

McClay 2005

# Texas Commission on Environmental Quality

## INTEROFFICE MEMORANDUM

NIRS/PC Prefiled Exhibit 200

Docketed 09/23/2005

**To:** Glenn Shankle, Executive Director  
**Date:** April 26, 2005  
**Thru:** Dan Eden, Deputy Director  
Office of Permitting, Remediation & Registration  
**From:** Wade M. Wheatley, P.E., Director  
Waste Permits Division  
**Subject:** License Application for a Proposed Low-Level Radioactive Waste Disposal Facility:  
Evaluation of Merit

Waste Control Specialists LLC is the sole applicant for license authorization for the near-surface disposal of low-level radioactive waste. The license application was submitted to the Texas Commission on Environmental Quality (TCEQ) on August 4, 2004. It was declared administratively complete February 18, 2005.

The proposed disposal facility is located in Andrews County, Texas. The site is approximately 31 miles west of the City of Andrews and six miles east of the City of Eunice, New Mexico. The proposed facility is located about one-half mile east of the Texas-New Mexico border and one mile north of State Highway 176. The applicant proposes two landfills, one for federal facility waste generated by the federal government, known as the federal waste facility (FWF), and the other for Texas Compact waste generated by entities in Texas and Vermont, known as the compact waste facility (CWF). The FWF is approximately 100 acres, and the CWF is approximately 30 acres. Overburden geologic sediments will be removed, and both landfills will be excavated into the underlying Dockum Group, a 1400-foot claystone with interbedded sandstone lenses. The applicant believes disposal into this geologic unit will be protective of human health and the environment. The proposed operating life of each landfill is 35 years.

Texas Health and Safety Code (TH&SC) Section 401.232 requires that the TCEQ prepare a written evaluation of each administratively complete low-level radioactive waste disposal application using statutory criteria established under Sections 401.233-401.236. The evaluation is based on technical merit and includes disciplines such as natural characteristics of the site, financial assurance, engineering design, operations, and socioeconomics.

TH&SC Section 401.232 requires that the TCEQ conduct a public meeting in the county of the proposed facility to receive public comment on the administratively complete license application. A public meeting was held in Andrews on March 31, 2005 to receive comment.

Attachment A is the evaluation of merit of the WCS application, organized by the criteria established by TH&SC Sections 401.233-401.236. Attachment B provides agency responses to comments received

at the public meeting in the City of Andrews and written comments received on the application prior to the March 31, 2005 meeting. Attachment C is a court reporter transcript of the oral comments. Attachment D contains copies of the written comments.

**Attachment A**  
**TCEQ EVALUATION OF MERIT**  
**WASTE CONTROL SPECIALISTS LLC (WCS) APPLICATION**  
**PROPOSED LOW-LEVEL RADIOACTIVE WASTE DISPOSAL FACILITY**

STATUTORY TIER CRITERIA	TCEQ EVALUATION CRITERIA	WHAT APPLICANT PROVIDED/ TCEQ EVALUATION
<p><b>TIER 1 CRITERIA: Sec. 401.233(a)(1)</b>  The commission shall consider: The natural characteristics of the disposal facility site for a proposed disposal facility or facilities;</p>	<p>The application should include descriptions of favorable natural characteristics, for example, low topographic relief; low level of seismic activity or other natural geologic hazards; favorable stratigraphic, hydrological, and meteorological conditions; few exploitable natural resources; low density of flora and fauna; low human-population density; and an acreage tract of sufficient size as to afford a large buffer area between operational activities and offsite areas.</p>	<p>The applicant states that natural site characteristics include low topographic relief, low human-population density, and relatively low density of flora and fauna. The applicant also states that the site has low seismic activity; favorable stratigraphic, hydrological and meteorological conditions; few exploitable natural resources; and an acreage tract of approximately 16,000 acres to provide a buffer area between operational activities and offsite areas.</p> <p>This is a summary statement of analyzed criteria. More detailed analysis of individual natural characteristics can be found in the relevant Tier sections addressed below.</p>

STATUTORY TIER CRITERIA	TCEQ EVALUATION CRITERIA	WHAT APPLICANT PROVIDED/ TCEQ EVALUATION
	impracticable. (30 TAC §336.728).	
<p><b>TIER 1 CRITERIA: Sec. 401.233(b)(1)(B):</b> Natural characteristics of the disposal facility site include: The suitability of the site for the proposed activities, including the site's topography and features relating to erosion;</p>	<p>The application should include topographic maps of the surrounding areas, soil survey maps showing the types of soil and types of vegetation supported by these soils, descriptions of how wind and water erosion will affect these soils, and any natural or existing man-made features which might change erosional patterns. Data showing low soil erodability indices should be provided.</p>	<p>The applicant has stated that the waste disposal facility lies in the Jalmar-Penwell Association and Blakeney-Conger Series. The applicant asserts that erosion is minimal and describes the region as a topographic high.</p> <p>Additional information may be required on soil erodability indices and data quality regarding the soil formations.</p>

STATUTORY TIER CRITERIA	TCEQ EVALUATION CRITERIA	WHAT APPLICANT PROVIDED/ TCEQ EVALUATION
TIER 1 CRITERIA: Sec. 401.233(c)(2) Adequacy of the proposed disposal facility or facilities and activities includes: Acceptable operational safety;	The application should provide documented methods that will ensure the minimum requirements of all applicable federal and state operational safety regulations will be met.	<p>The applicant has provided information regarding the radiation safety program, including emergency response measures pertaining to cleanup of spill areas.</p> <p>Additional information may be required in regard to specificity and accountability for safety procedures.</p>
TIER 1 CRITERIA: Sec. 401.233(c)(3) Adequacy of the proposed disposal facility or facilities and activities includes: Acceptable long-term safety as demonstrated by analysis or study.	The applicant should provide documentation that provides reasonable assurance the long-term safety of the site will be protective of the public and the environment. Long-term safety should be demonstrated using three different analyses to meet the performance objectives of 30 TAC §§336.724, 336.725, and 336.727: (1) performance assessment to demonstrate that the 25 millirem (mrem) annual Total Effective Dose Equivalent (TEDE) will not be exceeded; (2) analysis for intruder protection; and (3) long-term site stability including surface drainage and erosion protection, compaction, stability analysis, liquefaction potential, and settlement and subsidence throughout the institutional control period.	<p>The applicant states that the information and analyses provided in the license application demonstrate that the proposed facility satisfies the performance objectives in 30 TAC §§336.724-727. These objectives are addressed as Principal Design Criteria in section 3.1.2 of the license application. The applicant states that the license application includes all of the information recommended in the Texas Commission on Environmental Quality (TCEQ) application guidance and follows the recommendations of the TCEQ Draft Guidance Document on Performance Assessment (TCEQ 2004).</p> <p>Additional details or clarification may be required on data input for the performance assessment and the evaluation of performance objectives.</p>