



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region III
841 Chestnut Building
Philadelphia, Pennsylvania 19107

MAR - 1 1991

162028

SUBJECT: Approval of a Ceiling Increase for Removal
Action at the Bahn Warehouse Site, Mechanicsburg,
Cumberland County, Pennsylvania

FROM: Edwin B. Erickson *Edwin B. Erickson*
Regional Administrator (3RA00)

TO: Donald R. Clay, Assistant Administrator
Office of Solid Waste and Emergency Response (OS-100)

THRU: Stephen D. Luftig, Acting Director
Office of Emergency and Remedial Response (OS-200)

ATTN: Deborah Dietrich, Acting Director
Emergency Response Division (OS-210)

ISSUE

The attached Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Additional Funding Request pertains to the Bahn Warehouse/Strawberry Alley Abandoned Chemical Storage Site located in Mechanicsburg, Cumberland County, Pennsylvania.

Additional funding is necessary to continue with emergency removal actions to eliminate the threat to the public health and the environment posed by the storage of various abandoned chemicals in the Bahn Warehouse. These funds will be utilized to further characterize the contents of drums on the site and to fund their transportation and disposal.

Because the conditions at the Bahn Warehouse meet the criteria set forth in the National Contingency Plan (NCP) Section 300.415 and pursuant to Delegation of Authority 14-1-A giving the Regional Administrator authority to approve CERCLA Removal Actions with a total cost of less than \$2 million and completion within twelve months, Region III has approved the use of additional CERCLA funds in the amount of \$518,350, increasing the ceiling from \$342,650 to \$861,000, of which \$811,000 are for extramural costs.

Attachment: Additional Funding Request

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region III
841 Chestnut Building
Philadelphia, Pennsylvania 19107

MAR 01 1991

SUBJECT: Request for Ceiling Increase Approval at the
Bahn Warehouse /Strawberry Alley Site, Mechanicsburg,
Cumberland County, Pennsylvania

FROM: Jack Owens, On-Scene Coordinator *Jack Owens*
Eastern Response Section (3HW31)

TO: Edwin B. Erickson
Regional Administrator (3RA00)

THRU: Abraham Ferdas, Acting Associate Director *Abraham Ferdas*
Office of Superfund (3HW02)

I. ISSUE

The purpose of this Action Memorandum is to request additional funds to continue removal activities at the Bahn Warehouse/Strawberry Alley Site in Mechanicsburg, Cumberland County, Pennsylvania. A ceiling increase of \$518,350, raising the current site ceiling to \$861,000, is requested to complete the removal actions at the site. Specifically, this will cover any additional sample analysis required by the disposal facility; it is also needed for transportation and disposal costs of the remaining waste materials.

II. SITE CONDITIONS AND BACKGROUND

A. Site Description

As described in the Initial Funding Request/Action Memorandum of February 22, 1990 (attached), the Bahn Warehouse was utilized by the Colbert Brothers as a temporary storage depot to house heterogenous and unspecified waste chemicals, some of which were partially used and out-of-date. The chemicals were stored in the warehouse until a buyer could be found. The operation, which was illegal, was terminated and the Colbert brothers imprisoned. However, many of the drums from this operation still remain in the Bahn Warehouse. Approximately 300 containers of hazardous substances as well as a stockpile of hazardous debris are currently in the warehouse and require disposal.

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The Environmental Protection Agency initiated a Removal Action on June 18, 1990, by staging, numbering, sampling and overpacking many of the containers in the warehouse. Drum samples were characterized utilizing Resource Conservation and Recovery Act (RCRA) field screening tests and were later shipped to a laboratory for further analysis. Disposal arrangements are currently being coordinated by the ERCS contractor.

The Bahn Warehouse/Strawberry Alley Site is not currently on the National Priority List (NPL), nor is it expected to be scored for inclusion on the NPL.

B. Site Conditions

At present the site is temporarily secured and stabilized with drums overpacked and/or restaged. The inventory compiled primarily from label information and field characterization consists of drums containing hazardous substances. The materials that remain stored within the warehouse on Strawberry Alley continue to pose a significant threat of fire and explosion, and endanger the nearby surrounding populations. Although many of the drums which were in poor condition have been overpacked, those not overpacked continue to deteriorate and their integrity becomes more and more questionable as time passes. Drums leaking flammable or corrosive substances could create an explosive atmosphere when such materials come in contact with incompatible materials or are ignited by a spark. At present, compatibility analysis of most of the drums has been done, indicating that they contain hazardous substances. Some of the hazardous substances present onsite include human and environmental toxins, as well as known or suspected human carcinogens, including 1,1,1-trichloroethane. This compound can cause depression to the central nervous system, alter cardiovascular function and/or damage the lungs, liver and kidneys. Trichloroethylene, a probable human carcinogen which is also present can affect the bone marrow, central nervous system, liver and kidneys.

Based on analytical data, including drums not yet overpacked, several drums contain materials which are considered "hazardous substances" pursuant to Section 101 (14) of CERCLA, 42 U.S.C. Section 9601(14), because they are characteristic ignitable hazardous waste (D001) and corrosive hazardous waste (D002) under 40 Code of Federal Regulations (CFR) Sections 261.3 and 261.21.

C. State and Local Authorities' Role

The Pennsylvania Department of Environmental Resources (PA DER) continues to be involved with monitoring removal actions. However, they do not possess adequate resources to undertake removal of the remaining materials. Local agency involvement has been limited to community awareness and emergency support.

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III. THREATS TO PUBLIC HEALTH OR WELFARE OR THE ENVIRONMENT

Conditions at the Bahn Warehouse Site continue to pose an immediate threat to human health, welfare, and the environment. Section 300.415 of the National Contingency Plan lists the factors to be considered in determining the appropriateness of a removal action. Section 300.415 paragraphs (b) (2) (i), (iii), (vi) and (vii) all directly apply to the situation which exists at the Bahn Warehouse Site.

- A) 300.415 (b) (2) (i) "Actual or potential exposure to nearby human populations, animals or the food chain from hazardous substances or pollutants or contaminants"

Numerous drums, including drums not yet overpacked, containing hazardous substances remain stored within the warehouse. The contents of these drums present a threat by inhalation, ingestion and possible direct contact to personnel who occupy the adjacent section of the Bahn Warehouse.

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

Some of the primary containment structures (i.e., drums and other vessels) onsite which contain hazardous substances are in a state of deterioration and will continue to degrade over time, posing a threat of release. Should a release occur, there is no provision for secondary containment.

- C) 300.415 (b) (2) (vi) "Threat of fire or explosion"

Laboratory analytical testing of samples collected from drums revealed flashpoints of less than 140 degrees Fahrenheit, indicating that the material is ignitable. Due to the limited space available, these materials are in close proximity to vessels of incompatible materials, posing increased risk of fire or explosion.

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

The Pennsylvania Department of Environmental Resources (PA DER) remains financially unable to undertake a removal of this magnitude at this time. PA DER and various local agencies have requested that EPA respond to this incident as the local agencies do not possess the resources to conduct a removal at this site.

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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. ENFORCEMENT

The Region III Superfund Removal Branch, Enforcement and Title III Section, is currently involved in a removal action of approximately 200 drums containing polymers and corrosive materials by responsible parties. A Section 106 Administrative Order for Removal Response Activities has been implemented for the removal of these materials.
(See attached Enforcement Confidential Statement)

VI. PROPOSED ACTIONS

A. Proposed Action Description

Additional funding will allow the OSC to complete Phase II as outlined in the initial Action Memorandum, which included the transportation of all hazardous waste from the warehouse to approved disposal facilities.

Currently, samples of all remaining materials, with the exception of materials being removed by a responsible party (RP), have been sent to a laboratory for disposal analysis. Upon receiving analytical data for the remaining materials, waste profile sheets will be prepared and sent (along with a sample of the waste stream) for competitive bidding to disposal facilities for acceptance of the waste. Disposal options are being researched and the most cost-effective and environmentally sound method of disposal will be utilized.

Although Phase II of this project has commenced, acceptance of the remaining waste has not been approved by disposal facilities. The disposal coordinator will continue making arrangements with disposal facilities as to how and when the waste streams will be transported. Manifests and/or shipping records will continue to be signed by the OSC or EPA representative during transportation operations.

B. Summary Of Costs

<u>Extramural Costs</u>	<u>Current Ceiling</u>	<u>Cost to Date</u>	<u>Proposed Ceiling</u>
Regional Allowance Costs	\$280,000	\$198,000	\$650,000

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Other Extramural Costs Not Funded from Regional Allowance

Total TAT	\$ 35,000	\$ 28,000	\$ 55,000
Subtotal Extramural Costs	\$315,000	\$226,000	\$705,000
Extramural Costs Contingency	----	----	\$106,000 -----
Total Extramural Cost			\$811,000
Intramural cost (EPA)			
Direct Cost	\$ 10,000	\$ 5,000	\$ 15,000
Indirect Cost	\$ 17,650	\$ 6,000	\$ 35,000
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Total Intramural	\$ 27,650	11,000	50,000
Total Project Ceiling	\$342,650	\$237,000	\$861,000

C. Contribution to Remedial Performance

Bahn Warehouse is a non-NPL site, so there are no plans for long term remedial action. The proposed continued Removal Activity will eliminate the threats that meet the NCP removal criteria.

VII. COMPLIANCE WITH ARARS

The proposed continued Removal Action set forth in this memorandum will continue to comply with applicable, relevant and appropriate environmental and health requirements, to the extent practicable considering the exigencies of the situation.

VIII. RECOMMENDATION

Because conditions at the site meet the NCP 300.415 conditions for a removal, I recommend your approval of this proposed ceiling increase. The new estimated total project ceiling is \$861,000, of which \$811,000 is for extramural cleanup contractor costs. You may indicate your approval or disapproval by signing below. I recommend your approval to continue response actions due to the nature of the threat described herein.

Approved: Ed B. E... Date: _____

Disapproved: _____ Date: _____

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Attachments: Initial Action Memorandum
Enforcement Confidential Memorandum
Administrative Order for Removal Response Activities
Site Photographs

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REG. OFFICE

841 Chestnut Building
Philadelphia, Pennsylvania 19107

SUBJECT: Funding Request for Removal Action at DATE: 11/20/83
The Saratoga Alley/Bahn Warehouse Site,
Mechanicburg, Cumberland County, Pennsylvania.

FROM: Jack Owens, On-Scene Coordinator (OSC) *Jack Owens*
Eastern Response Section (3HW21)

TO: Edwin B. Erickson
Regional Administrator (3RA00)

THRU: Thomas C. Voltaggio, Director *Tom Voltaggio*
Office of Superfund (3HW02)

During a recent inspection performed at the Bahn Warehouse, in accordance with the National Contingency Plan [Section 300.65 (a)], I have determined that the materials within the warehouse pose a significant threat to public health or welfare or the environment due to the threat of release, fire or explosion.

The Bahn Warehouse meets the criteria for initiating a removal action under Section 300.65 (b) (1) and (b) (2) (iii) and (vi) which states:

At any release, regardless of whether the site is included on the National Priorities List, where the lead agency determines that there is a threat to public health or welfare or the environment, based on factors in paragraph (b) (2) of this section, the lead agency may take any appropriate action to abate, minimize, stabilize, mitigate, or eliminate the release or threat of release, or the threat resulting from that release or threat of release.

(b) (2) The following factors shall be considered in determining the appropriateness of a removal action pursuant to this subsection:

(iii) Hazardous substances or pollutants or contaminants in drums, barrels, tanks or other bulk storage containers, that may pose a threat of release

(vi) Threat of fire or explosion

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II. BACKGROUND

The Bahn Warehouse is located at 201 E. Strawberry Alley in the Borough of Mechanicsburg, Cumberland County, Pennsylvania (refer to site location map). The population of the Borough is currently estimated to be about 10,000 people within a one-or-two mile radius of the site. At least one residence is located within twenty feet of the site. There are also numerous schools, churches and public buildings located in close proximity to the warehouse. Approximately 7,500 square feet of the 17,500 square foot building contains approximately 300 drums and bags and other vessels of various materials including hazardous substances and hazardous wastes.

In 1985, Robert Bahn, owner of the warehouse, made arrangements with the Mt. Vernon Trade Group to use the warehouse as a temporary storage depot for various product materials. The Mt. Vernon Trade Group is one of many names under which Jack and Charles Colbert operated a chemical trading business. The Colbert Brothers were eventually convicted of fraud and are now serving sentences in Federal prison. Their mode of operation was to buy used, out-dated, off-spec and even waste chemicals, and store these in rented warehouse space until a buyer was found. After their operations ceased, several of these warehouses became Superfund emergency response sites in Region III.

In the three-month period between February and April 1985, approximately 300 drums of hazardous material and hazardous waste were delivered to the warehouse, most of which are still there today. Mr. Bahn has stated that he has made many attempts to get the material removed, but he has been mostly unsuccessful. He has approached a hazardous waste contractor but he said he could not afford the cost of disposal.

Region III's CERCLA Removal Enforcement Section (CRES) is currently involved in a responsible party search for generators of the drummed and palletized materials. On November 15, 1989, the Eastern Response Section, along with Technical Assistance Team (TAT) and the Pennsylvania Department of Environmental Resources (PA-DEP) performed an assessment of the warehouse. The assessment revealed the following:

- 1) Numerous drums containing hazardous waste labels and hazardous material stickers, including flammable liquid, flammable solid, corrosive, oxidizer and poison B

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- ii) Labels indicate that the drums contain tetrachloroethylene, trichloroethylene, 1,1,1-trichloroethane, methylene chloride, ammonium thiocyanate, chlorinated Naphthalene, p-toluidine, and sodium hydroxide
- iii) Drums with no lids or bung fittings; several drums had cardboard coverings taped over them
- iv) Indications of previous spillage and leaking from drums
- v) Disconfiguration of drums due to excessive pressure built up inside the drums
- vii) Some of the drums are dented, corroded, and leaking. Some of the bags and other containers are torn and leaking. Markings on the drums indicate that some are over ten years old.

Photographs of these observations are included in Attachment A.

Six samples were collected from six randomly selected drums during the assessment and analyzed by Technical Testing Laboratory in Charleston, West Virginia. The samples were analyzed using FT-IR Techniques (rapid field analysis designed to facilitate identification of high-level concentrations of organic compounds) and screened for characteristics within RCRA regulations. Table 1 has been included as a summary of the analytical findings. PADER has been involved with monitoring and inspecting the warehouse but currently does not have the funds to address the removal action needed at this site. PADER requested assistance from the EPA to mitigate the threat posed by this site.

III. THREAT TO PUBLIC HEALTH OR THE ENVIRONMENT

The materials stored within the warehouse on Strawberry Alley pose a significant threat of fire and explosion, and an endangerment to the surrounding populations. Although air monitoring conducted during the initial assessment did not reveal an explosive atmosphere within the warehouse, evidence of leakage indicates that such conditions may have existed. The photos show areas within the warehouse where drums have leaked in the past, or have been under enough pressure to cause them to bulge due, in part, to the length of time they have been stored in the warehouse. The drums are deteriorating and

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their integrity is questionable. One drum leaking a flammable material in the warehouse could create an explosive atmosphere. Such material, in contact with an incompatible material or ignited by a spark, could create an explosion. At present, the contents of most of the drums is unknown; however, the random sampling has indicated that incompatible materials are stored together in the warehouse. From a partial list of the products stored in the warehouse, the following materials are known to be extremely dangerous:

- Aluminum powder - may ignite itself if exposed to air; may react violently with water
- Sodium nitrate - may ignite other combustible materials; reaction with fuels may be violent; fire may produce irritating or poisonous gas
- Butyl alcohol - may be poisonous if inhaled or absorbed through the skin; fire may produce irritating poisonous gases; container may explode in heat or fire
- Isophorone - Flammable/combustible material. Fire may produce irritating or poisonous gases
- Metaxylene - Flammable/combustible material.

V. ENFORCEMENT

See attached Enforcement Confidential Section.

VI. PROPOSED ACTIONS

The Removal Action proposed for this site will be divided into two phases. Phase 1 will consist primarily of a large-scale assessment of the warehouse which will identify quantities and various types of materials present. In order to accomplish Phase 1, all of the drums and barrels will have to be staged and numbered. Samples from each of the drums will be collected and analyzed using field screening methods to determine

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the characteristics of each substance. After the compatibility screening is completed, the drums will be restaged according to hazard class, i.e., flammable liquid, corrosive, oxidizer. With the drums segregated into the different hazard classes, bench-scale bulk testing can be performed on the groups of samples. When the bulking scheme is completed, samples from each of the waste streams can now be sent out for disposal analysis at a certified lab. At this point in the removal, all personnel and equipment will be demobilized and the warehouse resecured. It is estimated that the time needed to complete this portion of Phase 1 will be approximately one week. (Disposal analysis may require several weeks to complete, depending on the number of samples and analytical method). Once the analytical data are received, waste profile sheets will be prepared and sent (along with a sample of the waste stream) to competitive disposal facilities for acceptance of the waste. During this period, disposal options will be researched, and the most cost-effective means of disposal will be sought.

Phase 2 of the removal will begin after acceptance of the waste streams have been granted by the disposal facility. The disposal coordinator will make arrangements with the disposal facility as to how and when the waste streams will be transported to the facility. Manifests and shipping records will be reviewed and signed by the OSC or EPA representative. Upon removal of all wastes from the warehouse, the site will be closed out, and the Federal OSC Report will be written.

VII. SUMMARY OF COSTS

Extramural Costs

Extramural Cleanup Contractor	\$195,000
15% contingency	<u>29,250</u>
	224,250
TAT costs	15,000
Contracted lab analytical services	<u>35,000</u>
Subtotal Extramural Costs	274,250
15% Contingency (rounded to nearest \$1000)	<u>41,000</u>
TOTAL	315,250

Intramural Costs

Intramural Direct Labor (HQ, ERT, and Region)	10,000
Intramural Indirect Costs	<u>17,400</u>
TOTAL PROJECT CEILING	<u>\$342,650</u>

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VII. RECOMMENDATION

Because conditions at the Bahn Warehouse Site meet the criteria for removal actions in the NCP, Section 300.45 (2), I recommend your approval of the proposed removal action to initiate response actions to mitigate the threats described herein. The total Project Ceiling is \$342,650 of which \$215,150 is for extramural contractor costs.

Approved: Edna B. Evin Date: Feb 9 1988

Disapproved: _____ Date: _____

Attachment

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