



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
 REGION 1
 1 CONGRESS STREET, SUITE 1100
 BOSTON, MASSACHUSETTS 02114-2023

CONTAINS ENFORCEMENT-SENSITIVE INFORMATION

MEMORANDUM

DATE: November 5, 2004

SUBJ: Request for a Removal Action at the Apco Mossberg Company, Inc. Site
 Attleboro, Bristol County, Massachusetts - **Action Memorandum**

FROM: Melanie Morash, On-Scene Coordinator *mm*
 Emergency Response and Removal Section II

THRU: Steven Novick, Chief
 Emergency Response and Removal Section II

Arthur V. Johnson III, Chief
 Emergency Planning & Response Branch

TO: Susan Studlien, Director
 Office of Site Remediation and Restoration *Susan Studlien*

I. PURPOSE

The purpose of this Action Memorandum is to request and document approval of the proposed removal action at the Apco Mossberg Company, Inc. Site, (the Site), which is located at 100-101 Lamb Street in Attleboro, Bristol County, Massachusetts. Hazardous substances present in soils, containers, and capacitors at the Site, if not addressed by implementing the response actions selected in this Action Memorandum, will continue to pose a threat to human health and the environment. There are no nationally significant or precedent-setting issues associated with this Site, and there has been no use of the OSC's \$200,000 warrant authority.

II. SITE CONDITIONS AND BACKGROUND

CERCLIS ID# : MAD059731836
SITE ID# : 01BV
CATEGORY : Time Critical

CONCURRENCES					
SYMBOL	HBR	<i>[Signature]</i>	HBR	ERRS	<i>[Signature]</i>
SURNAME	Morash	<i>[Signature]</i>	Johnson	Kennedy	<i>[Signature]</i>
DATE	11/5/04	11/9/04	11/9/04	11/21/04	11/9/04



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II. SITE CONDITIONS AND BACKGROUND

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A. Site Description

1. Removal site evaluation

At the request of the Massachusetts Department of Environmental Protection (MADEP), the United States Environmental Protection Agency (EPA) conducted a Removal Program Preliminary Assessment/Site Investigation (PA/SI) on March 29 and 30, 2004, and August 20 and 23 - 25, 2004. Piles of miscellaneous debris, timber, brick, and ash were observed on the former manufacturing building foundation. Sampling results from the PA/SI indicate metal (including, but not limited to, barium, cadmium and lead) and polychlorinated biphenyl (PCB) contamination to be present in soils and debris piles at levels which exceed Massachusetts Contingency Plan (MCP) Method 2 S-2 soil standards. Site hazards also include capacitor parts contaminated with PCBs strewn about the building foundation, as well as miscellaneous containers of potentially ignitable chemicals (including, but not limited to, paints, aerosols, and compressed gas cylinders).

The Site investigation was closed on August 26, 2004, with the recommendation that a time-critical removal action be conducted.

2. Physical location

The Site is located at 100-101 Lamb Street, in Attleboro, Bristol County, Massachusetts. The geographic coordinates, as measured from the approximate center of the property, are 41° 56' 5.5" north latitude and 71° 17' 14.8" west longitude. The 10.8-acre Site is zoned for industrial use and bordered: to the west and northwest by railroad tracks and the U.S. Army Reserve Center; to the south by undeveloped land and the intersection of Thatcher and Lamb Streets at Memorial Bridge; to the southeast by residences, Lamb Street, and Dodgeville Pond; to the northeast by residences and Kimball Road; and to the north by undeveloped woodlands. The Ten Mile River flows south/southeast through the northern portion of the property, subsequently feeding into Dodgeville Pond, located approximately 200 feet southeast of the Site.

3. Site characteristics

In 1916, Frank Mossberg Company purchased the Site (identified on the City of Attleboro's Tax Assessor's Map, Plat No. 35, as Lot No. 152) and began manufacturing tools, automobile starters, and spring kits - operations consisting primarily of heat-treating and electroplating. The property was conveyed to the Apco Mossberg Company, Inc. (Apco) in 1937, under order of a bankruptcy court. In 1974, Apco conveyed the property to Mr. David M. Cross (a.k.a. Mr. Davidson M. Cross and Morton D. Cross), its assistant treasurer, who subsequently conveyed the property to Apco in 1987. In an order of taking dated November 25, 1998, the Commonwealth of Massachusetts (Massachusetts Highway Department [MHD]) took two parcels of the Apco property - a permanent taking of Parcel

18-4-C (42,265 square feet) and a temporary easement of Parcel 18-TE-16 (11,850 square feet) - to implement a bridge and roadway reconstruction project. In another order of taking dated April 15, 2004, the temporary easement of Parcel 18-TE-16 was extended through April 15, 2009.

According to a map of the former Apco facility, the central portion of the building was a machine shop, and areas for pickling, polishing, plating, and hardening were located in the northern portion of the building. A coal pile was located adjacent to the northwest corner of the building. Coal was reported as the primary fuel used at the property, however, oil was also used to heat the hardening room. A cyanide heat-treating furnace was also used on the property. The manufacturing building was destroyed by a fire in 1987.

The Site is currently inactive, comprised of the former manufacturing building foundation. The foundation is covered with piles of miscellaneous debris, timber, brick, and ash which are contaminated with metals and PCBs. Capacitor parts as well as miscellaneous containers of potentially ignitable chemicals (including, but not limited to, paints, aerosols, and compressed gas cylinders) litter the foundation pad.

Access to the Site is unrestricted to both pedestrian and vehicular traffic. Several tents and living areas for transient populations have been observed along the northern and western edges of the Site, and individuals have been observed residing on and around the Site. Site materials appear to have been used both as cooking appliances and furniture. Evidence of children accessing the Site include used firecrackers, soccer balls, and toys. Residences border the Site to the southeast and northeast. The nearest residence is a duplex located approximately 100 feet southeast of the property, across Lamb Street at 66 and 68 Lamb Street. According to the 2000 census, 1,558 people live within 1/4 mile of the Site, and 4 public schools are located within 1 mile of the Site.

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

Based on the information available at this time, the principal hazardous substances or pollutants or contaminants that are being released or for which there is a threat of release include but are not necessarily limited to the list below:

<u>Hazardous Substances or Pollutants or Contaminants</u>	<u>Media</u>
ignitable chemicals	compressed gas cylinders and aerosol cans
metals (barium, cadmium, lead)	surface soil and debris piles
polychlorinated biphenyls (PCBs)	capacitors and surface soil

Sampling results indicate metal and PCB contamination to be present in soils and debris piles at levels which exceed Massachusetts Contingency Plan (MCP) Method 2 S-2 soil standards:¹

<u>Hazardous Substance</u>	<u>Highest Concentration Observed (ppm)²</u>	<u>MCP Method 2 S-2 Soil Standard (ppm)²</u>
barium	7,740	2,500
cadmium	2,180	80
lead	13,000	600
PCBs	350,000 (in capacitor)	2

Site hazards include capacitor parts contaminated with PCBs strewn about the building foundation, as well as miscellaneous containers of potentially ignitable chemicals (including, but not limited to, paints, aerosols, and pressurized gas cylinders).

5. NPL status

The Site is not currently on the National Priorities List and has not received a Hazardous Ranking System rating.

B. Other Actions to Date

1. Previous actions

No previous removal actions have occurred at the Site.

2. Current actions

There are no ongoing cleanup activities at the Site.

¹310 CMR 40.0985(6). Massachusetts Contingency Plan. *Table 5 - MCP Method 2: Direct Contact Exposure-Based Soil Concentrations Applicable to the Specified Soil Category*. Effective May 30, 1997.

²ppm = parts per million

C. State and Local Authorities' Roles

1. State and local actions to date

In 1987, a fire destroyed the manufacturing building. On April 2 and July 23, 1987, the Massachusetts Department of Environmental Quality Engineering (MA DEQE) conducted an inspection at the Site. During the inspection, MA DEQE personnel observed piles of asbestos on the ground surface. Analytical results from samples collected from this material indicated the presence of chrysotile asbestos at 75%.

On September 28, 1987, MA DEQE issued a Notice of Intent (NOI) to Perform Response Actions to Mr. Cross to inform him of asbestos removal actions planned by MADEQE at the Site. According to the NOI, the action was initiated due to a lack of response by Mr. Cross to a May 20, 1987 Notice of Potential Liability/Request for Information.

On January 3, 1990, MA DEP (formerly MA DEQE) personnel conducted an inspection at the Site and observed asbestos exposed to the environment.

On February 22, 1990, MA DEP and National Abatement Services, Inc. (NAS) personnel conducted an inspection at the Site to evaluate the cost of a potential asbestos cleanup. According to MA DEP, a bulk asbestos removal from the charred remains of the manufacturing building occurred at the Site during the early 1990s.

2. Potential for continued State/local response

MA DEP is expected to assist EPA by providing technical comments on the proposed removal action and generating a list of regulations for consideration as applicable or relevant and appropriate.

MHD has indicated their willingness to undertake cleanup activities on the portion of the Site currently owned by the Commonwealth of Massachusetts.

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

A. Threats to Public Health or Welfare

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 are exposed to the environment and may serve as a source of contamination to individuals who access the Site. Contaminants present in surface soils and debris piles include, but are not limited to, barium, cadmium,

lead, and PCBs. Access to the Site is unrestricted to both pedestrian and vehicular traffic. Several tents and living areas for transient populations have been observed along the northern and western edges of the Site, and individuals have been observed residing on and around the Site. Site materials appear to have been used both as cooking appliances and furniture. Evidence of children accessing the Site include used firecrackers, soccer balls and toys. Residences border the Site to the southeast and northeast. The nearest residence is a duplex located approximately 100 feet southeast of the property, across Lamb Street at 66 and 68 Lamb Street. According to the 2000 census, 1,558 people live within 1/4 mile of the Site, and 4 public schools are located within 1 mile of the Site.

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)];

Sampling results indicate hazardous substances to be present in surface soils and debris piles at levels which exceed Massachusetts Contingency Plan (MCP) Method 2 S-2 soil standards. Soils are exposed and sparsely vegetated, increasing the threat due to migration. Capacitor parts contaminated with PCBs litter the building foundation and may also serve as a contact threat to individuals who access the Site.

Hazardous substances found at the Site that pose a threat to public health or welfare include barium, cadmium, lead, and PCBs. Specific information on these substances is presented below:

Barium is a naturally occurring silvery-white metal. Industrial uses of barium include drilling muds for oil and gas extraction and manufacturing of paint, bricks, tiles, glass, and rubber. Ingesting high levels of barium can cause problems with the heart, stomach, liver, kidneys, and other organs. Animal studies have found increased blood pressure and changes in the heart from ingesting barium over a long period of time. The Department of Health and Human Services (DHHS), the International Agency for Research on Cancer, and EPA have not classified barium as to its human carcinogenicity.²

Cadmium is a naturally occurring mineral found in soils and rocks. Cadmium is extracted from rocks during the industrial production of other metals like zinc, lead, and copper, and is used in the manufacture of batteries, paints, metal coatings, and plastics. Ingestion of high levels of cadmium severely irritates the stomach, leading to vomiting and diarrhea. Long-term exposure to lower levels of cadmium leads to a buildup of cadmium in the kidneys and possible kidney disease. Other long-term effects include lung damage and

²ATSDR. 2004. *ToxFAQs for Barium and Compounds*. Available at <http://www.atsdr.cdc.gov/tfacts24.html> Internet, accessed September 24, 2004.

fragile bones. DHHS has determined that cadmium and cadmium compounds may reasonably be anticipated to be carcinogens.³

Lead is a naturally occurring bluish-gray metal found in small amounts in the earth's crust. Lead is used in the production of batteries, ammunition, metal products, paints, and devices to shield X-rays. Exposure to lead can occur from breathing contaminated air or dust, eating contaminated foods, or drinking contaminated water. Children can be exposed from eating lead-based paint chips or playing in contaminated soil. The central nervous system is the organ system most affected in humans upon exposure to high levels of lead. Lead also damages kidneys and the reproductive system, decreases reaction time, causes weakness and fatigue, and may cause anemia, a disorder of the blood. DHHS has determined that lead acetate and lead phosphate may reasonably be anticipated to be carcinogens based on studies in animals.⁴

PCBs are mixtures of up to 209 individual chlorinated compounds; many commercial mixtures are known in the U.S. by the trade name Aroclor. PCBs have been used as coolants and lubricants in transformers, capacitors, and other electrical equipment because they don't burn easily and are good insulators. PCBs may enter the air, water, and soil during their manufacture, use, and disposal, from accidental spills and leaks during their transport, and from leaks or fires in products containing PCBs. PCBs do not readily break down in the environment and bind strongly to soil particles. The most commonly observed health effects in people exposed to large amounts of PCBs are skin conditions such as acne and rashes. Studies in exposed workers have shown changes in blood and urine that may indicate liver damage. DHHS has concluded that PCBs may reasonably be anticipated to be carcinogens. The EPA and the International Agency on Cancer (IARC) have determined that PCBs are probably carcinogenic to humans.⁵

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

Miscellaneous containers of potentially ignitable chemicals (including, but not limited to, paint cans, aerosol cannisters, and compressed gas cylinders) litter the building foundation and may pose a threat of fire or explosion.

³ATSDR. 2004. *ToxFAQs for Cadmium*. Available at <http://www.atsdr.cdc.gov/tfacts5.html> Internet, accessed September 21, 2004.

⁴ATSDR. 2004. *ToxFAQs for Lead*. Available at <http://www.atsdr.cdc.gov/tfacts13.html> Internet, accessed September 23, 2004.

⁵ATSDR. 2004. *ToxFAQs for Polychlorinated Biphenyls (PCBs)*. Available at <http://www.atsdr/cdc.gov/tfacts17.html> Internet, accessed September 23, 2004.

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

Neither state nor local authorities have the resources to remove the contaminants present at the Site at this time.

B. Threats to the Environment

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 are exposed to the environment and may serve as a source of contamination to wildlife that access the Site. Several species of birds have been observed accessing the property and gathering on-site materials for nesting purposes.

Actual or potential contamination of drinking water supplies or sensitive ecosystems; [§300.415(b)(2)(ii)];

Hazardous substances or pollutants or contaminants located in surface soils may be transported via surface water runoff to catch basins bordering the Site to the east (along Lamb Street). Fluid flow through these basins may direct contaminated stormwater to Dodgeville Pond, located approximately 200 feet southeast of the Site. Surface water runoff may also contaminate the Ten Mile River, which flows south/southeast through the northern portion of the property. The highest concentration of Cadmium observed (2,180 ppm) was detected in soils located approximately 10 feet west of the Ten Mile River.

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.⁶

⁶In accordance with OSWER Directive 9360.0-34, an endangerment determination is made based on "relevant action level or clean-up standards" promulgated by the federal government or the applicable state.

V. PROPOSED ACTIONS AND ESTIMATED COSTS

A. Proposed Actions

1. Proposed action description

EPA is negotiating with the Potentially Responsible Parties (PRPs) - MHD and Apco - to conduct PRP-lead removal actions on their portions of the property, respectively. EPA is prepared to conduct a fund-lead cleanup to address any portion(s) of the required remedy unaddressed by the PRPs.

The scope of the proposed removal action includes:

- (a) take measures to prevent unauthorized access to the Site. These activities may include repairing or installing additional security fencing;
- (b) conduct erosion-control and dust suppression activities as needed;
- (c) remove containers of potentially ignitable chemicals and capacitor parts;
- (d) clear on-site debris as needed to make room for Site activities;
- (e) collect and analyze samples as needed to further characterize the horizontal and vertical extent of contamination;
- (f) excavate surface soils and debris piles contaminated with metals and/or PCBs;
- (g) collect and analyze post-excavation confirmatory samples;
- (h) backfill excavations with clean fill materials; and
- (i) package, stage, and remove hazardous substances for off-site disposal at EPA-approved disposal facilities.

2. Community relations

EPA will continue to coordinate with the City of Attleboro and MA DEP to prepare and implement a community involvement plan for removal actions at the Site.

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. The actions taken at the Site would be consistent with and will not impede any future responses.

4. Applicable or relevant and appropriate requirements (ARARs)

Federal ARARs - Action-Specific:

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

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

264.175 : Containment

264.176 : Special requirements for ignitable or reactive waste

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 761.60 and Parts 761.202-218 : TSCA requirements for disposal of PCBs

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 Oil and Hazardous Substances Pollution Contingency Plan (NCP) and EPA Guidance Documents, the OSC will determine the applicability and practicability of complying with each ARAR which is identified in a timely manner.

5. Project schedule

Work is schedule to begin within the next six weeks, pending the outcome of ongoing negotiation with the PRPs. The Commonwealth of Massachusetts (MHD) has indicated a willingness to conduct removal actions on their portion of the Site.

The duration of on-site activities is not expected to exceed nine months from the time they begin, weather permitting.

B. Estimated Costs

COST CATEGORY	CEILING
<i>REGIONAL REMOVAL ALLOWANCE COSTS:⁷</i>	
ERRS ⁸ Contractor	\$300,000.00
<i>OTHER EXTRAMURAL COSTS NOT FUNDED FROM THE REGIONAL ALLOWANCE:</i>	
START ⁹ Contractor	\$100,000.00
Extramural Subtotal	\$400,000.00
Extramural Contingency (20% contingency)	\$80,000.00
TOTAL, REMOVAL ACTION CEILING	\$480,000.00

⁷ This cost will be driven by the selected option(s). Should longer term options need to be implemented, additional funding may be required.

⁸ Emergency Rapid Response Services

⁹ Superfund Technical Assistance and Response Team

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

Delayed action will increase risks to human health and/or the environment from hazardous substances present at the Site. Conditions at the Site may be expected to remain unaddressed, and risks associated with the presence of hazardous substances will continue to pose a threat of release if the actions detailed in this Action Memorandum are not implemented.

VII. OUTSTANDING POLICY ISSUES

There are no precedent setting policy issues associated with this Site.

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 \$480,000.00 (extramural costs) + \$100,000.00 (EPA intramural costs) = \$580,000.00 X 1.279 (regional indirect rate) = \$741,820.00.¹⁰

¹⁰ Direct Costs include direct extramural costs [\$480,000.00] and direct intramural costs [\$100,000.00]. Indirect costs are calculated based on an estimated indirect cost rate expressed as a percentage of site specific costs [27.9% x \$580,000.00], consistent with the full 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.

IX. RECOMMENDATION

This decision document represents the selected removal action for the Apco Mossberg Company, Inc. Site in Attleboro, Massachusetts developed in accordance with CERCLA as amended, and 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 as the Site meet the NCP Section 300.415 (b) (2) criteria for a removal action due to the following:

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)];

Actual or potential contamination of drinking water supplies or sensitive ecosystems [§300.415(b)(2)(ii)];

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)];

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)].

I recommend that you approve the proposed removal action. The total removal action project ceiling if approved will be \$480,000.00. Of this, no more than \$380,000.00 comes from the Regional removal allowance.

APPROVAL:  DATE: 11-9-04

DISAPPROVAL: _____ DATE: _____