

**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:** Adamson Company Inc  
**Facility Address:** Route 49 and Tank Road Buffalo Junction, Va (Mecklenburg County)  
**Facility EPA ID #:** VAD982573164

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**

The Former Adamson Company, Inc. Facility is located on 18.605 acres in Averett, (Mecklenburg County) Virginia. The property is located in a rural setting approximately 10 miles west of Clarksburg, Virginia along Virginia Route 49 (Figure 1). The majority of the property is undeveloped with a single structure located slightly to the western side of the property. Properties surrounding the site are sparsely developed residential areas. Adamson manufactured aboveground and underground storage tanks at the site. In addition, it is believed that during the manufacturing process xylene and methyl ethyl ketone was used for the cleaning of the spray equipment following the application of paint to the tanks.

The Development Company of America (DCA) acquired the Adamson property by way of a sale/leaseback arrangement in February 1978. DCA is a developer that provides office, commercial, industrial, and warehouse buildings for lease.

The Facility is located at latitude 36° 34' 36" North by 78° 39' 05" West.

**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).

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2. Are groundwater, soil, surface water, sediments, or air **media** known or reasonably suspected to be **“contaminated”**<sup>1</sup> 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		x		
Air (indoors) <sup>2</sup>		x		
Surface Soil (e.g., <2 ft)		x		
Surface Water		x		
Sediment		x		
Subsurf. Soil (e.g., >2 ft)		x		
Air (outdoors)		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):

In 1990, the Department of Waste Management (“DWM”), predecessor to the Virginia Department of Environmental Quality (VDEQ), received a complaint against Adamson by one of Adamson's employees of possible burial of hazardous waste at the property. DWM investigated the complaint and noted the presence of a number of drums containing liquid but could not confirm whether any hazardous waste had been buried. At the time of the investigation, Adamson had not made a declaration as to whether the liquid in the drums was material or waste. In July 1990, Adamson hired a consultant to inventory the drums. The consultant stated that the materials were not ignitable, and that they combined to form a solid. DCA, as owner of the property, was not notified by Adamson of the complaint, or of the DWM investigation regarding the possible burial of hazardous waste at the Property in 1990, or at any time thereafter.

Adamson tested the solid mixture and determined that it was not a hazardous waste. The mixture was eventually disposed of as non-hazardous solid waste. On February 23, 1994, Adamson filed for bankruptcy. DCA, as a part of its due diligence studies in connection with the discussions with Adamson regarding the anticipated rejection of the Lease on the Property, had a Phase I Environmental Site Assessment Performed and in September, 1994. DCA, through its study, first became aware of the 1990 complaint received by DWM. DCA, through its Virginia counsel, contacted VDEQ regarding the 1990 complaint, and DCA then engaged the services of an environmental engineer to perform a Phase II environmental site investigation which began in early November, 1994. On November 8, 1994, DCA found 5 gallon paint cans and other material buried on the Property. DCA, immediately notified VDEQ of its findings on November 8, 1994. On November 10, 1994, representatives of DCA met with VDEQ to make an inspection of the site and to show VDEQ representative what DCA had discovered in the way of buried materials on site, as well as materials apparently disposed of aboveground on the site. In late March and early April 1995, VDEQ conducted further investigation of the Property to evaluate any potential environmental impacts. Site excavations unearthed buried paint containers, consisting mainly of 5 gallon paint cans.

In September, 1995 Adamson contracted for the removal of sandblast grit from the Property and engaged the services of a contractor for the cleanup of the Property under a partial bankruptcy settlement agreement with DCA; however, the funds Adamson was permitted to apply toward the cost of this cleanup were limited to \$50,000 by the Bankruptcy Court.

Inasmuch as Adamson did not have adequate funds to complete the site investigation and cleanup, DCA voluntarily agreed to fund the contractor to complete the investigation and remediation of the Property undertaken on Adamson's behalf in order to meet VDEQ requirements and to return the Property to a useable condition. However, DCA made it clear at that time that DCA was taking this action only as a result of the lack of funds by Adamson to pay for completing this work. Moreover, DCA asserted that any violations of environmental law alleged in this Order were the result of acts or failures to act by Adamson. Following site evaluations, DCA paid for the removal of approximately 2500 empty one and five gallon paint cans, and approximately 75 empty fifty-five gallon drums from excavated soils.

None of the containers held any free liquids, although some contained solidified paint. DCA funded the disposal of approximately forty one cubic yard Wrangler Waste Boxes as hazardous waste D007 (Chromium) on May 10, 1996, May 13, 1996 and October 24, 1996. Wrangler Waste Boxes are approved for hazardous waste storage and transportation. The boxes were shipped to Laidlaw Environmental Services of South Carolina. Five piles of soil, Piles A-E were generated due to the excavation and separation of the paint cans and drums.

The contractor tested the excavated soils for TCLP metals and TCLP organics. Excavated soils initially had an elevated reading for TCLP chromium, but retesting produced no elevated levels in excavated soils. None of the other excavated soils had elevated levels of TCLP parameters. Soils were spread on site in the area of excavation and seeded with grass following VDEQ approval. Control measures were taken to minimize run-off inside the warehouse, Adamson stored a twenty-ton roll-off, which contained approximately twenty tons of solidified and semi-solidified urethane. The urethane solids in the roll-off were tested for waste characterization and determined to be non-regulated.

The solids were removed from the roll-off, placed in Wrangler Boxes, and disposed of at USA Waste (Chambers) in Amelia, Virginia. As of May, 1996, there were approximately 3000 empty 5 gallon paint cans and 50 empty fifty-five gallon drums still on site. All five gallon containers were crushed and the fifty-five gallon drums had the tops and bottoms removed and bodies crushed. All scrap metal was loaded into dump trailers and disposed of at USA Waste in Amelia, Virginia. All paint solids generated were collected in Wrangler boxes and disposed of on October 24, 1996 as a D007 hazardous waste. All outside concrete pads were scraped to remove flaking paint. All paint solids generated were containerized in the Wrangler boxes and disposed of as a D007 hazardous waste.

Footnotes:

<sup>1</sup> "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).

<sup>2</sup> 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.

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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)

<b><u>“Contaminated” Media</u></b>	Residents	Workers	Day-Care	Construction	Trespassers	Recreation	Food <sup>3</sup>
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):

<sup>3</sup> 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”**<sup>4</sup> (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):

<sup>4</sup> 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 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 (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 Adamson Company Inc facility, EPA ID # VAD982573164 located at Route 49 and Tank Road Buffalo Junction, Va (Mecklenburg County) 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) \_\_\_\_\_ -s- Date 4/21/09  
(print) \_\_\_\_\_  
(title) \_\_\_\_\_

Supervisor (signature) \_\_\_\_\_ -s- Date 4/21/09  
(print) \_\_\_\_\_  
(title) \_\_\_\_\_  
(EPA Region or State) \_\_\_\_\_

Locations where References may be found:

US EPA Region III  
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