

DOCUMENTATION OF ENVIRONMENTAL INDICATOR DETERMINATION

RCRA Corrective Action Environmental Indicator (EI) RCRAInfo Code (CA725) Current Human Exposures Under Control

Facility Name: Matlack Incorporated
Facility Address: South Side of U.S. Route 322, Swedesboro, New Jersey
Facility EPA ID#: NJD043584101

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 “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 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 “Current Human Exposures Under Control” EI is for reasonably expected human exposures under current land- and groundwater-use conditions ONLY, and does 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 determination status codes should remain in the Resource Conservation and Recovery Act Information (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 Matlack site is located on 31 acres on the south side of U.S. Route 322 in Swedesboro, New Jersey. The site is bordered to the north and west by a state wildlife area and Grand Sprute Run, a tributary of Raccoon Creek, which flows into the Delaware River. To the north and the east, the site is bordered by

several residences. In 1962, Matlack commenced operations that included truck maintenance, truck and tank-trailer washing, and truck parking. Site operation ceased in 1998.

The primary waste for the facility was generated from the truck and trailer washing, which consisted of internal tanker purging, waste storage, and tanker rinsing. Rinse water from the cleaning of tankers was disposed of in an unlined sand and gravel pit (lagoon) at the site. The affected soil was reportedly left in place and the lagoon was subsequently covered with a variety of demolition rubble and clean fill. Additional sources of contamination were the underground waste storage tanks and a diesel fuel line leak. Volatile organic compounds (VOCs) consisting of tetrachloroethylene (PCE), trichloroethylene (TCE), and benzene are the primary chemicals of concern in groundwater, soil, surface water (PCE and TCE only), and sediment (PCE only) at the site.

Pursuant to past on-site and off-site investigations, which included sampling of the nearby residential wells located to the north and northwest of the site along Route 322, Matlack installed a groundwater pump and treat system in November 1995 and increased investigation efforts into contaminant sources at the site. The pump and treat system was operated until May 1997, when it was turned off for modification and maintenance. Matlack also installed an infiltration trench and shallow tray aeration treatment system, removed all the underground storage tanks (USTs), and excavated and disposed of contaminated soil associated with the diesel fuel line leak. Specific information on these activities is not included in available file materials.

Matlack went bankrupt and the site is currently abandoned. NJDEP took over the financial assurance and conducted sampling of surface water and sediment in and adjacent to the downgradient Grand Sprute Run on June 28, 2005. NJDEP is also planning to restart the ground water pump and treat system once it is upgraded by the State.

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 (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 #6 and enter IN (more information needed) status code

Summary of Historic Waste Management Units:

Limited information is available on the historic waste management units that were present at the Matlack facility. However, available documentation indicates that there were three primary sources of contamination: an unlined sand and gravel pit (lagoon), two former waste USTs, and a diesel fuel line leak (Refs. 1, 2). Refer to Figure 2 - Site Plan, in the Site Review and Update (Ref. 1) for a map depicting the location of former source areas. Available information on each of these source areas is outlined below.

Unlined Sand and Gravel Pit (Lagoon) - From 1962 to 1976, rinse water generated at Matlack during the tank cleaning process was disposed of in an unlined sand and gravel pit (lagoon) located behind the terminal building. Disposal continued until the lagoon was taken out of operation in 1976; rinse water was later collected and trucked off site for treatment and disposal. The impacted lagoon soil was reportedly left in place and the lagoon was subsequently covered with a variety of demolition rubble and clean fill. This area was investigated during the remedial investigation (RI) and found to be a minor source of VOC contamination to soil (in isolated areas) and shallow groundwater, in comparison to the waste storage tank and diesel fuel line leak areas (Ref. 2). No additional information is available on further soil investigation or remediation activities at this unit.

Former Underground Waste Storage Tanks - Two waste USTs (T-7 and T-8) were identified as one of the two primary sources of groundwater contamination at the Matlack site. The tanks were located west of the terminal building. No information on tank construction was found in available file materials. During the 1990 RI, groundwater and soil in this area were identified as impacted with various VOCs and base neutral (BN) compounds. In April and May 1992, Matlack conducted a Phase I Interim Remedial Action which included the removal and closure of buried waste tanks T-7 and T-8 (Ref. 2). No additional information is available on the closure or remediation of these tanks.

Diesel Fuel Line Leak - A former diesel tank was located approximately 200 feet west of the terminal building. Specific information on the location of the leak in the diesel fuel line, or tank and line construction, was not found in available file materials. During 1990 RI activities, this area was identified as one of the two primary sources of groundwater contamination at the site. Groundwater and soil in this area were found to be impacted with various VOCs and BN compounds. Diesel contamination in soil was also identified in this area. Excavation and removal of contaminated soils associated with this area was conducted between August 1992 and April 1993. No additional information was found with regard to further investigation or remediation of this area.

References:

1. Site Review and Update, Matlack, Incorporated. Prepared by the U.S. Department of Health and Human Services, Atlanta, Georgia. Dated August 19, 1994.
2. Revised Phase II Remedial Investigation Report, Matlack, Inc. Prepared by Science Applications International Corporation. Dated November 2000.

2. Are groundwater, soil, surface water, sediments, or air **media** known or reasonably suspected to be “**contaminated**”¹ above appropriately protective risk-based levels (applicable promulgated standards, as well as other appropriate standards, guidelines, guidance, or criteria) from releases subject to RCRA Corrective Action (from SWMUs, RUs or AOCs)?

Media	Yes	No	?	Rationale/Key Contaminants
Groundwater	X			VOCs
Air (indoors) ²		X		
Surface Soil (e.g., <2 ft)	X			VOCs, BNs, and diesel fuel
Surface Water	X			VOCs
Sediment	X			VOCs
Subsurface Soil (e.g., >2 ft)	X			VOCs, BNs, and diesel fuel
Air (Outdoor)		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.

 X If yes (for any media) - continue after identifying key contaminants in each contaminated medium, citing appropriate levels (or provide an explanation for the determination that the medium could pose an unacceptable risk), and referencing supporting documentation.

_____ If unknown (for any media) - skip to #6 and enter IN status code.

Rationale:

Groundwater

The Matlack site is underlain by approximately 30 feet of unconsolidated sand (Pennsauken Formation). The Pennsauken Formation is underlain by an aquitard that is approximately 90 feet thick (Merchantville Formation and the Woodbury Clay [the uppermost aquitard unit]). The Potomoc-Rariton Magothy (PRM) Formation underlies the Woodbury Clay and the Merchantville Formation. The PRM aquifer is commonly

¹ “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 appropriately protective risk-based “levels” (for the media, that identify risks within the acceptable risk range).

² Recent evidence (from the Colorado Department 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.

pumped as a source of water for commercial and residential users in the area. The PRM Formation is present 106 to 116 feet below ground surface (bgs) (Ref. 1).

Reported results from historic on-site investigations indicate that shallow groundwater in the Pennsauken Formation is impacted by VOCs, SVOC, and surfactants. Source areas for these compounds were reported to be the former lagoon area located southwest of the terminal building and USTs west of the terminal building. Groundwater contamination has been vertically limited to the shallow Pennsauken Formation. Groundwater flow in the shallow aquifer is north/northwesterly toward the Grand Sprute Run, which flows southward (Ref. 1)

The most recent site-wide groundwater sampling event was conducted as part of the Phase II RI (Ref. 1). The Phase II RI completed the lateral and vertical delineation of groundwater contamination at the site. The vertical extent of groundwater impact was confirmed to be limited to the shallow aquifer (Pennsauken Aquifer), as evidenced by the absence of contaminants in deep monitoring wells (MW-1B, MW-2B, and MW-7B). The lateral extent of shallow groundwater impacted was defined as:

- East (Upgradient) - Wells MW-9, MW-10, and MW-22
- West (Downgradient) - Grand Sprute Run
- North - Wells MW-1, MW-8, and MW-23
- South - Wells MW-5, MW-21, MW-20, and Seep 6

Refer to Figures 6, 7, and 8 of the Phase II RI, dated November 2000, for figures depicting well locations (Ref. 1).

Table 1 below provides the maximum detected concentration of each contaminant reported above New Jersey Ground Water Quality Criteria (NJ GWQC) during the May 2000 sampling event and identifies all wells where contaminant concentrations were reported above the NJ GWQC.

Table 1. Maximum Contaminant Concentrations Reported in Groundwater During Most Recent Groundwater Sampling Event (Phase II RI, 2000)

Contaminant	Max. Concentration (µg/L)	NJ GWQC (µg/L)	Wells above NJ GWQC*
Benzene	108	1	MW-7, MW-11, MW-13, MW-14, MW-17, MW-18, MW-23, MW-25, PW-1, PW-6, PW-7, PW-8, PW-9, PW-13
Chlorobenzene	14.9	4	MW-11, MW-17, MW-25, PW-6, PW-7, MW-8, PW-9, PW-13
1,1-Dichloroethane	382	70	PW-4
1,2-Dichloroethane	7.2	2	PW-7, PW-8, PW-13
1,1-Dichloroethene	152	2	PW-4 , PW-13
cis-1,2-Dichloroethene	99.7	10	MW-6, MW-12 , PW-3, PW-4, PW-7, PW-8, PW-10
Ethylbenzene	1,730	700	MW-12, PW-3
Methylene chloride	469	2	MW-24, PW-1, PW-3, PW-5 , PZ-2
Tetrachloroethene (PCE)	13,600	1	MW-3, MW-4, MW-6, MW-8, MW-12, MW-14, MW-23, MW-24, PW-1, PW-2, PW-3, PW-4, PW-5 , PW-6, PW-7, PW-9, PW-10, PW-11, PW-12, PW-13, PZ-2
1,1,1-Trichloroethane	4,310	30	PW-4
Trichloroethene (TCE)	755	1	MW-6, MW-8, MW-12, MW-18, MW-23, MW-24, PW-1, PW-3, PW-4 , PW-7, PW-9, PW-10, PW-11, PW-12, PW-13
Vinyl chloride	34.3	5	MW-6, PW-7, PW-10 , PW-13
Xylenes	362	40	MW-4, MW-11, MW-25, PW-1, PW-8, PW-9, PW-13

* Sample locations in bold indicate the location of the maximum detected concentration.

As presented in Table 1, benzene, PCE, and TCE are the primary contaminants in groundwater at the site. Plume maps for PCE, TCE and benzene are presented on Figures 6, 7, and 8 of the Phase II RI Report (Ref. 1). As identified on the figures, the orientation of these plumes was influenced by the location of the sources of contamination (e.g., lagoon, waste tanks, and diesel fuel line spill) and the north/northeasterly direction of groundwater gradient across the site.

In 1982, sampling of a residential groundwater well located approximately 1/4 mile northwest of the site, on the north side of Route 322, indicated the presence of VOCs. The residence was placed on bottled water, and investigations into the impacts associated with activities at the Matlack site were increased. Subsequent groundwater samples have been collected at several residential wells located to the north/northwest of the site, and no VOCs have been detected. The most recent sampling was conducted on January 30, 2003, by NJDEP, and no negative impacts from site-related contaminants were identified in the wells (Ref. 2).

Air (Indoors)

Although VOCs were reported in groundwater at elevated levels both beneath the site and in downgradient areas to the north/northwest extending to Grand Sprute Run, there are no active industrial and/or residential buildings above the areas of impacted groundwater. The site is inactive; thus, there are no on-site buildings currently in use. No structures are present in adjacent areas northwest of the site (i.e., between the site and Grand Sprute Run); the area is thickly vegetated and/or wooded and is a state wildlife preserve. Thus, migration of VOCs into indoor air is not currently a concern at this site and this medium will not be evaluated further.

Surface/Subsurface Soil

Limited information is available on residual soil impacts at the site. Available documentation indicates that previous investigations identified VOCs, BNs, and diesel fuel as the contaminants of concern at the site. However, there is no information on the actual concentrations that were reported at the site; thus, no comparison to New Jersey Non-Residential Direct Contact Soil Cleanup Criteria (NJ NRDCSCC) could be performed. Excavation of contaminated soil has occurred in the area of the diesel fuel line leak; however, documentation of confirmatory sampling was not available (Ref. 2). The two waste tanks have also reportedly been closed and removed; however, confirmatory sampling information is unavailable (Ref. 2). Thus, for the purposes of this EI determination, it is being assumed that VOCs, BNs, and diesel fuel still remain in soil above relevant NJ NRDCSCC.

Surface Water/Sediment

There are no surface water bodies on site. The nearest surface water body is the Grand Sprute Run, which flows in a southwesterly direction, and is located approximately 720 feet west of the downgradient (western) property boundary. As mentioned above, previous hydrogeologic investigations have determined that impacted groundwater in the shallow aquifer discharges directly to Grand Sprute Run.

On June 28, 2005, NJDEP conducted sampling of surface water and sediment in and adjacent to the Grand Sprute Run. Note that NJDEP also collected "seep" samples. The seep samples are identified as solid matrix samples classified as sediment. Eleven surface water and sediment samples and five seep (sediment) samples were collected along the Grand Sprute Run. Results indicate that TCE and PCE are the only contaminants reported in surface water above New Jersey Surface Water Quality Criteria (NJ SWQC) for freshwater non-trout waterways (FW-NT2). TCE and PCE were detected at sample locations SW-10 (6 J $\mu\text{g/L}$, 40 $\mu\text{g/L}$) and SW-11 (4 J $\mu\text{g/L}$, 27 $\mu\text{g/L}$) above their respective NJ SWQC (1.09 $\mu\text{g/L}$, 0.388 $\mu\text{g/L}$) (Ref. 3). Sediment (including seep) sample results indicated that only PCE was present above the New Jersey Residential Direct Contact Soil Cleanup Criteria (NJ RDCSCC) (Ref. 4). PCE was detected in the SEEP 5 sample at 5.7 mg/kg, and in the SED 10 sample at 25 mg/kg, above the NJ RDCSCC of 4 mg/kg.

Air (Outdoors)

No assessment of impacts to outdoor air has been conducted at this property. However, migration of contaminants from soil and groundwater into outdoor air is not expected to be a concern at this site. The site is primarily paved with the exception of a small area that is currently being remediated; thus, the migration of contaminants on particulate matter is not expected to be a concern. VOC migration from

groundwater to outdoor air is not a concern due to the expected natural dispersion of volatile contaminants once they reach the surface. Therefore, migration of particulates entrained on dust and/or volatile emissions is not expected to be a concern at the Matlack site.

References:

1. Revised Phase II Remedial Investigation Report, Matlack, Inc. Prepared by Science Applications International Corporation. Dated November 2000.
2. Letter from Barker Hamill, NJDEP, to Donald Benedik, Health Officer, Gloucester County Department of Health, re: Private Potable Well Analysis. Dated April 24, 2003.
3. Email from Bob Hayton, NJDEP, to Sameh Abdellatif, USEPA, re: Matlack Surface Water Results. Dated July 27, 2005.
4. Email from Bob Hayton, NJDEP, to Sameh Abdellatif, USEPA, re: Matlack Sediment Results. Dated August 2, 2005.

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)*

“Contaminated” Media	Residents	Workers	Day-Care	Construction	Trespasser	Recreation	Food ³
Groundwater	No	No	No	Yes	–	–	No
Air (indoor)				–	–	–	–
Surface Soil (e.g. < 2 ft)	No	No	No	Yes	No	No	No
Surface Water	No	No	–	–	Yes	Yes	No
Sediment	No	No	–	–	Yes	Yes	No
Subsurface Soil (e.g., > 2 ft)	–	–	–	Yes	–	–	No
Air (outdoors)						–	–

Instruction 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. These spaces instead have dashes (“--”). While these combinations may not be probable in most situations they may be possible in some settings and should be added as necessary.

- ___ If no (pathways are not complete for any contaminated media-receptor combination) - skip to #6, and enter “YE” status code, after explaining and/or referencing condition(s) in-place, whether natural or man-made, preventing a complete exposure pathway from each contaminated medium (e.g., use optional Pathway Evaluation Work Sheet to analyze major pathways).
- X If yes (pathways are complete for any “Contaminated” Media - Human Receptor combination) - continue after providing supporting explanation.
- ___ If unknown (for any “Contaminated” Media - Human Receptor combination) - skip to #6 and enter “IN” status code

³ Indirect Pathway/Receptor (e.g., vegetables, fruits, crops, meat and dairy products, fish, shellfish)

Rationale:

Groundwater

The site is currently inactive; thus, groundwater is not being utilized at the site for any purpose. Impacted groundwater is currently migrating off site to the north-northwest, to Grand Sprute Run. The property located downgradient of the site to the west-northwest is a state wildlife preserve, and is currently covered by vegetation and/or woodlands with no buildings (Ref. 7). Thus, there is no concern for direct exposure to groundwater in this off-site, undeveloped area.

Soil is currently being remediated in one area on site. The Phase II RI includes groundwater measurements, which indicate that groundwater can be encountered on site at depths less than ten feet bgs. Thus, there is potential for the on-site remedial worker (considered a construction worker for purposes of this EI determination) to become exposed to impacted groundwater while conducting intrusive remediation activities (Ref. 7).

As mentioned in response to Question No. 2, sampling of a residential groundwater well located approximately 1/4 mile northwest of the site (on the north side of Route 322) was conducted in 1982 and indicated the presence of VOCs. The residence was placed on bottled water, and investigations into the impacts associated with activities at the Matlack site were increased. Subsequent groundwater samples have been collected at several residential wells located to the north/northwest of the site, and no VOCs have been detected. The most recent sampling was conducted on January 30, 2003, by NJDEP, and no negative impacts from site-related contaminants were identified in the wells (Ref. 3). Thus, off-site residential exposure to groundwater contaminants associated with the Matlack site is not currently a concern.

Surface/Subsurface Soil

Available information indicates that soil impacts have been limited to on-site areas in the former lagoon, former waste tank area, and former diesel fuel line areas (Refs. 1, 2). Limited information is available on the specific location and levels of residual soil contamination at the site. The site is currently inactive; thus, there is no concern for direct exposure to on-site workers. The site is not fenced and is accessible to trespassing. However, the site is predominantly paved, with the exception of one five-foot diameter soil area that is undergoing remediation and is surrounded by a temporary fence(Ref. 7). Thus, trespassers are not expected to come in direct contact with any potentially impacted soil at the site, as it is either covered by pavement or surrounded by temporary fencing. Given that soil remediation is ongoing in one small area, on-site remedial workers (considered construction workers for the purpose of this EI determination) may potentially come into contact with impacted soil while conducting remediation activities.

Surface Water/Sediment

As mentioned in the response to Question No. 2, recent surface water and sediment (including seep) sampling in Grand Sprute Run has indicated the presence of PCE and TCE in two surface water sampling locations, and PCE in one sediment/seep sampling location (Refs. 5, 6). Because Grand Sprute Run is located off site, access to the impacted area with PCE and TCE is not restricted. Thus, there is a potential that off-site trespassers and recreators may become exposed to impacted surface water and sediment in the Grand Sprute Run.

References:

1. Site Review and Update, Matlack, Incorporated. Prepared by the U.S. Department of Health and Human Services, Atlanta, Georgia. Dated August 19, 1994.
2. Revised Phase II Remedial Investigation Report, Matlack, Inc. Prepared by Science Applications International Corporation. Dated November 2000.
3. Letter from Barker Hamill, NJDEP, to Donald Benedik, Health Officer, Gloucester County Department of Health, re: Private Potable Well Analysis. Dated April 24, 2003.
4. Email from Sameh Abdellatif, USEPA, to Amy Brezin, Booz Allen Hamilton, re: Matlack, Inc. Dated July 12, 2005.
5. Email from Bob Hayton, NJDEP, to Sameh Abdellatif, USEPA, re: Matlack Surface Water Results. Dated July 27, 2005.
6. Email from Bob Hayton, NJDEP, to Sameh Abdellatif, USEPA, re: Matlack Sediment Results. Dated August 2, 2005.
7. Email from Sameh Abdellatif, USEPA, to Kristin McKenney, Booz Allen Hamilton, re: Matlack CA725 EI Determination. Dated August 5, 2005.

4. Can the **exposures** from any of the complete pathways identified in #3 be reasonably expected to be **significant**⁴ (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?

 X If no (exposures cannot 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:

Groundwater

As mentioned in the response to Question No. 3, on-site construction worker exposure to impacted groundwater is currently considered a potentially complete exposure pathway. While on-site construction workers (remedial workers) are present on site, potential exposures to contaminated groundwater are not expected to be significant because construction workers are expected to follow Occupational Safety and Health Administration (OSHA) guidelines and use the appropriate personal protective equipment (PPE) to minimize exposures to impacted groundwater.

Surface/Subsurface Soil

As mentioned in the response to Question No. 3, on-site construction worker exposure to impacted surface and/or subsurface soil is currently considered a potentially complete exposure pathway. However, on-site construction workers (remedial workers) are not expected to experience significant exposure to on-site soil contamination, as they are expected to follow OSHA guidelines and use the appropriate PPE to minimize exposures to impacted surface and subsurface soil.

Surface Water/Sediment

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.

As mentioned in the response to Question No. 3, areas in Grand Sprute Run that have been impacted by site related contamination are not restricted. Thus, the potential exists that trespassers and recreators could come into contact with impacted surface water and sediment/seep (soil). However, exposures to these receptors are not expected to be significant for several reasons. Grand Sprute Run is thickly vegetated and is not accessible for trespassing or recreation in the impacted areas downgradient from the site (See Photos in Attachment 2). In order to access this portion of the Grand Sprute Run, a receptor would have to access the area via Route 322 and climb down a 20-foot embankment. The soil in the area surrounding Grand Sprute Run was observed to be very saturated during a site visit performed in August 2005, making walking in the area extremely difficult. The run is a small surface water body, measuring approximately four feet across and one foot deep during the August 2005 site visit, making this an unlikely fishing area due both to the lack of suitable habitat and the unaccessible area. In addition, numerous surface water and sediment/seep samples were collected in the Grand Sprute Run downgradient of the site, but impacts were only identified in two surface water samples, one sediment sample, and one seep sample. Thus, impacts currently appear to be limited. Therefore, due to the difficult accessibility, and limited extent of contamination, any exposures that may occur to receptors while trespassing or recreating in the Grand Sprute Run downgradient from the site are not expected to be significant.

References:

1. Email from Bob Hayton, NJDEP, to Sameh Abdellatif, USEPA, re: Matlack Surface Water Results. Dated July 27, 2005.
2. Email from Bob Hayton, NJDEP, to Sameh Abdellatif, USEPA, re: Matlack Sediment Results. Dated August 2, 2005.
8. Three emails from Sameh Abdellatif, USEPA, to Kristin McKenney, Booz Allen Hamilton, re: Matlack Pictures. Dated August 18, 2005.

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.

This question is not applicable; see response to Question No. 5.

6. Check the appropriate RCRIS status codes for the Current Human Exposures Under Control EI event code (CA725), and obtain Supervisor (or appropriate Manager) signature and date on the EI determination below (and attach appropriate supporting documentation as well as a map of the facility):

- YE - Yes, "Current Human Exposures Under Control" has been verified. Based on a review of the information contained in this EI Determination, "Current Human Exposures" are expected to be "Under Control" at the former Matlack facility site, EPA ID# NJD043584101, located on the South Side of U.S. Route 322, in Swedesboro, New Jersey, 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: _____ Date: _____
Kristin McKenney
Risk Assessor
Booz Allen Hamilton

Reviewed by: _____ Date: _____
Kathy Rogovin
Senior Risk Assessor
Booz Allen Hamilton

Also Reviewed by: _____ Date: _____
Sameh Abdellatif, Remedial Project Manager
RCRA Programs Branch
EPA Region 2

_____ Date: _____
Barry Tornick, New Jersey Section Chief
RCRA Programs Branch
EPA Region 2

Approved by: Original signed by: _____ Date: September 23, 2005
Adolph Everett, 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, 15th Floor, New York, New York, and the New Jersey Department of Environmental Protection Office located at 401 East State Street, Records Center, 6th Floor, Trenton, New Jersey.

Contact telephone and e-mail numbers: Sameh Abdellatif
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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.

Attachments

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

Attachment 1 - Summary of Media Impacts Table

Attachment 2 - Recent Site Photographs (August 2005)

Attachment 1 - Summary of Media Impacts Table

Matlack, Inc.
South Side of U.S. Route 322, Swedesboro, New Jersey
EPA ID# NJD043584101

SOURCE AREA	GW	AIR (Indoors)	SUR F SOIL	SURF WATER	SED	SUB SURF SOIL	AIR (Outdoors)	CORRECTIVE ACTION MEASURE	KEY CONTAMINANTS
Unlined Sand and Gravel Pit (Lagoon)	Yes	No	Yes	No	No	Yes	No	▸ None described in available documentation.	▸ VOCs
Former Underground Waste Storage Area	Yes	No	Yes	Yes	Yes	Yes	No	▸ Removal and closure of buried waste tanks T-7 and T-8	▸ VOCs, BNs, diesel fuel*
Diesel Fuel Line Leak	Yes	No	Yes	Yes	Yes	Yes	No	▸ Excavation and removal of contaminated soils	▸ VOCs, BNs, diesel fuel*

* As mentioned in the response to Question No. 2, available documentation indicates that previous investigations identified VOCs, BNs, and diesel fuel as the contaminants of concern at the site. However, there is no information on the actual concentrations that were reported at the site; thus, no comparison to NJ NRDCSCC could be performed. For the purposes of this EI determination, it is being assumed that VOCs, BNs, and diesel fuel still remain in soil above relevant NJ NRDCSCC.

Attachment 2 - Recent Site Photographs (August 2005)