[7590-01-P]

**NUCLEAR REGULATORY COMMISSION**

**[Docket No. 70-7005; NRC-2009-0283]**

**Waste Control Specialists LLC**

**Order Modifying Exemption**

**AGENCY:** Nuclear Regulatory Commission.

**ACTION:** Environmental assessment and finding of no significant impact; issuance.

**SUMMARY:** The U.S. Nuclear Regulatory Commission (NRC) is issuing an Environmental Assessment (EA) and Finding of No Significant Impact (FONSI) in support of the NRC's consideration of the issuance of a new order superseding an order previously issued to Waste Control Specialists LLC (WCS) on October 20, 2009 (2009 Order). The 2009 Order exempted WCS from the NRC's regulations concerning special nuclear material (SNM). The current action is in response to a request by WCS dated July 18, 2014, to temporarily store containers of transuranic waste, originated at the Los Alamos National Laboratory (LANL), in its Federal Facility Waste Disposal Facility (FWF).

**DATES:** The EA and FONSI are available as of November 6, 2014.

**ADDRESSES:** Please refer to Docket ID **NRC-2009-0283** when contacting the NRC about the availability of information regarding this document. You may obtain publicly-available information related to this document using any of the following methods:

- **Federal Rulemaking Web site:** Go to http://www.regulations.gov and search for Docket ID **NRC-2009-0283**. Address questions about NRC dockets to Carol Gallagher; telephone: 301-287-3422; e-mail: Carol.Gallagher@nrc.gov. For technical questions, contact the individual listed in the FOR FURTHER INFORMATION CONTACT section of this document.

- **NRC's Agencywide Documents Access and Management System (ADAMS):** You may obtain publicly-available documents online in the ADAMS Public Documents collection at http://www.nrc.gov/reading-rm/adams.html. To begin the search, select "ADAMS Public Documents" and then select "Begin Web-based ADAMS Search." For problems with ADAMS, please contact the NRC's Public Document Room (PDR) reference staff at 1-800-397-4209, 301-415-4737, or by e-mail to pdr.resource@nrc.gov. The ADAMS accession number for each document referenced in this document (if that document is available in ADAMS) is provided the first time that a document is referenced.

- **NRC's PDR:** You may examine and purchase copies of public documents at the NRC's PDR, Room O1-F21, One White Flint North, 11555 Rockville Pike, Rockville, Maryland 20852.

**FOR FURTHER INFORMATION CONTACT:** James Park, Office of Nuclear Material Safety and Safeguards, U.S. Nuclear Regulatory Commission, Washington DC 20555–0001; telephone: 301-415-6935; e-mail: James.Park@nrc.gov.

**SUPPLEMENTARY INFORMATION:**

## I. Introduction.

The WCS operates a facility in Andrews County, Texas, that is licensed to process and store certain types of radioactive material contained in low-level waste (LLW) and mixed waste

(MW). The facility also disposes of hazardous and toxic waste. Under an Agreement authorized by the Atomic Energy Act of 1954, as amended (AEA), the NRC can relinquish and a State can assume, regulatory authority over radioactive material specified in an Agreement with the NRC. In 1963, Texas entered into an Agreement and assumed regulatory authority over source material, byproduct material, and SNM under critical mass.

On November 30, 1997, the State of Texas Department of Health (TDH) issued WCS a radioactive materials license (RML) to possess, treat, and store LLW (RML R04971). In 1997, WCS began accepting Resource Conservation and Recovery Act (RCRA) and Toxic Substance Control Act (TSCA) wastes for treatment, storage, and disposal. Later that year, WCS received a license from the TDH for treatment and storage of MW and LLW. The MW and LLW streams may contain quantities of SNM. In 2007, RML R04971 was transferred to the Texas Commission on Environmental Quality (TCEQ). In September 2009, the TCEQ issued RML R04100 to WCS for disposal of LLW.

Section 70.3 of Title 10 of the *Code of Federal Regulations* (10 CFR) requires persons who own, acquire, deliver, receive, possess, use, or transfer SNM to obtain a license pursuant to the requirements of 10 CFR Part 70. The licensing requirements in 10 CFR Part 70 apply to persons in Agreement States possessing greater than critical mass quantities, as defined in 10 CFR 150.11. However, pursuant to 10 CFR 70.17(a), "the Commission may grant such exemptions from the requirements of the regulations in this part as it determines are authorized by law and will not endanger life or property or the common defense and security and are otherwise in the public interest."

On September 25, 2000, WCS requested an exemption from the licensing requirements in 10 CFR Part 70 (ADAMS Accession No. ML003759584). On November 21, 2001, the NRC issued an order to WCS (2001 Order) granting an exemption to WCS from certain NRC

regulations and permitted WCS, under specified conditions, to possess waste containing SNM in greater quantities than specified in 10 CFR Part 150, at the WCS storage and treatment facility in Andrews County, Texas, without obtaining an NRC license pursuant to 10 CFR Part 70. The 2001 Order was published in the *Federal Register* on November 15, 2001 (66 FR 57489). The conditions specified in the 2001 Order are discussed in the October 2001 EA and November 2001 Safety Evaluation Report (SER) that supported the 2001 Order. The EA and SER are attachments to the November 21, 2001, NRC letter to WCS (ADAMS Accession No. ML030130085).

By letters dated August 6, 2003, and March 14, 2004, WCS requested a modification to the 2001 Order, which would allow it to use additional reagents for chemical stabilization of mixed waste containing SNM. The NRC issued the new order on November 4, 2004 (2004 Order), which superseded the 2001 Order. The 2004 Order was published in the *Federal Register* on November 12, 2004 (69 FR 65468). The new conditions specified in the 2004 Order are discussed in the October 2004 EA and SER that supported the 2004 Order (ADAMS Accession Nos. ML043020614 and ML042250362). The 2004 Order changed the 2001 Order conditions to allow WCS to use such chemical reagents as it deems necessary for treatment and stabilization of mixed waste containing SNM, provided that the SNM mass does not exceed specified concentration limits.

By letter dated December 10, 2007, WCS requested additional modifications to the 2004 Order, which would allow it to discontinue confirmatory sampling of waste streams with certain SNM characteristics and to meet the confirmatory sampling requirements of Condition 7 of the order for sealed sources by using surface smear surveys. The NRC issued the new order to WCS on October 20, 2009 (2009 Order), which superseded the 2004 Order. The 2009 Order was published in the *Federal Register* on October 26, 2009 (74 FR 55071). The new conditions

specified in the 2009 Order are discussed in the October 2009 EA and SER that supported the 2009 Order (ADAMS Accession Nos. ML092460509 and ML093070307). The 2009 Order changed the 2004 Order conditions regarding sampling of waste, what is allowed to be in the waste, and the amount of highly water soluble SNM in each waste package.

In July 2013, by Amendment No. 22 of RML R04100, the TCEQ began to merge the license requirements in RML R04971 (for the radioactive waste treatment, storage, and processing facility) with the requirements in RML R04100 (for the LLW land disposal facility). In Amendment No. 22 of RML R04100, the TCEQ license requirements related to the 2009 Order in RML R04971 for the WCS treatment, storage, and processing facility were transferred to RML R04100. Previous orders referred to that location as the treatment, storage, and processing facility. Subsequently, WCS began referring to that location as the "Treatment, Storage and Disposal Facility." The NRC will use the name "Treatment, Storage, and Disposal Facility" and the abbreviation TSDF to reference that location in this October 2014 EA and the 2014 Order.

The previous NRC orders (2001, 2004, and 2009) addressed the issue that 10 CFR 70.3 requires persons who own, acquire, deliver, receive, possess, use, or transfer SNM to obtain an NRC license pursuant to the requirements in 10 CFR Part 70. However, 10 CFR 150.10 exempts a person in an Agreement State who possesses SNM in quantities not sufficient to form a critical mass from the NRC's imposed licensing requirements and regulations. The method for calculating the quantity of SNM not sufficient to form a critical mass is set out in 10 CFR 150.11. Therefore, prior to the 2001 Order, WCS was required to comply with NRC regulatory requirements and obtain an NRC specific license to possess SNM in quantities greater than amounts established in 10 CFR 150.11. The 2001 WCS exemption request, to the NRC, proposed to use concentration-based limits rather than mass-based limits at a specific

location at the WCS facility. The 2001 Order granted, and the subsequent NRC orders (2004 and 2009) continued, the use of concentration-based limits with conditions at a specific location at the WCS facility. The TCEQ incorporated the concentration-based limits and conditions from each respective order (2001, 2004, and 2009) into the WCS license for the specific location at the WCS facility where the concentration-based limits instead of mass-based limits are applicable.

By letter dated July 18, 2014, WCS requested an exemption from the NRC's regulations to possess SNM in excess of the critical mass limits specified in 10 CFR 150.11 while temporarily storing specific waste at a different location at the WCS facility other than the TSDF (ADAMS Accession No. ML14209A660). The WCS exemption request referenced the WCS June 20, 2014, letter to the NRC that notified the NRC of actions that WCS had taken in response to the on-going U.S. Department of Energy (DOE) investigation of an unplanned radiation release event at the DOE Waste Isolation Pilot Plant (WIPP) facility (i.e., the WIPP incident) (ADAMS Accession No. ML14171A554). The specific waste includes some of the transuranic waste that originated at the DOE Los Alamos National Laboratory (LANL), which are destined to be disposed of at the DOE WIPP facility (i.e., LANL waste). Due to the February 14, 2014, WIPP incident, the DOE suspended operations at the WIPP facility. In April 2014, WCS began receiving some of the LANL waste from DOE, which met the conditions in the 2009 Order. The WCS intended to temporarily store the LANL waste at the TSDF at the WCS facility until WCS ships the waste.

Based on the DOE investigation of the WIPP incident, DOE subsequently informed WCS that some of the LANL waste being temporarily stored at the WCS TSDF could, under certain conditions, react and potentially result in a release of transuranic radionuclides to the environment. On June 12, 2014, WCS responded to DOE's information by starting to voluntarily

move the identified LANL waste to the Federal Waste Disposal Facility (FWF) at the WCS facility for temporary storage.

To move the identified LANL waste from the TSDF to the FWF, WCS first loaded the LANL waste containers onto pallets and then using a crane, moved the container-bearing pallets into Modular Concrete Canisters (MCCs). The WCS then filled the void space within each loaded MCC with washed river rock. The WCS moved the loaded MCCs to the FWF and placed the MCCs in a single array. The WCS then poured a 1-foot, flowable sand layer around and over the MCCs.

The MCCs, washed river rock, and sand layer are intended to reduce the likelihood of an incident similar to the one that happened at the WIPP facility and to provide protection in case such an incident was to occur at the WCS facility. The WCS placed the identified LANL waste for temporary storage in a specific area within the FWF that will be separate from other wastes disposed of at the FWF. That placement will also allow easier accessibility and monitoring of the identified LANL waste temporarily stored at the FWF.

The WCS currently plans for the identified LANL waste at the FWF to be shipped from the FWF. In preparation for that shipment, WCS would need to retrieve the identified LANL waste containers from the MCCs. To gain access to the MCC lids, WCS would remove the sand layer. The WCS would then open each MCC and, using a vacuum truck, remove the washed river rock. The WCS would then use a crane to lift the LANL waste container-bearing pallets from the MCC.

## II. Environmental Assessment.

*Description of the Proposed Action*

The proposed action is to decide whether to grant or deny the WCS July 18, 2014,

request to modify the conditions of the 2009 Order to reflect the WCS actions already taken in moving the identified LANL waste from temporary storage at the TSDF to temporary storage in the FWF, and, in the future, to prepare the waste for shipment from the FWF.

*Need for the Proposed Action*

The WCS is making this request so that a new Order to WCS would reflect the actions that WCS has already taken and is expected to take in the future regarding the identified LANL waste at WCS in response to the DOE investigation of the WIPP incident.

The purpose of this EA is to assess the potential environmental impacts of the WCS actions already taken in moving the identified LANL waste from the TSDF to the FWF, temporarily storing the identified LANL waste at the FWF, and preparing for the future shipments of the waste from the FWF. This EA does not approve or deny the requested action. A separate SER has been prepared in support of approval or denial of the requested action.

*Environmental Impacts of the Proposed Action*

The NRC does not expect that significant changes in radiation hazards to workers occurred from the movement of the identified LANL waste from the TSDF to the FWF or will occur in the future while temporarily storing the identified LANL waste at the FWF or future preparation of the identified LANL waste for shipment from the FWF. To perform those actions, WCS would need to have in place the necessary radiation protection procedures to keep potential radiological doses to workers within regulatory limits. The WCS conducts its radiation protection program with an emphasis on maintaining doses as low as is reasonably achievable.

To address the potential for an incident similar to that which had occurred at the WIPP facility, WCS packed the identified LANL waste-bearing containers into the MCCs, filled the void space with washed river rock, moved the MCCs to the FWF, and is temporarily storing the MCCs in the FWF in a separate placement and arrangement amenable to monitoring in the FWF. All LANL waste while at the WCS facility is covered by both the material control and accounting and security programs for the WCS facility.

If the WCS exemption request is approved by the NRC staff, then the NRC would issue a new order that would supersede the 2009 Order. Conditions 1 through 7 would remain the same as in the 2009 Order, and a new Condition 8 would be created in a new order to address WCS' exemption request. The new Condition 8 would apply to the LANL waste stored in either the TSDF or the FWF. Condition 8 in the 2009 Order would be renumbered as Condition 9 in a new order, and Condition 9 in the 2009 Order would be renumbered as Condition 10 in a new order. A new Condition 11 would be added in a new order to provide the authority for the Director of the Office of Nuclear Material Safety and Safeguards at NRC (or their designee), to, in writing, relax or rescind any of the new order's conditions upon demonstration by the WCS of good cause. The WCS would continue to be permitted to possess SNM at the TSDF that meets the concentration limits and controls. The WCS would continue to be permitted to possess highly water soluble forms of SNM limited to amounts of SNM less than SNM of low strategic significance, as defined in 10 CFR 73.2 at the TSDF.

The State of Texas regulates effluent releases and potential doses to the public under the WCS license. The superseding NRC order would not change the State of Texas' regulation of the WCS facility.

The proposed action would not result in substantive changes to the transportation impacts identified in prior EAs. Movement of the identified LANL waste from the TSDF to the FWF was restricted to the WCS facility and involved the use of on-site cranes. Any increase in the number of trucks entering and leaving the WCS facility in support of the proposed action is expected to have been minimal. The trucks potentially would have supplied the washed river rock and flowable sand layer. That activity took place over a few days to a week, with the consequent impacts (i.e., primarily fugitive dust, exhausts, and traffic load on travelled roads) being temporary in nature. All other environmental impacts would be the same as those evaluated in the EAs that supported the 2001 Order, the 2004 Order, and the 2009 Order.

*Environmental Impacts of the Alternatives to the Proposed Action*

As an alternative to the proposed action, the NRC staff considered denial of the WCS' July 18, 2014, request and therefore, to not issue a new order that would supersede the 2009 Order (i.e., the "no action" alternative). Under that alternative, WCS would need to remove the identified LANL waste from its temporary storage location at the FWF and return it to the TSDF. The impacts of doing so would be similar to those experienced for the proposed action because the actions to move the identified LANL waste back to the TSDF from the FWF would be the reverse of those taken to move it from the TSDF to the FWF.

Additionally, temporary storage of the identified LANL waste at the TSDF may increase the potential for impacts on the environment at the WCS facility, if an event similar to the WIPP incident were to occur.

*Agencies and Persons Consulted*

On October 1, 2014, the staff consulted with the TCEQ, providing a copy of the draft EA for review and comment (ADAMS Accession No. ML14280A246). By e-mail dated October 3, 2014, the TCEQ stated they had no substantive comments on the EA, recommending only two minor grammatical changes (ADAMS Accession No. ML14280A246). The NRC staff modified the EA to address the TCEQ comments.

The proposed action does not involve the development or disturbance of additional land. Hence, the NRC has determined that the proposed action will not affect listed endangered or threatened species or their critical habitat. Therefore, no further consultation is required under Section 7 of the Endangered Species Act. Likewise, the NRC staff has determined that the proposed action does not have the potential to cause effects on historic properties even if they were present. The identified LANL waste is being stored in the FWF, the bottom of which is more than 100 feet below grade, and no ground disturbing activities are associated with the proposed action. Therefore, no consultation is required under Section 106 of the National Historic Preservation Act.

## III. Finding of No Significant Impact.

The NRC has reviewed WCS's July 18, 2014, request to amend the 2009 Order. The NRC has found that effluent releases and potential radiological doses to the public are not anticipated to change as a result of this action and that occupational exposures are expected to

remain within regulatory limits and as low as reasonably achievable. On the basis of the environmental assessment, the NRC concludes that the proposed action did not have a significant effect on the quality of the human environment. Accordingly, the NRC has determined not to prepare an environmental impact statement for the proposed action.

Dated at Rockville, Maryland this 30 day of October 2014.

For the Nuclear Regulatory Commission.

**/RA/**

Marissa Bailey, Director,
Division of Fuel Cycle Safety,
Safeguards and Environmental Review,
Office of Nuclear Material Safety and Safeguards.

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Dated at Rockville, Maryland this 30 day of October 2014.

For the Nuclear Regulatory Commission.

**/RA/**

Marissa Bailey, Director,
Division of Fuel Cycle Safety,
Safeguards and Environmental Review,
Office of Nuclear Material Safety and Safeguards.

**ML14238A208 (FRN)**

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