

**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: Kennametal, Inc.

Facility Address: 100 Devonshire Drive Delmont, PA 15626-1607

Facility EPA ID #: PAD004316923

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, 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).

**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”<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	_____	<u>X</u>	_____	<u>No releases are known to have occurred</u>
Air (indoors) <sup>2</sup>	_____	<u>X</u>	_____	<u>VI evaluation is not relevant</u>
Surface Soil (e.g., <2 ft)	_____	<u>X</u>	_____	<u>No releases are known to have occurred</u>
Surface Water	_____	<u>X</u>	_____	<u>No releases are known to have occurred</u>
Sediment	_____	<u>X</u>	_____	<u>No releases are known to have occurred</u>
Subsurf. Soil (e.g., >2 ft)	_____	<u>X</u>	_____	<u>No releases are known to have occurred</u>
Air (outdoors)	_____	<u>X</u>	_____	<u>Facility is no longer in operation</u>

- 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):**

Kennametal, Inc. manufactured ceramic cutting parts to be used for metal tooling in this facility at 100 Devonshire Drive in Delmont, Pennsylvania. The facility originally consisted of one main building and three small out buildings located on a 5-acre property. As of July 9, 1993, the facility has been owned by the Westmoreland County Food Bank.

Operations at the facility under Kennametal involved machining processes, such as grinding and pressing. A condensing

<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.

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

unit and a heat treatment process were also used in the production process. A variety of wastes, including isopropanol, petroleum naphtha, coolant, and hydraulic oil were generated at the facility. Spent oil and coolant and all hazardous wastes were stored in drums within the main facility. Manufacturing of metal tool parts at this facility began with Armwall Manufacturing Company in 1970. Kennametal purchased the facility in 1976 and continued manufactured metal tool parts until 1985 when processes were altered to produce ceramic cutting tools, using three ceramic mixtures, two of which were isopropanol processed. In September 1992, the facility operations were terminated.

According to Kennametal's consultants, no recent or historical releases, studies, monitoring or remedial actions have occurred at this facility. They also indicated that they had no knowledge of the presence of monitoring wells at the facility. After investigating the facility, reviewing the files, and talking to neighbors; EPA and Baker are convinced that no releases have occurred at the Kennametal facility.

The surrounding population of Delmont Borough was approximately 2,500 according to the year 2000 census.

No groundwater contamination is known to have occurred. During the 1991 well survey, two neighborhood residents were reported to be dependent on groundwater as a potable water source. The depths of their wells were reported to be approximately 75 feet and 100 feet, respectively. In a telephone interview on September 01, 2009 with Baker personnel, one of the residents mentioned that she continues to use her well as the main source of water and she also mentioned that the other residents in the neighborhood are dependent on groundwater as their main source of potable water. The facility obtains its water supply from the Municipal Authority of Westmoreland County.

No releases to surface water/sediment of the un-named tributary of Beaver Run are known to have occurred during the operation of the facility. During the operation of the facility, floor drains that discharged to the un-named tributary did not operate under an NPDES permit.

The current facility's operations manager is aware that Kennametal used the floor drains during their operations. No releases are known to have occurred to the subsurface soil beneath the facility. However, the integrity of the floor drains is unknown.

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

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

Contaminated Media	Potential <u>Human Receptors</u> (Under Current Conditions)						
	<u>Residents</u>	<u>Workers</u>	<u>Day-Care</u>	<u>Construction</u>	<u>Trespassers</u>	<u>Recreation</u>	<u>Food<sup>3</sup></u>
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.

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

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):**

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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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 6

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):

  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   Kennametal, Inc.   facility, EPA ID #   PAD004316923  , located at   100 Devonshire Drive Delmont, PA 15626   under current and reasonably expected conditions. This determination will be reevaluated 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)   *Grant Dufficy*   Date   6/30/11    
(print)   Grant Dufficy    
(title)   RCRA Project Manager  

Supervisor (signature)   *Paul Gotthold*   Date   9/26/11    
(print)   Paul Gotthold    
(title)   Assoc Dir, PA Remed, LCD    
(EPA Region or State)   EPA R3  

Locations where References may be found:

USEPA Region III Waste and Chemical Mgmt. Division 1650 Arch Street Philadelphia, PA 19103	PADEP Southwest Regional Office 400 Waterfront Drive Pittsburgh, PA 15222
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Contact telephone and e-mail numbers  
(signature) \_\_\_\_\_  
(print) \_\_\_\_\_  
(title) \_\_\_\_\_

**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.**