

## DOCUMENTATION OF ENVIRONMENTAL INDICATOR DETERMINATION

### RCRA Corrective Action

**Environmental Indicator (EI) RCRAInfo Code (CA750)  
Migration of Contaminated Groundwater Under Control**

**Facility Name:** Kearfott Guidance and Navigation Corporation Facility  
**Facility Address:** 1125 & 1150 McBride Avenue, Little Falls, New Jersey  
**Facility EPA ID#:** NJD002148484

#### **Definition of Environmental Indicators (for the RCRA Corrective Action)**

Environmental indicators (EIs) are measures being used by the Resource Conservation and Recovery Act (RCRA) Corrective Action Program to go beyond programmatic activity measures (e.g., reports received and approved) to track changes in the quality of the environment. The two EIs 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 objectives of the RCRA corrective action program, the EIs 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 groundwater 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 determination status codes should remain in the RCRAInfo national database ONLY as long as they remain true (i.e., RCRAInfo status codes must be changed when the regulatory authorities become aware of contrary information).

#### **Facility Information**

The Kearfott Guidance & Navigation Corporation (Kearfott) facility, formerly the Singer Company (Singer) facility, is a 31-acre manufacturing facility located at 1125 and 1150 McBride Avenue in Little Falls, New Jersey. The facility is located in a mixed industrial and residential area. Singer acquired the property during the early 1950s. In 1971, Kearfott became a division of Singer. Singer operated the Kearfott Division until April 1988, when it transferred the assets to Kearfott. Kearfott was then sold to Astronautics Corporation of America (ACA) on October 4, 1988. According to facility representatives, Kearfott remains a wholly owned subsidiary of ACA. For the purposes of this EI determination, the facility will be referred to as Kearfott.

The facility complex consists of two plants, Plant 1 (1150 McBride Avenue) and Plant 3 (1125 McBride Avenue). Plant 1 is approximately 25 acres and is bounded to the north by the Passaic River, to the east by the Peckman River, to the west by residential property and a chain link fence with a gate, and to the south by McBride Avenue. A majority of the Plant 1 site is covered by the Plant 1 building (approximately 254,900 square feet) and paved parking areas, which extend north, east, and west of the structure. The Plant 3 site is approximately six acres and is bounded to the north by McBride Avenue, to the west by industrial properties and Lackawanna Avenue, and to the south and east by the Peckman River and the Memorial Drive Property. A majority of Plant 3 is also covered by the existing building and/or paved parking areas.

Two additional parcels have also been associated with the Kearfott site: the Memorial Drive Property and a property at 165 Lackawanna Avenue (Former Plant 32). The Memorial Drive Property is an undeveloped parcel that was reportedly used by Patterson Gas Company and Public Service Electric and Gas (PSEG) to dispose of coal gas-related wastes in the late 1800s and early 1900s. In 1956, Kearfott purchased the Memorial Drive Property but has not used the property for any facility operations. The Memorial Drive Property is approximately six acres and is bounded to the south by Former Plant 32, to the west by Plant 3, to the east by Memorial Drive, and to the north by industrial and residential parcels. The Memorial Drive School is located across Memorial Drive to the east. The Former Plant 32 site is located at 165 Lackawanna Avenue in West Paterson, New Jersey. Former Plant 32 was leased to Kearfott from 1978 to 1989 and was used only for storage of office supplies. Former Plant 32 is approximately 2.19 acres and is bounded to the north by the Memorial Drive Property, to the east by residential property, to the south by Memorial Drive, and to the west by Lackawanna Avenue. A majority of the Former Plant 32 parcel is covered by buildings, pavement, or concrete. A chain link fence surrounds the Former Plant 32 property on the north, east, and south sides. Refer to the Site Plan figure in the New Jersey's Environmental Cleanup and Responsibility Act (ECRA) Sampling and Revised Cleanup Plan (Ref. 1) for the location of Plant 1, Plant 3, and the Memorial Drive Property. Also Refer to Figure 2 in the Remedial Action Workplan for Former Plant 32 for a depiction of the property location (Ref. 2).

Kearfott manufactures navigation and guidance systems, gyroscopes, and other electro-mechanical products for the aerospace industry. The primary hazardous materials used at the facility include chlorinated solvents, alcohols, and acetone. Manufacturing operations begin at Plant 1 in 1950. Plant 3 was constructed in 1960, and operations have consisted mostly of office administration and product research and development.

As a result of certain past corporate changes discussed above, ECRA (now known as the Industrial Site Recovery Act [ISRA]) has been triggered at Plant 1, Plant 3, Former Plant 32, and the Memorial Drive

Property. On April 13, 1988, an Administrative Consent Order (ACO) was issued by the New Jersey Department of Environmental Protection (NJDEP) and entered into by Singer. Subsequently, ACA purchased the Kearfott Division, which triggered a second ECRA review and an amended ACO. Soil, groundwater, surface water, and sediment investigations are ongoing at the Plant 1 facility under ISRA (ISRA Case Number 88064); soil and groundwater investigations are also ongoing at Former Plant 32 under ISRA (ISRA Case Numbers E88069 and E99953). Impacts to soil and groundwater at Plant 1 and Former Plant 32 have primarily resulted from leaks at underground storage tanks (USTs). Investigations are complete at Plant 3 and the Memorial Drive Property. The specifics of current investigations are discussed further in this EI determination.

**References:**

1. Results of ECRA Sampling and Revised Cleanup Plan. Prepared by Woodward-Clyde Consultants. Dated December 4, 1991.
2. Remedial Action Workplan, Former Plant 32. Prepared by ARCADIS G&M, Inc. Dated August 21, 2003.

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 (SWMUs), regulated units (RUs), and areas of concern (AOCs)), 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.

### **PLANT 1 & 3 FACILITIES**

**Fourteen AOCs were identified at the Plant 1 (13 AOCs) and Plant 3 (1 AOC) facilities, but only one Plant 1 AOC (AOC K) is currently undergoing remedial action. All other AOCs on these parcels have received no further action (NFA) approval from NJDEP. Thus, for purposes of this EI determination, only AOC K is being retained for consideration.**

**AOC K: This AOC consisted of a drum storage area located northwest of the maintenance pavilion. In 1993, soil investigations were conducted, and trichloroethene (TCE) was detected at boring location SB-13 below New Jersey Non-Residential Direct Contact Soil Cleanup Criteria (NJ NRDCSCC), but above the New Jersey Impact to Groundwater Soil Cleanup Criteria (NJ IGWSCC). In 1995, four additional soil borings were installed in the approximate vicinity of boring SB-13 and indicated subsurface soil concentrations of TCE below the NJ IGWSCC. NJDEP stated that Kearfott was required to perform "hot spot" remediation at AOC K in a February 26, 1996, (Ref. 4) letter and reiterated the requirement in an October 8, 1996, letter (Ref. 5). In response to NJDEP letters, one soil boring was installed approximately three feet south of boring SB-13. TCE and cis-1,2-dichloroethene (cis-1,2-DCE) were detected in subsurface soil above NJ IGWSCC. Subsequently, Kearfott proposed to excavate the contaminated soil, which NJDEP approved on August 30, 2000 (Ref. 9). However, NJDEP also required additional investigation into the source(s) of groundwater contamination in the aforementioned letters. Thus, excavation in this area was not performed. Kearfott submitted a work plan on May 30, 2001, to investigate the area north of AOC K in the vicinity of wells MW-2 and MW-9 (Ref. 10). NJDEP approved this work plan on February 14, 2002 (Ref. 11). Twenty-three subsurface soil samples were collected and analyzed (see Figure 1 in Ref. 13 for a depiction of soil boring locations). TCE was detected in subsurface soil in five sample locations above the NJ NRDCSCC and the NJ IGWSCC, while tetrachloroethene (PCE) was detected in subsurface soil at one sample location above the NJ NRDCSCC and NJ IGWSCC (see Figure 3 in Ref. 13 for figure presenting the volatile organic compound [VOC] detections in soil). Based upon the results of this investigation, Kearfott proposed conducting a facilitated bioremediation pilot study, using molasses as the substrate, to address subsurface soil and groundwater contamination at AOC K. However, NJDEP has indicated that active remediation of soils is the preferred approach and continues to recommend excavation of impacted soil above the NJ IGWSCC. NJDEP has also indicated that additional sampling in the area of boring SB-13, below the water table, may also be necessary (Ref. 20).**

**Groundwater, Surface Water, and Sediment:** VOC contamination in excess of the New Jersey Groundwater Quality Criteria (NJ GWQC) for Class II-A potable groundwater has been reported in the shallow and glacial groundwater units beneath Plant 1; however, this contamination is mostly confined to the shallow unit on the west side of Building 1A. Groundwater contamination at Plant 1 has resulted primarily from leaking USTs. A majority of these tanks were previously identified as AOCs and have either been removed or closed in place and received a no further action designation from NJDEP. Recent quarterly monitoring results (May 2003, Second Quarter 2003) indicate that 1,1-dichloroethene (1,1-DCE), 1,1-dichloroethane (1,1-DCA), cis-1,2-DCE, 1,1,1-trichloroethane (1,1,1-TCA), TCE, PCE, and vinyl chloride (VC) concentrations are above NJ GWQC (Ref. 19). Kearfott submitted a Classification Exception Area (CEA) Application for Plant 1 on September 24, 2001, but NJDEP recently rejected the application, based upon a requirement for additional information and actions (Ref. 14).

Historically, numerous contaminants have been detected in surface water samples collected from the Peckman and Passaic Rivers. To a lesser extent, sediment impacts have also been documented. It is believed that this contamination is primarily due to impacted shallow groundwater discharge into the Passaic and Peckman Rivers. The reported contaminants and concentrations have widely varied both spatially and temporally between sampling events. Contaminants have consisted primarily of VOCs (cis-1,2-DCE, TCE, 1,2-dichloroethane, and VC) and Freon 113. For this reason, NJDEP required that Kearfott reinstate quarterly surface water sampling (Ref. 9). The most recent available groundwater, surface water, and sediment data, collected as part of the site-wide monitoring program, are from May 2003 (Second Quarter 2003). No contaminants were detected in surface water above the NJ SWQC during this sampling event (Ref. 19). In addition, all constituents were non-detect in sediment. It should be noted that the May 2003 results were consistent with the March 2003 (First Quarter 2003) results, which also indicated no exceedences in surface water and no constituents detected in sediment (Ref. 18). Kearfott recently submitted a Baseline Ecological Evaluation (BEE) to assess potential impacts to surface water and sediment (Ref. 21). Quarterly monitoring of groundwater, surface water, and sediment is ongoing.

## **MEMORIAL DRIVE PROPERTY**

Previous investigation identified five AOCs at the Memorial Drive Property, including: AOC 1- Northern Debris Area, AOC 2-Southern Debris Area, AOC 3-Tar Area, AOC 4-Memorial Drive Gate Area, and AOC 5-Northwest Area (Refs. 2, 6). Elevated concentrations of primarily VOCs, poly-nuclear aromatic hydrocarbons (PAHs), and metals in surface and subsurface soil were detected above NJ NRDCSCC and/or New Jersey Residential Direct Contact Soil Cleanup Criteria (NJ RDCSCC). In addition, VOCs were detected in groundwater above NJ GWQC. In 1995, Kearfott proposed capping the areas of contamination in excess of the NJ RDCSCC and submitting a deed notice. NJDEP approved this approach in a letter dated February 7, 1996 (Ref. 3). In 1997, an earthen cap and passive gas venting system was constructed over approximately 1.5 acres of the site. An eight-foot-high chain link fence restricts access to the Memorial Drive Property (Ref. 20). A CEA was also filed for the Memorial Drive Property and approved by NJDEP. However, the CEA does not require ongoing monitoring of groundwater at the Memorial Drive Property. After several iterations, the final Deed Notice (Corrected) was submitted to NJDEP on October 3, 2002, with a request for an NFA determination for this site (Ref.

20). The Deed Notice restricts use of this area to non-residential. NJDEP has yet to comment on the final Deed Notice and request for NFA determination (Ref. 14).

### **FORMER PLANT 32**

Kearfott has been performing investigations at this facility under ISRA with oversight by NJDEP. In 1990, as part of these investigations, two USTs were removed from Former Plant 32. One tank had a 1,000-gallon capacity and was used to store gasoline, while the other had a 550-gallon capacity and was used to store diesel fuel. In addition, 35 cubic yards of impacted soils were removed and post-excavation sampling results were performed.<sup>1</sup> Due to reported leaks, Kearfott established a monitoring well network to assess groundwater impacts for total benzene, toluene, ethylbenzene, xylenes (BTEX), and lead in 1990. In 1995, NJDEP approved an NFA determination for soils and recommended that groundwater monitoring be continued (Ref. 20). However, NJDEP has recently requested a soil removal report (Ref. 14). Kearfott recently submitted a BEE, CEA Application, and Remedial Action Workplan for natural attenuation of groundwater beneath the Former Plant 32 parcel (Refs. 16, 17). This workplan also proposed to advance and collect samples from four additional soil borings to ensure that no further source removal is necessary. BTEX are the only constituents currently present above NJ GWQC in shallow groundwater at Former Plant 32. Recent monitoring reports have documented that significant attenuation is occurring at Former Plant 32 (Ref. 15).

### **References:**

1. Results of ECRA Sampling and Revised Cleanup Plan. Prepared by Woodward-Clyde Consultants. Dated December 4, 1991.
2. Remedial Action Workplan. Prepared by McLaren/Hart. Dated November 6, 1995.
3. Letter from Stephen Maybury, NJDEP, to Alexander G. Hladky, Kearfott Guidance & Navigation Corporation, Re: Site Investigation/Remedial Investigation Workplan dated November 6, 1995 and August Quarterly Monitoring Results dated October 12, 1995. Dated February 7, 1996.
4. Letter from Stephen Maybury, NJDEP, to Alexander G. Hladky, Kearfott Guidance & Navigation Corporation, Re: Remedial Action Report Dated November 9, 1995. Dated February 26, 1996.
5. Letter from Murdo Morrison, NJDEP, to Alexander G. Hladky, Kearfott Guidance & Navigation Corporation, Re: Response to NJDEP Letters of January 5 and February 26, 1996: May 1996 and Remedial Action Report Dated: July 23, 1996. Dated October 8, 1996.
6. Remedial Action Report Capping of Memorial Drive Site. Prepared by Roux Associates, Inc. Dated November 14, 1997.
7. Remedial Action Workplan Progress Report. Prepared by Harding Lawson Associates (HLA). Dated October 21, 1999.
8. Underground Storage Tank Upgrade and Site Remediation. Prepared by Safety Health & Environmental Control. Dated January 2000.

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<sup>1</sup> Post-excavation sample results are not available. This information is simply referenced in the Remedial Action Workplan for Former Plant 32 (August 21, 2003).

9. Letter from John Graham, NJDEP, to John P. Nemergut, Kearfott Guidance & Navigation Corporation, Re: Remedial Action Workplan Progress Report Dated February 12, 1998, Remedial Action Workplan Progress Report Dated October 21, 1999, Underground Storage Tank Upgrade and Site Remediation Dated January 2000, and Copy of Recorded Version of Deed Notice for Memorial Drive Attached to Letter Dated June 23, 2000. Dated August 30, 2000.
10. Letter from Tom C. Eng, ARCADIS Geraghty & Miller, Inc., to Murdo Morrison, NJDEP, Re: Kearfott Guidance & Navigation Corporation - Plant 1 ISRA Case No. E88964. Dated May 30, 2001.
11. Letter from John Graham, NJDEP, to John P. Nemergut, Kearfott Guidance & Navigation Corporation, Re: Remedial Investigation Workplan dated June 8, 2001. Dated February 14, 2002.
12. Corrected Deed Notice. Recorded July 2, 2002.
13. Soil and Groundwater Investigation, prepared by ARCADIS Geraghty & Miller, Inc. Dated December 20, 2002.
14. Letter from Murdo Morrison and Joseph Nowak, NJDEP, to John Nemergut, Kearfott Guidance and Navigation Division, Re: Administrative Consent Order (ACO) in the Matter of the Singer Company, (Singer ACO). Dated May 20, 2003.
15. Groundwater Monitoring Report, Second Quarter 2003, Kearfott Guidance and Navigation Corporation, Former Plant 32. Prepared by ARCADIS. Dated August 20, 2003.
16. Baseline Ecological Evaluation, Former Plant 32. Prepared by ARCADIS. Dated August 21, 2003.
17. Remedial Action Workplan, Former Plant 32. Prepared by ARCADIS G&M. Dated August 21, 2003.
18. Groundwater Monitoring Report, First Quarter 2003, Kearfott Guidance and Navigation Corporation, Plant 1. Prepared by ARCADIS. Dated August 20, 2003.
19. Groundwater Monitoring Report, Second Quarter 2003, Kearfott Guidance and Navigation Corporation, Plant 1. Prepared by ARCADIS. Dated August 26, 2003.
20. Letter from Donald Camerson, Bressler, Amery & Ross, P.C., to Alan Straus, USEPA, Re: Kearfott Guidance & Navigation Corp., Little Falls, New Jersey. Dated September 11, 2003.
21. Baseline Ecological Evaluation, Plant 1. Prepared by ARCADIS. Dated October 21, 2003.

2. Is **groundwater** known or reasonably suspected to be “**contaminated**”<sup>2</sup> 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?

- 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:**

#### **Groundwater Conditions**

Three principal hydrogeologic units are present at the Kearfott facility: the shallow unit, glacial unit, and bedrock unit. The shallow unit is approximately 15 feet to 40 feet thick and consists of an upper sandy/silty sand/fill unit (2 feet to 15 feet thick), underlain by gravelly sand, and by pinkish-brown silt (approximately 20 feet thick). The glacial unit consists of sandy to clayey silt with variable amounts of fine to course gravel that varies in thickness from 10 feet to 30 feet. The bedrock unit is part of the Brunswick Formation, consists of medium- to fine-grained sandstone, and is encountered at 67 feet to 71 feet below ground surface (bgs). Based on the most recent monitoring results collected in May 2003, depth to shallow groundwater at Plant 1 ranges from approximately 6.06 feet to 10.77 feet bgs (Ref. 5) and at Former Plant 32 ranges from 3.33 feet to 6.75 feet bgs (Ref. 4).

Shallow groundwater flow direction is generally towards the northwest, where shallow groundwater completely discharges to the Passaic and Peckman Rivers (Refs. 4 and 5). Flow reversals have been recorded in response to high river levels caused by spring runoff (Ref. 6). According to groundwater elevation data obtained in 1998, groundwater in the glacial and bedrock units at Plant 1 generally flows to the west-southwest, away from the Passaic and Peckman Rivers (Ref. 2). Groundwater elevation data collected from nested well clusters at Plant 1 in 2000 indicate both upward and downward vertical gradients between the shallow and glacial units (Ref. 3). The downward gradients observed at the MW-1 and MW-7 well clusters are reportedly related to enhanced recharge through the more permeable excavation backfill in the courtyard area near well MWS-4R (Ref. 2).

#### **Groundwater Quality**

Groundwater at Plant 1 and Former Plant 32 is monitored for water level and water quality on a quarterly basis. The monitoring network at Plant 1 includes monitoring wells MW-1, MW-2, MW-4, MW-5, MW-6, MW-7, MW-8, MW-9, MW-18, MWS-1, and MWS-4R. Surface water sampling locations SW-1 through

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<sup>2</sup> “Contamination” and “contaminated” describe 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).



SW-6 and sediment sampling locations SED-1 through SED-6, on the Passaic and Peckman Rivers, have also been sampled. The monitoring well network at Former Plant 32 includes monitoring wells MW32-1, MW32-1D, MW32-2, MW32-3, and MW32-5 through MW32-9. Groundwater at Memorial Drive is not being monitored under the NJDEP-approved CEA; however, 13 shallow unit monitoring wells were sampled between 1989 and August 1995 (Ref. 1). Monitoring well locations for Plant 1 are depicted on the Groundwater Elevation Contours, May 29, 2003 map, Figure 1 of the latest Plant 1 monitoring report (Ref. 5), and for Former Plant 32 are depicted in Groundwater Elevation Contours, May 14, 2003, map, Figure 1 of the latest Plant 32 monitoring report (Ref. 4). Monitoring well locations for the Memorial Drive Property are depicted on the Groundwater Elevation Contours, 5/16/95, Figure 2-4 of the Remedial Action Work Plan (Ref. 1).

VOC and BTEX contamination in excess of the NJ GWQC for Class II-A potable groundwater has been reported in the shallow unit beneath Plant 1, the Memorial Drive Property, and Former Plant 32. Maximum contaminant concentrations that exceeded the NJ GWQC during the most recent sampling events for Plant 1 (Ref. 5), Former Plant 32 (Ref. 4), and Memorial Drive (Ref. 1) are summarized in Table 1. VOC contamination at Plant 1 is mostly confined to the shallow unit on the west side of Building 1A. Contamination reaches the highest levels at monitoring well MW-9, which is located adjacent to the Peckman River and about 100 feet from the confluence of the Peckman and Passaic Rivers. The highest concentrations in MW-9 are cis-1,2-dichloroethene (5,980 ug/l) and vinyl chloride (2,700 ug/l). Monitoring wells MW-2, MW-4, and MW-5, which are located downgradient of Plant 1 and along the banks of the Passaic River, also report NJ GWQC exceedances of VOCs. The highest concentrations in these wells are vinyl chloride (124 ug/l), 1,1-dichloroethene (11.1 ug/l), 1,1-dichloroethane (74.8 ug/l), cis-1,2-dichloroethene (695 ug/l), 1,1,1-trichloroethane (148 ug/l) and trichloroethene (89.1 ug/l). Monitoring well locations for Plant 1 are depicted in Figure 2 of Ref. 5. Refer to Table 2 of the Groundwater Monitoring Report, Second Quarter 2003 for an accounting of VOC groundwater concentrations at Plant 1 (Ref. 5). According to 1995 water quality results, VOC groundwater contamination at the Memorial Drive Property is characterized by NJ GWQC exceedances of benzene, xylenes, and TCE. The impacted area lies between Memorial Drive and the Peckman River. In 1995, TCE concentrations decreased from a high of 6.2 ug/L adjacent to Memorial Drive (well MW-29) to 1.6 ug/L adjacent to the Peckman River (well MW-36). See the map titled Exceedances of Groundwater Quality Criteria, August 1995, Figure 4-1 (Ref. 1) for a depiction of VOC contamination at the Memorial Drive Property. BTEX contamination at Former Plant 32 primarily occurs over a small area to the south of the Loading Dock. See the map titled Summary of Groundwater Analytical Results, Former Kearfott Plant 32, May 14-15, 2003, for a depiction of BTEX groundwater concentrations at Former Plant 32 (Ref. 4).

TCE concentrations in excess of the NJ GWQC are also reported in the glacial unit underlying Plant 1. Monitoring well MWG-9 reported a concentration of 2.4 ug/L during the latest sampling event conducted in April 2000 (Ref. 3). No VOCs were detected in the other glacial monitoring well sampled (well MWG-7).

**Table 1 - Maximum Contaminant Concentrations Above NJ GWQC (µg/L)**

Aquifer	Constituent	Well I.D.	Concentration	NJ GWQC
Plant 1 <sup>1</sup>				
Shallow	Vinyl Chloride	MW-9	2,700	5
	1,1-DCE	MWS-1	11.6	2
	1,1,-DCA	MW-5	74.8	70
	cis-1,2-DCE	MW-9	5,980	10
	1,1,1-TCA	MW-7	185	30
	TCE	MW-9	94.2	1
	PCE	MWS-1	13.6	1
Glacial <sup>2</sup>	TCE	MWG-9	2.4	1
Memorial Drive <sup>3</sup>				
Shallow	Benzene	MW-27	37	1
	Total Xylenes	MW-27	99	40
	TCE	MW-29	6.2	1
Former Plant 32 <sup>4</sup>				
Shallow	Benzene	MW32-6	207	1
	Ethylbenzene	MW32-1	1,440	700
	Total Xylenes	MW32-1	5,650	40

1. Samples collected in May 2003 as part of quarterly sampling event (Ref. 5).
2. Samples collected in April 2000 (Ref. 3).
3. Samples collected in August 1995 (Ref. 1).
4. Samples collected in May 2003 as part of quarterly sampling event (Ref. 4).

**References:**

1. Remedial Action Workplan, Kearfott Guidance and Navigation Corporation, Memorial Drive Site. Prepared by McLaren/Hart. Dated November 6, 1995.
2. Remedial Action Workplan Progress Report - Groundwater and Surface Water Sampling and Monitoring Program, Kearfott Guidance & Navigation Corporation, Plant 1, Volume I of III. Prepared by Harding Lawson Associates. Dated October 21, 1999.
3. Letter from John Nemergut, Kearfott Guidance & Navigation Corporation, to Murdo Morrison, NJDEP, Re: Review of Water Samples Collected from the Kearfott Guidance & Navigation Corporation in West Paterson, New Jersey, April 2000. Dated September 10, 2001.

4. Groundwater Monitoring Report, Second Quarter 2003, Kearfott Guidance and Navigation Corporation, Former Plant #32. Prepared by ARCADIS. Dated August 20, 2003.
5. Groundwater Monitoring Report, Second Quarter 2003, Kearfott Guidance and Navigation Corporation, Plant #1. Prepared by ARCADIS. Dated August 26, 2003.
6. Letter from Donald Camerson, Bressler, Amery & Ross, P.C., to Alan Straus, USEPA, Re: Kearfott Guidance & Navigation Corp., Little Falls, New Jersey. Dated September 11, 2003.

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

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”<sup>2</sup>.

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

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

**Rationale:**

The migration of contaminated groundwater can be considered stabilized at the Kearfott facility as evidenced by the following conditions:

- Contaminant sources in soil are generally under control.

**As discussed in the response to Question 1, 13 AOCs in the Plant 1 area and 1 AOC in the Plant 3 area have received NFA approval from NJDEP. Only AOC K in the Plant 1 area is currently undergoing remedial action** to address subsurface soil and groundwater contamination. Kearfott has proposed conducting a facilitated bioremediation pilot study, using molasses as the substrate, to address subsurface soil and groundwater contamination. NJDEP had indicated that active remediation of soils in this area is the preferred approach and has recommended excavation of impacted soil above the NJ IGWSCC. Kearfott submitted a CEA application dated September 24, 2001, which was declined by NJDEP in a May 20, 2003, letter (Ref. 2) that requested additional information. Kearfott recently submitted a BEE and continues to monitor groundwater on a quarterly basis.

In 1995, NJDEP approved a NFA determination for soils at Former Plant 32. Kearfott recently submitted a Remedial Action Workplan for natural attenuation of groundwater, which included a proposal to collect four additional soil borings to ensure that no further source removal is necessary.

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<sup>3</sup> “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.

An earthen cap and passive gas venting system was constructed at the Memorial Drive Property in 1997, and a deed notice and CEA were established. NFA approval from NJDEP has been requested for the property.

- The vertical extent of VOC contamination is generally limited to the base of the shallow unit.

As discussed in the response to Question 2, groundwater contamination generally occurs in the shallow unit. Plant 1 is the only area where the underlying glacial unit has a documented contaminant concentration slightly in excess of NJ GWQC. According to the most recent data collected (April 2000) in the glacial unit, the impact is confined to one glacial unit monitoring well (MWG-9) where the TCE concentration of 2.4 ug/L exceeded the criteria of 1.0 ug/L.

- Shallow groundwater at Plant 1 fully discharges to the Passaic and Peckman Rivers, and shallow groundwater at Former Plant 32 and Memorial Drive discharges to the Peckman River, thus limiting the lateral extent of contaminant migration.

As discussed in the response to Question 2, water level and river gauge data collected as part of the quarterly monitoring program indicate that shallow groundwater flow is towards the Passaic and Peckman Rivers. Although flow reversals have been recorded during times of high river stage (e.g., May 2002), these reversals appear limited in duration and shallow groundwater flow is typically towards the rivers.

Contaminants in the shallow groundwater, including the NJ GWQC exceedances at Plant 1, have not been detected during recent surface water and sediment sampling in the Passaic and Peckman Rivers.

- Contaminant concentrations in the shallow unit have declined due to natural attenuation, with the exception of those reported in the Plant 1 area where remedial action is currently in progress.

Historical water quality data for Former Plant 32 are available from 1990 to 2003. The Remedial Action Workplan for Former Plant 32 summarizes these data for the BTEX constituents in Table 2, titled Historical Analytical Results (Ref. 3). Review of these results indicates declining trends for BTEX constituents in the majority of wells. In addition, results of fate and transport modeling for benzene suggest that the maximum extent of the benzene plume will be limited to approximately 100 feet downgradient of the source (Ref. 3).

Historical water quality data at the Memorial Drive site are available from 1989 to 1995. As explained in the Remedial Action Work Plan, contaminant concentrations are highly variable (Ref. 1). The Workplan presents time series plots of TCE and benzene concentrations that indicate declining concentrations for the majority of the wells.

## **References:**

1. Remedial Action Workplan, Kearfott Guidance and Navigation Corporation, Memorial Drive Site. Prepared by McLaren/Hart. Dated November 6, 1995.
2. Letter from Murdo Morrison and Joseph Nowak, NJDEP, to John Nemergut, Kearfott Guidance and Navigation Division, Re: Administrative Consent Order (ACO) in the Matter of the Singer Company, (Singer ACO). Dated May 20, 2003.
3. Remedial Action Workplan, Kearfott Guidance and Navigation Corporation, Former Plant 32. Prepared by ARCADIS. Dated August 21, 2003.

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

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:**

The Peckman River is located to the west of the Former Plant 32 facility, flows through the Memorial Drive Property, and flows into the Passaic River to the northeast of the Plant 1 facility. The Passaic River forms the northern boundary of the Plant 1 facility and flows in an easterly direction. Both the Peckman and Passaic Rivers are classified as FW2-NT<sup>4</sup> rivers according to NJ SWQC.

As discussed in the responses to Questions 2 and 3, water level and river gauge data collected as part of the quarterly monitoring program indicate that shallow groundwater flow is towards the Passaic and Peckman Rivers. Shallow groundwater at Plant 1 flows towards the Passaic and Peckman Rivers, and shallow groundwater at Former Plant 32 and the Memorial Drive Property flow towards the Peckman River. Flow reversals have been recorded during times of high river stage, but shallow groundwater flow is typically towards the Passaic and Peckman Rivers.

Monitoring wells located downgradient of the Plant 1 area and adjacent to the Passaic and Peckman Rivers (wells MW-2, MW-4, and MW-9) and downgradient of the Memorial Drive Property and adjacent to the Peckman River (wells MW-28 and MW-36) report VOC concentrations that exceed NJ GWQC. Therefore, contaminated groundwater potentially discharges to surface water in these areas. However, as discussed in the responses to Questions 5 and 6, contaminated groundwater discharge from the Memorial Drive Property to the Peckman River can be considered insignificant, and discharge from Plant 1 to the Passaic and Peckman Rivers can be considered currently acceptable.

Based on historic water quality data presented in Table 2 of the Remedial Action Workplan for Former Plant 32 (Ref. 2), monitoring wells located downgradient of Former Plant 32 and adjacent to the Peckman River (wells MW32-2, MW32-3, and MW32-5) have not reported BTEX concentrations in excess of NJ GWQC for the last several years. Therefore, it appears that contaminated groundwater at the Former Plant 32 does not discharge to the Peckman River. This conclusion is also presented in the recently submitted BEE for Former Plant 32 (Ref. 1), which references non-detect analytical BTEX results in downgradient wells during the latest monitoring event conducted in May 2003.

**References:**

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<sup>4</sup> A freshwater body not capable of supporting trout populations.

1. Baseline Ecological Evaluation, Kearfott Guidance and Navigation Corporation, Former Plant 32.  
Prepared by ARCADIS. Dated August 20, 2003.
2. Remedial Action Workplan, Kearfott Guidance and Navigation Corporation, Former Plant 32.  
Prepared by ARCADIS. Dated August 21, 2003.



5. Is the **discharge** of “contaminated” groundwater into surface water likely to be “**insignificant**” (i.e., the maximum concentration<sup>5</sup> of each contaminant discharging into surface water is less than 10 times its 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 ecosystems at these concentrations)?

\_\_\_ 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<sup>3</sup> of key contaminants discharged above their groundwater “level(s),” 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 ecosystem.

X If no - (the discharge of “contaminated” groundwater into surface water is potentially significant) - continue after documenting: 1) the maximum known or reasonably suspected concentration<sup>3</sup> 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<sup>3</sup> 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:**

The contaminant concentrations in groundwater that discharges from the Plant 1 area to the Passaic and Peckman Rivers and from the Memorial Drive Property to the Peckman Rivers can be roughly estimated by reviewing data collected from adjacent monitoring wells. Table 2 presents the concentrations detected in wells located adjacent to these surface water bodies during the latest monitoring events. The table shows that VOC concentrations do not exceed 10 times the NJ GWQC for the Memorial Drive Property, but that concentrations of TCE, cis-1,2-DCE, and VC exceed 10 times NJ GWQC for downgradient wells within the Plant 1 area. Based on this assessment, the discharge of contaminated groundwater from the Plant 1 area to the Passaic and Peckman Rivers cannot be considered “insignificant,” and therefore will be further assessed in the response to Question 6. Groundwater discharge from the Memorial Drive

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<sup>5</sup> As measured in groundwater prior to entry to the groundwater-surface water/sediment interaction (e.g., hyporheic) zone.

Property to the adjacent Peckman River can be considered “insignificant” and therefore will not be assessed further in response to Question 6.

**Table 2 - VOC Concentrations Detected Adjacent to the Passaic and Peckman Rivers at Plant 1 (May 2003) and the Memorial Drive Property (August 1995) (µg/L)**

Area	Constituent	Well I.D.	Concentration <sup>1</sup>	NJ GWQC <sup>2</sup>	10x NJ GWQC
Plant 1	TCE	MW-2	89.1	1	10
		MW-4	63		
		MW-5	3.91		
		MW-9	94.2		
	PCE	MW-2	0.595	1	10
		MW-4	2.99		
		MW-5	0.936		
		MW-9	ND		
	1,1,1-TCA	MW-2	6.83	30	300
		MW-4	148		
		MW-5	8.01		
		MW-9	ND		
	1,1-DCE	MW-2	1.84	2	20
		MW-4	11.1		
		MW-5	5.85		
		MW-9	ND		
	cis-1,2-DCE	MW-2	695	70	700
		MW-4	4.34		
		MW-5	18.6		
		MW-9	5,980		
	VC	MW-2	124	5	50
MW-4		ND			
MW-5		5.65			
MW-9		2700			
Memorial Drive Property	1,1,1-TCA	MW-28	ND	30	300
		MW-36	0.51		
	Chloroform	MW-28	ND	6	60
		MW-36	0.62		
	TCE	MW-28	ND	1	10
		MW-36	1.5		

1 Data Source is Ref. 1 for the Memorial Drive Property and Ref. 2 for Plant 1.

2 Criteria listed are the higher of NJ GWQC and PQL.

**References:**

1. Remedial Action Workplan, Kearfott Guidance and Navigation Corporation, Memorial Drive Site. Prepared by McLaren/Hart. Dated November 6, 1995.

2. Groundwater Monitoring Report, Second Quarter 2003, Kearfott Guidance and Navigation Corporation, Former Plant #1. Prepared by ARCADIS. Dated August 26, 2003.
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 ecosystems that should not be allowed to continue until a final remedy decision can be made and implemented<sup>6</sup>)?

X 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 ecosystems), and referencing supporting documentation demonstrating that these criteria are not exceeded by the discharging groundwater; OR 2) providing or referencing an interim-assessment<sup>7</sup>, appropriate to the potential for impact, that shows the discharge of groundwater contaminants into the surface water is (in the opinion of a trained specialist, including an ecologist) adequately protective of receiving surface water, sediments, and ecosystems, 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 ecosystem.

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

**Rationale:**

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<sup>6</sup> Note, because areas of inflowing groundwater can be critical habitats (e.g., nurseries or thermal refugia) for many species, an 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.

<sup>7</sup> The 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 ecosystems.

Kearfott performed a BEE to determine the impacts to the Passaic and Peckman Rivers caused by facility activities at Plant 1 (Ref. 1). The BEE concluded that VOCs were not detected in surface water or sediment samples (collected at six stations) at concentrations above relevant criteria, and therefore would not pose unacceptable risks to human health or ecological receptors. Only two VOCs were detected in surface water samples during the two quarterly sampling events conducted in 2003. Cis-1,2-DCE was detected at a maximum concentration of 1.2 µg/L at sampling station SW-3, and chloroform was reported at a maximum concentration of 0.311 µg/L at sampling station SW-5. These surface water concentrations are well below NJ SWQC (592 µg/L and 5.67 µg/L for cis-1,2-DCE and chloroform, respectively) and ecologically-based screening values developed by the Michigan Department of Environmental Quality (MDEQ) (620 µg/L and 170 µg/L, respectively). Sediment samples collected adjacent to the six surface water sampling locations during two quarterly sampling events in 2003 reported no detections of VOCs.

**References:**

1. Baseline Ecological Evaluation, Kearfott Guidance and Navigation Corporation, Plant 1. Prepared by ARCADIS. Dated October 21, 2003.

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?”

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:**

The monitoring network at Plant 1 includes monitoring wells MW-1, MW-2, MW-4, MW-5, MW-6, MW-7, MW-8, MW-9, MW-18, MWS-1, and MWS-4R. Kearfott continues to monitor these groundwater wells for VOCs on a quarterly basis. Surface water sampling locations SW-1 through SW-6 and sediment sampling locations SED-1 through SED-6, on the Passaic and Peckman Rivers, are also being sampled quarterly.

The CEA application for the Former Plant 32 specifies quarterly groundwater sampling and analysis for BTEX from one background well (MW32-5), two source area monitoring wells (MW32-1 and MW32-6), and one sentinel well (MW32-3) (Ref. 2). The application proposes that quarterly sampling be conducted for one year, to be followed by an evaluation of monitoring frequency.

At a September 13, 1995, meeting between Kearfott and NJDEP, it was agreed that groundwater monitoring would not be a requirement of the CEA for Memorial Drive. The decision was based on historical data that indicated decreasing trends in VOC concentrations or low concentrations that fluctuate slightly above the NJ GWQC (Ref. 1). The 13 monitoring wells at the Memorial Drive site were subsequently abandoned in 1997 as part of the remedial action program (capping) (Ref. 1).

**References:**

1. Remedial Action Report, Capping of Memorial Drive Site, Kearfott Guidance & Navigation Corporation. Prepared by Roux Associates, Inc. Dated November 1997.
2. Remedial Action Workplan, Kearfott Guidance & Navigation Corporation. Prepared by ARCADIS. Dated August 21, 2003.

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 - 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 Kearfott Guidance & Navigation Corporation Facility, EPA ID #NJD002148484, located at **1125 and 1150 McBride Avenue, Little Falls, New Jersey**. 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:** \_\_\_\_\_ **Date:** \_\_\_\_\_  
Lucas Kingston  
Hydrogeologist  
Booz Allen Hamilton

**Reviewed by:** \_\_\_\_\_ **Date:** \_\_\_\_\_  
Michele Benchouk  
Environmental Engineer  
Booz Allen Hamilton

**Also reviewed by:** \_\_\_\_\_ **Date:** \_\_\_\_\_  
Alan Straus , RPM  
RCRA Programs Branch  
EPA Region 2

\_\_\_\_\_  
Barry Tornick, Section Chief  
RCRA Programs Branch  
EPA Region 2

**Approved by:** \_\_\_\_\_ **Date:** \_\_\_\_\_  
Adolph Everett, Acting Chief  
RCRA Programs Branch  
EPA Region 2

**Locations where references may be found:**

References reviewed to prepare this EI determination are identified after each response. Reference materials are available at the USEPA Region 2, RCRA Records Center, located at 290 Broadway, 15<sup>th</sup> Floor, New York, New York, and the New Jersey Department of Environmental Protection Office located at 401 East State Street, Records Center, 6<sup>th</sup> Floor, Trenton, New Jersey.

**Contact telephone and e-mail numbers:** Alan Straus, EPA RPM  
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## **Attachments**

The following attachments have been provided to support this EI determination.

- ▶ Attachment 1 - Summary of Media Impacts Table

**Attachment 1 - Summary of Media Impacts Table  
 Kearfott Guidance & Navigation Corporation Site**

	GW	AIR (Indoors)	SURF SOIL	SURF WATER	SED	SUB SURF SOIL	AIR (Outdoors)	CORRECTIVE ACTION MEASURE	KEY CONTAMINANTS
Plant 1 - AOC K	Yes	No	No	No	No	Yes	No	<p><i>Proposed:</i> Facilitated bioremediation pilot study, using molasses as the substrate, to address subsurface soil and groundwater contamination at AOC K. NJDEP recommended active remediation (e.g., excavation of impacted soil above the NJ IGWSCC) of soils in this area.</p> <p><b>Note: Impacted area is completely covered by existing pavement.</b></p>	TCE, PCE, cis-1,2-DCE
Plant 1 - Groundwater	Yes	NA	NA	NA	NA	NA	NA	<p><i>Completed:</i> Removal of potential sources of groundwater contamination. Historic AOCs consisted of numerous USTs. These USTs have either been removed or decommissioned in place and necessary soil and groundwater investigations have been completed. All AOCs, with the exception of AOC K, have received an NFA designation from NJDEP.</p> <p><i>Ongoing:</i> Quarterly monitoring of groundwater and surface water.</p> <p><i>Ongoing:</i> CEA application has been submitted, but NJDEP recently requested additional information and actions before it can be finalized.</p>	VOCs

	GW	AIR (Indoors)	SURF SOIL	SURF WATER	SED	SUB SURF SOIL	AIR (Outdoors)	CORRECTIVE ACTION MEASURE	KEY CONTAMINANTS
Memorial Drive Property	Yes	No	Yes	No	No	Yes	No	<i>Completed:</i> Earthen cap installed over all impacted areas above the NJ RDCSCC; eight-foot high chain link fence has been erected around the entire property; deed notice has been recorded; CEA has been implemented and natural attenuation is occurring (ongoing groundwater monitoring is not required as part of this CEA).	VOCs, PAHs, Metals
Former Plant 32	Yes	No	No	No	No	Yes	No	<i>Completed:</i> Removal of two USTs and 35 cubic yards of impacted soil; implementation of monitoring well network and groundwater monitoring to assess impacts. <i>Proposed:</i> Source area soil investigation (per recent NJDEP request) and continued groundwater monitoring. CEA has also been submitted. <b>Note: Impacted area is completely covered by existing pavement and/or on-site buildings.</b>	BTEX