



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 1
5 POST OFFICE SQUARE – SUITE 100
BOSTON, MASSACHUSETTS 02109-3912

CONTAINS ENFORCEMENT-SENSITIVE INFORMATION

MEMORANDUM

DATE: 20 September 2018

SUBJ: Request for a Removal Action at the Creese & Cook Co. (Former) 3 Site
Water Street, Danvers, Essex County, Massachusetts 01923
Action Memorandum

FROM: Richard A. Haworth, On-Scene Coordinator
Emergency Response and Removal Section II

THRU: William Lovely, Chief
Emergency Response and Removal Section II

Carol Tucker, Chief
Emergency Planning & Response Branch

TO: Bryan Olson, Director
Office of Site Remediation and Restoration

I. PURPOSE

The purpose of this Action Memorandum is to request and document approval of the proposed time-critical removal action at the Creese & Cook Co. (Former) 3 Site¹ (the Site), located on Water Street in the Town of Danvers, Essex County, Massachusetts.

The location of the proposed Removal Action is 45 Water Street at the southern tip of the East Study Area (Operable Unit 1) of the Creese and Cook Tannery (Former) National Priorities List (NPL) Site.

Hazardous substances present in soil will continue to pose a threat to human health and the environment if not addressed by implementing the response actions selected in this Action Memorandum. There are no nationally significant or precedent-setting issues associated with this Site, and the OSC's warrant authority has not been used.

¹ For consistency, the name selected is the same as a prior Removal Action, except that "2" is replaced with "3."

II. SITE CONDITIONS AND BACKGROUND

CERCLIS ID#: MAD001031574
SITE ID#: 01HL
CATEGORY: Time-Critical

A. Site Description

1. Removal Site evaluation

EPA's Remedial Program requested the Removal Program evaluate existing information to determine if a Removal Action could be initiated to address current threats to public health and the environment associated with contaminated soil on select residential properties within Operable Unit 1.

The Remedial Investigation/Feasibility Study (RI/FS) includes data pertaining to soil samples collected at 45 Water Street. The data shows that several hazardous substances are present, and at two locations, the concentration of arsenic at a depth from the surface to six inches exceeds EPA's Regional Removal Management Levels for chemicals with a 10^{-4} risk level for carcinogens or a Hazard Quotient (HQ) of 3 for non-carcinogens (RML3), as well as the Massachusetts Contingency Plan (MCP)² Imminent Hazard standard. At one location, the concentration of lead at a depth between 2 and 4 feet exceeds the MCP "S1" soil standard for residential locations.

On September 5th Removal and Remedial Program Managers and staff met with the EPA case team to discuss current Site conditions. It was agreed that the information available was sufficient to support an Action Memorandum to address arsenic-contaminated soil at 45 Water Street.

A Closure Memorandum dated 17 September 2018 formally documents the conclusion of the Removal Site Evaluation, and recommends that a Removal Action is appropriate because conditions at this Site meet the criteria in the National Contingency Plan (NCP) for initiating a Removal Action.

2. Physical location

The address for this Removal Action is 45 Water Street in Danvers, Massachusetts. This address is identified as Parcel 64 on the Town of Danvers Assessor's Office Map 23. The geographic coordinates are approximately 42.4418 degrees north latitude, 70.9258 degrees west longitude. The location of the proposed Removal Action is at the southern tip of the East Study Area of the Creese and Cook Tannery (Former) NPL Site. The boundary of the proposed Removal Action to the north is the balance of the NPL Site, and to the east, south, and west, the Crane River.

² 310 CMR 40.000

3. Site characteristics

The Site is a privately-owned, 0.89-acre parcel located in a mixed residential/commercial area, improved with a single 5-unit condominium building. The parcel includes level paved parking and landscaped areas adjacent to the building, and an unmaintained wooded area that slopes down to the Crane River on 3 sides, a portion of which is in the 100-year flood plain and the intertidal zone. From the level area it is approximately 8 feet to groundwater/mean sea level. All areas are accessible. Receptors may include residents, maintenance workers, and others that might trespass.

The Site was one of several properties formerly owned by or adjacent to the Creese and Cook Tannery Company, which operated a tannery and finishing facility beginning in 1903. Operations included the use and disposal of hazardous substances. Hazardous substances identified by EPA's Remedial Program include but are not limited to arsenic, chromium, PAHs and dioxin. Tannery waste has been identified in the Crane River, but the extent of contamination has not yet been fully defined.

Based on EPA's EJSCREEN environmental justice screening tool, ten of the eleven Environmental Justice Indexes for the area within a one-mile radius of the Site do not exceed the 50th percentile on a national basis. No value is provided for the eleventh category on a national basis, Superfund Proximity.

The operational status is inactive. The incident category is housing area. The owner-operator type is private.

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

The analytical results of tests performed on samples collected at this Site reveal that several hazardous substances are present, including but not limited to those listed below. Each is identified as a hazardous substance in 40 CFR 302.4. A comparison to relevant published standards is provided later in this document.

Hazardous Substance	Matrix	Depth (feet)	Maximum Concentration (parts per million - ppm)
Arsenic	soil	0-0.5	107
Lead	soil	2-4	601
Benzo(a)pyrene	soil	0-0.5	2.6

5. NPL status

The Site was proposed for inclusion on the NPL in September 2012, and included in the final listing of NPL sites on May 24, 2013.

B. Other Actions to Date

1. Previous actions - Removal

A Removal Action has taken place previously, however, not at the same location of this proposed action. The address of the former Removal Action was 33 Water Street, more northerly within the East Study Area. Approximately 450 tons of arsenic-contaminated soil was excavated and shipped off site in 2012.

2. Previous actions – Remedial

The information below is a subset of all Remedial Actions. Items identified are those associated with the East Study Area wherein the proposed Removal Action is located.

- Site assessment activities to support an evaluation for possible inclusion to the NPL.
- Remedial Investigation (“RI”) sampling activities, on the East Study Area (“ESA”) of the Site, which included taking over 350 soil borings, installing 13 groundwater monitoring wells, and obtaining 60 groundwater samples, 15 sediment samples, and including a tidal survey of the Crane River.
- A human health and baseline ecological risk assessment for the ESA.
- A combined Feasibility Study for the East and West Study Areas to evaluate different means of addressing unacceptable risk(s) posed by contaminants.

3. Current actions- Remedial

The Remedial Program’s goal is to issue a proposed cleanup plan for the East and West Study Areas in the near future.

C. State and Local Authorities’ Roles

1. State and local actions to date

For approximately twenty years, the Massachusetts Department of Environmental Protection (“MassDEP”) used its regulations to have investigations and response actions implemented by responsible parties. However ultimately, MassDEP requested EPA determine eligibility for the National Priorities List (“NPL”). The Site was proposed for inclusion on the NPL in September 2012, and included in the final listing of NPL sites on May 24, 2013.

2. Potential for continued State/local response

EPA is the lead agency at this NPL Site, and does not anticipate that the State will participate directly in the proposed Removal Action. The Removal Program will work with the Remedial Project Manager (RPM) and Community Involvement Coordinator (CIC) to maintain established relationships.

III. THREATS TO PUBLIC HEALTH OR WELFARE OR THE ENVIRONMENT, AND STATUTORY AND REGULATORY AUTHORITIES

Information about the principal contaminants of concern at this Site is provided below. Potential health effects identified are found in the 2010 federal Agency for Toxic Substances and Disease Registry's (ATSDR's) Toxicological Profiles or ToxGuides.TM

Arsenic

Arsenic cannot be destroyed in the environment. It can only change its form or become attached to, or separated from, particles. Inhalation of inorganic arsenic may cause respiratory irritation, nausea, skin effects, and increased risk of lung cancer. Limited data suggests that dermal absorption of arsenic is very low, however further data would be useful to establish whether arsenic uptake occurs from contact with contaminated soil or water, since humans may be exposed by these routes near hazardous waste sites. EPA and the Department of Health and Human Services (DHHS) have determined that arsenic is a human carcinogen.

Lead

The main target for lead toxicity is the nervous system, both in adults and children. Children are more vulnerable to the effects of lead than adults. The (DHHS) has determined that lead is reasonably anticipated to be a human carcinogen.

PAHs

PAHs are a group of chemicals that are formed during the incomplete burning of coal, oil, gas, wood, garbage, or other organic substances, such as tobacco and charbroiled meat. There are more than 100 different PAHs. PAHs generally occur as complex mixtures, for example, as part of combustion products such as soot, not as single compounds. PAHs occur naturally, and can be manufactured as individual compounds for research purposes, however, not as the mixtures found in combustion products. Although the health effects of individual PAHs are not exactly alike, the following 17 PAHs were considered as a group for the PAH toxicological profile: acenaphthene, acenaphthylene, anthracene, benzo[a]anthracene, benzo[a]pyrene, *benzo[e]pyrene*, benzo[b]fluoranthene, benzo[g,h,i]perylene, *benzo[j]fluoranthene*, benzo[k]fluoranthene, chrysene, dibenzo[a,h]anthracene, fluoranthene, fluorine, indeno [1,2,3-c,d]pyrene, phenanthrene, and pyrene. (PAHs in italics are not included as analytes in lab reports for this Site; others were detected present.)

These 17 PAHs were chosen by ATSDR for consideration as a group because (1) more information is available on these than on the others; (2) they are suspected to be more harmful

than some of the others, and they exhibit harmful effects that are representative of the PAHs; (3) there is a greater chance that you will be exposed to these PAHs than to the others; and (4) of all the many PAHs analyzed, these were the PAHs identified at the highest concentrations at hazardous waste sites on the NPL.

Under normal conditions of environmental exposure, PAHs could enter your body if your skin comes into contact with soil that contains high levels of PAHs. PAHs can enter all the tissues of the body that contain fat. They tend to be stored mostly in the kidneys, liver, and fat. Studies of people show that individuals exposed by breathing or skin contact for long periods to mixtures that contain PAHs and other compounds can also develop cancer. The PAH content of plants and animals living on the land or in water can be many times higher than the content of PAHs in soil or water.

Based on Site conditions and information available on the hazardous substances present, the Site poses the threats to public health and the environment outlined below.

Actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances or pollutants or contaminants; [§300.415(b)(2)(i)];

Lab analysis reveals the presence of several hazardous substances, including but not limited to those listed above in Section II A 4. The residents of the condominium on the Site are the most likely to be exposed to hazardous substances in surface soil while playing or spending time on the property. Other potential exposures include new residents, maintenance workers, utility/construction workers, trespassers, and pets.

High levels of hazardous substances or pollutants or contaminants in soils largely at or near the surface, that may migrate [§300.415(b)(2)(iv)];

Lab tests performed on soil samples collected from the surface to a depth of six inches, show that several hazardous substances are present, and at two locations, the concentration of arsenic exceeds EPA's RML3, and the MCP's Imminent Hazard standard. At one location, the concentration of lead at a depth between 2 and 4 feet exceeds the MCP "S1" soil standard for residential locations.

Hazardous Substance	Matrix & depth bgs (feet)	Maximum Concentration (ppm)	EPA RML HQ=3 Residential (ppm)	DEP Imminent Hazard (ppm)	DEP S1 (residential) (ppm)
Lead	soil 2-4	601	400	none	200
Arsenic	soil 0-0.5	107	68	40	20
Benzo(a)pyrene	soil 0-0.5	2.6	11	none	2.0
Bold indicates the standard is exceeded. bgs = below ground surface					

Lateral and/or vertical migration may occur via precipitation or by water used to fight a fire should one occur. People and pets could spread contamination after contacting contaminated soil, as might maintenance or construction workers.

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

Some hazardous substances found in soil have also been found in groundwater. Precipitation may be causing contaminants to migrate into groundwater, or laterally into the Crane River or adjoining shoreline. Hazardous substances in low-lying portions of the site could migrate to the River from tidal influence or flood events.

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

EPA's Remedial Program has requested the Removal Program abate the threats outlined above so that they are addressed more quickly than would otherwise be possible. Due to the limited scope of the proposed Removal Action, and because EPA is the lead agency at this NPL Site, it is not reasonable to expect that the State would participate directly in the execution of the proposed Removal Action.

IV. ENDANGERMENT DETERMINATION

Actual or threatened releases of hazardous substances or pollutants or contaminants from this Site, if not addressed by implementing the response action selected in this Action Memorandum, may present an imminent and substantial endangerment to public health, welfare, or the environment.

In accordance with OSWER Directive 9360.0-34 (August 19, 1993), an endangerment determination is made based on "appropriate Superfund policy or guidance, or on collaboration with a trained risk assessor. Appropriate sources include, but are not limited to, relevant action level or clean-up standards, Agency for Toxic Substances and Disease Registry documents or personnel, or staff toxicologists." The sources cited above in this action memorandum document this requirement has been met, specifically, EPA's Removal Management Levels (<http://www.epa.gov/region4/superfund/programs/riskassess/rml/rml.html>), and the Massachusetts Contingency Plan Imminent Hazard soil standard.

V. PROPOSED ACTIONS AND ESTIMATED COSTS

A. Proposed Actions

1. Proposed action description

While the available data set is adequate to support a Removal Action, it does not provide enough information to define the limits of the proposed action at 45 Water Street. Therefore, EPA will collect additional soil samples at the beginning of the proposed action to better define the extent of soil contamination that will be addressed as part of the presumptive response action, which is further described in the paragraphs below.

The presumptive response action is excavation and off-site disposal of contaminated soil to a depth of three feet or groundwater, whichever is less, and at locations where the MCP "S1" standard is exceeded for arsenic, lead, or PAHs. However, other actions may also be implemented. The reconnaissance-level archaeological survey performed for the RI concluded that undisturbed, undeveloped areas, including 45 Water Street, are areas of high archaeological potential, where historical and/or pre-contact archaeological resources may remain. The survey recommended that these areas should be avoided and protected during any remediation activities. The area of interest is approximated by the area in the 100-year flood plain. This will be considered when selecting a removal response action in this area.

For example, as compared to soil excavation, installing rip rap in areas subject to tide or flood could be an effective means to prevent access and transport of contaminants from the Site to the Crane River, and conversely, to avoid re-contamination of clean backfill that may result from deposition of contaminated river sediment by tide or flood. In the alternative, a fence might be the best option for this portion of the Site. It is also possible that sample results may demonstrate no action is necessary in this particular area.

The balance of the site is categorized as a low-interest area due to prior disturbance/development, and so is not expected to be negatively impacted by excavating contaminated soil. Nevertheless, workers will be made aware of the situation, and any potential items of interest that may be encountered will be addressed, as appropriate. Following the collection and review of additional soil data, the OSC will perform an initial Site visit with a representative of EPA's Emergency and Rapid Response Services (ERRS) contractor to review the scope, objectives, and approach to the project, health and safety considerations, and arrangements necessary to initiate work at the Site.

A site-specific Health and Safety Plan will be developed in accordance with regulations promulgated by the Occupational Safety and Health Administration, and all actions at the Site will be performed in accordance with this Plan.

An office trailer, storage units, and sanitary facilities may be brought to the Site. Silt fence, hay bales, or other similar measures will be installed as necessary to limit or avoid impacting the Crane River and adjacent shoreline. Temporary fence, caution tape, and/or signs will be used to identify work areas. Crushed stone or other suitable material may be used to stabilize existing conditions to allow access to work areas.

The project will employ temporary fence, caution tape, and/or warning signs to secure work areas, and security guards posted if warranted by circumstances. Wetting soil will be performed if needed to supplement existing soil moisture so that dust will be limited or prevented, thereby preventing the potential for off-site migration of contaminants.

Where excavation is implemented, heavy equipment will be used to clear and grub vegetation prior to addressing contaminated soil. Excavation will be limited to a maximum depth of three feet; however, excavation below three feet, may be undertaken in a limited area to remove a discrete source of contamination, such as a pocket of highly-contaminated soil, or drums or bulk waste that may be discovered during soil excavation. The limits of excavation will be identified for future reference with high visibility fence. Excavated areas will be filled with clean soil obtained from off-site, and analyzed for hazardous substances before placement. The proposed action includes addressing drums, other containers, or waste that may be encountered while performing the proposed action where NCP criteria are met.

The proposed action does not include excavation or removal of sediment in the Crane River or adjoining shoreline, or soil under the site building or paved areas.

Grass and landscape plants around the site building will be re-established, although plants may not be identical cultivars. Similarly, affected portions of the wooded area between the River and the landscaped area will be re-vegetated, however, the size of trees will be limited to those available at local nurseries.

Samples may be collected of waste, soil, water, air or other matrices to comply with the requirements of the Site's health and safety plan, characterize waste, further characterize Site conditions, document the effectiveness of the cleanup/final conditions, assure the quality of backfill obtained from off-site vendors, or for other reasons.

Excavated soil, waste, and other contaminated items that may be encountered, or are related to, or generated during the performance of this proposed action, will be shipped off site for disposal, treatment, re-use, or recycling. Off-site disposal of hazardous waste will be done in accordance with the Off-Site Rule, 40 CFR 300.440.

Response-related damage will be repaired, if appropriate; for example, repair of damage to the exterior of the condominium building if that occurs while excavating contaminated soil in close proximity.

If records believed to be related to contamination are found at the Site, they will be viewed, copied, photographed, and/or otherwise documented, and removed for storage and preservation.

2. Community relations

The OSC will coordinate with the assigned CIC and RPM to establish how best to maintain good community relations, such as arranging a neighborhood meeting and/or providing written Community Updates. A press release may be issued at the start and/or conclusion

of the Removal Action. Pollution Reports will be generated periodically. A Site Administrative Record will be established and made available at the local repository that has been established near the Site at the Peabody Institute Library, 15 Sylvan Street in Danvers, as well as the Records Center at EPA's Boston Office, and via the internet at www.epa.gov/superfund/creese.

3. Contribution to remedial performance

The RPM has participated in the development of the proposed Removal Action, which is designed to mitigate the threats to human health and the environment outlined above. Should a proposed cleanup plan for a Remedial Action at the NPL Site be issued prior to the initiation of the Removal Action, the OSC will coordinate with the RPM to ensure consistency with the Remedial Action, subject to the statutory and funding limitations of the Removal program. The Removal Action, to the extent practicable, will contribute to the efficient performance of the long-term Remedial Action, as required by 40 C.F.R. 300.415.

Removing soil contaminated with hazardous substances is expected to reduce exposure to nearby residents, and the potential for migration of contaminants off-site, or to other areas on site, which is a goal consistent with any final Remedial remedy. Because the final remedial remedy for the NPL Site may not be determined while implementing the proposed Removal Action, it is anticipated that contaminated soil will be shipped off-site for disposal. Off-site disposal will not impede a future Remedial response action.

4. Description of alternative technologies and sustainable approaches

In accordance with the December 23, 2013 memorandum issued by OLEM Assistant Administrator as well as the Region I Clean and Greener Policy for Contaminated Sites, greener cleanup practices should be considered for all cleanup projects. Greener cleanup is the practice of incorporating practices that minimize the environmental impacts of cleanup actions and maximize environmental and human benefit. Alternative technologies and sustainable approaches will be considered and incorporated, as appropriate, throughout the implementation of this removal action.

Although the soil to be addressed by the proposed Removal Action has not been fully characterized for disposal, the available data suggests it unlikely that an alternative to landfill disposal can be employed.

Sustainability efforts will include ensuring that contractors are meeting or exceeding the green remediation requirements of their contract. A no-idling policy will be implemented. Solar generators will be utilized if available in the size required.

5. Applicable or relevant and appropriate requirements (ARARs)

Pursuant to 40 C.F.R. 300.415(j), removal actions shall, to the extent practicable considering the exigencies of the situation, attain ARARs. Attainment is subject to EPA Publication 540/P-91/011, "Superfund Removal Procedures: Guidance on the Consideration of ARARs During Removal Actions." The regulations identified at this time are listed below, and are relevant and appropriate.

Federal ARARs

Resource Conservation and Recovery Act, Subtitle C, 40 CFR Parts 260-262 and 268: Hazardous Waste Identification and Listing Regulations; Generator and Handler Requirements; Land Disposal Restrictions.

Clean Air Act, 40 CFR Part 61: standards for controlling dust.

Clean Water Act, 40 CFR Sections 122.26(c)(ii)(C) and 122.44(k): NPDES regulations for storm water control and management.

Clean Water Act Section 404(b), (40 CFR Parts 230 and 231, 33 CFR Parts 320-323, and 33 CFR Part 332): No activity that adversely affects a wetland shall be permitted if a practicable alternative with lesser impacts is available. Controls discharge of dredged or fill material to protect aquatic ecosystems. Any wetlands altered by the cleanup will be restored as required by regulatory standards.

Floodplain Management and Protection of Wetlands, 44 CFR 9 (44 CFR Part 9): Regulations that set forth the policy, procedure and responsibilities to implement and enforce Executive Order 11988 (Floodplain Management) and Executive Order 11990 (Protection of Wetlands). Prohibits activities that adversely affect a federally-regulated wetland unless there is no practicable alternative and the proposed action includes all practicable measures to minimize harm to wetlands that may result from such use. Requires the avoidance of impacts associated with the occupancy and modification of federally-designated 100-year and 500-year floodplain.

Fish and Wildlife Coordination (50 CFR Part 297; 16 USC Section 661 et seq.): Any modification of a body of water requires consultation with the U.S. Fish and Wildlife Services and the appropriate state wildlife agency to develop measures to prevent, mitigate or compensate for losses of fish and wildlife.

National Historical Preservation Act (16 U.S.C. 469 et seq.; 36 CFR Part 65): Standards related to sites where a federal agency finds that its activities in connection with a federal construction project may cause irreparable loss or destruction of significant scientific, pre-historical, historical, or archeological data.

State ARARs

310 CMR 40.0900: Procedures and Standards for the Characterization of the Risk of Harm to Health, Safety, Public Welfare and the environment.

310 CMR 30.100: Hazardous Waste Rules for Identification and Listing of Hazardous Wastes.

310 CMR 30.300: Hazardous Waste Management Rules – Requirements for Generators

310 CMR 7.00: standards for controlling dust and odor

The OSC will coordinate with State officials to identify any additional State ARARs, as appropriate. In accordance with the National Contingency Plan and EPA Guidance Documents, the OSC will determine the applicability and practicability of complying with each ARAR that is identified in a timely manner.

6. Project schedule

The goal is to complete the proposed Removal Action in less than one year.

B. Estimated Costs

Based on the limited data available, and that one or more response actions may be selected based on additional data to be collected, the actual cost may vary widely from the estimate below. It assumes three feet of soil is excavated from across the entire portion of the property above the 100-year flood plain/area of high archeological interest, and is not covered by a building or pavement (3120 tons), and that the entire amount does not require disposal as hazardous waste. An amount is allocated for rip rap and fence installation.

COST CATEGORY		CEILING
<i>REGIONAL REMOVAL ALLOWANCE COSTS:</i>		
ERRS Contractor		\$831,000.00
<i>OTHER EXTRAMURAL COSTS NOT FUNDED FROM THE REGIONAL ALLOWANCE:</i>		
START ³ Contractor		\$100,000.00
Extramural Subtotal		\$931,000.00
Extramural Contingency	20%	\$186,000.00
TOTAL, REMOVAL ACTION CEILING		\$1,117,000.00

³ Superfund Technical Assistance and Response Team

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

In the absence of the response action described herein, conditions at the Site will persist. The hazardous substances identified above will remain at the Site, and continue to pose the threats to public health, welfare, or the environment outlined in Section III of this action memorandum.

VII. OUTSTANDING POLICY ISSUES

There is no nationally significant or precedent-setting issue associated with this Site that would require a review by EPA Headquarters prior to implementation.

VIII. ENFORCEMENT ... For Internal Distribution Only

See attached Enforcement Strategy.

The total EPA costs for this removal action based on full-time accounting practices that will be eligible for cost recovery are estimated to be \$1,117,000 (extramural costs) + \$100,000 (EPA intramural costs) = \$1,217,000 x 1.4867 (regional indirect rate) = **\$1,809,314⁴**.

⁴Direct Costs include direct extramural costs \$1,117,000 and direct intramural costs \$100,000. Indirect costs are calculated based on an estimated indirect cost rate expressed as a percentage of site-specific costs, 48.67% (for fiscal year 2018) of \$1,117,000, consistent with the full accounting methodology effective October 13, 2017. 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 total costs from this estimate will affect the United States' right to cost recovery.

IX. RECOMMENDATION

This decision document represents the selected removal action for the Creese & Cook Co. (Former) 3 Site in Danvers, Massachusetts, developed in accordance with Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), as amended, and is not inconsistent with the National Contingency Plan. The basis for this decision will be documented in the administrative record to be established for the Site.

Conditions at the Site meet the NCP Section 300.415(b) criteria for a removal action based on the following factors:

Actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances or pollutants or contaminants [§300.415(b)(2)(i)];

High levels of hazardous substances or pollutants or contaminants in soils largely at or near the surface, that may migrate [§300.415(b)(2)(iv)];

Weather conditions that may cause hazardous substances or pollutants or contaminants to migrate or be released [§300.415(b)(2)(v)]; and,

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

I recommend that you approve the proposed removal action. The total extramural removal action project ceiling if approved will be \$1,117,000.00.

APPROVAL: 

DATE: 9/24/18

DISAPPROVAL: _____

DATE: _____