or an Agreement State (a State that has entered into an agreement with the NRC to regulate nuclear materials). These licenses specify the types and quantities of material and the activities for which it may be used.

There are significant numbers of shipments of radioactive materials (primarily medical isotopes) that are transported safely on international and national routes each day. Radioactive shipments, which are transported by road, rail, sea, air, and inland waterways, include smoke detectors, radioactive sources for medical and industrial uses, and byproduct material generated during electric power generation. The safety of shipments is maintained through the Federal regulations promulgated by the U.S. Department of Transportation (DOT) and the NRC, the primary agencies that share the responsibility of regulating the transportation of radioactive materials.

The regulations are based on standards that were established by the International Atomic Energy Agency and require stringent packaging and shipping requirements as the potential risk posed by the radioactive contents increases. These requirements minimize the amount of radioactivity that could be released from a package involved in an accident. The safety standards established in the regulations provide an adequate level of control of the radiation, criticality, and thermal hazards to the public and environment that may be associated with the transport of radioactive materials. Since the establishment of the international standards over 50 years ago, no deaths or injuries to transport workers, emergency services personnel, or the general public in the U.S. due to the transport of radioactive materials have been reported. Furthermore, releases into the environment have been negligible. This safety record is

attributed to the proper packaging and transportation of radioactive material and the effectiveness of the transportation safety standards and regulations.

Title 10 of the *Code of Federal Regulations*¹ (10 CFR) Part 37, “Physical Protection of Category 1 and Category 2 Quantities of Radioactive Material;” Part 71, “Packaging and Transportation of Radioactive Material;” and Part 73, “Physical Protection of Plants and Materials” address the transportation and physical protection of radioactive material and special nuclear material including required notifications. As discussed below, sections 37.77, 71.97, and 73.37 of 10 CFR require that NRC licensees provide advance notification of shipments and itinerary information in writing to State and Tribal contacts who are designated by their State Governor’s office or Tribal official.

Section 37.77 of 10 CFR provides the requirements for *advance notification* that NRC’s licensees must comply with when shipping Category 1 quantities of radioactive material through or across the boundary of a State. The notification must be made *in writing* to the NRC and the office of each appropriate Governor or Governor’s designee (see paragraph 37.77(a)). Pursuant to paragraph 37.77(b) of 10 CFR, information that must be provided by NRC licensees shipping radioactive material includes: (1) the contact and licensing information for the shipper, carrier, and receiver; (2) a description of the radioactive materials being shipped; (3) the point of origin of a shipment and the estimate of shipping date; (4) the estimate of arrival date and destination; and, (5) the telephone number of the point of contact. Furthermore, a notice of revision of shipment details must be provided when the information is available but no later than the commencement of shipping (paragraph 37.77(c)); a notice of cancellation must be provided (paragraph 37.77(d)); and, records of shipments must be maintained for 3 years (paragraph 37.77(e)). Paragraph 37.77(f) of 10 CFR also requires that State officers and employees receiving advance notification information protect the information against unauthorized disclosure.

Paragraph 71.97(c) of 10 CFR provides the procedures that NRC licensees must follow when submitting *advance notifications* of shipments of irradiated reactor fuel, nuclear waste, and licensed materials described in paragraph 71.97(b). Notifications must be in writing to the office of each appropriate Governor or Governor’s designee (paragraph 71.97(a)(1)(i)); to the office of each participating Tribal official or Tribal official’s designee (paragraph 71.97(a)(1)(ii)); and, the NRC’s Division of Physical and Cyber Security Policy in the Office of Nuclear Security and Incident Response (paragraph 71.97(a)(1)(iii)). The NRC’s regulations also require notification of Tribal officials under paragraph 71.97(1)(c)(ii) when the radioactive materials are traveling within or across a Tribe’s reservation.

Section 73.37 of 10 CFR provides the requirements for the physical protection of irradiated reactor fuel in transit. The regulations at paragraphs 73.37(b)-(e) describe the requirements of licensees to preplan and coordinate spent nuclear fuel shipments by road, by rail and on U.S. waters. The regulations require the coordination of shipment itineraries to ensure the receiver at the delivery point is present and the transfer is certified. Licensees must coordinate and plan shipments to provide at least 2 weeks prior notice to the Governor of a State or the Governor’s designee of a shipment of spent nuclear fuel through or across the boundary of a State, to ensure that that stops are minimized and law enforcement escorts are arranged. Licensees must preplan and coordinate with the NRC to obtain advance approval of routes for shipments

¹ The NRC’s authority to regulate in these areas is granted by the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974, and the Nuclear Waste Policy Act of 1982. The NRC’s regulations are promulgated at 10 CFR.

by road, rail, and on U.S. waters and they must comply with applicable DOT regulations at Title 49 of the *Code of Federal Regulations*. Licensees must also provide notification to the appropriate Tribal official or the Tribal official's designee prior to shipping spent fuel within or across a Tribal reservation. The NRC maintains a list of the current State and Tribal transportation designees and their contact information on its web site at <https://scp.nrc.gov/special/designee.pdf>.

Federal regulations relating to the transportation of radioactive materials do not require notifications be made to the Great Lakes Water Quality Commission by the NRC, but as previously discussed, the safety of these shipments is maintained through the Federal regulations promulgated by both DOT and the NRC. In addition, the NRC's regulatory framework ensures notifications of the transportation of radioactive materials are made by NRC licensees to the appropriate State Governors and Tribes, who are members of the Great Lakes Water Quality Commission.

In addition, the NRC maintains communications with its regulatory counterpart, the Canadian Nuclear Safety Commission, to coordinate the import/export and transportation of radioactive materials across the border of Canada and the U.S.

In summary, the NRC has confidence that the advance notification of States and Tribes under our regulations provides an effective and reliable means for disseminating information on the movement of radioactive materials. The staff confirms that existing NRC regulations provide for appropriate notifications and provide adequate assurance for protection of public health and safety, promote common defense and security, and protect the environment. For these reasons, the NRC finds that notifications outside the agency's regulations are not required.

Sincerely,

/RA/

James Andersen, Director
Division of Physical and Cyber Security Policy
Office of Nuclear Security and Incident Response

C. Stepp

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*** (via e-mail)**

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