



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

**U.S. ENVIRONMENTAL PROTECTION AGENCY
\$250,000 EMERGENCY ACTION MEMORANDUM**

DATE: June 6, 2014

SUBJECT: Action Memorandum for an Emergency Response Removal Action at the Knoxville College pursuant to the On Scene Coordinator's delegated authority under CERCLA Section 104

FROM: Kevin Eichinger, OSC KME
Emergency Response and Removal Branch

THRU: James Webster, Chief
Emergency Response and Removal Branch

TO: Franklin Hill, Director, Superfund Division
Regional Emergency Operations Center, 4SD-ERRB
Tennessee Department of Environment and Conservation (TDEC)
Site File

I. PURPOSE

The purpose of this memorandum is to document the decision to initiate emergency response actions described herein for the Knoxville College Site (the Site) located in Knoxville, Knox County, Tennessee, pursuant to the On-Scene Coordinator's (OSC) delegated authority under CERCLA Section 104.

II. SITE INFORMATION

A. Site Description

Site Name: Knoxville College
Superfund Site ID (SSID): B43S
NRC Case Number: 1042540
CERCLIS Number:

Site Location: 901 Knoxville College Drive, Knoxville, Knox County, Tennessee
Lat/Long: 35.970870, -83.943343
Potentially Responsible Party (PRP): Knoxville College
NPL Status: No
Removal Start Date: June 5, 2014

B. Site Background

1. Removal Site Evaluation

Knoxville College reportedly discontinued their science program in 2007. Since then, time, vandalism, and theft have led to the destruction and degradation of much of the containers stored in the A. K. Stewart Science Center. Tennessee Department of Environmental Conservation (TDEC) performed a site reconnaissance on June 5, 2014, and immediately contacted the EPA Region 4 Emergency Response and Removal Branch (ERRB) to report the conditions. Thousands of bottles of hazardous chemicals, including acids, bases, oxidizers, organic peroxides, cyanides, radioactive sources, and asbestos are all present in the building. Container sizes range from 5-gallon buckets to milliliter-sized containers. Many containers have no labels or the labels are illegible.

Several containers are spilled, broken, or otherwise destroyed. Flammable and corrosive liquids are spilled onto the floor. Vandals have thrown containers from upper windows onto the ground below causing the bottles to break and spill. Elevated mercury levels were detected throughout the facility. Three radioactive sources were found unsecured in the building.

The building is dilapidated, with leaks in the roof and a flooded ground floor. There is no security; the windows are broken and the doors are not functional. Entry into the building is unrestricted.

2. Physical Location and Site Characteristics

The Site is located at 901 Knoxville College Drive, Knoxville, Knox County, Tennessee. The college is in a residential neighborhood with residences directly across the street. The facility is not unsecured. There are numerous dilapidated structures on the campus that show evidence of trespassers and use by vagrants. The AK Stewart Science Center is a three story brick structure located in the center of the campus. Currently, the College is utilizing one building for education and administrative purposes.

3. Release or Threatened Release into the Environment of a Hazardous Substance, or Pollutant or Contaminant

There are numerous containers of hazardous materials, including some extremely hazardous substances that are unsecured. Many are already broken and rain

infiltration threatens to wash spilled hazardous contaminants from the building and into the environment. Continued vandalism and theft in the building will only exacerbate the problem. The nature of chemicals present poses toxic, flammable, and reactive threats to anyone mixing or “playing” with the chemicals. This poses the greatest threat to neighborhood children who enter the abandoned building.

III. THREATS TO PUBLIC HEALTH, WELFARE OR THE ENVIRONMENT

A. Nature of Actual or Threatened Release of Hazardous Substances, Pollutants or Contaminants

There are numerous containers of hazardous materials, including some extremely hazardous substances that are unsecured. Many are already broken and the rain infiltration threatens to wash spilled chemicals from the building into the environment. Continued vandalism and theft in the building will only exacerbate the problem. The nature of chemicals present poses toxic, flammable, and reactive threats to anyone mixing or “playing” with the chemicals. This poses the greatest threat to neighborhood children who enter the abandoned building.

In consideration of these factors, the OSC elected to initiate an emergency response to address the potential risk of fire, explosion, and release of hazardous substances to the environment.

B. Applicable factors which were considered in determining the appropriateness of a removal action (40 CFR 30.415)

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)].

There are numerous containers of hazardous materials, including some extremely hazardous substances that are unsecured. Continued vandalism and theft in the building will lead to greater exposure, and mixing of chemicals, either intentionally or accidentally, may lead to fire or the release of even more toxic products.

Hazardous substances or pollutants or contaminants in drums, barrels, tanks, or other bulk storage containers, that pose a threat of release [300.415(b)(2)(iii)].

There are thousands of containers of hazardous materials, including some extremely hazardous substances, ranging in volume from 5-gallon buckets to milliliter-sized containers.

Weather conditions that may cause hazardous substances or pollutants to migrate or to be released [300.315(b)(2)(v)]

Rain infiltration will cause the building to further deteriorate, leading to breakage of the containers and migration of spilled hazardous substances and contaminants outside the building into the surrounding environment.

Threat of fire or explosion [300.415(b)(2)(vi)]

Many of the chemicals are flammable, and some have already spilled or were intentionally spilled onto the floor. Vandals may set fire to the chemicals, either intentionally or accidentally through incompatible reactions.

The availability of other appropriate federal or state response mechanisms to respond to the release [300.415(b)(2)(vii)]

Conditions at the site exceed the local and state resource capabilities. At this time there are no State mechanisms that are able to respond to this incident with the resources needed to assume the cleanup. TDEC requested EPA assistance.

IV. SELECTED REMOVAL ACTIONS AND ESTIMATED COSTS

A. Situation and Removal Activities to Date

1. Current Situation

EPA and Superfund Technical Assistance Response Team (START) contractor, Tetra Tech, mobilized to the Site on 06/05/2014. OSC met with the President of the College and discussed the situation. The President stated that the College does not have the financial resource to address the situation or to secure the facility. The President granted access to the facility and signed an access agreement. The Facility Manager confirmed that power has been disconnected to the building. EPA requested that the College have the natural gas disconnected to the building.

On 06/06/2014, EPA, START and Emergency and Rapid Removal Services (ERRS) contractor, CMC, completed multiple entries into the building to assess the situation and to determine the magnitude/threat while wearing Level B Personal Protective Equipment. Crews observed and documented thousands of chemical bottles ranging in size from 5-gallons to milliliter volumes. Many of the chemical containers are damaged, leaking, unlabeled, or otherwise compromised. Crews observed flammable, combustible, oxidizing, toxic, air reactive, corrosive, biological, and radioactive materials as well as incompatible storage conditions. Crews also detected elevated mercury levels throughout the building. Crews observed suspect friable asbestos containing building materials (ACBM) on the floor throughout the buildings. Some of the suspect ACBM has fallen on chemical

bottles. Three radioactive sources were found in a ground floor laboratory; no elevated radiation levels were detected outside of the laboratory. ERRS has secured the ground floor windows and damaged doors. EPA has closely interacted and coordinated with TDEC, the Tennessee Emergency Management Agency (TEMA) and the City of Knoxville. The OSC issued a CERCLA Notice of Federal Interest (NOFI). Currently, crews are mobilizing additional personnel and equipment to remove and mitigate the hazardous substances that are a threat to human health and the environment.

2. Removal Activities To Date

a. Federal Government/Private Party

There have been no removal actions to date. The response initiated by the OSC is the first action taken at the building.

b. State/Local

TDEC enlisted the support of EPA Region 4. The Knox County EMA and Knoxville Fire Department were on-scene and agreed that in the event of a fire, the building would be allowed to burn. Any additional response actions will be coordinated through TDEC.

3. Enforcement

Knoxville College has stated they are the property owners and former operators of the Science Hall, but are financially unable to perform the removal.

B. Planned Removal Actions

1. Proposed Action Description

Anticipated removal activities for the Site will include, but are not limited to, the following:

- a. Secure the Site to limit trespass or other unauthorized entry;
- b. Conduct an inventory of all materials stored at the Site;
- c. Stabilize hazardous materials pending testing and disposal;
- d. Segregate hazardous materials into hazard categories;
- e. Sample for hazard categorization and disposal profiling;
- f. Consolidate, re-package, over-pack, and lab-pack materials;
- g. Dispose, treat, and/or recycle materials at an off-site location;
- h. Conduct additional cleanup activities that may include demolition, excavation of contaminated soils, and/or decontamination of personnel and equipment, as necessary, to provide a safe and efficient work environment;

- i. Conduct comprehensive air monitoring for employee and community protection; and,
- j. Coordination with Local and State Agencies.

2. Contribution to Remedial Performance

The proposed actions will, to the extent practicable, contribute to the efficient performance of any long-term remedial action at the Site.

3. Applicable or Relevant and Appropriate Requirements (ARARs)

Removal actions conducted under CERCLA are required to attain ARARs to the extent practicable. In determining whether compliance with ARARs is practicable, the OSC may consider appropriate factors, including the urgency of the situation and the scope of the removal action to be conducted.

The Federal ARARs identified for the site include:

- a. RCRA Land Disposal Restrictions
- b. RCRA Treatment, Storage and Disposal
- c. RCRA Transportation Regulations
- d. DOT Hazardous Materials Regulations

The State has not provided any ARARs.

4. Project Schedule

The removal action is anticipated to be completed within 3 months of Start Date listed in Section II of this document.

C. Estimated Costs²

Contractor costs (ERRS)	\$ 200,000
Contractor costs (START)	\$ 50,000
Other Extramural costs	0
Total Removal Project Ceiling	\$250,000¹

¹ EPA direct and indirect costs, although cost recoverable, do not count toward the removal ceiling for this removal action. Liable parties may be held financially responsible for costs incurred by the EPA as set forth in Section 107 of CERCLA.

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

A delay in action or no action at this Site would increase the actual or potential threats to the public health and/or environment from the uncontrolled release of hazardous substances.

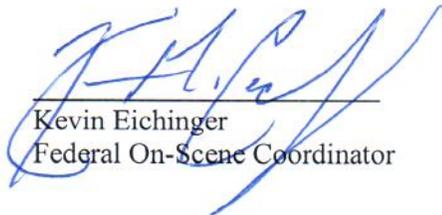
VI. OUTSTANDING POLICY ISSUES

None

VII. APPROVALS

This decision document represents the selected removal action for this Site, developed in accordance with CERCLA as amended, and not inconsistent with the National Contingency Plan. This decision is based on the administrative record for the site.

Conditions at the site meet the NCP section 300.415(b) criteria for a removal and through this document I am approving the proposed removal actions. The total project ceiling is \$250,000, of which an estimated \$200,000 may be funded from the Regional removal allowance.


Kevin Eichinger
Federal On-Scene Coordinator

June 6, 2014
Date