

SWR # 63003

CAS # A200
PROJ. MGR Arthur

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DOCUMENTATION OF ENVIRONMENTAL INDICATOR DETERM.

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

Current Human Exposures Under Control

Facility Name: United States Army Air Defense Center & Fort Bliss
Facility Address: Fort Bliss, Texas 79916
Facility EPA ID #: TX4213720101

RECEIVED
JUN 2 2000
REMEDIATION DIVISION
Corrective Action Section

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- Has all available relevant/significant information on known and reasonably suspected releases to 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 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).

p1-5 are revised, updated versions of pages originally completed in May 2000. Changes are based on documentation submitted in 2002.

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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	<u>X</u>	—	—	<u>Hydrocarbons</u>
Air (indoors) ²	—	<u>X</u>	—	—
Surface Soil (e.g., <2 ft)	<u>X</u>	—	—	<u>Barium, cadmium, chromium, lead, explosives</u>
Surface Water	—	<u>X</u>	—	—
Sediment	—	<u>X</u>	—	—
Subsurf. Soil (e.g., >2 ft)	<u>X</u>	—	—	<u>Barium, cadmium, chromium, lead, explosives & hydrocarbons</u>
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): The results from a late November testing event at FTBL-072, OB/OD Pit B-1 on the closed Castner Firing Range, have recently been sent to Ft. Bliss in Draft form. However preliminary indications are that the following hazardous constituents are present above appropriate levels.

Barium: 36.3 mg/kg to 893 mg/kg above GWP-Ind. MCLs but below SAI-Ind MSCs

Cadmium: <0.25 mg/kg to 8.56 mg/kg above GWP-Ind. MCLs but below SAI-Ind MSCs

Chromium: 4.42 mg/kg to 10.5 mg/kg above GWP-Ind. MCLs but below SAI-Ind MSCs

Lead: 11.2 mg/kg to 12,100 mg/kg above both GWP-Ind. MCLs and SAI-Ind MSCs

Explosives above RRS2 MSCs

The hydrocarbons in the groundwater is in perched non-usable aquifers and comes from LUSTs

The hydrocarbons in the subsurface soils are from the same sources, LUSTs

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.

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>	Residents	Workers	Day-Care	Construction	Trespassers	Recreation	Food ³
Groundwater	—	—	—	—	—	—	—
Air (indoors)	—	—	—	—	—	—	—
Soil (surface, e.g., <2 ft)	<u>X</u>	—	—	—	<u>X</u>	—	—
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).
- X 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): Although the Castner Range area is partially fenced, trespassing still occurs by dirt bikers, hikers and children from a near by civilian housing area (w/i 1 mile of site). Two "possible" complete human pathways could exist:

1. High winds occur in this area and fine particles "could" blow into the housing area from this site.
 2. Another possible scenario is children trespassing on the range could play around this site because the pit is formed of concrete and could draw children to it.
- ³ Indirect Pathway/Receptor (e.g., vegetables, fruits, crops, meat and dairy products, fish, shellfish, etc.)

7/2/02 Remedial Action has been completed at OB/OD R# B/1 (see RACK dated 10/20/01) so exposure from windblown dust is no longer a pathway. See attached document.

② Ft. Bliss has submitted documentation which concerning additional Ft. Bliss action to prevent trespassing. Allan Purnack 7/2/02 see attached Ft. Bliss letter & document log.

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6. Check the appropriate RCRIS 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 Fort Bliss facility, EPA ID # TX4213720101, located at _____ 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) Allen E. Posnick Date 7/12/02
(print) Allen E. Posnick
(title) OSMWA Program Manager

Supervisor (signature) [Signature] Date 8/30/2002
(print) ARTHUR R. RAITMAN
(title) Manager
(EPA Region or State) CA Section

Locations where References may be found:

Attach a copy of this facility's database printout. Highlight the reports which support the "YE" determination. see attached

Contact telephone and e-mail numbers

(name) David Dodge
(phone #) 915-568-7979
(e-mail) dodged@emb10.blis.army.mil

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.

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