

TECHNICAL SUMMARY AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

Description of Application

- Applicant:** Waste Control Specialists LLC (WCS)
Radioactive Material License (RML) No.: R04100
Customer Number: CN600616890
Regulated Entity Number: RN101702439
- Action:** Proposed Minor Amendment No. 39 of RML No. R04100 for low-level radioactive waste (LLRW) disposal and storage and processing of radioactive waste.
- Location:** WCS is located at 9998 State Highway 176, 30 miles west of Andrews, in Andrews County, Texas 79714, near the Texas-New Mexico state line.
- General:** WCS currently holds RML No. R04100 for a LLRW land disposal facility and for a radioactive waste storage and processing facility.

Request: WCS submitted a minor amendment application to the Texas Commission on Environmental Quality (TCEQ), received March 15, 2022, to modify the definition of "In Transport" in license condition (LC) 11.T so that it includes all shipments, modify security requirements in LC 48, add the new processing technology of sluicing and consolidation of waste to be done at the Compact Waste Facility (CWF) Decontamination Building, authorize the relocation of the three wastewater tanks (and add a new fourth tank) from inside the Stabilization Building (STAB) to a reinforced concrete secondary containment structure just north of the STAB, increase the decommissioning portion of the storage and processing facility's financial assurance by \$9,895 for the addition of the newly licensed structure with the four wastewater tanks, extend the storage deadline for the transuranic waste from Los Alamos National Laboratory (LANL) from May 31, 2021 to December 23, 2022, and modify Attachment C, the Waste Acceptance Criteria, to accommodate the proposed modifications and to better reflect the arrangement of information; a modification to the application, dated May 11, 2022, to authorize void filling of containerized waste at the Federal Waste Facility (FWF) Decontamination Building; a modification to the application, dated July 27, 2022, requesting design changes to the CWF liner for the Phase 2A expansion of the CWF, an increase in the maximum time allowed for disposing of waste after it has been received; and a modification to the application, dated September 9, 2022, requesting a relocation of the area, due to planned construction for the Phase 2A CWF expansion, where solidification and void space verification can be performed from the landfill footprint of the CWF to the north side of the CWF which is not in the buffer zone. The license was amended by initiative of the Executive Director to correct errors and for clarity. WCS submitted additional information to support the amendment application on April 27, 2022, May 27, 2022, July 29, 2022, August 19, 2022, and September 14, 2022.

- Authority:** A TCEQ radioactive material license for the receipt and disposal of LLRW and for the storage and processing of radioactive waste is required by Chapter 401 of the Texas Health and Safety Code. An amended license has been prepared in accordance with the applicable requirements of Title 30, Texas Administrative Code (TAC) Chapters 281, 305, and 336.

Administrative Information

At the time of this review, WCS did not have any delinquent fees.

The regulated entity, WCS, has a compliance history classification of high, with a rating of 0.

The WCS site has a compliance history classification of high, with a rating of 0.

Technical Information:

This license amendment has been reviewed in accordance with applicable rules and statutes, including 30 TAC Chapter 336 (Radioactive Substance Rule) and Chapter 401 of the Texas Health and Safety Code. Review of the requests included an assessment of the radiological and non-radiological effects of the license changes on the public health and safety. The license was not amended to extend the time that the Licensee can store transuranic waste that originated at LANL to December 23, 2022.

- LC 11.T was modified to remove the restriction that the definition of “In Transport” applies only to waste containing source material or special nuclear material received at the land disposal facility. The modified definition applies to all radioactive and mixed waste received at the land disposal facility and the storage and processing facility.
- LC 11.AA and LC 197.C were modified to change the description of waste from being “in transport” to being “in transit” due to the extension of the definition of “In Transport” in LC 11.T.
- LC 48 was modified to state that additional security is required for the permanent security zone(s) instead of the restricted area since the permanent security zones are for category 1 or category 2 quantities of radioactive material and the restricted area is for radioactive waste not under the increased security requirements of category 1 or category 2 quantities of radioactive material. LC 48 was also modified to remove the requirement to implement the security and fire protection systems in the application dated July 27, 2011 and associated revisions dated September 1, 2011, October 14, 2011, and November 4, 2011 since WCS has implemented these measures.
- LC 48.A was modified to specify that the operational badge card reader system(s) shall be provided at the entry and exit points of the permanent security zones of the CWF, FWF (instead of the entry and exit points of the CWF and FWF) and Storage and Processing Facility.
- LC 48.B was removed (replaced with “reserved”) to remove the requirement that the licensee may not store category 1 or category 2 quantities of radioactive material overnight in the CWF decontamination building and the FWF decontaminating building since they have modified these facilities to satisfy the increased security requirements.
- LC 48.C was modified to add a new location, conveyances containing category 1 or category 2 quantities of radioactive material, to the locations with the requirement that there are to be no blind spots in the motion sensing alarm field of range of the PTZ cameras.
- LC 48.D was modified to change when the security requirements in LC 48.D are applicable from when “category 1 or category 2 quantities of radioactive material is stored in approved LLRW buildings” to “buildings that are required to comply with the increased security controls of 30 TAC §336.357.”
- LC 48.E was removed (replaced with “reserved”) to remove the requirement that the Licensee develop and provide procedures that describe the precise protocols for downloading recording data of the Network Video Recorder since WCS has provided these protocols.
- LC 48.F was modified to change the title of the category of personnel that can provide escort for any category 1 or category 2 quantity of radioactive material from “Trustworthy

and Reliable Person with Unescorted Access” (TRUA) to “Trustworthy and Reliable Unescorted Access Approved Personnel”. LC 48.F was also modified to remove the requirement that the Licensee modify procedure RMP-100 to state that only a TRUA can provide escort for category 1 or category 2 quantity of radioactive material since WCS had modified RMP-100 accordingly.

- LC 48.H was modified to specify that the requirement to notify TCEQ for planned receipt of category 1 or category 2 quantity of radioactive material only applies to category 1 or category 2 quantity of radioactive material that is radioactive waste containing discrete sources, ion-exchange resins, or activated material that weighs less than 2,000 kilograms since 30 TAC §336.357(a) exempts radioactive waste from the increased security requirements in 30 TAC §336.357(b) – (w) unless the waste contains discrete sources, ion-exchange resins, or activated material that weighs less than 2,000 kilograms. LC 48.H was also modified to change the notification requirement from containing the increased surveillance and security plans for this waste to providing this information to the TCEQ Resident Inspectors. The location must be inside a permanent security zone or remain in the original conveyance configuration in a temporary security zone.
- LC 90 was modified to allow waste shipped to the CWF that is to be consolidated using sluicing and secondarily related waste produced in this process to be consolidated and handled at the CWF Decontamination Building and containerized waste shipped to the FWF that requires void filling to meet the waste acceptance criteria to be void filled, handled, and packaged for disposal in the FWF Decontamination Building if fixatives have been applied to the inside of the container of the containerized waste before receipt by the Licensee, or inside a mobile enclosure which is an equivalent structure to the PERMACON within the FWF Decontamination Building if fixatives have not been applied prior to receipt.
- LC 105 was modified to change NDCU to NCDU to correct an error.
- LC 144 and 153 was modified by initiative of the Executive Director to correct an error in the TCEQ permit number for the site from WQ00049480000 to WQ0004948000 (removed an extra zero at the end).
- LC 158.H.4 was modified by initiative of the Executive Director for clarity by removing a duplicative sentence stating when the annual environmental monitoring report must be submitted to executive director.
- LC 187.C and LC 187.D were modified to change the amount of the final decommissioning financial assurance for the storage and processing facility from \$5,783,609 to \$5,793,504 due to the construction of the reinforced concrete secondary containment structure that will house four wastewater tanks.
- LC 188.D.1.d was modified to allow the Licensee to move the location where solidification and void space verification is done from the CWF landfill footprint to the north side of the CWF and not in the buffer zone because the current location is where the Phase 2A construction will occur.
- LC 188.H was modified by removing “Reserved” and adding authorization for waste processing using the resin sluicing system at the CWF Decontamination Building in accordance with procedure OP-1.4.32, *Waste Transfer, Consolidation, Dewatering, and Liner Disposition*. Only waste to be processed, has been processed, or has been generated from the resin sluicing system is authorized to be stored in the CWF Decontamination Building. This process is not authorized until the CWF Decontamination Building has been modified to comply with the minimum classification of Type II (111) in accordance with National Fire Protection Association 220 titled, "Standard Types of Building Construction" per 30 TAC §336.1211(4)(J)(i).
- LC 188.I was modified to authorize void filling and/or solidification of containerized waste in the FWF Decontamination Building, which must be done inside a mobile enclosure which is an equivalent structure to the PERMACON unless fixatives have been applied to the inside of the container of the containerized waste before receipt by the Licensee, for disposal in the Federal Waste Facility. Only waste to be processed or has been processed by void filling and/or solidification of containerized waste may be stored in the FWF Decontamination

Building. This process is not authorized for the FWF Decontamination Building until this building has been modified to comply with the minimum classification of Type II (111) in accordance with National Fire Protection Association 220 titled, "Standard Types of Building Construction" per 30 TAC §336.1211(4)(J)(i).

- LC 195.A.6 was renumbered to be LC 195.A.10. LCs 195.A.6 through 195.A.8 were added to add the storage capacity for new facilities authorized for waste storage in this amendment. LC 195.A.6 authorizes 3,476 cubic feet for the Liquid Waste Storage Tank Containment. LC 195.A.7 authorizes 835 cubic feet for the CWF Decontamination Building. LC 195.A.8 authorizes 1,000 cubic feet for the FWF Decontamination Building.
- LC 196.A was modified to add the CWF Decontamination Building and the FWF Decontamination Building to the requirements that all waste received for processing shall be initially processed within 30 days and transferred out within 180 days of placement in the building. Waste must be moved out of storage within 7 days once a MCC can be filled to capacity.
- LC 203.L was added to authorize the removal of the three wastewater storage tanks from the Stabilization Building and add four wastewater storage tanks to the Liquid Waste Storage Tank Containment, a reinforced concrete secondary containment structure just north of the Stabilization Building, for storage of wastewater received for processing under license condition 192 to be solidified in the Stabilization Building in accordance with the amendment application dated March 3, 2022 (cover letter dated March 4, 2022) and letter dated July 29, 2022. The concentration limits for these tanks are specified.
- LC 203.M was added to authorize the Licensee to bring the mobile equipment needed for the resin sluicing system into the CWF Decontamination Building and for void filling into the FWF Decontamination Building for waste processing as authorized in the license in accordance with the amendment application dated March 3, 2022 (cover letter dated March 4, 2022), modification to the license amendment dated May 27, 2022, and letter dated July 29, 2022.
- LC 207.A was modified to add the following tie-down documents for the disposal facility: letter dated April 29, 2022 with the subject *Compact Waste Facility Phase 2a Pre-Construction Documentation*, letter dated July 28, 2022 with the subject *Response to TCEQ RAIs on the Compact Waste Facility Phase 2a Pre-Construction*, and letter dated August 24, 2022 with the subject *Compact Waste Facility Phase 2a Pre-Construction Documentation - Revised - Technical Specifications* for design changes regarding concrete thickness, use of fiber in concrete, removal of red bed's liner's average permeability of 4×10^{-9} , and the use of in-situ clay as the secondary liner.
- LC 207.A was modified to add the following tie-down documents for the disposal facility: Letter dated July 29, 2022 with subject *WCS Response to TNODs for Minor Amendment Application for Approval of Amendment 39 for updated License Conditions and Various New Processes*, dated March 4, 2022, and September 14, 2022.
- LC 207.B was modified to add the following tie-down documents for the storage and processing facility: Application for minor amendment dated March 3, 2022 (cover letter dated March 4, 2022) with subject *Request for Minor Amendment Application for Approval of Amendment 39 for Updated License Conditions and Various New Processes*, letter dated May 27, 2022 with subject *WCS Response to Request for Additional Information on the Modification to the Request for Minor Amendment Application for Approval of Amendment 39 for updated License Conditions and Various New Processes*, dated March 4, 2022, letter dated July 29, 2022 with subject *WCS Response to TNODs for Minor Amendment Application for Approval of Amendment 39 for updated License Conditions and Various New Processes*, dated March 4, 2022, and letter dated September 14, 2022 with subject *WCS Response to RAIs for Minor Amendment Application for Approval of Amendment 39 for updated License Conditions and Various New Processes*, dated March 4, 2022.
- Section 4.0 of Attachment C, "Waste Acceptance Criteria", was modified to change the maximum time authorized between receipt and disposal of waste from 7 days to 30 days except for waste that is received for resin sluicing at the CWF Decontamination Building or

for void filling and/or stabilization of containerized waste at the FWF Decontamination Building, which must be disposed of within 180 days of receipt and seven days once a MCC can be filled to capacity with the processed waste.

- Section 4.1.7 of Attachment C was modified to reword the information needed to be included in the waste manifest for clarity.
- Section 4.1.8 of Attachment C was modified to reword the reporting requirements of transactions involving nationally tracked sources for clarity.
- Section 4.3.2 of Attachment C was modified to add that the waste that was accepted for disposal at the CWF or FWF but is stored at the CWF Decontamination Building or the FWF Decontamination Building for processing will still be included in the SNM possession limit defined in 30 TAC §336.2.
- Section 7.9.6 of Attachment C was added to state that the Licensee may open a package or shipping container for sluicing of resin containers and consolidation of the resin waste at the CWF in the designated area.
- Section 7.9.7 of Attachment C was added to state the Licensee may open a package or shipping container for void filling at the FWF in the designated area.
- Sections 12.0 and 14.14 of Attachment C was modified to remove that the DSHS has developed guidance in assisting transporters since that guidance is no longer available.

Preliminary Decision and Recommendation

The Executive Director has made a preliminary decision that the proposed license amendment, if issued, will meet all statutory and regulatory requirements.