UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
1650 Arch Street
Philadelphia, Pennsylvania 19103-2029

SUBJECT: Approval and Funding for a Removal Action at Peck Iron and Metal Superfund Site, Portsmouth City, VA
Site ID# VAN000306115

FROM: Ruth Scharr, On-Scene Coordinator
Eastern Response Section (3SD31) RUTH SCHARR Digitally signed by RUTH SCHARR Date: 2021.09.07 17:46:12 -04'00'

THRU: Melissa Linden, Chief Melissa Linden
Eastern Response Section(3SD31)

THRU: Michael Towle, Chief
Preparedness and Response Branch (3SD30) Towle, Michael Digitally signed by Towle, Michael Date: 2021.09.08 09:30:09 -04'00'

TO: Linda Dietz, Acting Director
Superfund Emergency Management Division(3SD00)

I. PURPOSE

The purpose of this Action Memorandum is to request and document approval of a time-critical removal action for the Peck Iron and Metal Superfund Site (Site). The Site is located at 3850 Elm Avenue in the city of Portsmouth, Virginia. The Site area includes a 33-acre inactive scrap metal storage, processing, and recycling facility (Facility), as well as any and all places where contamination from the Facility has migrated or otherwise come to be located. See Attachment 1: Figure 2.1 of RI Report. Removal Site Evaluation activities were performed in accordance with the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), 40 C.F.R. Part 300. The Removal Site Evaluation documented a threat to public health or welfare or the environment due to the presence of radioactively contaminated debris on the Facility property. Based upon information obtained from the Removal Site Evaluation and a review of that information by the On-Scene Coordinator (OSC), a Removal Action is necessary to mitigate threats posed by the release and/or substantial threat of release of radioactive hazardous substances from the Facility property, and to protect public health, welfare, and/or the environment. The Site is listed on the National Priorities List (NPL). There are no nationally significant, or precedent-setting issues associated with the Site.

To mitigate the threat, Comprehensive Environmental Response, Compensation and Liability Act of

1980, as amended (CERCLA), 42 U.S.C. §§ 9601, et. seq., funding in the amount of $210,000 is requested.

II. SITE CONDITIONS AND BACKGROUND

The CERCLIS ID number for the Site is VAN000306115. EPA added the Site to the NPL on November 4, 2009. The EPA Remedial Program completed a Remedial Investigation (RI) for Operable Unit One (OU1) in October 2019. A Feasibility Study (FS) for OU1 is ongoing and planned for completion in 2021. The Site is in a mixed heavy industrial and commercial area. The 33-acre Facility property is zoned industrial. The Facility property is a U-shaped property that is a mixture of developed and undeveloped land that was used for scrap metal processing and storage. For the purpose of describing the locations of Facility operations and RI sampling locations, the base of the U-shaped property has been informally divided into the "Central Section" and "Southern Section", while the upper portions have been designated as the "Western Arm" and "Eastern Arm." These informal Site description designations are shown on Attachment 2: Figure 2.2 of the RI Report.

A. SITE DESCRIPTION

1. Removal Site Evaluation

In October 2019, the Remedial Program requested assistance from the Removal Program to mitigate threats posed by potential exposure to elevated concentrations of gamma-emitting radionuclides from the radioactively contaminated materials on and under the ground surface within the Western and Eastern Arms of the Facility property. During the RI, EPA performed radiation surveys and identified numerous items onsite that are emitting radium-226 (Ra-226) gamma radiation. The Remedial Program has requested that the Removal Program mitigate the threats posed by discrete objects or items emitting high levels of radiation on the Facility property. The Remedial Program provided GPS coordinates for locations which the Remedial Program defined as a hotspot location within either the Western Arm or the Eastern Arm of the Facility property. For purposes of the removal action at the Site, an elevated level of gamma radiation is defined as a dose rate measurable at the ground surface greater than 0.5 millirem/hour (mR/hr).

With support from the Virginia State Police Counter Terrorism and Hazmat Unit, EPA performed a Gamma Radiation Survey in February of 2021 (2021 Radiation Survey). The 2021 Radiation Survey identified 17 locations with measurable radiation dose readings. Five of the 17 locations meet the Site-specific removal action level of a dose reading exceeding 0.5mR/hr. Field instrumentation was used to identify Ra-226 as the radioactive isotope emitting the elevated readings. At the one new location, a small object was found atop the ground surface. Radiation monitoring at several other locations suggest item(s) of radioactively contaminated debris are on or near to the ground surface. Several readings were orders of magnitude above background. Background radiation level is generally between 10 to 15 microrem/hour (µR/hr). The locations of the highest readings are estimated to be within 100 yards inside the fence located near the intersection of Elm Avenue and Victory Boulevard. Trespassers can easily access the Facility property at this intersection due to the poor condition of the fence. A portion of the fence has fallen to the ground near this intersection. In addition, the eastern perimeter of parcel 03860025,

Eastern Arm, is not enclosed by a security fence. Gamma-emitting radionuclides have been identified within this unsecured Eastern Arm of the Facility property. See Attachment 3 for Table of GPS locations and elevated radiation dose rate readings.

A time-critical removal action is necessary to remove discrete objects emitting elevated levels of radiation measurable at the ground surface greater than 0.5 mR/hr. This action will mitigate the risks to trespassers and other human receptors from potential exposure to radiation from radioactive items/debris that may be taken off the Facility property. No soil removal is planned for this removal action.

2. Physical location

The Site is located in the tidewater region of southeastern Virginia at 3850 Elm Avenue in the city of Portsmouth, Virginia. Portions of the Site are located in the 100- and 500-year floodplain (RI report Figure 4.13 and Figure 4.14 for Hurricane Flood zones. The Facility property is located on parcels identified on Attachment 2: RI Report Figure 2.2. The parcel numbers are: 03860020; 03860025; 03860026; 03860028 and 03860029. The vehicular entrance to the Facility property is located on the north side of the Facility property on Elm Ave at latitude 36°48'39.07"N and longitude 76°18'29.0" W.

The Facility property is bounded to the north by Elm Avenue and ARREFF Terminals (tax parcel 03860040), to the east by Elm Avenue and Victory Boulevard, to the west by the Norfolk Naval Shipyard (NNSY) Scott Center Annex and Sherwin Williams (tax parcel 03860027) and to the south by Paradise Creek, a tributary to the southern branch of the Elizabeth River and Chesapeake Bay. On the opposite shore of Paradise Creek is the Cradock neighborhood. This community is listed on both the State Landmarks Register and the National Registry of Historic Places. It is also identified as an Environmental Justice community. Within a half mile of the Site there are over 500 residences and several thousand people. Other nearby properties include ancillary NNSY sites, Wheelabrator and the Atlantic Wood Industries Superfund Site.

The Nansemond Indian Nation (The Nansemond) has tribal interest in the Portsmouth, Virginia area. Most recently EPA contacted the Cultural Heritage Partners, a representative of The Nansemond, on July 13, 2021 regarding the removal action and to determine if The Nansemond wanted formal consultation. The Remedial Project Manager sent an informational email on July 16, 2021, to discuss government to government consultation. On July 28, 2021, a virtual meeting was held with EPA and representatives of The Nansemond to discuss the upcoming Removal Action and the future Remedial Action. The Nansemond indicated they did not wish to initiate formal consultation on the Removal Action; however, they do wish to be kept informed of the Site activity related to the Removal Action. The Nansemond did express that they are concerned about impacts to Paradise Creek, and they will want formal consultation for the remedy that will ultimately be selected for OU1 and Operable Unit Two (OU2). The OSC offered a Site tour to The Nansemond representative so that he could familiarize himself with the Site prior to engaging in consultation on the remedy selected for OU1. This tour will be planned at a future date when the OSC is onsite for the Removal Action, and prior to release of the Proposed Plan for OU1.

3. Site Characteristics

The 33-acre Facility property is within the James River Basin and the Virginia Coastal Plain. The Facility property is an inactive scrap metal recovery facility. The former scrap metal recovery business purchased and processed metal scrap from military bases, other governmental entities and local businesses including electric power and rail companies. Items processed included electrical transformers containing polychlorinated biphenyls (PCBs), lead/acid batteries, components of naval vessels, aircraft and tanks, insulated copper cables and demilitarized ordnance. Some of the items handled at the Facility contained radioactive material, specifically Ra-226. The half-life of Ra-226 is 1600 years. Ra-226 was historically used as a luminescent material in paint from the World War I era until approximately 1970. Paint containing zinc sulfide and Ra-226 created a luminescence which could be used for military and/or commercial use. It was also used in the production of deck markers and instruments on ships, aircraft, and land vehicles involved with traditional military operations. (2011 Military Policy Issue Feb 2011). Deck markers were painted so soldiers wouldn't accidentally fall overboard. Radium watch dials were prevalent as well. The use of radium paint has been well documented in mainstream media entertainment such as the book and movie "Radium Girls".

Vehicle access to the Site is restricted by a locked gate off Elm Avenue. Most of the Facility property is surrounded by a fence with signs identifying the Facility property as a Superfund Site. Areas without security fence are the Eastern Arm and the southwestern portion of the property bordering Paradise Creek. Parcel 03860025, or the Eastern Arm, is bounded on the east by Elm Avenue (Route 337). No fence is installed along the eastern boundary of the Facility property adjacent to Elm Ave, leaving the Eastern Arm of the Facility property completely open to foot traffic. Within the Eastern Arm of the Facility, EPA identified locations containing elevated radiation readings. Also, a section of the existing fencing on the southern end of the Eastern Arm, near the intersection of Elm Avenue and Victory Boulevard, has fallen to the ground. The other unfenced area on the southwestern side of the Facility property bordering Paradise Creek has been designated as wetlands; bushes and grasses prohibit easy trespass onto the Site there. See Attachment 2: Figure 2.2 for location of the wetlands.

Currently there are several on-Site buildings: the Brick Warehouse, the Maintenance Building, and the Shear Building. Several former building foundations and concrete pads also exist on the Facility property. Miscellaneous surface debris is located across much of the Facility property. The 2021 Radiation Survey identified five locations with elevated levels of radioactivity (dose rate reading exceeding 0.5 mR/hr) that pose a significant potential threat to human health and the environment, warranting a time-critical removal action. If trespassing were to occur, then foot traffic leading to direct contact with the items would result in radiation exposure to the trespasser.

4. Release or threatened release into the environment of a hazardous substance, or pollutant or contaminant

A release of hazardous substances into the environment has occurred at the Facility. Radiation surveys performed with on-site instrumentation reveal that the Facility property is contaminated with hazardous substances, including the radionuclide Ra-226. Discrete objects, such as deck markers or radium dials, or fragmented pieces of these items are commonly found at scrap metal

facilities, such as the one that operated at the Facility and are likely the source of the elevated radiation readings at the Facility property. The Facility is not adequately secured with fencing and trespassers can easily access the Facility property. Additional releases of hazardous substances from the Facility may occur if radioactively contaminated debris is removed by trespassers and transported to unknown locations. In addition, radioactively contaminated sources generating elevated levels of gamma radiation and present on or near the ground surface at the Facility property may pose a long-term threat of release of hazardous substances if these items are disturbed or transported elsewhere by environmental conditions, including but not limited to flooding.

5. National Priorities List Status

The Site was proposed to be included on the NPL in April 2009 and was finalized on November 4, 2009. RI sampling to determine the nature and extent of contamination at the Site began in January 2014. The RI Report was finalized in October 2019. The OU1 FS is now underway and is expected to be completed in FY 2021. The Remedial Program expects to issue a Record of Decision (ROD) identifying the selected remedy for OU1 at the Site in 2022. OU1 addresses contaminated soil and sediment on the Facility property.

B. OTHER ACTIONS TO DATE

1. Previous Actions

In October 2006, an Action Memorandum (2006 AM) requesting approval and funding to conduct a removal action at the Site was signed. Among other things, the 2006 AM scope included performing an Extent of Contamination Study (Study) and covering the PCB-contaminated soil with clean fill. Pursuant to a Unilateral Order, effective January 2007, the Respondents completed the Study in 2009. It provided additional understanding of Site conditions and the extent of the PCB contamination. The contamination was much greater and more widespread than originally understood, however, and the Site was considered somewhat stable barring any major storm event. Given the complexities of the Site and the large aerial extent of PCB-contaminated soil, the OSC deemed covering the PCB- contaminated soil with clean fill, as approved in the October 2006 AM, likely to be inconsistent with a final remedy selected during the remedial process. Given that a final remedy was expected to require removal of significant amounts of PCB-contaminated soils, an interim soil cover would have to be removed and likely disposed of due to contamination of materials.

Since the Site was moving through the Remedial process, the OSC modified the 2006 response action to include monitoring and surveillance of the Site to determine the migration of contamination and the immediate threat of release from erosion. Should conditions have indicated unacceptable contaminant migration or the threat of significant release, then an immediate response action would have been taken to further stabilize the Site. Since 2006, no additional stabilization has been required.

C. STATE AND LOCAL AUTHORITIES' ROLE

EPA is working with the Virginia Department of Health and the Virginia Department of Environmental Quality which have authority and jurisdiction regarding EPA's actions at the Site. The OSC will also coordinate with the City of Portsmouth during the proposed removal action.

III. THREATS TO PUBLIC HEALTH OR WELFARE OR THE ENVIRONMENT

Section 300.415 of the NCP (40 CFR § 300.415) lists the factors to be considered in determining the appropriateness of a removal action. Subparagraphs (b)(2)(i), (v), and (vii) of Section 300.415 directly apply as follows to the conditions at the Site:

300.415 (b) (2) (i) "Actual or potential exposure to nearby human populations, animals, or food chain from hazardous substances…"

The hazardous substances present at the Facility property include Ra-226. Ra-226 has a half-life of 1600 years. Objects containing Ra-226 have been found in soil on the Facility property. R-226 produces ionizing radiation in the form of gamma rays and other particle radiation. Ionizing radiation is a known carcinogen and exposures may increase the incidence of cancer. During the 2021 Radiation Survey, EPA identified an object emitting 1.2 mR/hr. EPA did not identify this item during the RI Radiation Surveys.

1 Example of discrete item emitting radiation 1.2 mR/hr

During the 2021 Radiation Survey, EPA and VSP recorded an elevated dose rate of a 9.2 mR/h at the ground surface. People exposed to ionizing radiation of such dose rate may increase their chance of getting cancer. The dose rate reading of 9.2 mR/hr is approximately 600 times higher than normal background dose rate of 10 to 15 µR/hr. Materials emitting radiation at such dose rates found on the Facility property would lead to exposures greater than those deemed safe for the general population.

Given that trespassers can easily access the Facility property, small radioactive items can be easily transported offsite by such trespassers causing actual or potential exposure to nearby human populations. A person carrying a small item close to the body (such as in a pocket) may experience an unknown dose. Furthermore, EPA would have no knowledge of the disposition of these items if taken by a trespasser. In addition, the presence of radiation at the Facility property is described in publicly available documents. During the 2021 Radiation survey the OSC observed discarded trash such as waste in the form of alcoholic beverage containers and other waste typical of trespass on the Facility property. A time-critical removal action is needed to

secure and remove the discrete items which are likely sources of elevated radiation as soon as possible.

300.415(b)(2)(v) Weather conditions that may cause hazardous substances or pollutants or contaminants to migrate or be released

Radiation was first detected at the Facility property during the RI. Some of the same items were detected again in 2021, but the documented field readings were higher. Weather is a likely cause of the increased readings. Over time, weather conditions, such as flooding, may have eroded the surface conditions, reducing shielding of the radiation energy. As a result, discrete items which were located at depth may now be located in the shallow surface soil.

300.415(b)(2)(vii) The availability of other appropriate Federal or State response mechanisms to respond to the release

No other federal or state response mechanisms are currently available to perform the actions necessary to mitigate the threats to public health and the environment presented by the release of radioactive hazardous substances at the Facility property. Since the Site is listed on the NPL, the Virginia Department of Health would not be funding any action at this Site. If no response is taken, it is likely that radioactive hazardous substances will continue to be released from the Facility property over time.

IV. ENDANGERMENT DETERMINATION

Based upon information gathered during the Removal Site Evaluation for the Site, as described above, the actual or threatened releases of radioactive hazardous substances from this Site may present an imminent and substantial endangerment to the public health, or welfare, or the environment.

Elevated radiation readings due to radiologically contaminated discrete items or debris are located on the Facility property. EPA has observed a portion of the fence near the intersection of Elm Avenue and Victory Boulevard in a fallen state during each Site visit. The condition of the fence allows easy trespass on to the Facility property whereby radioactive objects can be found and transported off-Site, thus posing a substantial threat of release of radionuclide contamination. If trespassers were to carry off a radioactive item, the potential for radiation exposure to the individual and others is likely. Some of these discrete items are located within the unfenced Eastern Arm of the Facility property. It is not inconceivable that the human receptor can be exposed by walking across this grass covered area which borders Elm Avenue. No walk-path or pavement is provided along this stretch of Elm Avenue, making it more likely that someone may walk within this unfenced area of the Facility property.

“Radium has been shown to cause adverse health effects such as anemia, cataracts, fractured teeth, cancer and death. Some of these effects may take years to develop and are mostly due to gamma radiation. Radium gives off gamma radiation, which can travel fairly long distances through air. The relationship between the amount of radium that you are exposed to and the

amount of time necessary to produce these effects is not known. Although there is some uncertainty as to how much exposure to radium increases your chances of developing a harmful health effect, the greater the total amount of your exposure to radium, the more likely you are to develop one of these diseases." (ATSDR Public Health Statement, Radium, December 1990)

"How radiation affects your health depends on the size of the radiation dose. Scientists have been studying the effects of ionizing radiation in humans and laboratory animals for many years. Studies so far have not shown that the low dose of ionizing radiation we are exposed to every day causes us any harm. We do know that exposure to massive amounts of ionizing radiation can cause great harm, so it is wise to not be exposed to any more ionizing radiation than necessary." (ATSDR Public Health Statement Ionizing Radiation, September 1999)

V. PROPOSED REMOVAL ACTION AND ESTIMATED COSTS

A. PROPOSED ACTIONS

The proposed action is intended to mitigate the threat posed to the public health and welfare due to actual and/or substantial threat of release of hazardous substances emitting gamma radiation, primarily Ra-226 which has been found in objects and small debris on the Facility property. Elevated levels of radiation in some areas may be due to a "cluster" of paint chips or other non-retrievable items. The threat of exposure may still exist once all of the recoverable debris is removed for off-site disposal. The proposed action will make the Site more secure for a longer term, until further actions by the Remedial Program can be implemented in accordance with any future RODs. The OSC will continue to coordinate with the Remedial Project Manager regarding all removal action activities.

1. Description of Proposed Actions

a. Obtain access to perform work described.
b. Conduct all activities in accordance with the Site Health and Safety Plan (29 CFR 1910.120) and existing or evolving COVID-19 protection procedures.
c. Mobilize personnel and equipment to and from the Site, as necessary.
d. Install a permanent 8-foot-high fence along the eastern boundary of Parcel 03860025 to enclose the unfenced Eastern Arm of the Facility property. Connect this new fence to the existing fence beginning near the intersection of Elm Avenue and Victory Boulevard.
e. Inspect the fence along outer perimeter of the entire Facility property and prepare written recommendations for OSC of any repairs needed to the existing fencing to ensure it will prevent easy trespass onto the Site. Implement those recommendations approved by the OSC.
f. Rent a secure storage container to be placed on the Facility property. Provide additional security to the container such as blockades and security camera so that security can be monitored offsite.
g. Arrange for a contractor trained in radiation protection, transportation of radioactive materials, and off-site disposal of radioactive waste to remove discrete objects of radiation debris co-located on the ground surface or below the ground surface in

areas where gamma radiation levels greater than 0.5 mR/hr are measurable at the ground surface.

h. Document the reading and geographic coordinates at the debris point after source has been removed to relocate potential soil contamination for future remedial work at the Site.
i. Secure debris inside storage containers until transportation and disposal can be finalized.
j. Perform transportation and disposal of radiation debris to a waste disposal facility pursuant to Section 121(d)(3) of CERCLA and 40 CFR § 300.440.
k. Coordinate with the City of Portsmouth and Commonwealth of Virginia officials, including the Virginia Department of Health, the Commonwealth Agency responsible for radiation protection under the Nuclear Regulatory Commission.

2. Contribution to Remedial Performance

The Site is on the NPL. This removal action at the Site is consistent with the requirement of Section 104(a)(2) of CERCLA, 42 U.S.C. § 104(a)(2), which states that a removal action should, to the extent practicable, contribute to the efficient performance of any long-term remedial action. In this instance, taking a removal action in advance of the remedial action will eliminate the imminent and substantial endangerment to human health and the environment from exposure to the radiation being emitted from the radioactive objects. Enclosing the Eastern Arm with new security fencing and, repairing any damaged fencing will prohibit easy trespass onto the Facility property, and thus will reduce the potential for human exposure to the hazardous substances found in various media on Site.

3. Compliance with ARARs

The proposed Removal Action will comply with federal applicable or relevant and appropriate environmental regulations (ARARs) to the extent practicable. ARARs applicable to the removal and disposal of radioactive objects and/or debris have been identified as part of the ongoing Remedial process. Those federal radiation ARARs are listed in Attachment 4 - Radiation ARARs. On July 13, 2021, the OSC reached out to the Virginia Department of Health, Radiation Safety Specialists asking for the Department to identify any State ARARs. The Safety Specialist provided a crosswalk of the Commonwealth's radiation regulations to the federal Radiation regulations listed in Attachment 4. The Commonwealth's Radiation Regulations under Section 12 of the Virginia Administrative Code are not more stringent than the federal regulations listed in Attachment 4.

4. Project Schedule

Initiation of this removal action is estimated to be within 30 days of Action Memorandum approval. The proposed scope of work is dependent on securing disposal arrangements at an approved waste disposal facility pursuant to Section 121(d)(3) of CERCLA and 40 CFR § 300.440. EPA actions are expected to be completed within 12 months. Post-removal Site control should be undertaken by the Remedial Program.

B. Estimated Costs

The total Extramural Costs, including Contingency is $210,000.00

Removal Action Costs:	Total
Extramural Costs: Total Cleanup Contractor Costs (This cost category includes estimates for contractors, subcontractors, Notices to Proceed, and IAGs with other Federal Agencies	$175,000
Extramural Costs Contingency (20% of Subtotal, Extramural Costs)	$ 35,000
TOTAL REMOVAL ACTION PROJECT CEILING	$210,000

VI. EXPECTED CHANGE IN SITUATION SHOULD ACTION BE DELAYED OR NOT TAKEN

If a removal action is not taken or is significantly delayed, then trespassers can easily trespass onto the Facility property and be exposed to Site contaminants. Potentially, trespassers could find unearthed radioactive object(s), carry it offsite and cause harm to human health, welfare, or the environment.

VII. OUTSTANDING POLICY ISSUES

There are no outstanding policy issues related to the proposed Removal Action at this Site.

VIII. ENFORCEMENT

EPA has already performed a full potentially responsible party investigation as a requirement of the NPL listing. The OSC is coordinating with the EPA Cost Recovery Branch with information available to pursue all enforcement actions pertaining to the Site. See the attached Confidential Enforcement Addendum.

The total cumulative EPA costs for this removal action, based on full cost accounting practices that will be eligible for cost recovery are estimated below as:

Direct Extramural Cost:	$	210,000
Direct Intramural Costs:	$	22,800
Subtotal	$	232,800
Indirect Costs (65.54% of above)	$	152,577
Estimated EPA Costs for the Removal Action:	$	385,377

The total EPA costs for this Removal Action based on full-cost accounting practices that will be eligible for cost recovery are estimated to be $385,377.[1]

IX. RECOMMENDATION

This decision document represents the proposed Removal Action for the Peck Iron & Metal Superfund Site, located in the City of Portsmouth, Virginia, developed in accordance with CERCLA, as amended, and is not inconsistent with the NCP.

This decision is based on the Administrative Record for the Site. By signing this Action Memorandum, you are also hereby establishing the documents listed below as additions to the existing Administrative Record supporting the issuance of this Action Memorandum, pursuant to Section 113(k) of CERCLA and EPA Delegation No. 14-22.

1. Peck Iron and Metal Removal Site Visit, February 16-17, 2021, prepared by Christine Wagner, OSC
2. ATSDR Public Health Statement Ionizing Radiation, September 1999.
3. ATSDR Public Health Statement Radium CAS#: 7440-14-4, December 1990.
4. Memorandum to Site File: Recommendation for Removal Action Level for Objects Emitting Gamma Radiation at the Peck Iron and Metal Superfund Site, prepared by Marcos Aquino, Region 3 Radiation Safety Officer, September 1, 2021.
5. EPA Memorandum, Turnback Guidance for EPA Personnel Responding to Radiological Emergencies, December 7, 2009.
6. Final Remedial Investigation Report Peck Iron and Metal Superfund Site Portsmouth, Virginia, Revision 01, October 2019.

[1] Direct Costs include direct extramural and direct intramural costs. Indirect Costs are calculated based on an estimated indirect cost rate expressed as a percentage of site-specific direct costs, consistent with the full cost accounting methodology effective October 2, 2000. These estimates do not include pre-judgment interest, do not take into account other enforcement costs, including Department of Justice costs, and may be adjusted during the course of a Removal Action. The estimates are for illustrative purposes only and their use is not intended to create any. rights for responsible parties. Neither the lack of a total cost estimate nor deviation of actual costs from this estimate will affect the United States' right to cost recovery

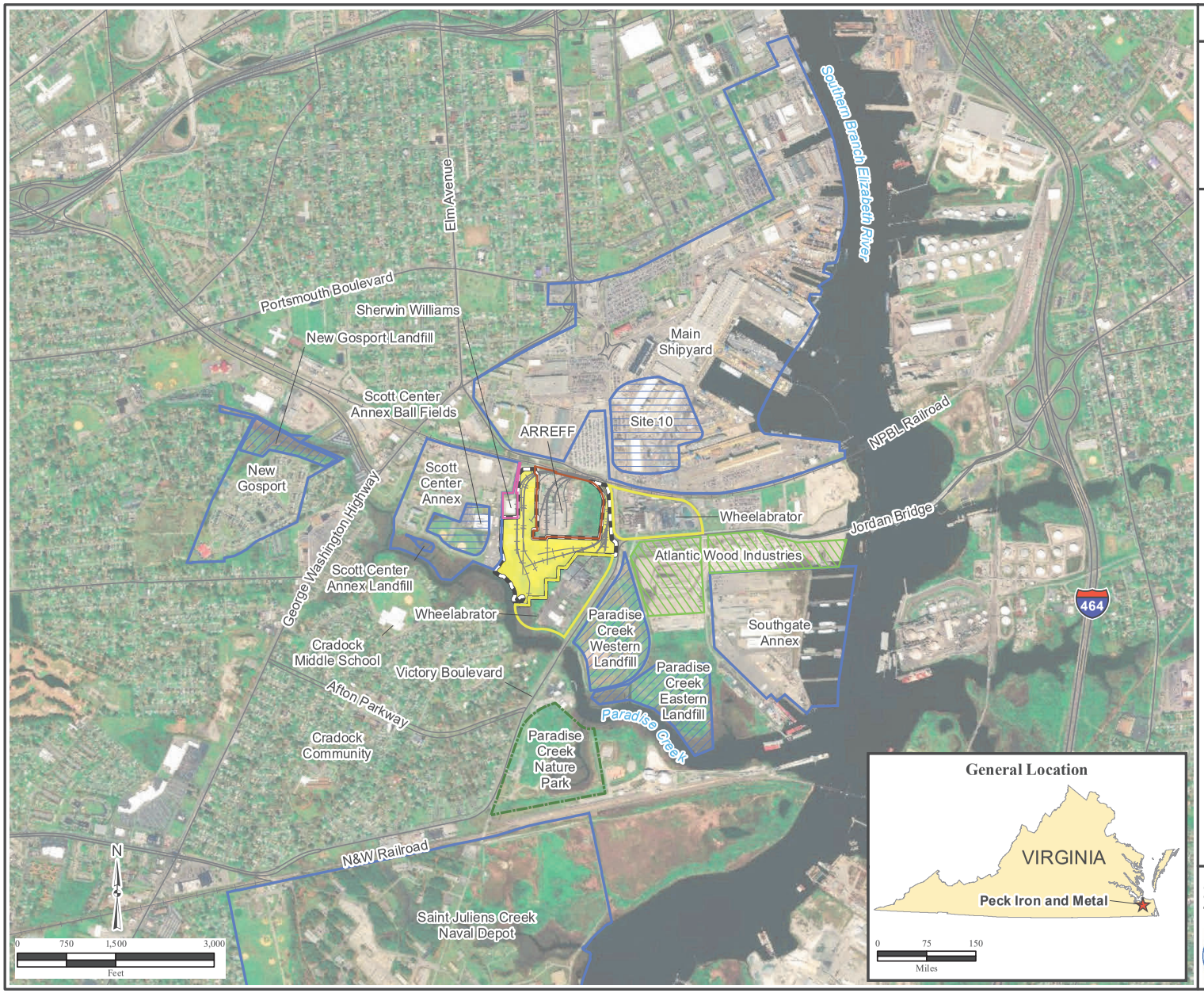
Because conditions at the Peck Iron & Metal Superfund Site meet the criteria in Section 300.415(b) of the NCP for a removal action, I recommend your approval of the proposed Removal Action. The total Removal Action Project Ceiling, if approved, will be $210,000.

Action by the Approving Official:
I have reviewed the above-stated facts and based upon those facts and the information compiled in the documents described above, I hereby determine that the release or threatened release of hazardous substances at and/or from the Site presents or may present an imminent and substantial endangerment to the public health or welfare or to the environment. I concur with the recommended removal action as outlined.

APPROVED: Linda Dietz Digitally signed by LINDA DIETZ Date: 2021.09.08 12:59:16 -04'00' **DATE:** _____

Linda Dietz, Acting Director
Superfund & Emergency Management Division
EPA Region III

Attachments:
1) RI report, Figure 2.1 Site Location
2) RI report, Figure 2.2 Site Layout
3) Table of Elevated dose readings February 2021
4) Table of Federal Radiation ARARs
5) Enforcement Confidential Memo



HGL—RI Report—Peck Iron and Metal, Portsmouth, VA

Figure 2.1
Site Location

Legend

- Major Road
- Railroad

Property Boundaries:

- Peck Iron and Metal (Site)
- NNSY
- Paradise Creek Nature Park
- Sherwin Williams
- ARREFF
- Atlantic Wood Industries (AWI)
- Wheelabrator Technologies, Inc.

NNSY Superfund Sites:

- Landfill
- Other

Notes:
NNSY=Norfolk Naval Shipyard
NPBL=Norfolk Portsmouth Belt Line
RI=Remedial Investigation

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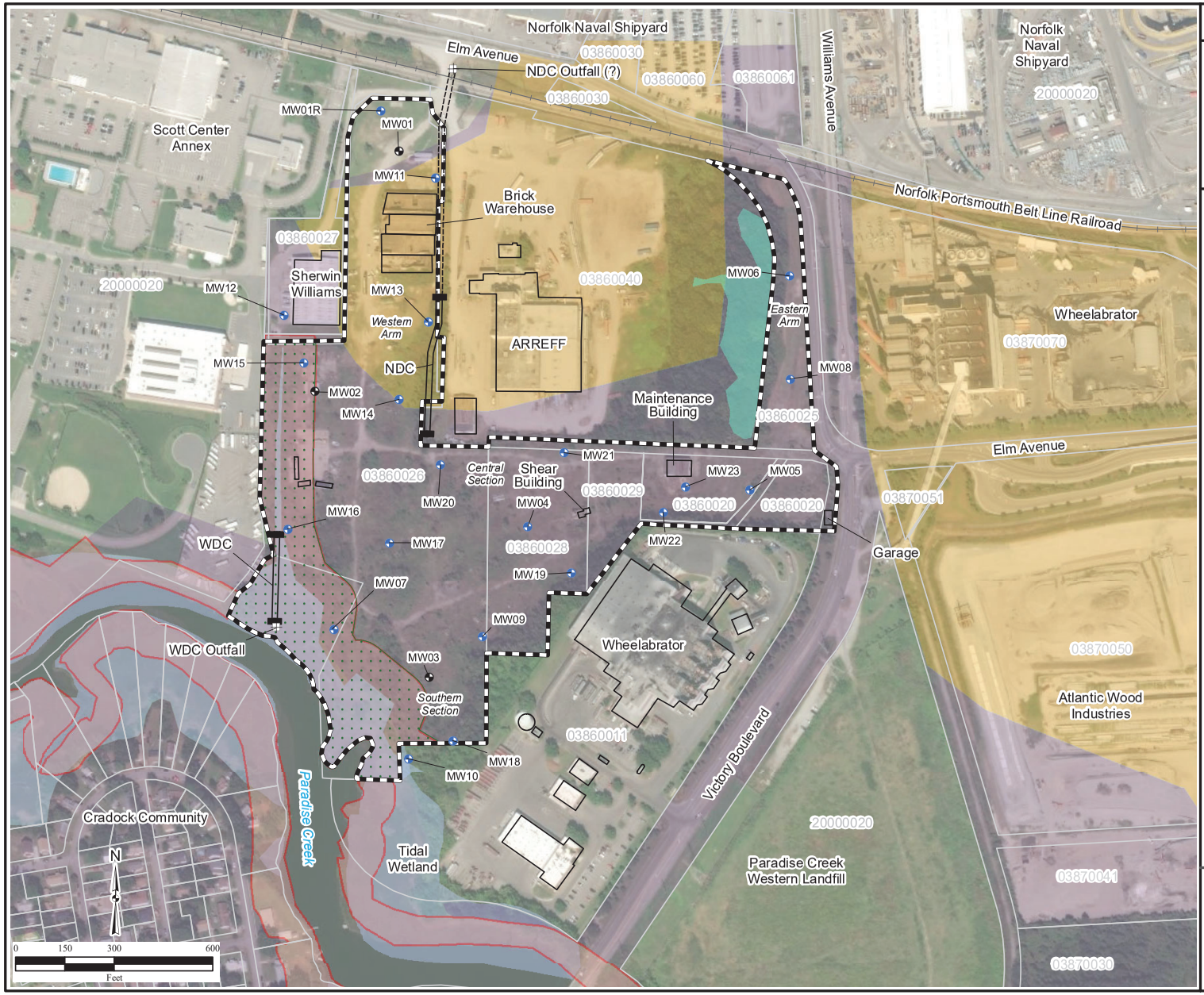
6/5/2019 CNL
Source: HGL, Malcolm Pirnie, EPA, US Census Bureau, ESRI, CH2M Hill ArcGIS Online Imagery

HydroGeoLogic, Inc

Attachment 2



HGL—RI Report—Peck Iron and Metal, Portsmouth, VA

Figure 2.2
Site Layout

Legend

- Site Groundwater Monitoring Well
- Covered Site Groundwater Monitoring Well
- Outfall
- MW01R Well Identification
- Drainage Channel
- Inferred Underground Pipe
- Railroad
- Building
- Parcel
- 03860028 Tax Parcel #
- estuarine wetland
- non-tidal freshwater wetland
- CBPA – Resource Protection Area
- CBPA – Intensely Developed Area
- CBPA – Regional Management Area
- Peck property placed into permanent conservation easement with ERP
- Peck Iron and Metal Site

Notes:
Wetland areas are defined and digitized by the National Wetlands Inventory branch of the U.S. Fish and Wildlife Service, September 26, 2011 and revised based on the onsite wetland survey conducted on June 15, 2015 and June 16, 2015.

CBPA=Chesapeake Bay Preservation Act
ERP=Elizabeth River Project
NDC=Northwestern Drainage Channel
RI=Remedial Investigation
WDC=Western Drainage Channel

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7/11/2019 CNL
Source: HGL, Malcolm Pirnie, EPA, NWI, ArcGIS Online Imagery

HydroGeoLogic, Inc

Attachment 3- Elevated Dose Readings February 2021 Radiation Survey

0615	[redacted]	[redacted]	25 µR/hr	
0616	[redacted]	[redacted]	150 µR/hr	
0617	[redacted]	[redacted]	270 µR/hr	
0618	[redacted]	[redacted]	75 µR/hr	
0619	[redacted]	[redacted]	819 µR/hr	
0620	[redacted]	[redacted]	32 µR/hr	
0621	[redacted]	[redacted]	90 µR/hr	
0622	[redacted]	[redacted]	9.2 mR/hr	*Ra-226* ***mR/hr*** is correct unit
0623	[redacted]	[redacted]	35 µR/hr	
0626	[redacted]	[redacted]	45 µR/hr	
0630	[redacted]	[redacted]	1.2 mR/hr	Unidentified object Ra-226
0634	[redacted]	[redacted]	181 µR/hr	
0635	[redacted]	[redacted]	88 µR/hr	
0636	[redacted]	[redacted]	209 µR/hr	
0637	[redacted]	[redacted]	290 µR/hr	
0638	[redacted]	[redacted]	690 µR/hr	
0641	[redacted]	[redacted]	1.2 mR/hr	Outside fence near old scale

All locations are within the Facility property

Attachment 4 -Radiation ARARs

Packaging and Transportation of Radioactive Waste	10 CFR Part 71	Relevant and Appropriate	Establishes requirements for packaging, preparation for shipment, and transportation of licensed material.	Alternatives 3 and 4: The preparation and off-site transportation of low-level radioactive waste shall be performed in accordance with the substantive requirements of these regulations.
General Provisions (Subpart A)	10 CFR 71.5 Transportation of licensed material			
Exemptions (Subpart B)	10 CFR 71.14 Exemption for low level materials			
Package and Approval Standards (Subpart E)	10 CFR 71.43 – General standards for all packages; 10 CFR 71.45 – Lifting and tie-down standards for all packages; 10 CFR 71.47 – External radiation standards for all packages			
Standards for Protection Against Radiation	10 CFR Part 20 Subpart C – Occupational Dose Limits; Subpart D – Radiation Dose Limits for Individual Members of the Public; Subpart G – Control of Exposures from External Sources; Respiratory Protection: Subpart H – Repiratory Protection and Controls to Restrict Internal Exposure in Restricted Areas; Subpart I – Storage and Control of Licensed Material; Subpart J - Precautionary Procedures; Appendix B to Part 20, Annual Limits on Intake (ALIs) and Derived Air Concentrations (DACs) of Radionuclides for Occupational Exposure; Effluent Concentrations; Concentrations for Release to Sewerage, Table 2 and Table 3	Relevant and Appropriate	NRC regulations to control receipt, possession, transfer and disposal of licensed material such that the total dose to an individual does not exceed standards for protection against radiation.	The substantive portions of these requirements are “relevant and appropriate” to Alternatives 2, 3 and 4 concerning the consolidation, temporary storage and long-term containment of OU1 soils with low-level radioactive waste. In addition, for Alternatives 3 and 4, these regulations are “relevant and appropriate” for any onsite excavation, temporary storage, transfer and disposal of PTW containing low-level radioactive waste.