

DOCUMENTATION OF ENVIRONMENTAL INDICATOR DETERMINATION

Interim Final 2/5/99

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

Current Human Exposures Under Control

Facility Name: Trans-Global Solution's (TGS) Port Neches Terminal
Facility Address: Corner of Lee and Block Street, Port Neches, Texas 77651
Facility EPA ID #: TXD 089792121

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

Current Human Exposures Under Control
Environmental Indicator (EI) RCRIS code (CA725)
Page 2

2. Are groundwater, soil, surface water, sediments, or air media known or reasonably suspected to be “contaminated” 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 below
Air (indoors)	_____	<u>X</u>	_____	
Surface Soil (e.g., <2 ft)	<u>X</u>	_____	_____	arsenic, cadmium, mercury, benzo(a)pyrene, 2-methylnaphthalene
Surface Water	_____	<u>X</u>	_____	
Sediment	_____	<u>X</u>	_____	See below
Subsurf Soil (e.g., >2 ft)	<u>X</u>	_____	_____	arsenic and mercury
Air (outdoors)	_____	<u>X</u>	_____	

_____ 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.

X 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):

GROUNDWATER. Some groundwater samples have contained concentrations of arsenic, barium and lead that exceeded applicable critical protective concentration levels (PCLs) from the Texas Risk Reduction Program (TRRP). However, it is likely that the elevated levels are related the sampling methodology, which introduced sediments (containing the metals) into the samples. There are no current uses or receptors for groundwater from the site. Additional groundwater samples are planned to be collected using a low-flow sampling procedure, which should minimize the introduction of sediments into the groundwater samples. It is anticipated that these samples will not contain metals in concentrations above applicable PCLs.

In addition, the report of a 1997 investigation conducted by Arthur D. Little, Inc. (ADL) indicated that a groundwater sample (GW-02) collected through a geoprobe contained high levels of benzene (37 mg/l), toluene (34 mg/l) and MTBE (0.36 mg/l) . Groundwater samples collected from permanent monitoring wells subsequently installed at the same location as GW-02 (P-15) and at a downgradient location (P-16) did not contain detectable concentrations of the chemicals of concern (COCs). Therefore, the COCs found in the ADL groundwater sample are apparently not representative of true groundwater conditions at the site. In addition, it is unlikely the COCs resulted from cross contamination from soils because none of the soil samples collected from the site contained elevated levels of benzene, toluene or MTBE.

SOILS: A small percentage of historical surface and subsurface soil samples collected at the site have contained concentrations of several metals and polynuclear aromatic hydrocarbons (PAHs) above applicable critical PCLs developed under the TRRP. However, soil samples collected during a recent (December 2002) site-wide sampling program did not identify concentrations of COCs above applicable PCLs. A summary of the COCs that exceeded applicable PCLs is provided below:

Arsenic. A total of 68 surface (0-2') and 34 subsurface (>2') soil samples collected from the site have been analyzed for arsenic. Two samples each from the surface and subsurface soils contained concentrations of arsenic above the critical PCL of 24 mg/kg. The concentrations of these samples ranged from 28.4 to 63 mg/kg.

Cadmium. A total of 68 surface (0-2') and 34 subsurface (>2') soil samples collected from the site have been analyzed for cadmium. Only one of the samples contained a concentration of cadmium (20.9 mg/kg) above the critical PCL of 17.5 mg/kg.

Mercury. A total of 68 surface (0-2') and 34 subsurface (>2') soil samples collected from the site have been analyzed for mercury. Three surface and two subsurface samples contained concentrations of mercury above the critical PCL of 1 mg/kg. The concentrations of these samples ranged from 1.9 to 7.2 mg/kg.

Benzo(a)pyrene. A total of 65 surface (0-2') and 20 subsurface (>2') samples collected from the site have been analyzed for benzo(a)pyrene. One surface sample contained a concentration of benzo(a)pyrene (2.7 mg/kg) above the critical PCL of 2.4 mg/kg.

2-Methylnaphthalene. A total of 65 surface (0-2') and 20 subsurface (>2') samples collected from the site have been analyzed for 2-methylnaphthalene. One surface sample contained a concentration of 2-methylnaphthalene (310 mg/kg) above the critical PCL of 250 mg/kg.

SEDIMENTS: Sediment samples have been collected from waterways (Block Bayou and the Neches River) adjacent to the site during several investigations. The investigations have identified low levels of PAHs. As shown in the summary provided below, the highest concentrations of PAHs identified in the samples are below the human health sediment PCLs established under TRRP.

COC	Highest Concentration Identified (mg/kg)	PCL (mg/kg)
Benzo(a)anthracene	2.6	16
Benzo(a)pyrene	0.96	1.6
Benzo(b)fluoranthene	2.5	16
Benzo(k)fluoranthene	2.2	160
Benzo(g,h,i)perylene	0.21	3,700
Chrysene	3.3	1,600
Fluoranthene	3.6	4,900
Indeno(1,2,3-cd)pyrene	0.21	16
Pyrene	12	3,700

References:

1. *Remediation Cost Estimate, Independent Refining Corporation; Arthur D. Little, Inc.; March, 1997.*
2. *Affected Property Assessment Report, TGS/Port Neches Terminal; JD Consulting, L.P.; February 2003.*
3. *Determining PCLs for Surface Water and Sediment; TCEQ Regulatory Guidance RG-366/TRRP-24; December 2002.*

Footnotes:

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.

Current Human Exposures Under Control
Environmental Indicator (EI) RCRIS code (CA725)
Page 3

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)

<u>“Contaminated” Media</u>	<u>Residents</u>	<u>Workers</u>	<u>Day-Care</u>	<u>Construction</u>	<u>Trespassers</u>	<u>Recreation</u>	<u>Food</u>
Groundwater	<u>No</u>	<u>No</u>	<u>No</u>	<u>No</u>	<u>No</u>	<u>No</u>	<u>No</u>
Air (indoors)							
Soil (surface, e.g., <2 ft.)	<u>No</u>	<u>No</u>	<u>No</u>	<u>No</u>	<u>No</u>	<u>No</u>	<u>No</u>
Surface Water							
Sediment							
Soil (subsurface, e.g., >2 ft.)	<u>No</u>	<u>No</u>	<u>No</u>	<u>No</u>	<u>No</u>	<u>No</u>	<u>No</u>
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.

- X 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): There have been numerous soil investigations conducted at the site. The earlier investigations focused sampling efforts in areas most likely to be impacted (e.g., near pipelines, tanks and the former drum storage area) and at locations with visible indications of impacts. Some of these samples contained COCs above applicable PCLs. Recent investigations included the collection of representative samples throughout the site using a grid pattern. The samples collected from this investigation did not contain COCs in concentrations above applicable PCLs. The recent data indicates a very low potential for human exposure to contaminated soils at the site. In addition, the site is surrounded by an 8-foot cyclone fence with four strands of barb wire that prevents access by the general public. There does not appear to be any offsite migration.

Reference: *Affected Property Assessment Report, TGS/Port Neches Terminal; JD Consulting, L.P.; February 2003.*

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

Current Human Exposures Under Control
Environmental Indicator (EI) RCRIS code (CA725)
Page 4

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)? **N/A**

___ 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 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

Current Human Exposures Under Control
Environmental Indicator (EI) RCRIS code (CA725)
Page 5

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

- ___ 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):

DOCUMENTATION OF ENVIRONMENTAL INDICATOR DETERMINATION

Interim Final 2/5/99

**RCRA Corrective Action
Environmental Indicator (EI) RCRIS code (CA750)**

Migration of Contaminated Groundwater Under Control

Facility Name: Trans-Global Solution's (TGS) Port Neches Terminal
Facility Address: Corner of Lee and Block Street, Port Neches, Texas 77651
Facility EPA ID #: TXD 089792121

1. Has all available relevant/significant information on known and reasonably suspected releases to the groundwater media, 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 "Migration of Contaminated Groundwater Under Control" EI

A positive "Migration of Contaminated Groundwater Under Control" EI determination ("YE" status code) indicates that the migration of "contaminated" groundwater has stabilized, and that monitoring will be conducted to confirm that contaminated groundwater remains within the original "area of contaminated groundwater" (for all groundwater "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 "Migration of Contaminated Groundwater Under Control" EI pertains ONLY to the physical migration (i.e., further spread) of contaminated ground water and contaminants within groundwater (e.g., non-aqueous phase liquids or NAPLs). Achieving this EI does not substitute for achieving other stabilization or final remedy requirements and expectations associated with sources of contamination and the need to restore, wherever practicable, contaminated groundwater to be suitable for its designated current and future uses.

Duration / Applicability of EI Determinations

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

**Migration of Contaminated Groundwater Under Control
Environmental Indicator (EI) RCRIS code (CA750)
Page 2**

2. Is groundwater known or reasonably suspected to be “contaminated”¹ above appropriately protective “levels” (i.e., applicable promulgated standards, as well as other appropriate standards, guidelines, guidance, or criteria) from releases subject to RCRA Corrective Action, anywhere at, or from, the facility?

 X If yes - continue after identifying key contaminants, citing appropriate “levels,” and referencing supporting documentation.

___ If no - skip to #8 and enter “YE” status code, after citing appropriate “levels,” and referencing supporting documentation to demonstrate that groundwater is not “contaminated.”

___ If unknown - skip to #8 and enter “IN” status code.

Rationale and Reference(s): **Some groundwater samples have contained concentrations of arsenic, barium and lead that exceeded applicable critical protective concentration levels (PCLs) from the Texas Risk Reduction Program (TRRP). The highest concentrations of these chemicals of concern (COCs) identified and the applicable PCLs are summarized below:**

<u>Constituent</u>	<u>Highest Concentration (mg/l)</u>	<u>PCL (mg/l)</u>
Arsenic	0.081	0.01
Barium	2.5	2
Lead	0.057	0.015

It is likely that the elevated levels are related the sampling methodology, which introduced sediments (containing the metals) into the samples. Additional groundwater samples are planned to be collected using a low-flow sampling procedure, which should minimize the introduction of sediments into the groundwater samples. It is anticipated that these samples will not contain metals in concentrations above applicable PCLs.

In addition, the report of a 1997 investigation conducted by Arthur D. Little, Inc. (ADL) indicated that a groundwater sample (GW-02) collected through a geoprobe contained high levels of benzene (37 mg/l), toluene (34 mg/l) and MTBE (0.36 mg/l) . Groundwater samples collected from permanent monitoring wells subsequently installed at the same location as GW-02 (P-15) and at a downgradient location (P-16) did not contain detectable concentrations of the COCs. It is unlikely that the ADL groundwater sample resulted from cross contamination from soils because none of the soil samples collected from the site contained elevated levels of benzene, toluene or MTBE. In addition, no groundwater samples collected from monitor at the site have contained elevated levels of these COCs.

- References:
1. *Affected Property Assessment Report, TGS/Port Neches Terminal; JD Consulting, L.P.; February 2003.*
 2. *Remediation Cost Estimate, Independent Refining Corporation; Arthur D. Little, Inc.; March, 1997.*

Footnotes:

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 appropriate “levels” (appropriate for the protection of the groundwater resource and its beneficial uses).

**Migration of Contaminated Groundwater Under Control
Environmental Indicator (EI) RCRIS code (CA750)**

Page 3

3. Has the **migration** of contaminated groundwater **stabilized** (such that contaminated groundwater is expected to remain within “existing area of contaminated groundwater”² as defined by the monitoring locations designated at the time of this determination)? **N/A**

X If yes - continue, after presenting or referencing the physical evidence (e.g., groundwater sampling/measurement/migration barrier data) and rationale why contaminated groundwater is expected to remain within the (horizontal or vertical) dimensions of the “existing area of groundwater contamination”²).

___ If no (contaminated groundwater is observed or expected to migrate beyond the designated locations defining the “existing area of groundwater contamination”²) - skip to #8 and enter “NO” status code, after providing an explanation.

___ If unknown - skip to #8 and enter “IN” status code.

Rationale and Reference(s):

The groundwater investigations conducted at the site have not confirmed the presence of groundwater contamination. In addition, no evidence of contaminated groundwater migration has been identified by a perimeter groundwater monitoring system, which consists of 14 wells (PI-P14).

There are no drinking water wells onsite or downgradient from the site. In addition, the site is surrounded by an 8-foot cyclone fence with four strands of barb wire that prevents access by the general public.

Reference: *Affected Property Assessment Report, TGS/Port Neches Terminal; JD Consulting, L.P.; February 2003.*

²“existing area of contaminated groundwater” is an area (with horizontal and vertical dimensions) that has been verifiably demonstrated to contain all relevant groundwater contamination for this determination, and is defined by designated (monitoring) locations proximate to the outer perimeter of “contamination” that can and will be sampled/tested in the future to physically verify that all “contaminated” groundwater remains within this area, and that the further migration of “contaminated” groundwater is not occurring. Reasonable allowances in the proximity of the monitoring locations are permissible to incorporate formal remedy decisions (i.e., including public participation) allowing a limited area for natural attenuation.

Migration of Contaminated Groundwater Under Control
Environmental Indicator (EI) RCRIS code (CA750)
Page 4

4. Does “contaminated” groundwater **discharge** into **surface water** bodies? **N/A**

- If yes - continue after identifying potentially affected surface water bodies.
- If no - skip to #7 (and enter a “YE” status code in #8, if #7 = yes) after providing an explanation and/or referencing documentation supporting that groundwater “contamination” does not enter surface water bodies.
- If unknown - skip to #8 and enter “IN” status code.

Rationale and Reference(s):

There is no evidence of COC discharge from groundwater to surface water based on the groundwater data from the perimeter monitoring system. COCs detected in surface water sediments resulted from wastewater discharge, stormwater runoff and/or offsite sources.

Reference: *Affected Property Assessment Report, TGS/Port Neches Terminal; JD Consulting, L.P.; February 2003.*

Migration of Contaminated Groundwater Under Control
Environmental Indicator (EI) RCRIS code (CA750)
Page 5

5. Is the **discharge** of “contaminated” groundwater into surface water likely to be “**insignificant**” i.e., the maximum concentration ³ of each contaminant discharging into surface water is less than 10 times their appropriate groundwater “level,” and there are no other conditions (e.g., the nature, and number, of discharging contaminants, or environmental setting), which significantly increase the potential for unacceptable impacts to surface water, sediments, or eco-systems at these concentrations)? **N/A**

— If yes - skip to #7 (and enter “YE” status code in #8 if #7 = yes), after documenting: 1) the maximum known or reasonably suspected concentration ³ of key contaminants discharged above their groundwater “level,” the value of the appropriate “level(s),” and if there is evidence that the concentrations are increasing; and 2) provide a statement of professional judgement/explanation (or reference documentation) supporting that the discharge of groundwater contaminants into the surface water is not anticipated to have unacceptable impacts to the receiving surface water, sediments, or eco-system.

— If no - (the discharge of “contaminated” groundwater into surface water is potentially significant) - continue after documenting: 1) the maximum known or reasonably suspected concentration ³ of each contaminant discharged above its groundwater “level,” the value of the appropriate “level(s),” and if there is evidence that the concentrations are increasing; and 2) for any contaminants discharging into surface water in concentrations ³ greater than 100 times their appropriate groundwater “levels,” the estimated total amount (mass in kg/yr) of each of these contaminants that are being discharged (loaded) into the surface water body (at the time of the determination), and identify if there is evidence that the amount of discharging contaminants is increasing.

— If unknown - enter “IN” status code in #8.

Rationale and Reference(s):

³As measured in groundwater prior to entry to the groundwater-surface water/sediment interaction (e.g., hyporheic) zone.

**Migration of Contaminated Groundwater Under Control
Environmental Indicator (EI) RCRIS code (CA750)**

Page 6

6. Can the **discharge** of “contaminated” groundwater into surface water be shown to be “**currently acceptable**” (i.e., not cause impacts to surface water, sediments or eco-systems that should not be allowed to continue until a final remedy decision can be made and implemented ⁴)? **N/A**

___ If yes - continue after either: 1) identifying the Final Remedy decision incorporating these conditions, or other site-specific criteria (developed for the protection of the site’s surface water, sediments, and eco-systems), and referencing supporting documentation demonstrating that these criteria are not exceeded by the discharging groundwater; OR 2) providing or referencing an interim-assessment,⁵ appropriate to the potential for impact, that shows the discharge of groundwater contaminants into the surface water is (in the opinion of a trained specialists, including ecologist) adequately protective of receiving surface water, sediments, and eco-systems, until such time when a full assessment and final remedy decision can be made. Factors which should be considered in the interim-assessment (where appropriate to help identify the impact associated with discharging groundwater) include: surface water body size, flow, use/classification/habitats and contaminant loading limits, other sources of surface water/sediment contamination, surface water and sediment sample results and comparisons to available and appropriate surface water and sediment “levels,” as well as any other factors, such as effects on ecological receptors (e.g., via bio-assays/benthic surveys or site-specific ecological Risk Assessments), that the overseeing regulatory agency would deem appropriate for making the EI determination.

___ If no - (the discharge of “contaminated” groundwater can not be shown to be “**currently acceptable**”) - skip to #8 and enter “NO” status code, after documenting the currently unacceptable impacts to the surface water body, sediments, and/or eco-systems.

___ If unknown - skip to 8 and enter “IN” status code.

Rationale and Reference(s):

⁴Note, because areas of inflowing groundwater can be critical habitats (e.g., nurseries or thermal refugia) for many species, appropriate specialist (e.g., ecologist) should be included in management decisions that could eliminate these areas by significantly altering or reversing groundwater flow pathways near surface water bodies.

⁵The understanding of the impacts of contaminated groundwater discharges into surface water bodies is a rapidly developing field and reviewers are encouraged to look to the latest guidance for the appropriate methods and scale of demonstration to be reasonably certain that discharges are not causing currently unacceptable impacts to the surface waters, sediments or eco-systems.

**Migration of Contaminated Groundwater Under Control
Environmental Indicator (EI) RCRIS code (CA750)**

Page 7

7. Will groundwater **monitoring** / measurement data (and surface water/sediment/ecological data, as necessary) be collected in the future to verify that contaminated groundwater has remained within the horizontal (or vertical, as necessary) dimensions of the “existing area of contaminated groundwater?” **N/A**

If yes - continue after providing or citing documentation for planned activities or future sampling/measurement events. Specifically identify the well/measurement locations which will be tested in the future to verify the expectation (identified in #3) that groundwater contamination will not be migrating horizontally (or vertically, as necessary) beyond the “existing area of groundwater contamination.”

If no - enter “NO” status code in #8.

If unknown - enter “IN” status code in #8.

Rationale and Reference(s):

A sampling and analysis plan has been submitted to the TCEQ’s Voluntary Cleanup Program that proposes the installation of one new monitor well and the collection and analysis of groundwater samples from the new well and other wells at the site.

Reference: *Sampling and Analysis Plan; TGS/Port Neches Terminal; Voluntary Cleanup Program No. 1080; JD Consulting, L.P.; November 2003.*

**Migration of Contaminated Groundwater Under Control
Environmental Indicator (EI) RCRIS code (CA750)
Page 8**

8. Check the appropriate RCRIS status codes for the Migration of Contaminated Groundwater Under Control EI (event code CA750), and obtain Supervisor (or appropriate Manager) signature and date on the EI determination below (attach appropriate supporting documentation as well as a map of the facility).

YE YE - Yes, "Migration of Contaminated Groundwater Under Control" has been verified. Based on a review of the information contained in this EI determination, it has been determined that the "Migration of Contaminated Groundwater" is "Under Control" at the **TGS Port Neches Terminal** facility, EPA ID # **TXD 089792121**, located at **Port Neches, Texas**. Specifically, this determination indicates that the migration of "contaminated" groundwater is under control, and that monitoring will be conducted to confirm that contaminated groundwater remains within the "existing area of contaminated groundwater" This determination will be re-evaluated when the Agency becomes aware of significant changes at the facility.

___ NO - Unacceptable migration of contaminated groundwater is observed or expected.

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

Completed by (signature) _____ Date _____
(print) **Fred Dalbey**
(title) **Senior Consultant**

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

Locations where References may be found:

JD Consulting, Inc., 404 Camp Craft Road, Austin, TX 78746

Contact telephone and e-mail numbers

(name) **Fred Dalbey**
(phone #) **(512) 347-7588**
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