



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

MEMORANDUM

**SUBJECT:** Region 1 Request for Concurrence on Proposed Nationally Significant or Precedent Setting Removal Action at the Vermont Asbestos Group Mine Site (VAG), Vermont

**FROM:** James T. Owens III, Director  
Office of Site Remediation and Restoration

**TO:** Deborah Y. Dietrich, Director  
Office of Emergency Management

This memorandum requests your concurrence on the attached Region 1 Action Memorandum, which requests funding for a removal action at the Vermont Asbestos Group Mine Site (VAG), VT. EPA, OSWER's "Guidance on Non-NPL Removal Actions Involving Nationally Significant or Precedent Setting Issues" (OSWER 9360.0-19, 1989) instructs Regions to submit a draft Action Memorandum to the director of OEM for concurrence if the action meets certain criteria.

My staff has discussed this proposed removal action with your staff in the Program Operations and Coordination Division, Office of Emergency Management. Your staff has advised us that this removal is considered nationally significant or precedence setting because the proposed action mitigates asbestos as the principle contaminant of concern.

The draft action memorandum is attached for your review. My approval awaits your concurrence.

Concur:

  
\_\_\_\_\_  
Director, Office of Emergency Management

9-24-07  
Date



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
Washington, D.C. 20460

Office of Solid Waste and  
Emergency Response

MEMORANDUM

**SUBJECT:** Region 1 Request for Concurrence on Proposed Nationally Significant or Precedent Setting Removal Action at the Vermont Asbestos Group Mine Site (VAG), Vermont-TRANSMITTAL

**FROM:** Gilberto Irizarry, Director  
Program Operations and Coordination Division

A handwritten signature in black ink, appearing to read "Gilberto Irizarry", is written over the printed name and title.

**TO:** Deborah Y. Dietrich, Director  
Office of Emergency Management

This memorandum requests your concurrence on the attached Region 1 draft Action Memorandum, which requests funding for a removal action at the Vermont Asbestos Group Mine Site, VT. The proposed Action Memorandum is considered nationally significant or precedent setting because the proposed action mitigates asbestos as the principle contaminant of concern.

The property is over 2500 acres and is located in a rural area on and adjacent to Belvidere Mountain. More than ½ the property is made up of tailing piles, open pits, quarries and waste rock. Areas of concern on the property are identified as Eden Quarry (waste pile is estimated to be 12 million tons), C-Area and Lowell Quarry. In 1901, the New England Asbestos Mining and Milling Company was the first company to mine asbestos at the Site. In 1936, the Ruberoid Company bought and established the first modern, large scale operation. In 1967, the company merged with General Aniline and Film Corporation and became known as GAF Corporation. By 1973, health issues regarding the mining and use of asbestos came into public focus. In 1975, GAF announced that the Eden mine would cease its operations. By 1975, mine workers had raised \$2 million and bought the mine from GAF. The new company was called the Vermont Asbestos Group (VAG). Vermont ranked second in the manufacturing of asbestos to California. The mine closed in 1993.

On November 2 and 3, 2006, the EPA removal program and ATSDR participated in a site visit and meeting with representatives of VAG, their consultant, and members of a number of State agencies. EPA was not asked to provide additional assistance at that time. On July 30, 2007, the Vermont Agency of Natural Resources (ANR) requested assistance from EPA due to the large amount of asbestos migrating off-site in drainage pathways and tributaries, leading to

down-gradient streams, brooks, and wetlands. In depositional areas, fibers are visible along the stream beds, on rocks, and on overhanging branches. As the fibers dry out, the possibility of them becoming air-borne increases. Two watersheds are being adversely affected by tailings runoff. According to the State of Vermont, eight Class II wetlands have been significantly damaged, ranging from water quality degradation to complete burial of wetland acreage under many feet of mine waste. Sampling conducted by the DEC has shown high levels of asbestos (and associated heavy metals) in sediment within the two watersheds being affected by direct tailings runoff.

On August 29 and 30, 2007, the EPA and Department of Environmental Conservation (DEC) officials inspected water diversion trenches previously constructed and areas of the site that were being impacted by precipitation and drainage pathways. The DEC pointed out areas that they felt needed immediate attention to prevent additional contamination from reaching the off-site water bodies. On August 31, 2007, EPA removal representatives along with the Chief of the Technical Support and Site Assessment Section met with ANR, DEC and VT Department of Health (DOH) officials to discuss potential short and long term site activities.

I recommend that you approve the Region 1 request for concurrence. The proposed action addresses a threat to public health and the environment as a result of asbestos contamination. The action memo requests CERCLA funding in the amount of \$2,000,000.00, which represents the Removal Action Project Ceiling. Of this, an estimated \$1,665,000.00 comes from the Regional Removal Allowance. There has been no use of the OSC's \$200,000 warrant authority.

Please indicate your decision on the attached concurrence memorandum.

Attachment



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

**CONTAINS ENFORCEMENT-SENSITIVE INFORMATION**

**MEMORANDUM**

**DATE:** September 25, 2007

**SUBJ:** Request for a Removal Action at the Vermont Asbestos Group Mine Site, Eden and Lowell, Orleans and Lamoille Counties - **Action Memorandum**

**FROM:** Gary Lipson, On-Scene Coordinator   
Emergency Response and Removal Section II

**THRU:** Steve Novick, Chief   
Emergency Response and Removal Section II

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

**TO:** James T. Owens III, Director  
Office of Site Remediation and Restoration

**I. PURPOSE**

The purpose of this Action Memorandum is to request and document approval of the proposed removal action at the Vermont Asbestos Group Mine Site, (the Site), which is located off of Mines Road in Eden and Lowell, Orleans and Lamoille Counties, Vermont. Asbestos present in tailing piles, stream sediment, and surface water, 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 has been no use of the OSC's \$200,000 warrant authority.

**II. SITE CONDITIONS AND BACKGROUND**

**CERCLIS ID# :** VTN000105222  
**SITE ID# :** 01ED  
**CATEGORY :** Time Critical

## A. Site Description

### 1. Removal site evaluation

On May 18, 2006, representatives of the Vermont Agency of Natural Resources (ANR), the VT Attorney General's Office, and the VT Department of Health (DOH) met with EPA Region 1 and Agency for Toxic Substances and Disease Registry (ATSDR) staff to present the existing conditions at the mine and surrounding impact areas and discuss potential Agency involvement. Although the significant ecological impacts associated with the site were acknowledged, the state did not request and/or support initiation of a Superfund remedial program evaluation to explore the potential for inclusion of the site on the National Priorities List (NPL).

In early November, 2006, staff from the EPA removal program along with ATSDR visited the site with representatives of various State agencies, the site ownership group, and their contractors. A number of issues were readily apparent and included:

- heavily impacted surface water and wetland inundation of mine tailing runoff in two distinct watersheds
- relatively unimpeded access to the site

In a meeting held after the site tour, the development of a strategy and work plan to address the ecological and potential health impacts associated with the site were discussed. EPA was not given any specific tasking at that time.

Over the past year, ANR has been working with the current property owner, Vermont Asbestos Group, Inc. (VAG) and their consultant, URS Corporation, to implement interim measures to stabilize the site and prevent further water-borne migration of mine waste off-site.

### 2. Physical location

The site is located in a rural area off of Mines Road in the towns of Eden and Lowell, VT, within Orleans and Lamoille Counties. The oldest part of the mine, The Eden Quarry and its associated tailings pile is located on the southern/southeastern face of Belvidere Mountain. The larger of the tailings piles is associated with the Lowell Quarry and is located on the lower, eastern slope of the mountain. The entire property is greater than 2,500 acres and it is believed that the tailings piles, open pits and quarries, and waste rock make up greater than half of that amount. The approximate latitude and longitude at the main entrance to the mine site is N44°45.9', W72°31.2'.

### **3. Site characteristics**

Between the early 1900's and 1993 when production operations ceased, asbestos ore was mined out of three locations on Belvidere Mountain in areas identified as Eden Quarry, C-Area, and Lowell Quarry. This now inactive mine produced 2-3% chrysotile asbestos from open cuts and left behind huge amounts of waste rock and tailings.

The Eden Quarry is at an elevation of approximately 2,300' and is reached by traveling up an old mine road from the main entrance off of Mines Road. The waste pile here is estimated at 12 million tons. The pile is being heavily eroded by the beginnings of Hutchins Brook which is carrying substantial quantities of mine tailings into the Lamoille watershed. There is also evidence of recreational use (tire tracks) in and around the pile. A wetland, approximately 25-acres in size, located approximately one mile down-gradient of this waste pile has been heavily affected by the tailings. The wetland area appears to be reaching its storage capacity and is threatening to adversely affect adjacent water bodies.

The Lowell Quarry and the C-Area produced the most abundant type of ore. The Lowell Quarry, now filled in with water, created the larger of the waste piles, which has been estimated between 30 and 60 million tons covering 80 acres. This pile has also been eroding, and along with the waste pile from the C-Area, has heavily impacted Cortez Pond, immediately adjacent to the piles. In addition, Burgess Brook and associated wetlands within the Mississquoi watershed are being impacted.

There is a gate at the main entrance to the mine area, but access is generally unimpeded via that entrance and due to the massive footprint of the site, at any number of points throughout the woods. The DEC has been working with VAG to limit access by placing boulders and warning signs on a number of logging roads and trails leading into the site. There is high recreational activity in the vicinity which includes hunting, fishing, all-terrain vehicle riding and hiking. The Long Trail, a popular recreational hiking trail traversing the state of Vermont, crosses over the peak of Mount Belvidere which is a few hundred yards from the top of the upper tailings pile. In addition, there are two large four-season recreational areas in the vicinity that continue to attract families seeking vacation homes.

According to the EPA Region 1 Environmental Justice Mapping Tool, the Site is potentially in a low income environmental justice area.

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

In May and August, 2005, members of the VT Department of Environmental Conservation (DEC) conducted biological and/or chemical assessments on eleven locations within the Hutchins Brook and Burgess Branch watersheds, all within close proximity to the tailings piles in Eden and Lowell. The following information is taken from an internal DEC

memorandum, dated March 9, 2007, from Richard Levey, Aquatic Biologist to John Schmeltzer and Linda Elliott of the Waste Management Division.

### Asbestos

Chrysotile fiber concentrations within the Hutchins Brook watershed (in-stream sediment) ranged from less than 1% at the two control sites (background) to a high of 86% at the tailing tributary (other concentrations: 3.3%, 3.3%, 4.8%, 14%, 14.5%).

Chrysotile fiber concentrations within the Burgess Brook watershed (in-stream sediment) ranged from less than 1% to a high of 18%. Cortez Pond, immediately adjacent to one of the waste piles yielded 7.3%.

Fiber clumps are readily visible on leaf packs and woody debris and on stream bank vegetation alongside the Hutchins Brook tailing tributary.

Friable asbestos is a CERCLA hazardous substance (40 CFR 302.4).

### Water Quality

#### *Water Chemistry*

Conductivity and alkalinity were considerably higher than would be expected for small high gradient streams at all of the sample locations except for the control samples. The pH values were also considerable higher than would be expected and exceeded VT Water Quality Standards criteria (pH 6.5-8.5) for six of the eight sample locations (not counting the control samples).

#### *Dissolved Metals*

Magnesium levels were elevated at six of the eight sample locations and are likely related to the presence of chrysotile fibers.

Nickel concentrations were elevated at four of the eight sample locations and are also likely related to the presence of chrysotile fibers.

#### Water Chemistry for Metals – Solids (Stream Sediment)

Chromium and nickel sediment concentrations severely exceeded Consensus-Based Probable Effect Concentration (PEC) Sediment Quality Guidelines (SQGs) at two of the three sites where samples were collected (Hutchins Brook tailing tributary and Cortez Pond-South). Chromium values were roughly 27 times greater and nickel values more than 120 times greater. Iron sediment concentrations at those two locations also exceeded the National Oceanographic and Atmospheric Administration Effects Range Low criteria of

20,000 mg/kg. According to the VT DEC report, these extremely high levels of chromium, nickel, and iron observed in the sediment appear to be reflective of the presence of milled fibers. Studies have shown that milled chrysotile fibers are enriched in metals by factors ranging from 1.3 to greater than 15.

### Biological Assessment

The macroinvertebrate<sup>1</sup> communities in three of the sampling locations within the Hutchins Brook watershed are in poor condition due to low density of macroinvertebrates present, low richness (number of taxa), and low EPT taxa (sensitive species) and are significantly below the class "B" biocriteria guidance used by the VT DEC for small high gradient (SHG) streams.

The macroinvertebrate communities in two samples collected within the Burgess Brook watershed are in fair condition due to low richness, low EPT richness, and high Biotic Index and are below the Class "B" biocriteria guidance used by the DEC for SHG streams.

### **5. NPL status**

The site has not been evaluated by the Superfund Site Assessment program and is not on the NPL. Discussions are underway with the State regarding the initiation of Superfund Site Assessment program investigations to determine whether this site may be eligible for NPL consideration.

## **B. Other Actions to Date**

### **1. Previous actions**

There has been very limited past EPA involvement at this site. In 1986 when the mine was still operational, it was subject to standard inspections for compliance with National Emission Standards for Hazardous Air Pollutants (NESHAPS) regulations. A handful of samples were collected and analyzed at the EPA New England Regional Laboratory, but due to the time period of the sampling event and the lack of any follow-up, the results are no longer on file.

Also in 1986, representatives from the Removal Program and ATSDR visited the site for a limited removal assessment. ATSDR determined that an off-site health threat from airborne asbestos did not exist due to the small number of potential receptors.

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<sup>1</sup> Macroinvertebrates traditionally refer to aquatic invertebrates (animals without a spinal column) including insects which inhabit a river channel, pond, lake, wetland, or ocean. Historically, their abundance and diversity have been used as an indicator of ecosystem health and of local biodiversity and are a key component of the food chain.

## **2. Current actions**

On November 2 and 3, 2006, representatives from the EPA removal program and ATSDR participated in a site visit and meeting with representatives of VAG, their consultant, and members of a number of State agencies. The on-site waste piles, the gullies being formed through the piles by precipitation and tributaries to Hutchins and Burgess Brooks, and

some of the off-site areas being heavily impacted were part of the site visit. The parties discussed potential actions that could be taken to mitigate the off-site migration of the tailings material. EPA was not asked to provide additional assistance at that time.

In a letter dated July 30, 2007, the Secretary of the ANR specifically requested EPA assistance. EPA removal representatives visited the site again on August 29 and 30, 2007. EPA, along with DEC officials, inspected water diversion trenches previously constructed and areas of the site that were being impacted by precipitation and drainage pathways. The DEC pointed out areas that they felt needed immediate attention to prevent additional contamination from reaching the off-site water bodies. On August 31, 2007, the EPA removal representatives along with the Chief of the Technical Support and Site Assessment Section met with ANR, DEC and VT DOH Officials to discuss potential short and long term site activities. The short term actions are discussed in § V.A.1 of this Memorandum, Proposed Action Description.

## **C. State and Local Authorities' Roles**

### **1. State and local actions to date**

In 2004, ANR began investigating the site when it became apparent that the mine tailings were migrating off-site. In May and August, 2006, representatives of the DEC Water Quality Division conducted biological and/or chemical assessments of eleven locations within the two affected watersheds (see § II.A.4 of this Memorandum). Their summary report states: "The preliminary data collected provide evidence linking the tailings piles within the Hutchins Brook and Burgess Branch watersheds both directly and indirectly to chemical and physical biological stressors identified during this assessment. Elevated levels of chrysotile-fibers and associated metals in the water column and sediment, absence of canopy cover and the resulting poor macroinvertebrate community assessment at Hutchins Brook 2.1 & 2.8, Hutchins Brook Tailing Tributary, and Burgess Tributary 10 & 11 are likely the result of the tailing piles eroding asbestos materials into adjacent waterways."

As part of an effort to establish a protocol for conducting environmental sampling at mine sites nationwide, the US Geological Survey (USGS) with assistance from the DEC, collected a number of on-site tailing pile samples and off-site water samples for mineralogy, metals, and leaching analysis during the summer of 2007. This data will not

be available until early 2008. In addition, the DEC also collected additional sediment and water samples for analysis, downstream from the previous studies they conducted in 2005.

## **2. Potential for continued State/local response**

In a letter dated July 30, 2007, the Secretary of the ANR asked for EPA assistance in addressing some of the issues related to this Site. The letter indicated the State of Vermont had limited resources to commit to the site.

In a conversation with Vermont officials during a meeting on August 31, 2007, potential future involvement by the DEC and VAG were discussed. Should EPA conduct removal activities as described in this memorandum, the State of Vermont will be responsible for post removal site controls of the diversionary and containment structures. In addition, the

DEC is continuing to work with VAG to limit site access by posting warning signs and blocking entry points such as logging roads and trails.

### **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)];*

As described throughout this memorandum, there is a large amount of asbestos migrating off-site in drainage pathways and tributaries, leading to down-gradient streams, brooks, and wetlands. In depositional areas, fibers are visible along the stream beds, on rocks, and on overhanging branches. As the fibers dry out, the possibility of them becoming air-borne increases.

Access to this site is mostly unimpeded. There is a gate to the main entrance of the mining complex, but it is not manned and due to the huge footprint of the waste piles, access can be gained through any one of many points through the woods, logging roads and recreational trails. During drier conditions, dust is easily raised by natural windy conditions or ATV/motorcycle use, leading to on and off-site air borne asbestos migration.

The popular Long Trail which traverses the State of Vermont crosses over the peak of Mount Belvidere, a few hundred yards from the site.

Asbestos is the name given to a group of six different fibrous minerals (amosite, chrysotile, crocidolite, and the fibrous varieties of tremolite, actinolite, and anthophyllite) that occur naturally in the environment.

Asbestos mainly affects the lungs and the membrane that surrounds the lungs. Breathing high levels of asbestos fibers for a long time may result in scar-like tissue in the lungs and in the pleural membrane (lining) that surrounds the lungs. Breathing lower levels of asbestos may result in changes called plaques in the pleural membranes. Higher exposure can lead to thickening of the pleural membrane that may restrict breathing.

The Department of Health and Human Services (DHHS), the World Health Organization (WHO), and the EPA have determined that asbestos is a human carcinogen.

It is known that breathing asbestos can increase the risk of cancer in people. There are two types of cancer caused by exposure to asbestos: lung cancer and mesothelioma. Mesothelioma is a cancer of the pleural membrane or abdominal cavity (the peritoneum). Studies of workers also suggest that breathing asbestos can increase chances of getting cancer in other parts of the body (stomach, intestines, esophagus, pancreas, and kidneys), but this is less certain.<sup>2</sup>

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

As described in this memorandum, two watersheds are being adversely affected by tailings runoff. According to the State of Vermont, eight Class II wetlands have been significantly damaged, ranging from water quality degradation to complete burial of wetland acreage under many feet of mine waste.

*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 conducted by the DEC has shown high levels of asbestos (and associated heavy metals) in sediment within the two watersheds being affected by direct tailings runoff. Fibers are also readily apparent on woody debris and stream bank vegetation immediately adjacent to the streams.

*Weather conditions that may cause hazardous substances or pollutants or contaminants to migrate or be released; [§300.415(b)(2)(v)];*

Asbestos fibers migrating from the site can be attributed to erosion, caused by stream tributaries cutting through the waste piles and wind driven action. Increased precipitation and/or dry, windy conditions will only exacerbate the off-site migration.

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

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<sup>2</sup> The toxicological information is derived from 'ToxFAQs for Asbestos', a summary of the Toxicological Profile for Asbestos, 2001, developed by ATSDR Division of Toxicology

As § II.C.2.above explains, it appears that the State of Vermont has come close to exhausting the resources it has for continuing response actions at this site, hence the request for assistance. The site has not been evaluated by the Superfund remedial program and is not on the NPL. Discussions are underway with the State regarding the initiation of Superfund Site Assessment program investigations that would determine whether this site may be eligible for NPL consideration.

**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)];*

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

According to the State of Vermont and as described in § II.A.4., the streams within two distinct watersheds have been adversely affected by tailing pile runoff from both asbestos fibers and associated metals. The macroinvertebrate communities present at the Hutchins Brook assessment sites were given an overall assessment of poor, while the macroinvertebrate communities within two of the three sites in the Burgess Branch were rated as fair. As the footnote states, the abundance and diversity of macroinvertebrate communities have been used as an indicator of ecosystem health and of local biodiversity and are a key component of the food chain.

**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.<sup>3</sup>

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<sup>3</sup> "In accordance with OSWER Directive 9360.0-34, an endangerment determination is made based on relevant action levels, cleanup standards, risk management guidance, or other relevant information published and relied upon by the State of Vermont."

## V. PROPOSED ACTIONS AND ESTIMATED COSTS

### A. Proposed Actions

#### 1. Proposed action description

The proposed actions at the site include the construction of water-bars, diversion trenches, berms, and culverts to keep contaminated runoff from reaching the off-site water bodies. The runoff will either be diverted to enter the waterways downstream of the tailings piles or if contaminated, directed into on-site areas where deposition of the sediment/fibers can occur prior to the flow leaving the site. During earth moving activities, water misting will be utilized as necessary to keep asbestos-laden dust from becoming airborne and leaving the site perimeter.

The On-Scene Coordinator (OSC) will visit the site with representatives of the VAG who are familiar with the site, the EPA cleanup contractor Response Manager, and other contractors deemed appropriate to prepare for removal activities.

Additional activities include:

- The construction of a decontamination pad for on-site vehicles;
- The institution of an air monitoring program, both personnel and perimeter;
- A procurement and placement of a work trailer(s) complete with utilities.

The OSC will speak with the RP representative as well as the on-site caretaker to determine if any additional security measures need to be taken. There is currently a fence across the main access point complete with warning signs. It is not anticipated that a security service will be necessary, but there is a potential.

Due to the location of the site in northern Vermont and the relatively short construction season due to winter conditions, any work started in the autumn of 2007 will continue in the spring of 2008.

#### 2. Community relations

Prior to any site activity, EPA will meet with State and local officials to discuss public outreach activities which may include, but are not limited to:

- Coordination of removal activities with the impacted towns and DEC;
- Fact sheets for local residents and visits to residents in the immediate vicinity as appropriate;
- Coordination with the impacted towns and DEC to determine the need for and subsequent issuance of press releases and/or newsletters with removal action progress status;

- OSC availability at the Site during removal activities to address questions and/or concerns from the public;
- Public information sessions and/or public meetings as necessary; and
- Maintenance of an EPA OSC web site.

### **3. Contribution to remedial performance**

The cleanup proposed in this Action Memorandum is designed to minimize further off-site migration via contaminated surface water, and to mitigate the off-site threats to human health and the environment. The actions taken at the Site would be consistent with and will not impede any future responses.

### **4. Description of alternative technologies**

Alternative technologies will be discussed as removal activities progress.

### **5. Applicable or relevant and appropriate requirements (ARARs)**

Federal ARARs will be met to the extent practicable considering the exigencies of the situation. The OSC will coordinate with State officials to identify additional State ARARs, if any, and will meet, to the extent practicable, each ARAR identified in a timely manner.

### **6. Project schedule**

Site activities are expected to commence in October of 2007 and continue as long as weather conditions will allow which should be until approximately mid November. EPA and its contractors will remobilize to the site in the spring of 2008 to continue on-site work. The total expected time to be on-site is approximately four to six months.

**B. Estimated Costs**

COST CATEGORY		CEILING
<i>REGIONAL REMOVAL ALLOWANCE COSTS:</i>		
ERRS <sup>4</sup> Contractor		\$1,600,000.00
Interagency Agreement (US Army Corp of Engineers)		\$65,000.00
<i>OTHER EXTRAMURAL COSTS NOT FUNDED FROM THE REGIONAL ALLOWANCE:</i>		
START <sup>5</sup> Contractor		\$153,182.00
Extramural Subtotal		\$1,818,182.00
Extramural Contingency	10%	\$181,818.00
<b>TOTAL, REMOVAL ACTION CEILING</b>		<b>\$2,000,000.00</b>

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

Delayed action will increase public health risks by allowing additional asbestos-laden water to leave the site, further impacting down gradient streams and wetlands. As asbestos fibers get deposited on stream beds, rocks, and overhanging branches, they will continue to dry and potentially become air-borne.

**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 \$2,000,000 (extramural costs) + \$200,000 (EPA intramural costs) = \$2,200,000 X 1.33 (regional indirect rate) = **\$2,926,000<sup>6</sup>**.

<sup>4</sup> Emergency Rapid Response Services

<sup>5</sup> Superfund Technical Assistance and Response Team

<sup>6</sup> Direct Costs include direct extramural costs \$2,000,000 and direct intramural costs \$200,000. Indirect costs are calculated based on an estimated indirect cost rate expressed as a percentage of site specific costs [33% x \$2,200,000], 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

**IX. RECOMMENDATION**

This decision document represents the selected removal action for the Vermont Asbestos Group Site in Eden and Lowell, Vermont, developed in accordance with CERCLA, as amended, and is 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 at 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)];*

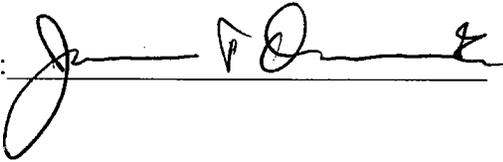
*Actual or potential contamination of drinking water supplies or sensitive ecosystems [§300.415(b)(2)(ii)];*

*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)];*

*Weather conditions that may cause hazardous substances or pollutants or contaminants to migrate or be released; [§300.415(b)(2)(v)];*

*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 \$2,000,000.

APPROVAL: 

DATE: 9.28.07

DISAPPROVAL: \_\_\_\_\_

DATE: \_\_\_\_\_

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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.