

**DOCUMENTATION OF ENVIRONMENTAL INDICATOR DETERMINATION**  
**RCRA Corrective Action**  
**Environmental Indicator (EI) RCRIS code (CA725)**  
**Current Human Exposures Under Control**

Facility Name: Steris Corporation  
Facility Address: 2424 West 23<sup>rd</sup> Street, Erie, PA 16506  
Facility EPA ID #: PAD005029582

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 #8 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).

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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		PADEP issued No Further Action
Air (indoors) <sup>2</sup>		X		No Records of releases
Surface Soil (e.g., <2 ft)		X		PADEP issued No Further Action
Surface Water		X		No Record of Releases
Sediment		X		No Records of releases
Subsurf. Soil (e.g., >2 ft)		X		PADEP issued No Further Action
Air (outdoors)		X		No Records of releases

- 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):**

The facility is located at 2424 West 23<sup>rd</sup> Street, Erie, PA 16506. This 25-acre facility manufactured industrial and hospital sterilizers, loading car equipment and other equipment used in the health care industry. All manufacturing operations were performed inside the facility. American Sterilizer Company owned and operated the facility until May 13, 1996. From May 13, 1996 until 2007, Steris Corporation was the owner and operator of the facility. The Facility ceased operations in 2007. The property was purchased by Erie Commerce LLC in 2008 and has been redeveloped to non-residential area.

On July 14, 1980, the Facility filed a Notification of Hazardous Waste Activity form with USEPA and was assigned a USEPA ID No. PAD 005029582. On November 19, 1980, the Facility filed a Part A Permit Application for container storage of hazardous waste. The hazardous wastes generated at the Facility included spent solvents and plating wastes. In a letter dated April 8, 1992, the facility indicated to the USEPA that it was not a storage facility and did not want to become a storage facility.

The Solid Waste Management Units at the Facility included the containment storage building, wastewater treatment unit, cyanide treatment tank, chrome treatment tank, hazardous waste storage tanks, accumulation tank, elementary neutralization unit, dust collector, vapor degreaser, and paint spray booth.

Sometimes prior to 1990, approximately 700 gallons of No. 2 fuel oil were released onto the ground as the result of overfilling of a tank at the Facility. Remediation of the release was performed in accordance with the PADEP standards. Contaminated soil was excavated and disposed of in a landfill. The remedial action report dated October 6, 1995 was submitted to PADEP. In a letter dated November 9, 1995, PADEP approved the report and required No Further Investigations and/or remedial actions.

On June 29, 2004, Tetra Tech performed an Environmental Indicator Inspection at the facility for PADEP and USEPA Region 3. The inspection revealed that there were no unaddressed releases at the facility.

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.

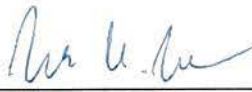
Rationale and Reference(s):




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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 Steris Corporation facility, EPA ID # PAD005029582, located at 2424 West 23<sup>rd</sup> Street, Erie, PA 16506 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)   
(print) Tran Tran  
(title) Project Manager

Date 8/5/2016

Supervisor (signature)   
(print) Paul Gotthold  
(title) Associate Director  
EPA Region III

Date 8/5/2016

Locations where References may be found:

US EPA Region III  
Land & Chemicals Division  
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