



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 1

1 CONGRESS STREET, SUITE 1100

BOSTON, MASSACHUSETTS 02114-2023

Enforcement- Sensitive Information Attached

MEMORANDUM

DATE: July 12, 2002

SUBJ: Request for a Removal Action at the Temple-Stuart Superfund Removal Site, Baldwinville, Worcester County, Massachusetts

FROM: Mary Ellen Stanton, On-Scene Coordinator *Mary Ellen Stanton*
Site Evaluation and Response Section I

THRU: David McIntyre, Chief *DMcIntyre*
Site Evaluation and Response Section I

TO: Richard Cavagnero, Acting Director *RCavagnero*
Office of Site Remediation and Restoration

I. PURPOSE

The purpose of this Action Memorandum is to request and document approval to expend up to \$ 845,000, of which \$ 720,000 would be used for extramural contractor expenditures, to mitigate immediate threats to human health and the environment posed by the presence of uncontrolled hazardous substances at the Temple-Stuart Site (the "Site"). Materials present at the Site include friable asbestos-containing thermal systems insulation, building materials and debris, and polychlorinated biphenyls (PCBs). The proposed action will consist of removal and disposal of friable asbestos-containing materials (ACM), containerized waste materials, and any highly PCB contaminated surface soil. Because of conditions at the Site, the proposed removal action is time-critical.

II. SITE CONDITIONS AND BACKGROUND

CERCLIS ID# : MAD985297969
SITE ID# : 01AC
CATEGORY : Time-Critical Removal Action

A. SITE DESCRIPTION

1. Physical Location and Site Characteristics

The Site is a 23-acre property with five adjoining buildings and a garage located in a largely residential area at 4 Holman Street, Baldwinville, Massachusetts. Baldwinville is one of four

villages which comprise the Town of Templeton, whose population is 7000. The Temple-Stuart facility is approximately three eighths of a mile from the center of Baldwinville. Several hundred residents live within a quarter mile. Located within a mile of the Site are an elementary school, a reform school, a nursing home, and two units of housing for the elderly. The public has access through the Site between Route 202 and local residential areas. An unnamed subsurface stream flows along the southwest Site boundary, parallel to the railroad tracks and beneath Route 202, and an unnamed surface stream flows southwest along the northern Site boundary. Measured from the center of the property, geographic coordinates of the Site are 42° 36' 37" north latitude and 72° 04' 33.5" west longitude.

The Site is bounded:

- northeast by woods, wetlands, and a landfill area;
- northwest by Route 202;
- southeast by Holman Street and residences; and
- southwest by active railroad lines and residences.

Building A (the "Mill/Assembly Building") is a two-story, 12,500 square foot (ft²), concrete brick building located on the southeastern portion of the property, which reportedly contained a tool shop, dryer rooms, and a boiler room. Transformers were formerly located on the lower floor of the southwestern portion of the building.

Building B ("the Frame Stain Shop") is a 7,500 ft² two-story concrete brick and wood building adjoining the western side of Building A. Most of its windows are broken, and much of the roof and roof vents have begun to collapse. Building B reportedly also contained a storage room and boiler room.

The warehouse is a 9,400 ft² one-story wood and brick building adjoining the northern side of Building B. At this time, the central portion of the warehouse roof has collapsed. Building C (the former Butler Building) is a 6,000 ft² two-story concrete building on the northern side of the warehouse, with two loading docks on the southeast side. The warehouse and Building C were formerly used to store finished furniture. Building C is currently being used to store rolls of paper products.

Building F (the Office Building) is a narrow 4,000 ft² two-story concrete brick building adjoining the southeast side of Building A. The southern portion of Building F reportedly contained a compressor and several kilns. Building E (a garage) is a 930 ft² one-story concrete brick building located east of Building A. The west side of Building E has five garage doors. Buildings A, B, E, F, and the warehouse are in an advanced state of disrepair. The buildings are surrounded by areas of deteriorating pavement, gravel, scrap piles, and grassy areas. A water tower and two sawdust silos are located southwest of Building A.

2. Site History

The Site was first occupied in 1884 by Holman and Harris (H&H), a manufacturer of wooden containers, including pails, tubs, and buckets. In 1909, H&H ceased operations and vacated the Site. In 1910, the Temple-Stuart Company began manufacturing wooden furniture at the Site. Temple-Stuart constructed various buildings and additions to existing structures. Waste products from the facility's operation included crankcase oil, paint thinner, lacquer, and glue. The property was purchased by the current owner prior to January 1993.

In September 1990, the Site owner's consultant, Tighe and Bond ("T&B"), completed a Phase I Environmental Site Assessment (Phase I). Subsurface investigation identified two underground storage tanks (USTs). One 10,000 gallon fuel oil UST and one 500 gallon benzene UST were located near the southeast corner of Building C. A second 500 gallon UST may have existed in the same location. The contents of the benzene UST(s) were reportedly removed, and the tanks were filled with water prior to being abandoned. Additional fuel oil was reportedly stored in a rectangular 10,000 gallon aboveground storage tank (AST) located in the boiler room near the south end of Building A, and in a 275 gallon AST located northwest of the warehouse. A solid waste disposal area was identified on the north side of the Site.

During November and December 1991, T&B performed an environmental audit of the Site, and observed drums containing glue resins, petroleum products including waste oil and tar, boiler additives, and wood finishing products in the factory. Several drums and containers, including a steel drum of boiler additive, were observed to have previously leaked or to be leaking. Several areas of surface contamination were also identified in buildings, including spray booths, ventilation fans and ducts, floors, glueing and lacquer storage area, the lacquer distribution system, and vats and booths in the garage and loading dock areas. Within the garage, spilled tar and paints were observed on the floor.

According to the environmental audit, the solid waste disposal area was divided into the southern landfill, the central landfill, and the northern landfill areas. During this audit, asbestos was detected in samples collected from pipe insulation in the old boiler room, the paint spray area, the new boiler room and the warehouse, and from other locations throughout the remainder of the facility, including block insulation in carts and debris on the floors of the warehouse.

In February 1994, T&B submitted a Short Term Measures (STMs) Report describing assessment and remediation activities to MA DEP. The STMs focused on characterization and removal of containerized waste materials; excavation and removal of contaminated surficial soils; further characterization of the solid waste disposal area; and evaluation of the source of elevated petroleum hydrocarbon concentrations. Soils in the vicinity of the garage and the solid waste disposal area, with elevated levels of petroleum hydrocarbons, were excavated and remediated.

On September 18, 1995, MA DEP approved a Response Action Measures ("RAM") Plan. The property owner's consultants installed a recovery well in the center of a petroleum plume, and activated a product recovery and groundwater treatment system in June 1997. T&B submitted

semiannual RAM status reports, including monitoring data and system performance reports, to MA DEP. By August 2000, 38 gallons of oil had been recovered. A Phase II Comprehensive Site Assessment (Phase II) began in July 1996. The Phase II included the advancement of soil borings and installation of groundwater monitoring wells. In September 1996, groundwater samples from monitoring wells indicated the presence of cadmium in a monitoring well, and of TPH in a recovery well. In November 1996, T&B conducted excavation and sampling of eight test pits in the solid waste disposal area. Analytical results indicated the presence of VOCs, SVOCs, and PCBs. Collection and analysis of two sediment and surface water samples indicated the presence of VOCs, SVOCs, PCBs, metals, and petroleum hydrocarbons in one sediment sample; and metals in the second sample.

In October 2000, T&B submitted a RAM Plan Addendum to MA DEP, which recommended excavation and removal of petroleum-contaminated soil. MA DEP approved the RAM Plan Addendum, and excavation of soil began in November 2000. In December 2000, excavation of a concrete slab located south of the warehouse exposed a 1,000 gallon benzene UST, which was removed, along with associated contaminated soil.

In December 2000, T&B advanced eight soil borings near the solid waste disposal area. Five were completed as groundwater monitoring wells. Soil samples were collected at five foot intervals and were submitted for volatile petroleum hydrocarbon (VPH)/extractable petroleum hydrocarbon (EPH) analyses. In addition, surface water and sediment samples were collected from four locations; along Surface Stream 1, in the wetlands area adjacent to the northern landfill, and near the junction of the wetlands area and Surface Stream 2. PCBs and dioxins were identified in a surface water sample, and lead was identified in a second surface water sample. Petroleum hydrocarbons and PCBs were detected in three sediment samples, while petroleum hydrocarbons, PCBs, and dioxins were detected in the fourth sediment sample. Groundwater samples were collected from monitoring wells, with results indicating the presence of PCBs in one well.

In February 2001, T&B conducted a Phase II Comprehensive Site Assessment to further assess the extent of releases at the Site and to evaluate the potential environmental impacts.

The Site owner did not meet all state regulatory obligations in completing environmental assessments and submitting them to MA DEP, as required by the Massachusetts hazardous waste ("21E") program. In October 2001, MA DEP and the Site owner signed a Consent Order because of the owner's failure to comply with Tier 1 permit conditions, including submission of a Phase IV Remedy Implementation Plan (RIP). In addition, the Site owner's plans to address the asbestos contamination inside and outside the building appeared to MA DEP to have been dropped. MA DEP subsequently referred the Site to EPA's Removal program for assessment and cleanup.

3. Removal Site Evaluation

On November 9, 2001, I conducted a Removal Site Evaluation, meeting with contractor personnel from the Superfund Technical Assessment and Response Team (START), MA DEP representatives, representatives of the Site owner, the Town of Templeton (TOT) Board of Health Representative, and the TOT Building Commissioner. We conducted exterior Site reconnaissance, followed by reconnaissance of accessible interior portions of Buildings A and F. Inside the buildings, I took six asbestos-containing material (ACM). Analysis of these samples indicated the presence of friable asbestos in all six samples at concentrations of up to 55 percent. We observed a rectangular tank with an approximately 10,000 gallon capacity in the boiler room. Tank sampling was not possible during the Site visit, and the tank's contents are unknown.

Deteriorated and collapsing floors caused many building areas to be unsafe and inaccessible. In addition, windows originally boarded up had been uncovered, and there was evidence of vandalism and deliberate entry of unauthorized personnel into Site buildings. A makeshift set of skateboard ramps, extensive graffiti, and burned areas inside the buildings indicated that they had been entered repeatedly for considerable lengths of time.

After exterior reconnaissance of the Site, I collected seven ACM samples. One sample, taken from the surface of a debris pile between Building A and the line of sheds, indicated that friable asbestos had been disposed of outdoors. The asbestos concentration in this sample was 17 percent.

Information available in the MA DEP files, and observation of the "landfill" area, indicates that further sampling of surface soils may be necessary, in order to determine whether levels of contaminants present in this unrestricted area pose a direct contact threat.

Four air monitoring devices were placed at on site locations upwind and downwind of Site buildings, to collect samples for asbestos analysis. Air monitoring samples were analyzed by phase contrast microscopy (PCM). The samples were held by the laboratory for possible transmission electron microscopy (TEM) analysis, pending PCM results. Upon review of the PLM analytical results, no samples were selected for TEM analysis, since analytical results indicated no concentrations above 0.05 fibers per cubic centimeter (cc).

Based on my observations during the Site visit, review of documents in MA DEP's and EPA's possession, and EPA's sampling results, I concluded that there is a danger of contact with hazardous materials by the public, both inside unsecured buildings and outside the buildings. As a result of these conditions, I determined that the Site met the criteria for a time-critical removal action.

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

As described above, the hazardous substances present at the Site include friable asbestos and polychlorinated biphenyls. These chemical compounds are hazardous substances as defined by Section 101(14) of CERCLA.

Currently, the friable asbestos in the buildings is deteriorating badly, and, as reported by local officials, young people are accessing the building for play activities and vandalism, creating a dangerous situation. Efforts to secure the buildings from unauthorized access have failed, with several strategically hidden window areas opened up repeatedly to allow entry into the building. Outside areas of the Site contain friable asbestos material, with unrestricted access. Vehicular and pedestrian access is unrestricted. The closing for reconstruction of a local bridge has resulted in an alternate route across the Site parking lot being used regularly by residents.

The condition of the buildings ranges from poor to collapsing, allowing asbestos fibers to be released from the buildings into the environment on an ongoing basis. Further building collapse, or fire, may result in more extensive releases to the environment. At this time, there have been multiple small fires at the Site, with the latest fire set outdoors in April 2002.

5. National Priorities List (NPL) Status

The Temple-Stuart Site is not currently on the NPL.

6. State and Local Authorities' Role

a. State and Local Actions to Date

The MA DEP has conducted evaluations and inspections of the Temple-Stuart facility, and has taken enforcement action against the current Site owner under the Massachusetts 21E Program.

On January 15, 1993, the Massachusetts Department of Environmental Protection (MA DEP) listed the Site as a Location To Be Investigated (LTBI) when a release of oil was reported by the facility owner. On January 24, 1994, MA DEP issued a Notice of Responsibility (NOR) to the owner, who subsequently prepared a Waiver of Approvals (WOA) application and submitted it to MA DEP. In May 1994, MA DEP denied the WOA; and in October 1994, the Site was classified as a Tier 1A Site under the Massachusetts Contingency Plan.

In October 2001, MA DEP and the current Site owner signed a Consent Order under the DEP's 21E program, due to the facility's failure to comply with their Tier 1 permit conditions, including failure to submit a Phase IV Remedy Implementation Plan (RIP) on schedule. Plans to address the asbestos contamination inside and outside the building appeared to MA DEP to have stalled completely.

b. Potential for Continued State/Local Response

MA DEP staff requested assistance from EPA's Removal Program for assessment of conditions at the Site. Representatives from MA DEP were present during the Site visit, and were informed of the EPA's observations, as well as the results of sampling. MA DEP has requested that EPA lead the response effort, due to the size of the project and resources required. The OSC will coordinate with MA DEP on any cleanup actions involving removal of petroleum products discovered on Site.

III. THREATS TO PUBLIC HEALTH OR WELFARE OR THE ENVIRONMENT

Based on site conditions and information available on the hazardous substances present, the Site poses the following threats to public health or welfare, or the environment:

A. Threats to Public Health, or Welfare, or the Environment (as detailed in the National Oil and Hazardous Substances Pollution Contingency Plan §300.415(b)(2))

"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)];

As described previously, the hazardous substances found at the Site include friable asbestos and polychlorinated biphenyls. There is an ongoing release of friable asbestos both from materials inside the Site buildings, which are not fully contained, and completely uncontained asbestos-containing materials outdoors. Asbestos is a recognized human carcinogen, causing lung cancer and mesothelioma, a lethal neoplasm of the lining of the chest and abdominal cavities. In addition, exposure to asbestos can cause asbestosis, a disabling non-cancerous lung disease. Cancer of the larynx and esophageal lining has also been associated with asbestos exposure. Commercial forms of asbestos have been found to be carcinogenic in experimental animals. Asbestos-related malignancies may have a latency period of up to forty years. Asbestos fiber exposure is of special concern in that doses to the body are cumulative. When inhaled, these fibers will penetrate deep into lung tissue and will persist in the body due to their low clearance rate from the lungs. Children exposed to these fibers are at greatest risk due to the relatively long latency period for the asbestos-associated diseases.

As indicated in various studies of the property mandated by Massachusetts' hazardous waste statutes, there is evidence that a release of polychlorinated biphenyls (PCBs) from the landfill area exists. Currently, the concentrations of PCBs in the surface soil are not fully characterized. Further sampling must be done to determine if soils in this area pose a direct contact threat to children and other residents.

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

At least one large, rectangular aboveground storage tank of approximate 10,000 gallon capacity is found in the boiler room area of Building A. The tank’s contents are unknown. The boiler room is not fully secured from entry, since adjacent windows have been accessed by persons unknown.

“Threat of fire or explosion” [§300.415(b)(2)(vi)];

Massachusetts has experienced drought conditions this year, with increased fire risks in aging, collapsing buildings such as these. There is currently evidence of small fires set inside the building complex. In addition, the most recent vandalism-caused fire was reported in late April 2002. The OSC has been advised that the sprinkler systems inside the buildings are not functional, since the water supply to the Site has been turned off. As a result of these conditions, there is a likelihood that fire could occur, spreading hazardous substances, including friable asbestos, into nearby residential areas.

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

Due to the severity of the threat at the Temple-Stuart Site and the resources required to abate the threat, the MA DEP has requested that EPA take the lead on any response efforts conducted at the Site.

“Other situations or factors that may pose threats to public health or welfare or the environment”[§300.415(b)(2)(viii)].

Conditions at this uncontrolled hazardous waste Site are especially significant due to the circumstances which resulted in the slowdown or cessation of assessment and cleanup activities under the MA DEP hazardous waste program, including financial difficulties claimed by the current site owner as a result of corporate structure issues, including bankruptcies of many affiliated facilities which appear to have been under the same ownership and management.

IV. ENDANGERMENT DETERMINATION

Actual or threatened releases of hazardous substances 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, or welfare, or the environment.

V. PROPOSED ACTIONS AND ESTIMATED COSTS

A. PROPOSED ACTION

1. Proposed Action Description

The following actions are proposed:

1. Develop and implement a site-specific health and safety plan.
2. Arrange and conduct a Site tour with contractor personnel.
3. Consult with the Town of Templeton public safety officials to plan securing of affected Site areas, and to minimize the potential for unauthorized access to these areas.
4. Mobilize personnel and equipment to the Site.
5. Plan and conduct air monitoring, assuring protection of site workers and nearby off-site workers and residents.
6. Investigate and stabilize containers found to contain hazardous materials.
7. Develop and implement a plan for the proper sampling, identification, and characterization of hazardous materials.
8. Perform friable asbestos removal, inside and outside the buildings.
9. Investigate surface soil conditions and any associated contamination in the former landfill area; perform excavation and removal of soil material if necessary.
10. Coordinate with MA DEP on any actions required under the Clean Water Act and the Oil Pollution Act.
11. Assess and characterize any additional hazardous materials discovered during the course of this action.
12. Conclude removal actions; perform any necessary and appropriate Site restoration, and demobilize.

2. Community Relations

Upon the approval of the Action Memorandum, the OSC will coordinate with EPA Public Relations, State and community representatives to prepare and implement relevant community relations activities such as press releases, fact sheets, or public availability sessions or meetings.

3. Contribution to Remedial Performance

The cleanup proposed in this Action Memorandum is designed to mitigate the threats to human health and the environment posed by the Site and to satisfy the criteria set forth in 40 CFR 300.415(b)(2). The actions taken at the Site, however, would be consistent with conceivable remedial actions and will not impede any future response efforts.

4. Description of Alternative Technologies

No alternative technology is currently planned for this site.

5. Applicable or Relevant and Appropriate Requirements (ARARs)

The federal ARARs tentatively identified at this time for the Temple-Stuart Site are listed below, and are applicable within the confines of EPA Publication 540/P-91/011, "Superfund Removal Procedures: Guidance on the Consideration of ARARs During Removal Actions."

On-Site Actions:

29 CFR Parts 1910, 1926, and 1904: OSHA Health and Safety Regulations

40 CFR Part 61 National Emission Standards for Hazardous Air Pollutants

Subpart M - National Emission Standard for Asbestos

61.145: Standard for Demolition and Renovation

40 CFR Part 262 Standards Applicable to Generators of Hazardous Waste:

Subpart B - The Manifest

262.20 : General requirements for manifesting

262.21 : Acquisition of manifests

262.22 : Number of copies of manifests

262.23 : Use of the manifest

Subpart C - Pre-Transport Requirements

262.30 : Packaging

262.31 : Labeling

262.32 : Marking

Subpart D - Recordkeeping and Reporting

262.40 : Recordkeeping

40 CFR Part 264 Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities:

Subpart I - Use and Management of Containers

- 264.171 : Condition of containers
- 264.172 : Compatibility of waste with containers
- 264.173 : Management of containers
- 264.174 : Inspections of containers
- 264.177 : Special requirements for incompatible wastes

40 CFR Part 264 Hazardous Waste Regulations - RCRA Subtitle C:

268-270 : Hazardous and Solid Waste Amendments Land Disposal Restrictions Rule

40 CFR Part 300.440 Procedures for Planning and Implementing Off-Site Response Actions (Off-Site Rule)

40 CFR Part 761 Polychlorinated biphenyls (PCBs): Manufacturing, Processing, Distribution in Commerce, and Use Prohibitions

Off-Site Actions:

The following, while not ARARs as they apply to off-site actions, were identified as administrative and substantive requirements applicable for off-site actions:

CERCLA Off-Site Policy (OSWER Directive 9834.11, 11/13/87)

49 CFR Parts 171-179 : Department of Transportation Regulations for Transport of Hazardous Materials

State ARARs:

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

6. Project Schedule

Response actions will commence as soon as possible upon the signing of this Action Memorandum. Completion of the proposed removal action is expected within 6 months of the project start date.

B. ESTIMATED COSTS

Extramural Costs

Regional Removal Allowance Costs

ERRS¹ Contractor \$ 500,000

Other Extramural Costs Not Funded from the Regional Allowance

Total START², including multiplier costs \$ 100,000

Subtotal, Extramural Costs \$ 600,000

Extramural Costs Contingency \$ 120,000
(20%, rounded to next dollar)

Total, Extramural Costs \$ 720,000

Intramural Costs

Total, Intramural Costs \$ 125,000

Total Removal Project Ceiling³ \$ 845,000

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

Delayed action will increase both environmental and health risks posed by the release or threat of release of hazardous substances, including friable asbestos and polychlorinated biphenyls. The risk of release or injury to persons increases daily.

¹ Emergency Rapid Response Services

² Superfund Technical Assessment and Response Team

³ Direct Costs include direct extramural costs 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-judgement 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.

VII. OUTSTANDING POLICY ISSUES

There are no known outstanding policy issues concerning this removal action.

VIII. ENFORCEMENT ADDENDUM : For Internal Distribution Only

See Attached.

IX. SUMMARY OF CRITERIA FOR CONDUCTING THE REMOVAL ACTION

The following criteria from the National Oil and Hazardous Substances Pollution Contingency Plan §300.415(b)(2) apply to this removal action:

"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)];

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

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

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

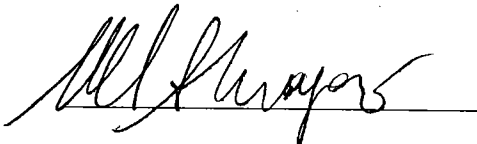
"Other situations or factors that may pose threats to public health or welfare or the environment"[§300.415(b)(2)(viii)].

X. RECOMMENDATION

This decision document represents the selected removal action for the Temple-Stuart Site, in Baldwinville, Massachusetts, developed in accordance with CERCLA and the National Contingency Plan. The basis for this decision will be documented in the administrative record to be established for the Site.

I recommend approval of this removal action. The estimated Total Removal Project Ceiling is \$ 845,000. Of this total cost, \$ 720,000 is intended for extramural contractor costs.

APPROVAL:



DATE:

July 15, 2002

DISAPPROVAL:

DATE:
