



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 6

1445 ROSS AVENUE, SUITE 1200
DALLAS, TX 75202-2733

FEB 08 2011

MEMORANDUM

SUBJECT: Request for a Removal Action and Exemption from \$ 2 Million Statutory Limitation at the Henley Sealants Inc. Site, Oklahoma City, Oklahoma County, Oklahoma

FROM: Althea C. Foster, On-Scene Coordinator and Removal Team Prevention and Response Branch (6SF-PR) *Althea C. Foster*

THRU: *for* Ragan Broyles, Associate Director Prevention and Response Branch (6SF-P) *J. Chris Peterson*

TO: Samuel Coleman P.E., Director
Superfund Division (6SF)

I. PURPOSE

This memorandum requests approval for an emergency removal action to mitigate the release and threatened release of hazardous substances, pollutants and/or contaminants pursuant to Section 104 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 42 U.S.C. § 9601 et seq., at the Henley Sealants Inc. Site, Oklahoma City, Oklahoma County, Oklahoma (hereafter referred to as the "Site"). The proposed removal action involves the removal of fibrous amphibole asbestos waste and soil contaminated with fibrous amphibole asbestos that was released into the environment from the processing of vermiculite ore and the disposal of associated waste products at this site by the former W.R. Grace/ Zonolite Company. The \$ 2 Million exemption is necessitated by the discovery of additional locations where vermiculite is being identified beyond the Site boundaries.

This action meets the criteria for initiating a removal action under the National Contingency Plan ("NCP"), 40 C.F.R. §300.415 (b)(2), and the criteria for a \$2 million exemption under Section 104 of CERCLA, 42 U.S.C Section 9604 (c). This action is expected to require less than twelve months to complete.

II. SITE CONDITIONS AND BACKGROUND

CERCLIS No: OKN000607040
Category of removal: Classic Emergency
Site ID No: A6R4
Latitude: 35.47077° North
Longitude: -97.47749° West

A. Site Description

1. Removal Site Evaluation

The Henley Sealant's Site is located in Oklahoma City, Oklahoma. Historical aerial photographs taken in 1941 and 1963 indicate the property was occupied during that period; however, the owner and type of business conducted at the Site are currently unknown. Records indicate vermiculite exfoliation was occurring at the Site as early as 1957. The property was purchased by Texas Vermiculite Company which later became W.R. Grace on January 3, 1977, from the Chicago Rock Island & Pacific Company. While there is no available documentation as to the Site operations conducted by Texas Vermiculite, it is likely that Texas Vermiculite conducted vermiculite exfoliation at the Site as records indicate that the facility accepted approximately 113,905 tons of raw vermiculite between 1967 and 1988, from the WR Grace mine located in Libby, Montana.

As part of a national evaluation of facilities that received vermiculite ore from the Libby, Montana mine owned by W.R. Grace, the U.S. Environmental Protection Agency (EPA) conducted an initial Site visit on October 31, 2000.

At the time of that Site visit, the facility consisted of a warehouse and four storage silos. During that Site visit visual amounts of mica/vermiculite were observed on the ground surface and around the silos.

EPA conducted a second Site visit on July 27, 2009. It appeared that the Site was inactive as evidenced by a locked gate and no signs of activity occurring. Several vehicles were noted within the fenced-in section of the Site. The Site was fenced along the north side, west side, and a portion of the east side. Vegetation had grown up along the north fence line and along the east side of the property. Visual amounts of mica/vermiculite were observed in the unfenced area and accessible south section of the site. The mica/vermiculite was observed on the ground surface around the four silos, inside the silo unloading area, and within various piles. In addition, the grass had been cut in the south section of the Site and a portion of the warehouse wall had been painted, which indicated evidence of accessibility.

During the July 2009 visit to the Site, EPA also observed visual amounts of mica/vermiculite on the ground surface within the inactive railroad spur (owned by the Union Pacific Railroad Company), and on the roadway of Oklahoma City that is adjacent to the Site. From the perimeter of Hite Plastics, Inc., the adjacent plant that shares a boundary to the west of the Site, EPA also observed mica/vermiculite on the ground surface of this plant. EPA also observed visual amounts of contamination on properties directly north of the Site.

Based on this evaluation, and in accordance with the EPA "Framework for Investigating Asbestos-Contaminated Superfund Sites", on September 18, 2009, Superfund Division Director Samuel Coleman verbally authorized a response action at the Site approving funds to perform the removal action.

2. Physical Location

The Site is located at 200 N. Wisconsin Drive, in Oklahoma City, Oklahoma County, Oklahoma. Geographic coordinates for the Site are: 35.47077° N latitude, and 97.47749° W longitude, as taken from the entrance to the facility. The Site is 2.04 acres in size and is bounded to the east by Martin L. King Avenue (elevated street) and the 4th Street Refinery Superfund Site; to the north and northwest by undeveloped land currently owned by the Oklahoma City Urban Renewal Authority, the City of Oklahoma, and the Community Enhancement Corp; to the west by Hite Plastics, an industrial facility; and to the south by the Missouri-Pacific Railroad and the Double Eagle Refinery, a Superfund site. The Site is situated in an urban setting, with industrial, commercial, residential, and undeveloped properties located within a ¼ mile radius of the Site.

The Site consists of one rectangular-shaped building with what appears to be an attached office or shed, an abandoned railroad spur and four silos located in the southern section of the Site, and numerous parked vehicles in the northern section of the Site. The northern section of the Site is surrounded by a chain-link fence, which was locked at the time of the EPA site visit conducted on July 27, 2009; however, the southern section of the Site was not fenced and could be readily accessed by the general public.

3. Site Characteristics

Site features currently include an approximately 12,300 square foot one-story steel frame constructed building with metal exterior. An abandoned railroad spur and four silos are located in the southern section of the Site. Numerous parked vehicles are located on the northern section of the Site. The northern section of the Site is surrounded by a chain-link fence; however, the southern section of the Site was not fenced and could be readily accessed by the general public. Vegetation had grown up along the north fence line and along the east side of the property. EPA observed visual amounts of mica/vermiculite in the unfenced and accessible south section of the Site. The mica/vermiculite was observed on the ground surface around the four silos, inside the silo unloading area, and within various piles. In addition, the grass had been cut in the south section of the Site and a portion of the warehouse wall had been painted, which indicated evidence of accessibility.

Visual amounts of mica/vermiculite were also observed on the ground surface within the inactive railroad spur owned by the Union Pacific Railroad Company, and on the roadway of Oklahoma City that is adjacent to the Site. From the perimeter of the adjacent Hite Plastics, Inc., the plant that shares the boundary to the west of the Site, visual amounts of mica/vermiculite were also observed on the ground surface of this plant. Visual amounts of contamination were also found on the properties directly north of the Site.

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

Asbestos is a hazardous substance as defined by 40 C.F.R. Section 302.4 of the NCP. As

a result of the presence of asbestos in surface and subsurface soils at the Site, there has been an actual and/or threatened release of hazardous substances into the environment. Amphibole asbestos (tremolite/actinolite) has been detected at this Site. Asbestos is of potential concern because chronic inhalation exposure to excessive levels of asbestos fibers suspended in air can result in lung diseases such as asbestosis, mesothelioma and lung cancer. Exposures via ingestion and dermal contact are considered to be of lesser concern. Characteristics of amphibole asbestos that are of concern are fibers that are greater than 5 microns in length and have an aspect ratio (length to diameter) of greater than 5 to 1.

The route of exposure that represents the greatest human health concern is the inhalation of airborne fibers, dispersed from soil by the action of pedestrian or vehicular traffic and wind dispersion. In addition to the dispersion of fibers into the air, the frictional forces of foot and vehicular traffic on these surfaces would be expected to facilitate the breakdown of the amphibole asbestos bundles into smaller and more respirable fibers over time. Based upon analytical data from the sampling events, the estimated volume of asbestos contaminated soil is 8,000 cubic yards (yd³). This is the proposed minimum amount of contaminated soil at the Site which would need to be excavated and properly disposed of to be protective of human health.

5. NPL Status

The Site is not proposed for listing on the National Priorities List (NPL).

6. Maps, Pictures and Other Graphic Representations

Attachment 1 Enforcement Addendum (Confidential/ FOIA Exempt)

Attachment 2 Site sketch

Attachment 3 ATSDR Public Health Statement for Asbestos

Attachment 4 ATSDR Summary Report Exposure to Asbestos-Containing Vermiculite from Libby, Montana at 28 Processing Sites in the United States

Attachment 5 Framework for Investigating Asbestos-Contaminated Superfund Sites

Attachment 6 Environmental Justice Report

B. Other Actions to Date

1. Previous Actions

The Oklahoma Department of Environmental quality had previously evaluated the Site for potential Site Assessment; however asbestos was not part of that evaluation. The current owner performed Phase I and Phase II Site Assessments at this Site.¹ In 2000, as part of an earlier vermiculite assessment, EPA conducted an onsite inspection at the facility. EPA observed visual amounts of mica/vermiculite on the ground surface and around the silos.

2. Current Actions

¹ Phase I and II Site Assessments were submitted by the owner, Henley Sealants, Inc., as Confidential Business Information (CBI). An evaluation of this claim is underway.

In July 2009, EPA conducted a visual reconnaissance at the facility. From the adjacent roadway and railroad right-of-way EPA observed visual amounts of vermiculite in the unfenced areas of the facility. EPA pursued access to the property and after a lengthy negotiation with the current property owner, was able to obtain access to the property to conduct our assessment in March 2010.

During EPA's assessment visual amounts of contamination were found on the properties directly north of the facility and in the adjacent roadway. These sites will be assessed as appropriate under this action.

C. State and Local Authorities' Roles

1. State and Local Actions to Date

As previously described above, the ODEQ has conducted previous evaluations at this Site. In discussions with ODEQ they have indicated that they would like EPA to take the lead on addressing this Site. After the completion of this response action any further actions will be referred to ODEQ.

2. Potential for Continued State/Local Response

ODEQ will assist in the cleanup within the limits of its resources; however, ODEQ alone would not be able to adequately address the release of hazardous substances at the Site. The ODEQ has already made a significant contribution in coordinating the involvement of the Oklahoma Department of Labor.

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

Threats to Public Health or Welfare or the Environment

Current Site conditions meet the following factors, which indicate that the Site is a threat to the public health, welfare, and the environment, and that a removal action is appropriate under Section 300.415(b)(2) of the National Contingency Plan (NCP), 40 C.F.R. § 300.415(b)(2). Any or all of these factors may be present at a Site, yet any one factor may determine the appropriateness of a removal action under CERCLA authority.

1. Exposure to Human Populations, Animals or the Food Chain, NCP Section 300.415(b)(2)(i)

Asbestos has been detected at the Site on both the facility property on nearby roadways and on adjacent properties. Asbestos has been detected on an unoccupied residential property north of 4th Street. Asbestos has been detected in a waste pile and in three of the four silos on-Site. During the assessment EPA observed people walking on the adjacent roadway to cross the railroad tracks. EPA was informed by the local fire department that there is a camp of homeless

people in the woods across the railroad tracks south of the Site. Airborne exposure to asbestos may occur through the release of asbestos fibers from contaminated soils and roadways. Asbestos fibers may be dispersed by the motion of vehicular and foot traffic. Effects on the lung are a major health concern from asbestos, as chronic (long-term) exposure to asbestos in humans via inhalation can result in a lung disease termed asbestosis. A large number of occupational studies have reported that exposure to asbestos via inhalation can cause lung cancer and mesothelioma (a rare cancer of the membranes lining the abdominal cavity and surrounding internal organs).

The lack of restricted access to the property and the proximity of residences and passersby to the contaminated areas onsite greatly increase the potential for exposure to human populations.

2. Contamination of Drinking Water Supplies or Sensitive Ecosystems, NCP Section 300.415(b)(2)(ii)

Asbestos may be released to water from a number of sources, including the breakdown of asbestos into smaller fibers and the transport of asbestos fibers along drainage pathways as evidenced at this Site.

3. Hazardous Substances in Drums or Tanks, NCP Section 300.415(b)(2)(iii)

Three onsite silos were identified as containing asbestos contaminated vermiculite. Silos 1 and 2 each contain approximately 26.2 cubic yards of asbestos contaminated vermiculite. Silo 3 contains approximately 19.6 cubic yards of asbestos contaminated vermiculite. Silo 4 appears to be empty.

4. Contaminants in Soils, NCP Section 300.415(b)(2)(iv)

Sample results indicate the presence of asbestos in both the surface and subsurface soils. Analytical results of soil samples indicate the presence of asbestos in surface soils with concentrations as high as 8%, and in subsurface soils as high as 6.75%. Additionally visual migration of vermiculite from the Site is evident from the presence of vermiculite mica flakes in adjacent drainage pathways.

5. Weather Conditions That May Cause the Release or Migration of Hazardous Substances, NCP Section 300.415 (b)(2)(v)

Oklahoma City is subject to seasonal high winds and associated thunderstorms. These weather conditions could cause further dispersion of asbestos contamination to nearby surface soils.

6. Availability of Other Mechanisms, NCP Section 300.415 (b)(2)(vii)

In discussions with ODEQ they have indicated that they would like EPA to take the lead on addressing this Site. There are no other mechanisms available to respond to the situation at

the Site.

IV. ENDANGERMENT DETERMINATION

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

V. EXEMPTION FROM STATUTORY LIMITS

As described below, the conditions at this Site meet the "emergency exemption" criteria outlined in CERCLA Section 104(c)(1)(A), 42 U.S.C. §9604(c)(1)(A).

There is an immediate threat to public health due to the identification of asbestos contaminated vermiculite in public right-of-ways, near sidewalks and on corners frequented by pedestrians. Asbestos has been identified on undeveloped residential lots which are in close proximity to properties where residential house construction is underway.

VI. PROPOSED ACTIONS AND ESTIMATED COSTS

A. Proposed Actions

1. Proposed Action Description

To mitigate the threat to the public health posed by the asbestos present in surficial and subsurface soils at the Site, the proposed removal actions are outlined below. The removal will involve the following:

- a. Provide Site security sufficient to preclude access by trespassers or by persons not conducting or overseeing the removal action and prevent access to those areas where hazardous substances, or pollutants and contaminants are present.
- b. Continue to assess and characterize threats posed by the Site including sampling of soils for asbestos contamination in both onsite and offsite areas.
- c. Excavate and remove asbestos-contaminated soils. The excavation depth will be no more than two feet below grade.
- d. Fill all excavated areas with clean fill material using an approved compaction method.
- e. Dispose of contaminated soils excavated pursuant to subparagraph c. above at an EPA-approved offsite disposal facility in accordance with Section 121(d)(3) of CERCLA and 40 CFR 300.440, and transport all waste materials in accordance with Department of Transportation rules and regulations.

- f. Suppress dust and control erosion during the removal action.
- g. Monitor and sample as necessary personal and ambient air during removal activities.
- h. Restore the surface features to pre-existing conditions as appropriate.
- i. Prevent future disturbances, such as excavation of areas of the Site where contamination remains at depths greater than two feet below grade and/or under physical containment systems. Coordinate with the current owner of the Site property and with the appropriate State and local authorities for institutional controls to implement such restrictions.
- j. Requirements under the Occupational Safety and Health Act (OSHA) of 1970, 29 U.S.C. § 651 et seq., and under the laws of a State with an approved equivalent worker safety program, as well as other applicable safety and health requirements, will be followed. Federal OSHA requirements include, among other things, Hazardous Materials Operation, 29 C.F.R. Part 1910, as amended by 54 Fed. Reg. 9317 (March 1989), all OSHA General Industry (29 C.F.R. Part 1910) and Construction (29 C.F.R. Part 1926) standards wherever they are relevant, as well as OSHA record keeping and reporting regulations, and the EPA regulations set forth in 40 C.F.R. Part 300 relating to the conduct of work at Superfund sites. Specific Federal OSHA requirements for asbestos include 29 C.F.R. 1910.1001, which applies to all occupational exposures to asbestos in all industries covered by the Act except as otherwise specified.

2. Contribution to Remedial Performance

The proposed action is consistent with any conceivable remedial response at this Site. However, the Site is not proposed for listing on the National Priorities List.

3. Description of Alternative Technologies

Alternative technologies will be considered to the extent that they prove to be cost effective, efficient, and consistent with the NCP.

4. Applicable or Relevant and Appropriate Requirements (ARARS)

The proposed removal action will be conducted to eliminate the actual or potential exposure to hazardous substances, pollutants or contaminants pursuant to the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), 42 U.S.C. S 9601 et seq. in a manner consistent with the National Contingency Plan, 40 CFR Part 300, as required at 33 U.S.C. § 1321(c)(2) and 42 U.S.C. § 9605. As per 40 CFR Section 300.415(j), fund-financed removal actions under CERCLA § 104 and § 106 shall, to the extent practicable considering the exigencies of the situation, attain the applicable or relevant and appropriate requirements (ARARS) under Federal environmental law. The following is an analysis of ARARs for this action:

- a. Chemical-specific ARARs - There are no Federal or State ARARs for asbestos contaminated soil. Historically, asbestos has been addressed in the Superfund program by reference to the term asbestos-containing material (ACM), defined in the National Emissions Standards for Hazardous Air Pollutants (NESHAP), 40 C.F.R. Part 61, as materials containing >1% asbestos.
- b. The soil asbestos action level/cleanup level of .25% was based on discussions with ATSDR and review of action levels used by EPA at similar removal and remedial sites (see Attachment 6).
- c. Location-specific ARARs - All proposed activities at the Site are compliant with any location-specific ARARs including those regarding Cultural Resources. Based on the Agency's knowledge of the Site, no additional cultural resource work is required.
- d. Action-specific ARARs - The proposed Removal Action, which pertains to the excavation of asbestos-containing materials, and transportation and off-site disposal of asbestos, will comply with Federal and State applicable or relevant and appropriate environmental requirements (ARARs) to the extent practicable.

EPA primarily addresses asbestos under two laws: (a) AHERA, and (b) asbestos NESHAP. EPA's regulations implementing AHERA require local education agencies to take appropriate action to inspect for and prevent the release of asbestos in schools. These regulations are found in 40 CFR Part 763, Subpart E—Asbestos-Containing Materials in Schools.

Included among the asbestos NESHAP regulations are work practices designed to minimize the release of asbestos fibers during activities involving processing, handling, and disposal of asbestos, including when a building is being demolished or renovated. In the latter instances, owners and operators subject to the asbestos NESHAP are required to notify delegated state and local agencies and/or their EPA Regional Offices before demolition or renovation activity begins. The asbestos NESHAP also regulates asbestos waste handling and disposal for certain covered sources. The asbestos NESHAP requirements and standards are described in 40 CFR Part 61, Subpart M.

Oklahoma Department of Labor (ODOL) and ODEQ asbestos regulations are applicable to buildings and structures. Additionally those regulations are applicable to friable materials containing more than 1% asbestos that are applied to a building (ceiling, walls, structural members, piping, duct work, etc.). The regulations do not address materials such as vermiculite contaminated with asbestos in which asbestos could be present as a contaminant rather than a material that was applied to a building/building part. Those regulations also do not directly address excavation and removal of asbestos-contaminated vermiculite/soil.

- e. To-be-considered (TBCs) - In addition to ARARs, other advisories, criteria, or guidance that may be useful in developing the remedy were, as appropriate, identified and considered.

5. Project Schedule

The estimated time for completion of extent of contamination assessment is approximately 2 months. It is estimated that asbestos removal activities will require approximately 6 months.

B. Estimated Costs

ESTIMATED COSTS

Extramural Costs

COST CATEGORY	CEILING
<i>REGIONAL REMOVAL ALLOWANCE COST</i>	
ERRS Contractor	\$ 2,083,666
<i>OTHER EXTRAMURAL COSTS NOT FUNDED FROM THE REGIONAL ALLOWANCE</i>	
START Contractor	\$ 460,000.00
Extramural Subtotal	\$2,543,666.00
TOTAL REMOVAL ACTION CEILING	\$2,543,666.00

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

If the actions described in this Action Memorandum are not conducted, there would be a continuing potential threat to human health. Asbestos, which is a hazardous substance, will continue to be exposed on the surface of the Site. Substantial release of hazardous substances into the environment may occur from disturbances from trespassers and passersby. These potential releases pose a significant threat to the human population in close proximity to the Site area.

VIII. OUTSTANDING POLICY ISSUES

Asbestos removal actions have been completed around the country at numerous removal sites which were initiated under Section 300.415 of the NCP. This removal does not set a precedent or constitute a nationally significant issue other than being part of this national effort. Because of the potentially broad impact of the vermiculite ore with high levels of amphibole asbestos mined from the Libby, Montana deposits, EPA Region VI is coordinating with EPA

Headquarters, and other Regions to assure a consistent approach to vermiculite issues. There are no outstanding policy issues related to the proposed Removal Actions at this Site.

IX. ENFORCEMENT

See Enforcement Strategy, (*see* Attachment 1 Enforcement Confidential/FOIA Exempt).

The total EPA cost for this removal action based on full-time accounting practices that will be eligible for cost recovery are estimated to be


$$\begin{aligned} & \$2,543,666.00(\text{extramural costs}) + \$180,000(\text{EPA intramural costs}) = \\ & \$2,723,666.00 \times 1.465(\text{regional indirect rate}) = \$3,990,170.00^2 \end{aligned}$$

X RECOMMENDATION

This decision document represents the selected removal action for the Henley's Sealants Site, Oklahoma City, Oklahoma County, Oklahoma, developed in accordance with CERCLA, 42 U.S.C § 9601 et seq., and consistent with the NCP, 40 C.F.R. Part 300. This decision is based on the Administrative Record for the Site.

Conditions at the Site meet the criteria as defined by Section 300.415(b)(2) of the NCP, 40 CFR § 300.415(b)(2), for a removal, and I recommend your approval of the Emergency Removal Action. The total project ceiling, if approved, will be \$2,543,666. An estimated \$ 2,083,666 comes from the Regional removal allowance.

APPROVED:


Samuel Coleman, P.E., Director
Superfund Director

DATE:

2/8/2011

Attachments

² 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-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 costs from this estimate will affect the United States' right to cost recovery.