

DOCUMENTATION OF ENVIRONMENTAL INDICATOR DETERMINATION

Interim Final 2/5/99

**RCRA Corrective Action
Environmental Indicator (EI) RCRAInfo code (CA725)**

Current Human Exposures Under Control

Facility Name: TM Deer Park Services L.P.
Facility Address: 2525 Battleground RD, Deer Park TX, 77537
Facility EPA ID #: TXD000719518

1. Has **all** available relevant/significant information on known and reasonably suspected releases to soil, groundwater, surface water/sediments, and air, subject to RCRA Corrective Action (e.g., from Solid Waste Management Units (SWMU), Regulated Units (RU), and Areas of Concern (AOC)), been **considered** in this EI determination?

- If yes - check here and continue with #2 below.
 If no - re-evaluate existing data, or
 If data are not available skip to #6 and enter "IN" (more information needed) status code.

BACKGROUND

Definition of Environmental Indicators (for the RCRA Corrective Action)

Environmental Indicators (EI) are measures being used by the RCRA Corrective Action program to go beyond programmatic activity measures (e.g., reports received and approved, etc.) to track changes in the quality of the environment. The two EI developed to-date indicate the quality of the environment in relation to current human exposures to contamination and the migration of contaminated groundwater. An EI for non-human (ecological) receptors is intended to be developed in the future.

Definition of "Current Human Exposures Under Control" EI

A positive "Current Human Exposures Under Control" EI determination ("YE" status code) indicates that there are no "unacceptable" human exposures to "contamination" (i.e., contaminants in concentrations in excess of appropriate risk-based levels) that can be reasonably expected under current land- and groundwater-use conditions (for all "contamination" subject to RCRA corrective action at or from the identified facility (i.e., site-wide)).

Relationship of EI to Final Remedies

While Final remedies remain the long-term objective of the RCRA Corrective Action program the EI are near-term objectives which are currently being used as Program measures for the Government Performance and Results Act of 1993, GPRA). The "Current Human Exposures Under Control" EI are for reasonably expected human exposures under current land- and groundwater-use conditions ONLY, and do not consider potential future land- or groundwater-use conditions or ecological receptors. The RCRA Corrective Action program's overall mission to protect human health and the environment requires that Final remedies address these issues (i.e., potential future human exposure scenarios, future land and groundwater uses, and ecological receptors).

Duration / Applicability of EI Determinations

EI Determinations status codes should remain in RCRAInfo national database ONLY as long as they remain true (i.e., RCRAInfo status codes must be changed when the regulatory authorities become aware of contrary information).

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2. Are groundwater, soil, surface water, sediments, or air **media** known or reasonably suspected to be “contaminated”¹ above appropriately protective risk-based “levels” (applicable promulgated standards, as well as other appropriate standards, guidelines, guidance, or criteria) from releases subject to RCRA Corrective Action (from SWMUs, RUs or AOCs)?

	<u>Yes</u>	<u>No</u>	<u>?</u>	<u>Rationale / Key Contaminants</u>
Groundwater			?	See rationale below
Air (indoors) ²		x		No evidence of contamination in available files
Surface Soil (e.g., <2 ft)		x		No evidence of contamination in available files
Surface Water		x		No evidence of contamination in available files
Sediment		x		No evidence of contamination in available files
Sub surf. Soil (e.g., >2 ft)			?	See rationale below
Air (outdoors)		x		No evidence of contamination in available files

— If no (for all media) - skip to #6, and enter “YE” status code after providing or citing appropriate “levels”, and referencing sufficient supporting documentation demonstrating that these “levels” are not exceeded.

— If yes (for any media) - continue after identifying key contaminants in each “contaminated” medium, citing appropriate “levels” (or provide an explanation for the determination that the medium could pose an unacceptable risk), and referencing supporting documentation.

X
— If unknown (for any media) - skip to #6 and enter “IN” status code.

Rationale and Reference(s):

Facility Description

TM Deer Park Services L.P. is located at 2525 Battleground Road near the intersection of Battleground Road and

¹ “Contamination” and “contaminated” describes media containing contaminants (in any form, NAPL and/or dissolved, vapors, or solids, that are subject to RCRA) in concentrations in excess of appropriately protective risk-based “levels” (for the media, that identify risks within the acceptable risk range).

² Recent evidence (from the Colorado Dept. of Public Health and Environment, and others) suggests that unacceptable indoor air concentrations are more common in structures above groundwater with volatile contaminants than previously believed. This is a rapidly developing field and reviewers are encouraged to look to the latest guidance for the appropriate methods and scale of demonstration necessary to be reasonably certain that indoor air (in structures located above (and adjacent to) groundwater with volatile contaminants) does not present unacceptable risks.

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Tidal Road. The facility is on 35 acres in Deer Park, Harris County, approximately 2 miles north of State Highway 225 and is on the south side of the Houston Ship Channel. The site is within the drainage area of segment 1007 of the San Jacinto River Basin. Land use in the area of the facility is industrial and commercial. The hazardous waste generation status for this facility is Large Quantity Generator (LQG). TM Deer Park maintains a treatment storage and disposal (TSD) facility under permit number HW-50058. This permit authorizes the facility to operate tanks and container storage areas for the storage and processing of hazardous and non-hazardous wastes received from off-site sources. Once processed, waste may be sent off-site or disposed of on-site in one of two (2) TCEQ permitted Class 1 injection wells, WDW-169 and WDW-249.

TM Deer Park has been in operation since the early 1980s and was owned by The GNI Group. It operated as Disposal Systems Inc. (DSI) until September 2001, when it was sold to Texas Molecular, LLC. as part of the GNI Group bankruptcy resolution. The GNI Group had originally filed Chapter 11 bankruptcy in September 2000. As a result of the purchase Texas Molecular L.L.C. formed a new subsidiary, TM Deer Park Services L.P., (TM) which is now the owner and operator of this facility.

TM is a commercial industrial and hazardous waste management facility which conducts the storage and treatment of wastes as part of the commercial operations. Wastes are generated on-site at TM manufacturing plant and received from off-site sources on a commercial basis. The wastes received and managed at the facility consist of organic and inorganic wastes, reactive wastes, ignitable wastes, toxic wastes, acid wastes, caustic wastes, waste oils, solvents, sludge containing heavy metals and miscellaneous off-specification liquids.

Regulatory / Compliance History

The original hazardous waste permit No. HW-50058-001 was issued on August 27, 1992, for a term of ten years and expired in August 2002 and a renewal permit was issued May 23, 2003. The permit authorizes the facility to operate tanks and container storage areas for the storage and processing of hazardous and non-hazardous waste received from off-site sources, with no corrective action obligations indicated. While numerous modifications have been made to this permit over the years, one significant change was the approval of a class-2 modification on November 28, 2000 that authorized the usage of 39 tanks, two filter presses, and one container storage area (Permitted Units 100-141). The Construction Certifications Report for 17 of these tanks was approved by the TNRCC Permits Division on March 9, 2001. A Class 1 modification approved on November 30, 2001, changed the name of the permittee and the site owner to TM Deer Park Services, L.L.C.

In addition to HW-55058-001 TM Deer Park also maintains air, waste water, and storm water related permits as well as two underground injection well permits.

According to Reference 5, the original Permit HW-50058-001 required an RFI to determine if hazardous waste or hazardous constituents have been released to the environment from seven SWMUs, which primarily consisted of sumps. A Phase I assessment was conducted in March 1998 and concluded that releases had not occurred from SWMUs No. 1, 2, 3, 5 and 6 and indicate that releases may have taken place from SWMUs No. 4 and 7. On September 18, 1999, the Commission issued the facility a letter indicating no further action was required for SWMUs 1, 2, 3, 5, and 6. A Phase II assessment of SWMUs 4 and 7 was conducted in July 1998, which concluded a release from SWMUs 4 and 7 had not occurred. However, on July 18, 2000 the TCEQ issued the facility a letter explaining that upon review of the Phase II RFI Report and additional information, the closure of SWMUs No. 4 and 7 had been completed in accordance with the Texas Risk Reduction Standard (RRS) No. 2. On January 1, 2001, TCEQ notified the facility that based upon a review of the proof of deed certification for SWMUs Nos. 4 and 7, the facility was released from post-closure care responsibilities for these SWMUs. As a result, no post-closure care or engineering control measures are required. A copy of the deed certification was not found in the available file materials.

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Rationale

According to a compliance evaluation inspection report, releases are thought to have occurred from two SWMUs. Both units were reportedly closed under Texas Risk Reduction Standards (RRS) Criteria No.2. TCEQ accepted the closure of the units and the proof of the deed certification; however, copies of the deed certification were not found in the available file materials. Therefore, it is assumed that soil and groundwater contamination may exist at this site above RRS Criteria 1 although specific constituents and concentrations were not found in available files. While it is likely that exposures to human health are under control at this site, it cannot be verified whether soil or groundwater contamination (or both) exist without further documentation from Closure Report or Deed Certification.

There is no evidence in available file materials that releases occurred to any other media. The facility operates under air permits as well as wastewater (TPDES) and storm water permits. The facility operates two permitted underground injection wells.

References

1. Letter to Elizabeth Granja, TNRCC; from Jim Robbins, TM Deer Park Services; Re: GNI Chemicals Corp. Change of Ownership; dated October 5, 2001.
2. Letter to W. R. Reeves, Jr., TM Deer Park; from LaDonna Castanuela, TCEQ; Re: Permit No. HW-50058-001 dated August 26, 2002.
3. TCEQ Transmittal of Class 2 Permit Modification; dated August 26, 2002
4. TCEQ Permit No. HW-50058-001 TM Deer Park Services, LLC; dated May 23, 2003.
5. Texas Commission on Environmental Quality (TCEQ) Compliance Evaluation Investigation (CEI) Investigation Report: TM Deer Park Services RN100209568: Investigator: Wajid Zahidi. Investigation # 114062, completed on May 27, 2003.
6. Letter to Jim Robbins, TM Deer Park: from Nicole Bealle, TCEQ; Re: Multi-Media CEI, dated July 14, 2003.
7. TM Deer Park Services 2003 Annual Facility Activity Report; dated January 26, 2004.
8. Fax to James Kennedy, Deer Park Services; from David Wilkins, WCM; Re: Texas Molecular L.L.P Informational Changes; dated February 3, 2004.
9. RCRAInfo Comprehensive Corrective Action Report Run on December 28, 2005.
10. Letter to Bob Brydson, TCEQ; from Jim Robbins, Deer Park Services; Re: TM Deer Park Services Permit # HW-50058 Class 2 Permit Modification; dated August 18, 2005.
11. Fax to TCEQ Waste Evaluation Center; from Marilyn Slack, TM L.L.C Re: TM Chemicals #39264; dated January 18, 2005.
12. Letter to TCEQ Waste Evaluation Section; from Jim Robbins, TM Deer Park Services; Re: TM Chemicals L.P. Notice of Registration #39264; dated February 18, 2005.
13. TCEQ Full Compliance History dated November 7, 2005.
14. Letter to LaDonna Castanuela, TCEQ; from Katharine Nelson, TCEQ; Re: Transmittal of Class 2 Permit Modification for TM Deer Park Services; dated November 16, 2005.
15. Letter to Jim Robbins, TM Deer Park: from LaDonna Castanuela, TCEQ; Re: TM Deer Park HW Permit No. 50058; dated November 22, 2005.
16. TCEQ Transmittal of Class 2 Permit Modification; dated November 22, 2005.
17. TM Deer Park Services 2005 Annual Facility Activity Report, dated January 18, 2006.
18. TCEQ Central Registry Query; www.tceq.com/nav/permits

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3. Are there **complete pathways** between “contamination” and human receptors such that exposures can be reasonably expected under the current (land- and groundwater-use) conditions?

Summary Exposure Pathway Evaluation Table

Potential **Human Receptors** (Under Current Conditions)

“Contaminated” Media	Residents	Workers	Day-Care	Construction	Trespassers	Recreation Food ³
Groundwater						
Air (indoors)						
Soil (surface, e.g., <2 ft)						
Surface Water						
Sediment						
Soil (subsurface e.g., >2 ft)						
Air (outdoors)						

Instructions for Summary Exposure Pathway Evaluation Table:

1. Strike-out specific Media including Human Receptors’ spaces for Media which are not “contaminated” as identified in #2 above.
2. Enter “yes” or “no” for potential “completeness” under each “Contaminated” Media -- Human Receptor combination (Pathway).

Note: In order to focus the evaluation to the most probable combinations some potential “Contaminated” Media - Human Receptor combinations (Pathways) do not have check spaces (“___”). While these combinations may not be probable in most situations they may be possible in some settings and should be added as necessary.

___ If no (pathways are not complete for any contaminated media-receptor combination) - skip to #6, and enter “YE” status code, after explaining and/or referencing condition(s) in-place, whether natural or man-made, preventing a complete exposure pathway from each contaminated medium (e.g., use optional Pathway Evaluation Work Sheet to analyze major pathways).

___ If yes (pathways are complete for any “Contaminated” Media - Human Receptor combination) - continue after providing supporting explanation.

___ If unknown (for any “Contaminated” Media - Human Receptor combination) - skip to #6 and enter “IN” status code.

³ Indirect Pathway/Receptor (e.g., vegetables, fruits, crops, meat and dairy products, fish, shellfish, etc.)

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4. Can the **exposures** from any of the complete pathways identified in #3 be reasonably expected to be “**significant**”⁴ (i.e., potentially “unacceptable” because exposures can be reasonably expected to be: 1) greater in magnitude (intensity, frequency and/or duration) than assumed in the derivation of the acceptable “levels” (used to identify the “contamination”); or 2) the combination of exposure magnitude (perhaps even though low) and contaminant concentrations (which may be substantially above the acceptable “levels”) could result in greater than acceptable risks)?

— If no (exposures can not be reasonably expected to be significant (i.e., potentially “unacceptable”) for any complete exposure pathway) - skip to #6 and enter “YE” status code after explaining and/or referencing documentation justifying why the exposures (from each of the complete pathways) to “contamination” (identified in #3) are not expected to be “significant.”

— If yes (exposures could be reasonably expected to be “significant” (i.e., potentially “unacceptable”) for any complete exposure pathway) - continue after providing a description (of each potentially “unacceptable” exposure pathway) and explaining and/or referencing documentation justifying why the exposures (from each of the remaining complete pathways) to “contamination” (identified in #3) are not expected to be “significant.”

— If unknown (for any complete pathway) - skip to #6 and enter “IN” status code

Rationale and Reference(s):

⁴ If there is any question on whether the identified exposures are “significant” (i.e., potentially “unacceptable”) consult a human health Risk Assessment specialist with appropriate education, training and experience.

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5. Can the “significant” **exposures** (identified in #4) be shown to be within **acceptable** limits?

—— If yes (all “significant” exposures have been shown to be within acceptable limits) - continue and enter “YE” after summarizing and referencing documentation justifying why all “significant” exposures to “contamination” are within acceptable limits (e.g., a site-specific Human Health Risk Assessment).

—— If no (there are current exposures that can be reasonably expected to be “unacceptable”)- continue and enter “NO” status code after providing a description of each potentially “unacceptable” exposure.

—— If unknown (for any potentially “unacceptable” exposure) - continue and enter “IN” status code

Rationale and Reference(s):

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6. Check the appropriate RCRAInfo status codes for the Current Human Exposures Under Control EI event code (CA725), and obtain Supervisor (or appropriate Manager) signature and date on the EI determination below (and attach appropriate supporting documentation as well as a map of the facility):

 YE - Yes, "Current Human Exposures Under Control" has been verified. Based on a review of the information contained in this EI Determination, "Current Human Exposures" are expected to be "Under Control" at the TM Deer Park Services facility, EPA ID # TXD000719518, located at 2525 Battleground RD, Deer Park, TX 77536 under current and reasonably expected conditions. This determination will be re-evaluated when the Agency/State becomes aware of significant changes at the facility.

 NO - "Current Human Exposures" are NOT "Under Control."

 X IN - More information is needed to make a determination.

Completed by (signature) _____ Date _____
 (print) _____
 (title) _____

Researched by (signature) Cherelle Blazer Date April 20, 2006
 (print) Cherelle Blazer
 (title) Staff Consultant for TechLaw, Inc.

Supervisor (signature) _____ Date _____
 (print) _____
 (title) _____
 (EPA Region or State) _____

Locations where References may be found:
Texas Commission on Environmental Quality
Building E
12118 North I-35
Austin, TX 78753

Filed under: SWRs 39264 and 32299

Contact telephone and e-mail numbers

(name) _____
(phone #) _____
(e-mail) _____

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FINAL NOTE: THE HUMAN EXPOSURES EI IS A QUALITATIVE SCREENING OF EXPOSURES AND THE DETERMINATIONS WITHIN THIS DOCUMENT SHOULD NOT BE USED AS THE SOLE BASIS FOR RESTRICTING THE SCOPE OF MORE DETAILED (E.G., SITE-SPECIFIC) ASSESSMENTS OF RISK.

Recommended Further Actions

1. While it is likely that current human exposures are under control at this site based on the reported closure of two units under RRS No. 2 and acceptance of a deed certification by TCEQ, the EI determination cannot be confirmed without knowing the contaminants, their concentrations or media of concern. The Agency should locate a copy of the deed certification, or alternatively the closure report so that a yes determination can be verified.