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:	Albemarle Catalyst Company LP
Facility Address:	13000 Bay Park Road, Pasadena, TX.
Facility EPA ID #:	TXD073920399

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 de termination?

   X ___ 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)?

	Yes	No	?	Rationale / Key Contaminants
Groundwater		X		No evidence of contamination – see Facility Description Below
Air (indoors)[2]		X		" "
Surface Soil (e.g., <2 ft)		X		" "
Surface Water		X		" "
Sediment		X		" "
Subsurf. Soil (e.g., >2 ft)		X		" "
Air (outdoors)		X		" "

X
___ 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.

___ If unknown (for any media) - skip to #6 and enter "IN" status code.

Rationale and Reference(s):

Facility Description

Albemarle Catalyst Company LP (ACC) currently operates a chemical manufacturing facility, which produces catalysts. The site is located at 13000 Bay Park Road in Pasadena, Harris County, Texas. The site is approximately 100 acres in size. Land use within one mile of the facility is primarily industrial. The facility has 24 hour security with manned gates and a fenced perimeter.

[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) suggest 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.

The facility purchased the site from Akzo Nobel Chemicals, Inc. and requested transfer of Akzo's Hazardous Waste Operating Permit No. 50772 (under SWR 31226). The transfer was implemented through a Class I Permit Modification dated November 4, 2004. Permit No. HW50772 was originally issued on February 24, 1987, however, a copy of this permit was not found in available files. A renewal permit was issued on October 23, 1998, which identified no corrective action obligations. The current permit addresses one container storage unit, which stores both hazardous and non-hazardous waste.

The most recent inspection report available in files reviewed was conducted in December 2003. The inspection report indicated there was no history of enforcement activities at the site, and all alleged permit violations were resolved.

Available file records did not show any history of releases from the regulated container storage area, unresolved spills, or exceedances of Texas Risk Reduction Program criteria. The facility has drainage control systems in place that are designed and constructed to collect spills and rainfall to preclude the release of any collected spills or rainfall and to prevent run-on into the containment system. All wastewater/rainfall from the RCRA facility is discharged offsite to Gulf Coast Waste Disposal Authority for subsequent treatment prior to release.

The RCRAInfo Comprehensive Permitting Report (CPR) presents conflicting information, listing final determination - RCRA Permit Issued with HSWA with No CA (03/03/1988), RCRA Permit Issued, HSWA not applicable (02/24/1987), and RCRA Permit Issued with HSWA Corrective Action Scheduled (10/23/1998). The discrepancy between the 1998 permit, which identifies no corrective action requirements and the CPR was not resolved in available files. However, it is assumed that the permit is correct.

The RCRAInfo Comprehensive Corrective Action Report indicates an RFA was completed and a determination that an RFI is not necessary was recorded 06/30/1986. CA prioritization was low in 1992 and 1998.

References

- Hazardous Waste Permit No. HW-50072, Akzo Nobel Chemicals, 1998.
- Compliance Summary, Akzo Nobel Chemicals dated July 3, 1998.
- Technical and Executive Summary for Permit Renewal, dated July 7, 1998.
- TCEQ Investigation Report, Akzo Nobel Chemicals, Inc., Compliance Inspection conducted 11/21/2003 through 12/11/2003.
- Hazardous Waste Permit Transfer Request, Albemarle Catalyst Company LP, submitted July 30, 2004.
- Hazardous Waste Permit No. HW-50072, Albemarle Catalyst Company LP, issued November 4, 2004.
- RCRAInfo Comprehensive Permitting Report, run on December 22, 2005.
- RCRAInfo Comprehensive Corrective Action Report, run on December 28, 2005.

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.

Rationale and Reference(s):

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

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.

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):

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):

X 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 Albemarle Catalysts Company facility, EPA ID # _TXD073920399, located at _13000 Bay Park Road, Pasadena, Texas 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."

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

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

Researched by (signature) Ann L. Anderson Date 4/25/2006
(print) Ann Anderson
(title) TechLaw, Inc.

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

Locations where References may be found:

Texas Commission of Environmental Quality
File Room, Building E
12118 N IH 35
Austin, TX 78753

Filed under : SWR 31226

Contact telephone and e-mail numbers

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

Recommended Action Items:

1. Identify and contact current TCEQ staff to verify current status of facility.

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.