



**Release Abatement Measure Completion Report
62 Whittemore Avenue, Cambridge, MA
CAM 400 Sewer Improvements Project
Release Tracking Number 3-0277
June 2011**

TABLE OF CONTENTS

INTRODUCTION	
1. RESPONSIBLE PARTY INFORMATION.....	2
2. UTILITY PROJECT DESCRIPTION	2
3. NATURE AND EXTENT OF CONTAMINATION	2
4. RELEVANT REGULATIONS	3
4.1. MCP PUBLIC INVOLVEMENT PLAN.....	3
4.2. CAMBRIDGE ASBESTOS PROTECTION ORDINANCE	3
5. OBJECTIVES.....	4
6. RAM PLAN	4
6.1. SOIL MANAGEMENT	5
6.2. GROUNDWATER MANAGEMENT	6
6.3. SITE RESTORATION.....	6
7. HEALTH & SAFETY	6
7.1. ENCLOSURE VENTING	7
7.2. DUST CONTROL.....	7
7.3. AIR MONITORING	7
8. REMEDIATION WASTE MANAGEMENT	8
9. PERMITS.....	8
10. CONCLUSIONS.....	8

FIGURES

Figure 1	Site Locus
Figure 2	Site Sketch
Figure 3	Site 2 Sewer Separation Engineering Detail

APPENDIX

- Appendix A: Activity and Use Limitation – RTN 3-0277
- Appendix B: Hazardous Materials Health & Safety Plan for the Excavation of Soil and Hazardous Materials, Environmental Management Professionals and Covino Environmental Associates, February 2011.
- Appendix C: Asbestos Soil Management Plan for the Excavation of Soil and Hazardous Materials, Environmental Management Professionals and Covino Environmental Associates, February 2011.
- Appendix D: Air Monitoring Results
- Appendix E: Waste Shipment Records
- Appendix F: Asbestos Notification Form

EXECUTIVE SUMMARY

This Release Abatement Measure (RAM) Completion Report addresses the excavation of soils potentially impacted by asbestos fibers in soil and asbestos containing material to allow for installation of underground utilities at the W.R. Grace & Co.-CONN (W.R. Grace) property in Cambridge, MA.

Kleinfelder ▪ S E A provided engineering design and construction support to the City of Cambridge, Massachusetts for the CAM 400 Sewer Improvements Project in Cambridge, Massachusetts. The CAM 400 project is being constructed to reduce the potential for sewer backup during periods of heavy rain and discharge of combined sewer overflows (CSO) to the Alewife Brook. The project area includes locations associated with the separation of storm and sewer lines in an area bounded to the south by Whittemore Avenue, to the west and north by Alewife Brook Parkway and Massachusetts Avenue, and to the east by Magoun Street. The General Contractor for the construction of CAM 400 is P. Gioioso & Sons, Inc. (PGS).

As part of the CAM 400 improvements, excavation was required within the limits of an easement held by the City of Cambridge on the property of W.R. Grace.

Under Release Tracking Number (RTN) 3-0277, W. R. Grace completed investigations and remedial actions to address a release of VOC's and oil and asbestos fibers in soil. A Class A-3 Response Action Outcome (RAO) for RTN 3-0277 was filed by W. R. Grace on March 13, 2006. As part of the RAO, an Activity and Use Limitation (AUL) restricting use and activities on the property was recorded by W. R. Grace (attached as Appendix A).

While the purpose of the utility installation is not to remediate or address Site risks, excavation of soils subject to the AUL is considered to be generating remediation waste. Pursuant to 310 CMR 40.1067, remedial actions conducted after submittal of a Class A-3 RAO must be conducted under a Release Abatement Measure (RAM) Plan.

Work on the W. R. Grace property included installation of a new manhole structure, 40 linear feet (lf) of drain line, and a new pipe below an existing utility vault. This work was begun on March 15, 2011 and completed on March 31, 2011. All work was conducted within full negative air containment in accordance with the requirements of the City of Cambridge Asbestos Protection Ordinance (APO), Chapter 8.61; asbestos fibers were not detected during perimeter air monitoring. A total of 66.3 tons of remediation waste was generated during utility installation. Soils were disposed of as a Special Waste at the Waste Management Turnkey Landfill in Rochester, NH. At the conclusion of invasive work the containment was removed and the surfaces restored.

Bureau of Waste Site Cleanup (BWSC) Transmittal Form BWSC-106 (Release Abatement Measure (RAM) Transmittal) was submitted electronically utilizing eDEP concurrent with this RAM Completion Report. Figure 1, Site Locus, indicates the project location. Figure 2, Site Sketch, indicates the general limits of the RAM activities in Sites # 1 and # 2 on the W. R. Grace property.

1. RESPONSIBLE PARTY INFORMATION

This RAM was implemented by the City of Cambridge, Department of Public Works.

Contact: Mr. Owen O'Riordan
Assistant Commissioner for Engineering and City Engineer
Address: Department of Public Works
147 Hampshire Street
Cambridge, MA 02139
Tel.: 617-349-4800

2. UTILITY PROJECT DESCRIPTION

The CAM 400 project includes the separation of existing storm drain and sanitary sewer systems; the rehabilitation of existing drain and sewer pipe; the installation of new storm drain pipe and structures; the installation of new sanitary sewer pipe and structures; the relocation of existing water mains; and, surface improvements including curb, sidewalk and roadway construction / restoration.

Within the limits of the W. R. Grace property, work was conducted in two areas, designated as W.R. Grace & Co. - Conn Sites #1 and #2, as shown on Figure 2. At W.R. Grace & Co. - Conn Site # 1, the work included cured-in-place pipe (CIPP) lining of an existing 18 inch x 26 inch drain pipe for a distance of approximately 150 linear feet. The CIPP work did not require excavation to complete. Within Site 1 there is also a common manhole removal, which included excavation to install a new drain manhole, 40 linear feet of 24-inch diameter PVC drain pipe, and a 12-inch diameter drain connection to existing Grace lines.

At W.R. Grace & Co. - Conn Site # 2, work was conducted within an existing combined sewer/drain concrete vault. In order to complete sewer/drain separation, modifications conducted inside the vault. The concrete bottom of the vault was saw-cut to create a 2.5' long by 2' wide trench. This was hand dug to approximately 20-inches deep to allow for installation of a short section of new piping. The trench was filled with concrete after pipe installation. See Figure 3.

3. NATURE AND EXTENT OF CONTAMINATION

An area of 24 acres, consisting of 18 individual land parcels owned by W. R. Grace, is subject to an AUL recorded under RTN 3-0277. According to the AUL Opinion prepared by Haley & Aldrich (H&A) under contract to W. R. Grace, the Disposal Site was listed by Massachusetts Department of Environmental Protection (MassDEP) following the detection of volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), petroleum, and metals during subsurface investigations conducted in 1984 and 1985. Asbestos was added to the list of contaminants of concern in 1998 following completion of additional investigations. A total of 905 soil and split soil samples were collected by W. R. Grace to evaluate the extent of asbestos fibers in soil; 882 of these samples were submitted for laboratory analysis using polarized light microscopy (PLM) and/or transmission electron microscopy (TEM). According to H&A reports, the highest levels and most consistent detections of asbestos fibers in soil were located in areas where buildings had been located.

While the presence of asbestos fibers in soil or asbestos containing material has not been confirmed in the RAM area, the presence of such was assumed, and excavation and health and safety procedures were conducted in a manner consistent with the requirements of the AUL and protective of public health.

Detailed information on the nature and extent of contamination is contained with Appendix A, Activity and Use Limitation, RTN 3-0277.

4. RELEVANT REGULATIONS

The recording of the AUL and presumed presence of asbestos fibers in soil required that excavation and utility installations be conducted in accordance with the requirements of the Massachusetts Contingency Plan (MCP), 310 CMR 40.0000, the Public Involvement Plan for RTN 3-0277, and the Cambridge Asbestos Protection Ordinance (APO), Chapter 8.61.

The AUL requires preparation of a Soil Management Plan by a Licensed Site Professional (LSP), and a Health & Safety Plan by an LSP and a Certified Industrial Hygienist (CIH) when work is to be conducted that is likely to disturb soil below the Protective Cover. In certain instances, i.e., when work other than allowed by the AUL are planned, a Airborne Asbestos, Dust, and Odor Management Plan is also required. Work conducted under this RAM Plan is allowed in the AUL in Section 1 (vi): limited short term utility work. The Asbestos Soil Management Plan and the Hazardous Materials Health & Safety Plan prepared for this work included the activities that would have been included in a separate Airborne Asbestos, Dust, and Odor Management Plan, had it been required.

4.1. MCP PUBLIC INVOLVEMENT PLAN

RTN 3-0277 was also a Public Involvement Plan (PIP) Site, and a final PIP was submitted to MassDEP in July 2006. While PIP requirements typically cease following the submittal of a Response Action Outcome (RAO) Statement, the AUL for RTN 3-0277 mandates that the PIP requirements remain in force in the event that certain activities, which includes the activities outlined in this RAM, occur. Specifically, the PIP requires preparation and public comment on a RAM Plan, an Asbestos Soil Management Plan (ASMP) and a Hazardous Materials Health & Safety Plan (HMH&SP). The ASMP and HMH&SP were prepared by the Contractor; a 30-day public comment period on these documents was held and all comments were reviewed and considered prior to finalization of the HMH&SP and ASMP that were followed during RAM implementation.

4.2. CAMBRIDGE ASBESTOS PROTECTION ORDINANCE

The Cambridge Asbestos Protection Ordinance (APO), Chapter 8.61, also applied to activities conducted under this RAM Plan. Any property found by the Cambridge Commissioner of Public Health to contain asbestos-contaminated soil or documented to the Commissioner's satisfaction to have been the site of past on-site handling, disposal, manufacturing or processing of asbestos are subject to the provisions of the Ordinance.

The Ordinance addresses soil intrusive activities that have the potential to release particulate matter into ambient air, and regulates excavation, grading, filling or any other such activity that may cause the release of fugitive dust. Implemented under the direction of the

Commissioner of Public Health, it requires particulate dust mitigation and assurance measures.

Of specific relevance to the implementation of the RAM was the APO requirement in 8.61.040.c(c) that mitigation measures (a) (iv) and/or (a) (v) must be implemented if “the proposed soil disturbance is in close proximity to residential areas or children’s play areas, i.e. within 500 feet.” 8.61.040.a.(iv) requires “covering the site with a layer of clean fill, which must be of sufficient depth such that the proposed disturbance of the soil would occur in and affect only that clean fill layer; 8.61.040.a.(v) requires “erecting a permanent or temporary structure maintained at partial vacuum sufficient to contain all fugitive dust, with off gas from the evacuation system treated with HEPA filtration.”

The APO also requires that a *Draft* Asbestos Soil Management Plan be prepared and submitted to the City for review by the Commissioner. Following the Commissioner’s review, a *Draft* Decision on the ASMP is issued and a 20-day public comment period on the decision document and the *Draft* ASMP is held.

This comment period was held concurrent with the PIP comment period; all comments were reviewed and considered prior to finalization of the attached ASMP.

5. OBJECTIVES

The objectives of the RAM were to:

- Manage the excavation of soils presumed to be impacted by asbestos fibers and, potentially, by other OHM in a manner that is protective of public health and the environment. This RAM Plan allows for management of up to 250 cy of soils;
- Re-use excavated soil to the extent feasible and practical based on geotechnical considerations; and
- Manage surplus soils in accordance with MassDEP and other applicable regulations and policy.

6. RAM PLAN

The Release Abatement Measure (RAM) Plan was prepared in accordance with 310 CMR 40.0440 to serve as written notification to MassDEP that the City of Cambridge, Massachusetts Department of Public Works (DPW) intended to implement a RAM.

Work at the site was performed in accordance with applicable federal, state, and local regulations, including, but not limited to the Massachusetts Contingency Plan (MCP), local ordinances (including the APO), and OSHA regulations (including, but not limited to, 29 CFR 1910.1000, 29 CFR 1926, and CFR 1910.120), and other applicable state and federal regulations regarding health and safety.

A detailed Asbestos Soil Management Plan was prepared for the Contractor by Environmental Management Partners (EMP) and Covino Environmental Associates, Inc. The ASMP was prepared by Scott D. Herzog, Certified Industrial Hygienist (CIH), Covino Associates, and by Timothy A. Toomey, LSP, Subsurface Remediation Technologies (SRT), Rowley, MA, under contract to EMP, and reviewed for consistency with the MCP and the

AUL requirements by LSPs for the City of Cambridge (Richard K. Quateman, LSP, CHMM – Kleinfelder • S E A) and for W. R. Grace (John Kastrinos, LSP, P.G. – Haley & Aldrich). The ASMP is attached to this RAM Plan as Appendix B.

A detailed Hazardous Materials Health and Safety Plan (HMH&SP) was prepared for the Contractor by Environmental Management Partners and Covino Environmental Associates, Inc. The HMH&SP was prepared by Scott D. Herzog, CIH, and Timothy Toomey, LSP, under contract to EMP, and reviewed for consistency with the MCP and the AUL requirements by the LSPs for the City of Cambridge and for W. R. Grace as named above.

6.1. SOIL MANAGEMENT

In accordance with 8.61.040.a.(v) of the APO, excavation for the installation of utility upgrades was conducted under negative air enclosures.

Site 1

Site 1 included the installation of 40 linear feet of new piping and a new manhole structure. An excavator and critical construction materials were staged in the exclusion zone on the easement prior to the commencement of work and an enclosure was constructed around them. The airtight enclosure was constructed in a way that covered the entire perimeter of the excavation. The enclosure was constructed of heavy-duty plastic sheeting supported by rigid scaffolding or other framing. The enclosure was designed to be weather-resistant and will use one or more layers of flame and smoke resistant sheeting. The dimensions of the enclosure were approximately 30 feet in width, 20 feet in height and 50 feet in length. The enclosure was designed with two entrances to permit entry of personnel and equipment. Negative air pressure was maintained utilizing air filtration devices fitted with high efficiency particulate air (HEPA) filters. See the attaches Asbestos Soil Management Plan and HMH&SP for greater detail on the enclosure operations.

Excavated soils were temporarily placed at the edge of the excavation (within the enclosure) during excavation. The RAM indicated that if soils were staged on unpaved areas the underlying area would be excavated to a depth of six inches (6") following removal of the stockpiled soils to ensure that underlying soils are not impacted by residue asbestos fibers that could potentially be present in subsurface soils. All soils were staged on paved areas, eliminating the need for additional excavation.

Soils observed within the excavation of Site appeared to be a clean sorted sand backfill. No visual evidence of asbestos materials or other anthropogenic materials was observed.

Surplus were placed in lined roll-off containers that were brought into the enclosure for loading. Liners were draped over the side of the containers prior to loading to minimize the potential for soils to fall onto the outside of the container during loading. The containers were sealed and decontaminated prior to being removed from the enclosure.

Following backfill with existing materials to within six inches of the bottom of the previously existing grade the excavation was backfilled with six-inches (6") of imported clean bank run gravel. The use of this material was approved by W. R. Grace and the LSP-of-Record.

Site 2

Site 2 required installation of a new pipe and connections below the concrete bottom of an existing utility vault. Prior to the start of work an enclosure was constructed over the utility vault. Negative air pressure was maintained utilizing HEPA air filtration units. The bottom of the vault was cut with a hand held cut-off saw and the trench necessary for installation of the pipe was hand dug. Soils encountered below the vault was stone placed as a base. Following pipe installation the vault bottom was resealed with concrete.

A minimal volume of soil was generated during the trench digging; approximately two 5-gallon plastic buckets. The bucket(s) were sealed and decontaminated prior to removal from the containment. The buckets were brought into the Area 1 containment and the soils placed into the Area 1 soil stockpile for disposal as asbestos waste.

See the attached Asbestos Soil Management Plan and Health and Safety Plan for details on the enclosure operations.

6.2. GROUNDWATER MANAGEMENT

Groundwater was not encountered during utility installations.

6.3. SITE RESTORATION

Following backfilling of Site 1 to within six-inches (6") of the ground surface, a geo-textile filter fabric was placed on the fill surface. This was in-turn covered with six-inches (6") of bank-run gravel to restore the property to grade. This work was conducted within the containment and under negative pressure. Following placement of the gravel, the containment was removed to allow for final site restoration.

Paving was conducted in areas paved prior to the start of RAM implementation. Loam followed by grass was placed in areas unpaved prior to the start of RAM implementation. Because paving and/or landscaping was anticipated to require partial removal of the six-inch gravel layer to place sub-base or loam, use of a geotextile filter fabric ensured that underlying soils were not exposed.

7. HEALTH & SAFETY

A detailed Hazardous Materials Health & Safety Plan was prepared for the Contractor by Environmental Management Partners and Covino Environmental Associates, Inc. As noted above, the HMH&SP was prepared by Scott D. Herzog, CIH, and Timothy Toomey, and reviewed for consistency with the MCP and the AUL requirements by LSPs for the City of Cambridge and for W. R. Grace. The HMH&SP documented methods to protect workers and the public during construction activities on the W. R. Grace property. As part of this work, air monitoring within the enclosures and surrounding the enclosures was conducted.

The HMH&SP indicates the following general precautions were to be taken during utility installation:

- Construction of a 30 x 50 foot enclosure prior to soil excavation in Site 1 and an appropriately sized enclosure in Site 2;
- Venting of enclosures with HEPA filter controls;

- Dust control and air monitoring within the enclosures;
- Odor control;
- Dust control and perimeter air monitoring;
- Contingency plans for work stoppage based on review of air monitoring data;
- Misting/Adequately wetting of site soils;
- Placement of excess soil into lined and covered roll-off containers prior to removal from the structure(s);
- Removal of covered roll-off containers within 48 hours of date of generation; and
- Backfilling trench with site soil and placement of six inches of imported clean fill and asphalt pavement for final cover in Site 1 and backfilling of the trench with concrete in Site 2.

When excavation within the enclosure was conducted workers wore Level C personal protective equipment (PPE) including half face respirators.

7.1. ENCLOSURE VENTING

Each enclosure was maintained under a pressure differential and vented using air filtration devices fitted with HEPA filters. The venting system was designed to exchange sufficient air to allow normal working conditions with respect to emissions from construction equipment within the enclosure. A manometer was installed at each entrance to the enclosure to insure the pressure differential between the inside of the enclosure and the outside is maintained.

7.2. DUST CONTROL

Water was used inside the enclosure to control the potential for airborne dust. Soil was adequately wetted to control dust generation during excavation and before being either backfilled into the excavation(s) or loaded into lined roll-off containers. All containers were sealed, covered, and decontaminated prior to being removed from the enclosure.

At the conclusion of each working day any stockpiled soil and any open trench was securely covered with polyethylene sheeting to minimize the potential for off-hours disturbance of soils.

7.3. AIR MONITORING

When soil intrusive activities were underway in the enclosure Dust monitoring was performed hourly using a TSI Dust-Trak respirable particulate monitor or equivalent. Measurements were also collected upwind, downwind and crosswind of the enclosure.

Continuous asbestos monitoring was performed in and around the perimeter of the enclosure including samples on the upwind, downwind and side-wind sides within 50 feet of the enclosure. Samples were collected in accordance with NIOSH Method 7400 using 0.8 micron MCE filters. No exceedances of air quality standards were detected during RAM implementation.

The results of the air monitoring program are attached as Appendix d.

8. REMEDIATION WASTE MANAGEMENT

A total of 66.3 tons of soil were transported to the Waste Management landfill in Rochester, NH for disposal as asbestos waste. Soil were tracked using a Waste Shipment Record. Copies of the Waste Shipment Records are attached as Appendix E.

9. PERMITS

In accordance with the requirements of the Cambridge Asbestos Protection Ordinance, the Asbestos Soil Management Plan has been reviewed and approved by the Commissioner of Health, City of Cambridge, MA prior to RAM implementation.

An Asbestos Notification Form (ANF-001) was submitted to MassDEP by the Contractor for excavation of soils presumed to be impacted by asbestos. Attached as Appendix G.

No other approvals or permits were required to conduct the work.

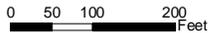
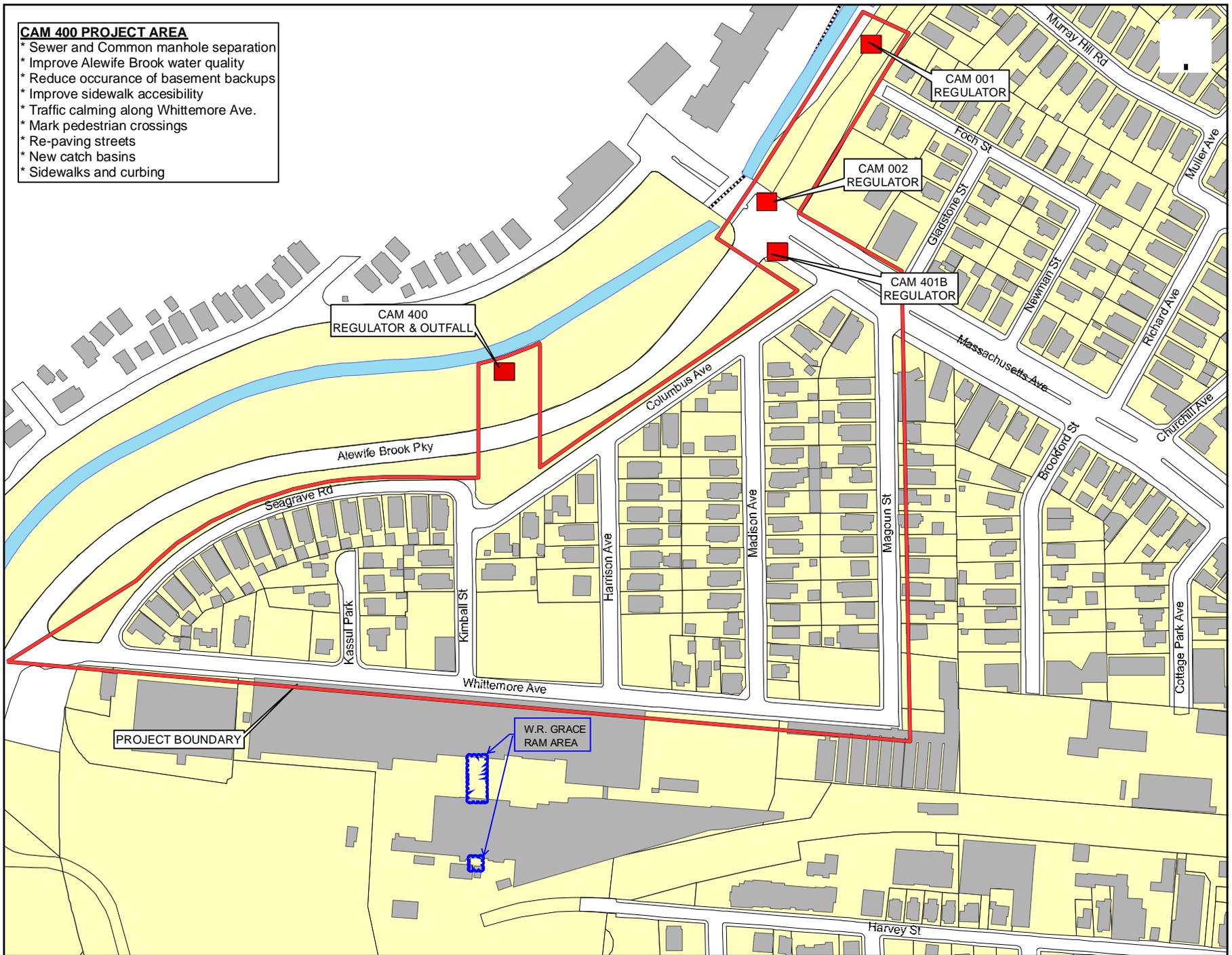
10. CONCLUSIONS

A RAM Plan was conducted on the property of W.R. Grace & Co.-CONN to allow for installation of public utilities required for separation of storm and sewer flow into the City of Cambridge system. In accordance with the Cambridge Asbestos Protection Ordinance, excavation was conducted in full negative air containment and air monitoring was conducted throughout the construction period. No visual evidence of asbestos containing materials were observed in subsurface soils. A total of 66.3 tons of soil were disposed of as asbestos waste at the Waste Management Turnkey Landfill in Rochester, NH. Following excavation and utility installations the surfaces were restored in accordance with the AUL recorded for this property.

FIGURES

CAM 400 PROJECT AREA

- * Sewer and Common manhole separation
- * Improve Alewife Brook water quality
- * Reduce occurrence of basement backups
- * Improve sidewalk accessibility
- * Traffic calming along Whittemore Ave.
- * Mark pedestrian crossings
- * Re-paving streets
- * New catch basins
- * Sidewalks and curbing



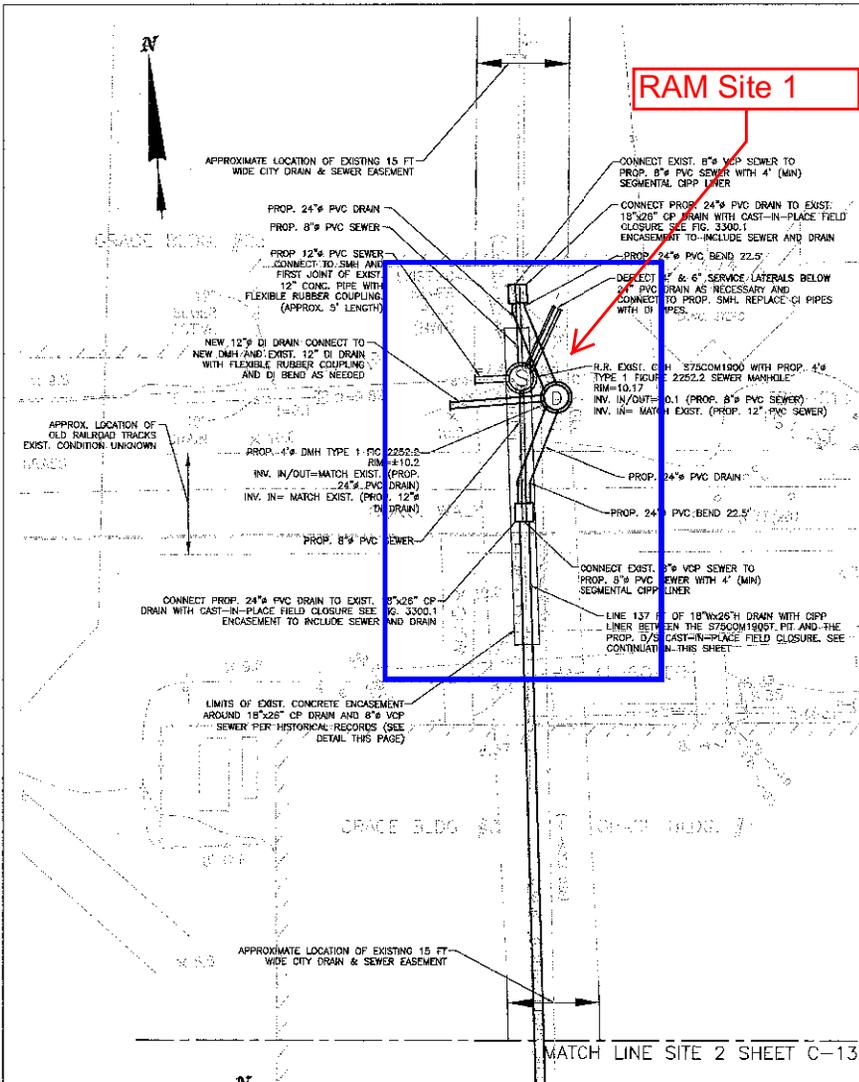
CAM 400 SEWER SEPARATION/ FLOATABLES CONTROL PROJECT AREA

CITY OF CAMBRIDGE, MA

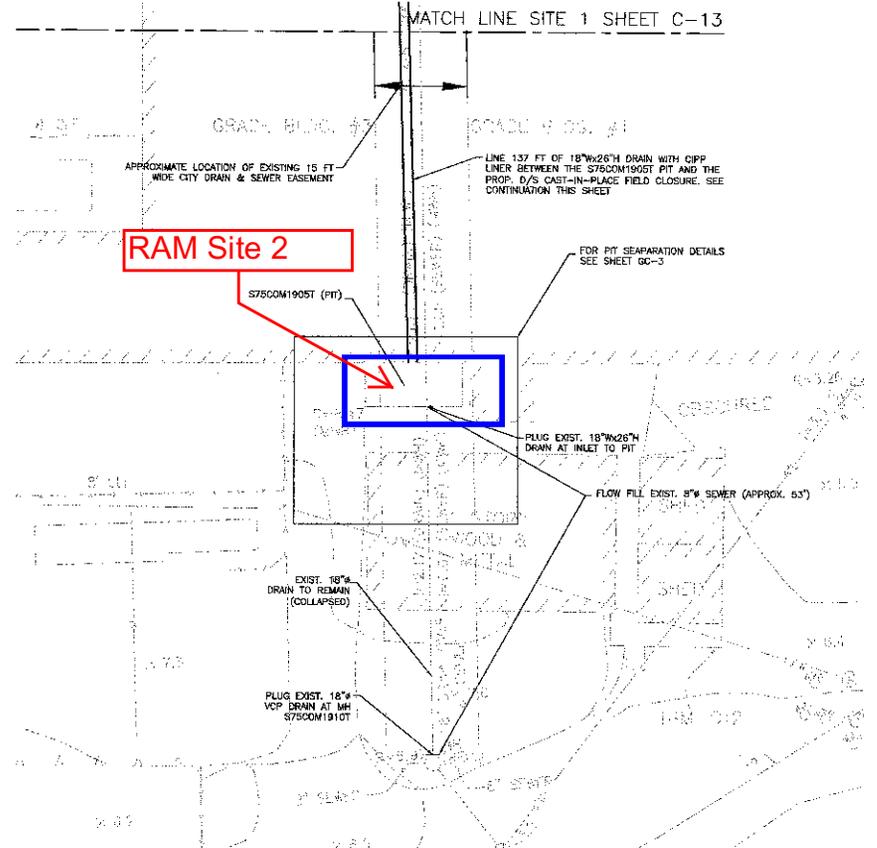
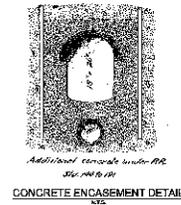
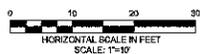
SEA

SEA CONSULTANTS INC.
Sewer & Stormwater Engineering





WR GRACE PROPERTY SITE 1
PLAN



WR GRACE PROPERTY SITE 2
PLAN

CONFORMED SET

\\US051502-Cad-Proj\Proj\Contract 4 & 13\Sheet\1006790_Civil\Sheet_V2.dwg, 1/13/2010 12:02:16 PM



**FIGURE 2
SITE SKETCH**



Scale	1"=10'			
Date	JANUARY 15, 2010			
Job No.	1006790			
Designed by	AMF			
Drawn by	AMF			
Checked by	CHC	No.	Description	Date
Approved by	WCP		REVISIONS	



CITY OF CAMBRIDGE, MA ALEWIFE BROOK FLOATABLES CONTROL (CONTRACT 4) AND CAM 400 SEWER SEPARATION PROJECT (CONTRACT 13)
GRACE PROPERTY PLAN

Sheet No. C-13
File No.

W.R. Grace
RAM Site 2

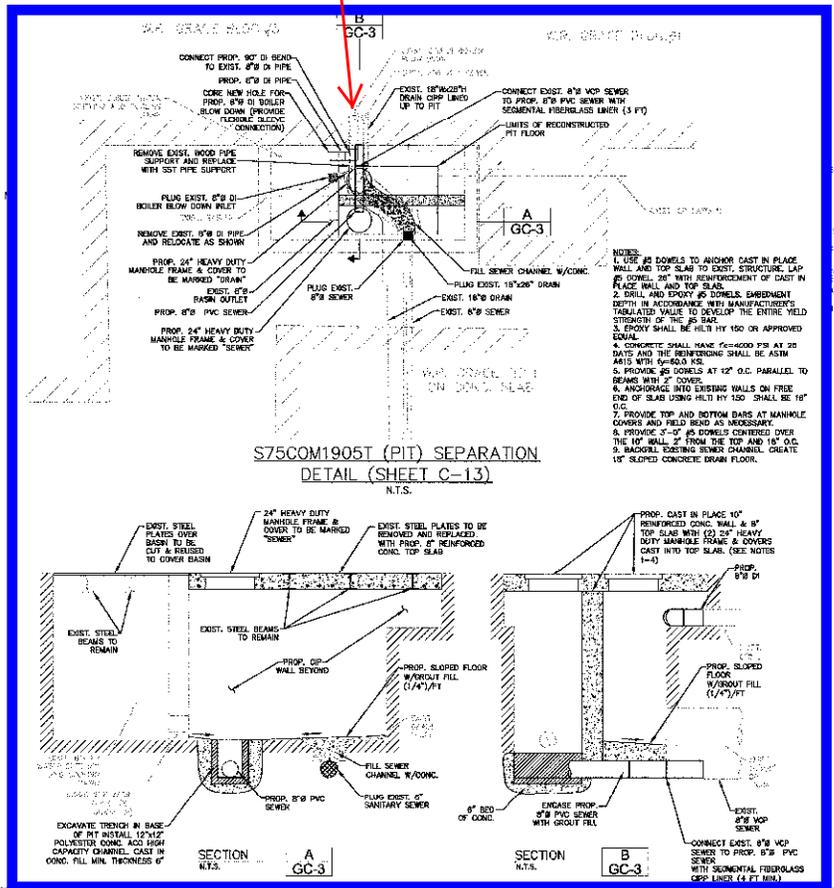


FIGURE 3 - Site 2
Sewer Separation
Engineering Detail

V:\SR026102\Camp\p\City\Contract 4 & 13\Sheet\0650_GENERAL_CIVIL.dwg, 1/12/2010 2:14:38 PM

<p>S E A SEA CONSULTANTS INC. CAMBRIDGE, MASSACHUSETTS CONCORD, NEW HAMPSHIRE ROCKY HILL, CONNECTICUT AUGUSTA, MAINE FRANKLIN, MASSACHUSETTS</p>	<p>MWH BOSTON MASSACHUSETTS</p>	<p>Scale: AS NOTED Date: JANUARY 16, 2010 Job No.: 10W520 Designed by: AMF Drawn by: AMF Checked by: DHC Approved by: WCF</p>	<p>City of Cambridge THE WORKS</p>	<p>CITY OF CAMBRIDGE, MA ALEWIFE BROOK FLOATABLES CONTROL (CONTRACT 4) AND CAM 400 SEWER SEPARATION PROJECT (CONTRACT 13) GENERAL CIVIL - STRUCTURE DETAILS CONTINUED</p>	<p>Sheet No. File No.</p>
---	--	---	---	---	-------------------------------

APPENDIX A

Activity & Use Limitation RTN 3-0277

UNDER SEPARATE COVER

APPENDIX B

Hazardous Materials Health & Safety Plan for the Excavation of Soil and Hazardous Materials

UNDER SEPARATE COVER

APPENDIX C

Asbestos Soil Management Plan **for the Excavation of Soil and Hazardous Materials**

UNDER SEPARATE COVER

APPENDIX D

Air Monitoring Results



300 Wildwood Avenue • Woburn, Massachusetts 01801
Tel 781.933.2555 • Fax 781.932.9402 • email: mail@covinoinc.com

June 7, 2011

Mr. Ted Patch
Environmental Management Professionals
93 Sawyer Lane
Marshfield, MA 02050

RE: W.R. Grace CAM 400 Project – Building 23
Excavation of Soil and Hazardous Materials, Separation of Combined Sewer Overflow
Field Notes and Asbestos Air Sample Results
Covino Project 10.01508

Dear Mr. Patch:

Attached please find the results of air monitoring and associated field technician notes for site monitoring services provided by Covino Environmental Associates, Inc. (Covino) during soil excavation at the above-referenced project. The monitoring was conducted from March 15 through 31, 2011. The scope of work provided by Covino including perimeter monitoring for airborne particulate as PM-10 (particulate with aerodynamic diameters less than or equal to 10 microns) and airborne asbestos fibers. In addition, the Covino field technician conducted personal exposure monitoring for asbestos fibers on workers inside the work zone.

Direct-reading measurements for PM-10 were taken using a TSI Incorporated DustTrak Model 8520 Aerosol Monitor. The instrument is calibrated annually by the manufacturer in accordance with International Organization for Standardization (ISO) standard 12103-2, and is zeroed in the field prior to use in accordance with manufacturer recommendations. The PM-10 results are recorded in the field notes in concentrations units of milligrams per cubic meter of air (mg/m^3).

Area air samples for asbestos fibers were collected using high-volume electric vacuum pumps. Personal air samples for asbestos fibers were collected using Gilian personal air sampling pumps. Collection and analysis of the samples was conducted in accordance with the National Institute for Occupational Safety and Health (NIOSH) Method 7400. Area air samples were analyzed in the field and personal air samples were submitted to the Covino laboratory in Woburn, Massachusetts for analysis. The asbestos air sample results are presented in the attached laboratory reports in concentration units of fibers per cubic centimeter of air (fibers/cc).

Please don't hesitate to contact Covino if you have questions or need additional information.

Sincerely,
Covino Environmental Associates, Inc.

Ann D. Eckmann, CIH
Vice President, Industrial Hygiene Group

FIELD NOTES

COVINO



300 Wildwood Avenue • Woburn, Massachusetts 01801 • Tel 781.933.2555 • Fax 781.932.9402 • email mail@covinco.com

DAILY FIELD NOTES

Project Number: 1001508 Date: 3/17/11
 Client: Environmental Management Professionals Shift Number: _____
 Project Location: WR Grace Page: 1 of 1
Cambridge, Me Monitor: D. Tyas

Time	Field Notes
0700	<p>On Site Containment prep work continues Containment is 80% complete Supv. doesn't want personal samples at this time Not Ready = Supv. (Sen) thinks it should be ready in 2-3 hrs</p>
0900	<p>Partners Environmental Continues to Prep The Area - Supv. stated that the containment may not be completed today however they would like me to stay on site until the end of the day just in case I'm needed Called Scott Herring to inform him of the problems w/ the prep</p>
1130	<p>Prep work continues Partners will try to stay late today to complete prep work</p>
1155	<p>Started Area Samples (East & West sides)</p>
1355	<p>Collected & Analyzed Area Samples - Samples LO.0 1 hr</p>
1430	<p>Still not needed Sen would like Covino to return in the morning Off site Prep work continues</p>

DAILY FIELD NOTES

Project Number: 10-01508 Date: 3-23-11
 Client: Environmental Management Shift Number: 1
 Project Location: White Iron Ave Page: 1 of 1
Cambridge, MA Monitor: J. Bradburnhoff

Time	Field Notes
6:48A	CEA JB ARRIVES ON JOBSITE WORK AREA (U) ON
	WHITE IRON AVE IN CAMBRIDGE, MA.
-	SCOPE OF WORK: CEA JB TO SET UP PERSONAL
	AND AREA PUMPS TO COLLECT DATA DURING
	REMOVAL OF ASBESTOS CONTAINING SOIL FROM
	A 50'X30'X20 CONTAINMENT (2) CEA TO RECORD ^{DUST} CONCENTRATIONS
	W/ DUST TRACK AT UPWIND, DOWNWIND AND
	X-WIND LOCATIONS
7:10A	CEA SETS UP PERSONAL PUMPS ON OPERATORS =
	JIMMY AND NEIL.
7:30A	CEA SETS UP THREE PUMPS AT VARIOUS LOCATIONS
	DESCRIBED ON ASBESTOS AIR SAMPLING AND ANALYSIS FORM
	CEA STARTS RECORDING DUST CONCENTRATIONS
10:30A	CEA COLLECTS AIR SAMPLES - CONTINUE TAKING DUST DATA
12:00P	CREW ON LUNCH BREAK.
12:25P	CEA SETS UP THREE PUMPS TO RUN AREA AIR ^{SAMPLES}
	CEA ANALYSES AIR SAMPLES. RESULTS ARE
	ACCEPTABLE.
2:45P	CEA COLLECTS AIR SAMPLES.
3:15P	CEA ANALYSES AIR SAMPLES, RESULTS ARE ACCEPTABLE.
3:45P	CEA COLLECTS AIR SAMPLES
3:55P	CEA OFF SITE TO COVINO
4:25P	CEA SUBMIT ^{PERSONAL} SAMPLES FOR ^{LAB} ANALYSIS.
5:00P	CEA OFF SITE

DAILY FIELD NOTES

Project Number: 10.01508 Date: 3-24-11
 Client: Environmental Management Shift Number: 1
 Project Location: Whittemore Ave, Cambridge, MA Page: 1 of 1
 Monitor: J. Brahmhatt

Time	Field Notes
6:45A	CEA JANAK BRAHMBHATT (JB) ARRIVES AT THE JOB SITE WR GRADE (D, ON) WHITEMORE AVE IN CAMBRIDGE, MA.
7:05A	CEA SETS UP PERSONAL PUMPS ON JIMMY AND NEIL TO COLLECT AIR SAMPLES DURING EXCAVATION AND REMOVAL OF ASBESTOS CONTAINING SOIL. SCOPE OF WORK: CEA JB TO (1) RECORD DUST CONCENTRATION USING DUST TRACK (2) COLLECT PERSONAL AIR SAMPLES DURING EXCAVATION AND REMOVAL INSIDE CONTAINMENT (3) COLLECT AND ANALYSE AREA SAMPLES 50' UPWIND AND DOWN WINDS AND CROSSWINDS - OUTSIDE THE CONTAINMENT.
7:20A	CEA SETS UP THREE PUMPS AT VARIOUS LOCATIONS DESCRIBED ON "ASBESTOS AIR SAMPLING AND ANALYSIS FORM." CEA ^{MEASURES & RECORDS} TAKES DUST CONCENTRATIONS AT THE ABOVE LOCATIONS.
10:20A	CEA COLLECTS AIR SAMPLES OUTSIDE CONTAINMENT CEA MEASURES AND RECORDS DUST CONCENTRATION
11:00A	CEA JB ANALYSES AIR SAMPLES. RESULTS ARE ACCEPTABLE
12:10 P	CREW ON LUNCH BREAK CEA TAKES ^{MEASURES & RECORDS} DUST CONCENTRATIONS
12:40 P	CREW BACK TO WORK
1:08P	CEA JB MEASURES & RECORDS DUST CONCENTRATIONS.
2:08	CEA JB MEASURES & RECORDS DUST CONCENTRATION
3:10	CEA JB MEASURES & RECORDS DUST CONCENTRATION
3:20	CEA COLLECTS AIR SAMPLES OUTSIDE CONTAINMENT

DAILY FIELD NOTES

Project Number: 10-01508
 Client: _____
 Project Location: 62 WHITTEMORE AVE
CAMBRIDGE, MA

Date: 3-25-11
 Shift Number: 1
 Page: 1 of _____
 Monitor: J. Brahmhatt

Time	Field Notes
6:45A	CEA JANAK BRAHMBHATT ARRIVES ON JOB SITE W/GRACE BLDG #23 WHITTEMORE AVE IN CAMBRIDGE, MA.
6:50	CONTRACTOR GIOIOSO CREW ON SITE. SCOPE OF WORK: CEA JB TO (1) MEASURE AND RECORD DUST CONCENTRATION (2) TAKE ^{TWO} PERSONAL AIR SAMPLES OF ^{EXCAVATOR} OPERATOR AND ABATEMENT WORKER (3) RUN AREA SAMPLES (UPWIND, CROSS WIND AND DOWN WIND DURING REMOVAL OF ASBESTOS CONTAINING SOIL DURING SEPARATION OF AN EXISTING COMBINED STORM WATER/SANITARY SEWER MANHOLE BEHIND BLDG 23 OF THE W.R. GRACE FACILITY IN CAMBRIDGE, MA
7:04	CEA MEASURES AND RECORDS DUST CONCENTRATIONS AT VARIOUS LOCATIONS DESCRIBED ON ASBESTOS AIR SAMPLING AND ANALYSIS FORM ^{JB} FORM.
7:30	CEA SETS UP PERSONAL ^{PUMPS TO TAKE AIR} SAMPLES DURING REMOVAL.
7:39	CEA SETS UP THREE PUMPS TO RUN AREA SAMPLES (UPWIND, CROSS WIND AND DOWN WIND) AROUND CONTAINMENT
8:07	CEA SET JB MEASURES AND ^{OR} RECORDS COLLECTS DUST CONCENTRATIONS
9:10	CEA JB MEASURES AND RECORDS DUST CONCENTRATION
10:15	CEA JB MEASURES & RECORDS DUST CONCENTRATION
10:25	CEA COLLECTS AREA AIR SAMPLES
11:20	CEA JB MEASURES & RECORDS DUST CONCENTRATION
12:00	CREW ON LUNCH BREAK
12:15	CEA JB MEASURES AND RECORDS DUST CONCENTRATION
12:40 13:15	CREW ^{BACK FROM BREAK} CEA JB MEASURES AND RECORDS DUST CONCENTRATION
14:25	CEA JB MEASURES AND RECORDS DUST CONCENTRATION
14:30	CEA COLLECTS AIR SAMPLES, ANALYSES. RESULTS ARE _____

IAQ Direct-Reading Measurements



300 Wildwood Avenue · Woburn, Massachusetts 01801
 Tel 781.933.2555 · Fax 781.932.9402 · mail@covinoinc.com

JANAK BRAHMBHATT

Field Scientist(s):

Equipment (Model/Serial Nos.)	Calibration (Lot No., Conc., Exp.)	Temp (°F)	RH (%)	CO ₂ (ppm)	CO (ppm)	TVOCs (ppm)	Formaldehyde (ppm)		
Q-Trak:	CO ₂ :								
DustTrak: S/U # 23779	CO:								
MultirAE / ToxiRAE/ ppbRAE:	Zero Gas:								
Formaldehyde:	Isobutylene:								
Location	Number of Occupants	Time	PM ₁₀ (mg/m ³)	Temp (°F)	RH (%)	CO ₂ (ppm)	CO (ppm)	TVOCs (ppm)	Formaldehyde (ppm)
Outdoors									
UP WIND 50' FROM CONTAINMENT - OUT		7:04	.008						
CROSS WIND 10' FROM BLDG		7:05	.010						
DOWN WIND 50' FROM CONTAINMENT		7:06	.010						
UP WIND 50' FROM CONTAINMENT		8:07	.014						
CROSS WIND 10' FROM BLDG (S)		8:07	.013						
DOWN WIND 50' FROM BLDG (S) CONTAINMENT		8:09	.013						
UP WIND, 50' FROM CONTAINMENT		9:09	.012						
CROSS WIND 10' FROM CONTAINMENT		9:11	.010						
DOWN WIND, 50' FROM CONTAINMENT		9:14	.008						
UP WIND, S		10:15	.010						
CROSS WIND 10' FROM "		10:20	.007						
DOWN WIND 50' FROM CONTAINMENT		10:22	.019						

Date: 3-25-11
 Project Manager: SCOTT HERZOG
 Project Number: 10-01508
 Client: ENVIRONMENTAL MANAGEMENT PROFESSIONALS
 Job Site: ^{WAK GORGE BLDG 23} WHITTEMORE AVE, CAMBRIDGE, MA

IAQ Direct-Reading Measurements

Field Scientist(s):

COVINO

300 Wildwood Avenue · Woburn, Massachusetts 01801
 Tel 781.933.2555 · Fax 781.932.9402 · mail@covinoinc.com



Equipment (Model/Serial Nos.)	Calibration (Lot No., Conc., Exp.)	Date: 3-25-11	Project Manager: SCOTT HERZOG	Project Number: 10-01508	Client:	Job Site:	Formaldehyde (ppm)	TVOCs (ppm)	CO (ppm)	CO ₂ (ppm)	RH (%)	Temp (°F)	PM-10 (mg/m ³)	Time	Number of Occupants	Location	
Q-Trak:	CO ₂ :																
DustTrak: S/N # 23779	CO:																
MultIRAE / ToxiRAE/ppbRAE:	Zero Gas:																
Formaldehyde:	Isobutylene:																
Outdoors																	
UPWIND, 50' FROM CONTAINMENT		11:20	.007														
CROSSWIND 10' "		11:23	.016														
DOWNWIND 50' FROM CONTAINMENT		11:25	.005														
UPWIND, 50' FROM CONTAINMENT		12:15	.006														
CROSSWIND 10' FROM "		12:16	.004														
DOWNWIND, 50' FROM "		12:18	.004														
UPWIND, 50' "		13:12	.005														
CROSSWIND 10' FROM "		13:12	.006														
DOWNWIND 50' "		13:14	.004														
UPWIND, " "		14:21	.012														
CROSSWIND 10' FROM CONTAINMENT		14:22	.018														
DOWNWIND 50' FROM CONTAINMENT		14:24	.011														

DAILY FIELD NOTES

Project Number: 10-01508 Date: 3-28-11
 Client: ENVIRONMENTAL MANAGEMENT Shift Number: 1
 Project Location: WR GRACE CO. PROFESSIONAL Page: 1 of 2
Bldg #23 62 WHITTEMORE AVE Monitor: J. Brahmbhatt
CAMBRIDGE, MA

Time	Field Notes
6:42A	CEA JANAK BRAHMBHATT (JB) ARRIVES AT THE JOBSITE WR GRACE BLDG #23 ON 62 WHITTEMORE AVE IN CAMBRIDGE, MA
6:55 A	CONTRACTOR GIOIOSO CREW ON SITE. SCOPE OF WORK: CEA JB TO (1) MEASURE AND RECORD DUST CONCENTRATION (2) TAKE TWO PERSONAL AIR SAMPLES OF EXCAVATION OPERATOR AND ASBESTOS ABATEMENT WORKER AND (3) RUN AREA SAMPLES: UPWIND, DOWNWIND AND CROSSWIND DURING THE REMOVAL OF ASBESTOS CONTAINING SOIL DURING SEPARATION OF AN EXISTING COMBINED STORM WATER / SANITARY SEWER MANHOLE BEHIND BLDG 23 OF WR GRACE COMPANY
7:10A	CEA JB STARTS PERSONAL PUMP ON TWO OPERATORS
7:20A	CEA TAKES DUST CONCENTRATION READING FROM VARIOUS LOCATIONS. (UPWIND, DOWNWIND, CROSSWIND
7:35A	CEA SETS UP ^{THREE PUMPS TO} AREA SAMPLE RUN AREA SAMPLES AT VARIOUS LOCATIONS DESCRIBED ON ASBESTOS AIR SAMPLING AND ANALYSIS FORM.
8:10	CEA MEASURES & RECORDS DUST CONCENTRATIONS
9:15	CEA MEASURES AND RECORDS DUST CONCENTRATIONS
9:30	GIOIOSO CREW ON BREAK
10:05	CEA MEASURES & RECORDS DUST CONCENTRATIONS
10:10	CEA COLLECTS AREA AIR SAMPLES
11:00	CEA GO MEASURES & RECORDS DUST CONCENTRATIONS
12:52	CEA MEASURES & RECORDS DUST CONCENTRATIONS
12:53	CEA SEA RESUMES AREA AIR SAMPLES -
13:52	CEA MEASURES & RECORDS DUST CONCENTRATIONS
14:55	CEA MEASURES & RECORDS DUST CONCENTRATIONS

IAQ Direct-Reading Measurements



300 Wildwood Avenue · Woburn, Massachusetts 01801
 Tel 781.933.2555 · Fax 781.932.9402 · mail@covinoinc.com

Field Scientist(s):

JANAK BRAMBHATT

Equipment (Model/Serial Nos.)	Calibration (Lot No., Conc., Exp.)	CO ₂ :	CO:	Zero Gas:	Formaldehyde:	Temp (°F)	RH (%)	CO ₂ (ppm)	CO (ppm)	TVOCs (ppm)	Formaldehyde (ppm)
Location	Number of Occupants	Time	PM ₁₀ (mg/m ³)	Temp (°F)	RH (%)	CO ₂ (ppm)	CO (ppm)	TVOCs (ppm)	Formaldehyde (ppm)		
Outdoors											
UP WIND, 50' FROM CONTAINMENT		7:20	.006								
CROSS WIND 10' FROM "		7:21	.008								
CROSS WIND 50' FROM "		7:24	.006								
UP WIND, 50' FROM "		8:11	.005								
CROSS WIND 10' " "		8:12	.009								
DOWN WIND 50' " "		8:14	.006								
UP WIND " " "		9:15	.005								
CROSS WIND 10' " "		9:16	0.014								
DOWN WIND 50' " "		9:17	0.006								
UP WIND " " "		10:05	.005								
CROSS WIND 10' " "		10:06	.009								
DOWN WIND 50' " "		10:08	.003								

Date: _____

IAQ Direct-Reading Measurements

Field Scientist(s):

300 Wildwood Avenue · Woburn, Massachusetts 01801
Tel 781.933.2555 · Fax 781.932.9402 · mail@covoinc.com



JANAK BRAHMBHATT

Equipment (Model/Serial Nos.) Calibration (Lot No., Conc., Exp.)

Date: 3-28-11

Q-Trak:

CO₂:

Project Manager: SCOTT HERZOG

DustTrak: S/N# 23779

CO:

Project Number: 10-01508

MultirAE / ToxiRAE/ ppbRAE:

Zero Gas:

Client: ENVIRONMENTAL MANAGEMENT PROFESSIONALS
Job Site: WR GRACE Bldg#23 62 WHITTEMOORE AVE
CAMBRIDGE

Formaldehyde:

Isobutylene:

Location	Number of Occupants	Time	PM10 (mg/m ³)	Temp (°F)	RH (%)	CO (ppm)	CO ₂ (ppm)	TVOCs (ppm)	Formaldehyde (ppm)
Outdoors									
UP WIND, 50' FROM CONTAINMENT	0:55	10:55	.005						
CROSS WIND 10' "	10:56	10:56	.008						
DOWN WIND 50' "	10:58	10:58	.003						
UP WIND " " "	12:55	12:52	.005						
CROSS WIND 10' "		12:53	.006						
DOWN WIND 50' "		12:56	.007						
		13:58	.005						
		13:59	.007						
		14:01	.012						
		14:55	.007						
		14:56	.007						
		14:57	.008						

DAILY FIELD NOTES

Covino Environmental Associates, Inc.

Project Number: 10-01508 Date: 3-29-11
 Client: ENVIRONMENTAL MANAGEMENT Shift Number: 1
 Project Location: PROFESSIONAL Page: 1 of 2
WR GRACE Co. 62 WHITTEMORE AVE Monitor: J. BRAHMBHATT
CAMBRIDGE, MA

Time	Field Notes
6:45 A	CEA HYGIENIST, JAMIE BRAHMBHATT (JB) ARRIVES ON ^{JOB} SITE. WR GRACE BLDG # 23 AT 62 WHITTEMORE AVE IN CAMBRIDGE, MA.
6:50	GIOIOSO CREW ON SITE. SCOPE OF WORK: CEA JB TO (1) MEASURE AND RECORD DUST CONCENTRATIONS AROUND THE CONTAINMENT (2) TAKE PERSONAL AIR SAMPLES ON ABATEMENT WORKER AND EXCAVATION OPERATOR (3) RUN AREA AIR SAMPLES DURING REMOVAL OF ASBESTOS CONTAINING SOIL DURING SEPARATION OF AN EXISTING COMBINED STORM WATER/SANITARY SEWER MANHOLE BEHIND BLDG #23 OF THE WR GRACE FACILITY.
7:00 A	CEA MEASURES AND RECORDS RECORDS DUST CONCENTRATIONS AT VARIOUS LOCATIONS (UPWIND, DOWNWIND & CROSSWIND) AROUND THE CONTAINMENT.
7:05 A	CEA SETS PERSONAL AIR PUMPS ON OPERATORS.
7:15 A	CEA SETS UP THE PERSONAL THREE PUMPS AT VARIOUS LOCATIONS DESCRIBED ON ASBESTOS AIR SAMPLING AND ANALYSIS FORM.
8:00 A	CEA MEASURES AND RECORDS DUST CONCENTRATIONS
9:02 A	CEA MEASURES AND RECORDS DUST CONCENTRATIONS HIGH READING (DUST CONCENTRATION) FOR CROSSWIND SAMPLE DUE TO WIND BLOWING FROM THE GENERATOR.
10:10 A	CEA MEASURES AND RECORDS DUST CONCENTRATIONS
10:15 A	CEA COLLECTS AREA AIR SAMPLES
11:15 A	CEA CALL MEASURES & RECORDS DUST CONCENTRATION.
12:20	CEA STARTS PUMPS TO RUN AREA SA AIR SAMPLES. CREW ON LUNCH. INSTALL
12:24	CEA MEASURES & RECORDS DUST CONCENTRATIONS MANHOLE
13:30	CEA MEASURES & RECORDS DUST CONCENTRATIONS
14:28	CEA MEASURES & RECORDS DUST CONCENTRATION. CREW INSTALLS PIPE TO CONNECTING MANHOLE.

IAQ Direct-Reading Measurements



300 Wildwood Avenue · Woburn, Massachusetts 01801
 Tel 781.933.2555 · Fax 781.932.9402 · mail@covinoinc.com

Field Scientist(s):

JANAK BRAHMBHATT

Equipment (Model/Serial Nos.) Calibration (Lot No., Conc., Exp.)

Q-Trak: CO₂:

DustTrak: S/N # 23779 CO:

MultiRAE / ToxiRAE/ppbRAE: Zero Gas:

Formaldehyde: Isobutylene:

Date: 3-29-11

Project Manager: SCOTT HERZOG

Project Number: 10-01508

Client: Environmental Management Professionals

Job Site: WR GRACE CO. Bldg #23 GEORGETTOWN, MD

Location	Number of Occupants	Time	PM-10 (mg/m ³)	Temp (°F)	RH (%)	CO ₂ (ppm)	CO (ppm)	TVOCS (ppm)	Formaldehyde (ppm)
Outdoors									
UP WIND, 50' FROM CONTAINMENT		7:00 A	.016						
CROSS WIND 15' "		7:01 A	.017						
DOWN WIND 50' "		7:03 A	.007						
UP WIND " " "		8:03 A	.017						
CROSS WIND 15' " "		8:04 A	.014						
DOWN WIND 50' " "		8:05 A	.004						
UP WIND " " "		9:02 A	.007						
CROSS WIND 15' " "		9:03 A	.040*						
DOWN WIND 50' " "		9:04 A	.006						
UP WIND " " "		10:09 A	.006						
CROSS WIND 15' " "		10:12 A	.009						
DOWN WIND 50' " "		10:15 A	.004						

* WIND BLOWING FROM GENERATOR

IAQ Direct-Reading Measurements

Field Scientist(s):



300 Wildwood Avenue · Woburn, Massachusetts 01801
 Tel 781.933.2555 · Fax 781.932.9402 · mail@covinoinc.com

Equipment (Model/Serial Nos.)		Calibration (Lot No., Conc., Exp.)		Date: 3-29-11					
Q-Trak:		CO ₂ :		Project Manager: SCOTT HERZOG					
DustTrak:		CO:		Project Number: 10-01508					
MultiRAE / ToxiRAE/ ppbRAE:		Zero Gas:		Client:					
Formaldehyde:		Isobutylene:		Job Site: W R GRACE CO. Bldg 23 62 WHITTEMORE AVE CAMBRIDGE					
Location	Number of Occupants	Time	PM10 (mg/m ³)	Temp (°F)	RH (%)	CO ₂ (ppm)	CO (ppm)	TVOCS (ppm)	Formaldehyde (ppm)
Outdoors									
UP WIND 50' FROM CONTAINER		11:14 A	.011						
CROSSWIND 15' "		11:15 A	.007						
DOWN WIND 50' "		11:17 A	.004						
UP WIND " " "		12:24 P	.012						
CROSSWIND 15' " "		12:26 P	.008						
DOWN WIND 50' " "		12:29 P	.003						
UP WIND " 50' " "		13:26	.011						
CROSSWIND 15' " "		13:30	.015						
DOWN WIND 50' " "		13:33	.006						
UP WIND " " " "		14:28	.006						
CROSSWIND 15' " "		14:30	.006						
DOWN WIND 50' " "		14:32	.003						

DAILY FIELD NOTES

Covino Environmental Associates, Inc.

Project Number: 10-01508
 Client: Environmental Management
 Project Location: 62 Whittamore Prof.
Cambridge, MA

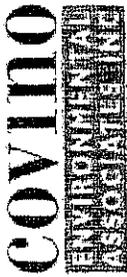
Date: 3-30-11
 Shift Number: 1
 Page: 1 of
 Monitor: J. Brachmann

Time	Field Notes
6:47 A	CEA HYGIENIST JANAK BRAHMBHATT (JD) ARRIVES AT THE JOB SITE 62 Whittamore Ave in Cambridge, MA GIOLASO Crew on jobsite -
7:05	SCOPE OF WORK: CEA JB TO (1) MEASURE AND RECORD DUST CONCENTRATIONS AROUND THE CONTAINMENT (2) AND SET PERSONAL AIR PUMPS TO TAKE AIR SAMPLES ON ABATEMENT WORKER AND EXCAVATION WORKER (3) RUN AREA AIR SAMPLES DURING REMOVAL OF ASBESTOS CONTAINING SOIL DURING SEPARATION OF AN EXISTING COMBINED WATER/SANITARY SEWER MANHOLE BEHIND BLDG # 23 OF WROGRACE FACILITY.
7:05	CEA SETS UP PERSONAL AIR SAMPLE PUMPS ON WORKERS.
7:10	CEA MEASURES AND RECORDS DUST CONCENTRATIONS $< 0.075 \text{ mg/m}^3$
7:10	CEA SETS UP THREE PUMPS TO RUN AREA AIR AREA SAMPLES AT VARIOUS LOCATIONS DESCRIBED ON ASBESTOS AIR SAMPLING AND ANALYSIS FORM."
8:11	CEA MEASURES & RECORDS DUST CONCENTRATION. $< 0.075 \text{ mg/m}^3$
9:13	CEA MEASURES & RECORDS DUST CONCENTRATIONS $< 0.075 \text{ mg/m}^3$
10:05	CEA COLLECTS AREA AIR SAMPLES
10:15	CEA MEASURES AND RECORDS DUST CONCENTRATIONS $< 0.075 \text{ mg/m}^3$
11:05	CEA STARTS AREA SAMPLES.
11:15	CEA MEASURES AND RECORDS DUST CONCENTRATIONS $< 0.075 \text{ mg/m}^3$
12:20	CEA MEASURES AND RECORDS DUST CONCENTRATIONS $< 0.075 \text{ mg/m}^3$
13:24	CEA MEASURES AND RECORDS DUST CONCENTRATIONS. (CROSSWIND) SAMPLE HIGHER (0.045 mg/m^3) AFTER FIVE MIN. NORMAL (0.012 mg/m^3)
14:25	CEA COLLECTS AREA AIR SAMPLES. MEASURES & RECORDS DUST CONCENTRATIONS

IAQ Direct-Reading Measurements

Field Scientist(s):

JANAK BRAHMBHATT



300 Wildwood Avenue · Woburn, Massachusetts 01801
 Tel 781.933.2555 · Fax 781.932.9402 · mail@covinoinc.com

Equipment (Model/Serial Nos.)	Calibration (Lot No., Conc., Exp.)	CO ₂ :	CO:	Zero Gas:	Formaldehyde:	Isobutylene:	Number of Occupants	Time	PM-10 (mg/m ³)	Temp (°F)	RH (%)	CO ₂ (ppm)	TVOCs (ppm)	Formaldehyde (ppm)	
Q-Trak:															
DustTrak: S/N# 23779															
MultiraE / ToxiRAE/ ppbRAE:															
Client: ENVIRONMENTAL MANAGEMENT PROFESSIONALS															
Job Site: W.R. GRADE Bldg #33, 62 WINTHROP AVE, ANDOVER, MA															
Outdoors															
UP WIND 50' from CONTAINMENT								7:10 A	0.011						
CROSS WIND 15' from "								7:11 A	0.014						
DOWN WIND 50' " "								7:13 A	0.023						
UP WIND 10' " "								8:01 A	0.009						
CROSS WIND 15' " "								8:13 A	0.010						
DOWN WIND 50' " "								8:14 A	0.012						
UP WIND 5' " "								9:13 A	0.010						
CROSS WIND 15' " "								9:15 A	0.005						
DOWN WIND 50' " "								9:18 A	0.004						
UP WIND 1' " "								10:13 A	0.012						
CROSS WIND 15' " "								10:14 A	0.012						
DOWN WIND 50' " "								10:15 A	0.007						

DAILY FIELD NOTES

Covino Environmental Associates, Inc.

Project Number: 10-01508 Date: 3-31-11
 Client: ENVIRONMENTAL MANAGEMENT Shift Number: 1
 Project Location: 62 Whittemore Ave Cambridge MA Page: 1 of 1
 Monitor: J. Brahmhatt

Time	Field Notes
6:45A	CEA HYGIENIST JANAK BRAHMBHATT (JB) ARRIVES ON JOB SITE 62 WHITTEMORE AVE IN CAMBRIDGE, MA. Q101050 CREW ON SITE. SCOPE OF WORK: CEA TO (1) MEASURE AND RECORD DUST CONCENTRATIONS AROUND THE CONTAINMENT: UPWIND ^(50') , DOWNWIND (50') AND CROSS WIND (15'). (2) GET PERSONAL AIR SAMPLES ON WORKERS: ABATEMENT WORKER AND EXCAVATION OPERATOR. (3) RUN AREA AIR SAMPLES DURING REMOVAL OF ASBESTOS CONTAINING SOIL DURING SEPARATION OF AN EXISTING COMBINED WATER/SANITARY SEWER MANHOLE BEHIND BLDG #23 OF WOR GRACE CO.
7:05A	CEA SETS UP PERSONAL AIR SAMPLES ON WORKERS: JOE (ABATEMENT WORKER) AND NEIL (EXCAVATION OPERATOR). CEA MEASURES AND RECORDS DUST CONCENTRATIONS.
7:10A	CEA SETS UP THREE PUMPS TO RUN AREA AIR SAMPLES AT VARIOUS LOCATIONS AROUND THE CONTAINMENT AS DESCRIBED ON "ASBESTOS AIR SAMPLING AND ANALYSIS FORM."
8:10A	CEA MEASURES AND RECORDS DUST CONCENTRATIONS <.075 mg/m ³
9:10A	CEA MEASURES AND RECORDS DUST CONCENTRATIONS <.075 mg/m ³
10:10A	CEA MEASURES AND RECORDS DUST CONCENTRATIONS <.075 mg/m ³
10:20A	CEA COLLECTS AREA AIR SAMPLES.
11:10A	CEA MEASURES & RECORDS DUST CONCENTRATIONS <.075 mg/m ³
11:25A	CEA STARTS AREA AIR SAMPLES
12:05P	CEA MEASURES & RECORDS DUST CONCENTRATIONS <.075 mg/m ³
13:15	CEA MEASURES & RECORDS DUST CONCENTRATIONS <.075 mg/m ³
14:20	CEA MEASURE & RECORDS DUST CONCENTRATIONS <.075 mg/m ³ COLLECTS AREA AIR SAMPLE
15:30	CEA COLLECTS PERSONAL AIR SAMPLES

IAQ Direct-Reading Measurements

Field Scientist(s):

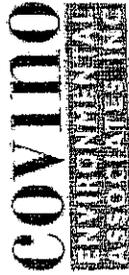
COVINO

300 Wildwood Avenue · Woburn, Massachusetts 01801
Tel 781.933.2555 · Fax 781.932.9402 · mail@covinoinc.com

JANAK BRAHMABHATT

Equipment (Model/Serial Nos.)	Calibration (Lot No., Conc., Exp.)	Temp (°F)	RH (%)	CO ₂ (ppm)	CO (ppm)	TVOCs (ppm)	Formaldehyde (ppm)			
Q-Trak:	CO ₂ :									
DustTrak: SN # 23779	CO:									
MultirAE / ToxiRAE/ppbRAE:	Zero Gas:									
Formaldehyde:	Isobutylene:									
Location	Number of Occupants	Time	PM ₁₀ (mg/m ³)	PM _{2.5} (mg/m ³)	Temp (°F)	RH (%)	CO ₂ (ppm)	CO (ppm)	TVOCs (ppm)	Formaldehyde (ppm)
Outdoors										
UP WIND, 50' FROM CONTAINMENT		7:05 A	.007							
CROSS WIND 15' FROM CONTAINMENT		7:06 A	.008							
DOWN WIND, 50' FROM CONTAINMENT		7:08 A	.008							
UP WIND " " "		8:08 A	.012							
CROSS WIND 75' " " "		8:10 A	.014							
DOWN WIND 50' " " "		8:14 A	.020							
UP WIND 50' FROM CONTAINMENT		9:08 A	0.018							
CROSS WIND 15' " " "		9:09 A	.015							
DOWN WIND 50' " " "		9:11 A	.021							
UP WIND 50' " " "		10:07 A	.006							
CROSS WIND 15' " " "		10:08 A	.006							
DOWN WIND 50' " " "		10:09 A	.007							

IAQ Direct-Reading Measurements



300 Wildwood Avenue · Woburn, Massachusetts 01801
 Tel 781.933.2555 · Fax 781.932.9402 · mail@covinoinc.com

Field Scientist(s):

JANAK BRAHMBHATT

Equipment (Model/Serial Nos.)		Calibration (Lot No., Conc., Exp.)		Temp (°F)	PM-10 (mg/m ³)	RH (%)	CO ₂ (ppm)	GO (ppm)	TVOCS (ppm)	Formaldehyde (ppm)
Q-Trak:		CO ₂ :								
DustTrak:	S/N # 23779	CO:								
MultirAE / ToxiRAE / ppbRAE:		Zero Gas:								
Formaldehyde:		Isobutylene:								
Location	Number of Occupants	Time	PM-10 (mg/m ³)	Temp (°F)	RH (%)	CO ₂ (ppm)	GO (ppm)	TVOCS (ppm)	Formaldehyde (ppm)	
Outdoors										
UPWIND 50' FROM CLOUTIERMENT		11:09 A	.007							
CROSSWIND 15'	"	11:11 A	.003							
DOWNWIND 50'	"	11:13 A	.004							
UPWIND "	"	12:10 P	.004							
CROSSWIND 15'	"	12:11 P	.007							
DOWNWIND 50'	"	12:13 P	.004							
UPWIND "	"	13:16 +	.004							
CROSSWIND 15'	"	13:18	.020							
DOWNWIND 50'	"	13:19	.006							
UPWIND "	"	14:14	.006							
CROSSWIND 15'	"	14:16	.006							
DOWNWIND 50'	"	14:18	.008							

AREA SAMPLE RESULTS



CLIENT: ENVIRONMENTAL MANAGEMENT PROFESSIONALS
94 SAWYERS LANE
MARSHFIELD, MA 02050

LOCATION: WR GRACE CONSTRUCTION PRODUCTS
62 WHITTEMORE AVENUE
CAMBRIDGE, MASSACHUSETTS

PROJECT: 1001508

ANALYTICAL RESULTS OF AIR SAMPLES

SAMPLE NUMBER AND DATE	SAMPLE DESCRIPTION	SAMPLE PERIOD	PUMP TIME (MIN.)	SAMPLE VOLUME (LITERS)	TOTAL FIBER CONCENTRATION (FIBERS/CC)
001 3/15/11	FIELD BLANK, 0 FIBERS/100 FIELDS	N/A		N/A	N/A
002 3/15/11	FIELD BLANK, 0 FIBERS/100 FIELDS	N/A		N/A	N/A
003 3/15/11	AREA, BEHIND BUILDING #23, WEST OF CONTAINMENT, DURING PREPARATIONS	12:25 PM 2:05 PM	100	1260	<0.004
004 3/15/11	AREA, BEHIND BUILDING #23, SOUTH OF CONTAINMENT, DURING PREPARATIONS	12:26 PM 2:07 PM	101	1273	<0.004
005 3/15/11	AREA, BEHIND BUILDING #23, EAST OF CONTAINMENT, DURING PREPARATIONS	12:27 PM 2:10 PM	103	1298	<0.004
006 3/17/11	FIELD BLANK, 0 FIBERS/100 FIELDS	N/A		N/A	N/A
007 3/17/11	FIELD BLANK, 0 FIBERS/100 FIELDS	N/A		N/A	N/A
008 3/17/11	AREA, EAST SIDE OF CONTAINMENT, DURING PREPARATIONS	11:55 AM 1:55 PM	120	1200	<0.004
009 3/17/11	AREA, WEST SIDE OF CONTAINMENT, DURING PREPARATIONS	11:58 AM 1:58 PM	120	1200	<0.004
010 3/18/11	FIELD BLANK, 0 FIBERS/100 FIELDS	N/A		N/A	N/A
011 3/18/11	FIELD BLANK, 0 FIBERS/100 FIELDS	N/A		N/A	N/A
012 3/18/11	AREA, WEST SIDE OF CONTAINMENT, DURING PREPARATIONS	7:13 AM 11:13 AM	240	1200	<0.004
013 3/18/11	AREA, EAST SIDE OF CONTAINMENT, DURING PREPARATIONS	7:13 AM 11:13 AM	240	1200	0.004
014 3/22/11	FIELD BLANK, 0 FIBERS/100 FIELDS	N/A		N/A	N/A
015 3/22/11	FIELD BLANK, 0 FIBERS/100 FIELDS	N/A		N/A	N/A

ANALYTICAL RESULTS OF AIR SAMPLES

SAMPLE NUMBER AND DATE	SAMPLE DESCRIPTION	SAMPLE PERIOD	PUMP TIME (MIN.)	SAMPLE VOLUME (LITERS)	TOTAL FIBER CONCENTRATION (FIBERS/CC)
016 3/22/11	AREA, DOWNWIND, FIFTY FEET FROM THE CONTAINMENT, DURING PREPARATIONS AND REMOVAL	8:35 AM 10:45 AM	130	1430	<0.003
017 3/22/11	AREA, CROSSWIND, NEAR CONTAINMENT, DURING PREPARATIONS AND REMOVAL	8:38 AM 10:48 AM	130	1430	<0.003
018 3/22/11	AREA, UPWIND, FIFTY FEET FROM THE CONTAINMENT, DURING PREPARATIONS AND REMOVAL	8:42 AM 11:12 AM	150	1320	<0.004
019 3/22/11	AREA, UPWIND, DURING REMOVAL	12:31 PM 3:01 PM	150	1485	<0.003
020 3/22/11	AREA, CROSSWIND, DURING REMOVAL	1:10 PM 3:20 PM	130	1430	<0.003
021 3/22/11	AREA, DOWNWIND, DURING REMOVAL	1:12 PM 3:22 PM	130	1430	<0.003
022 3/23/11	FIELD BLANK, RESULT NOT REPORTED	N/A		N/A	N/A
023 3/23/11	FIELD BLANK, RESULT NOT REPORTED	N/A		N/A	N/A
024 3/23/11	AREA, DOWNWIND, FIFTY FEET FROM CONTAINMENT	7:25 AM 10:25 AM	180	1980	<0.002
025 3/23/11	AREA, CROSSWIND, NEAR CONTAINMENT	7:35 AM 10:30 AM	175	1925	<0.003
026 3/23/11	AREA, UPWIND, FIFTY FEET FROM CONTAINMENT	8:25 AM 10:40 AM	135	1269	<0.004
027 3/23/11	AREA, UPWIND, FIFTY FEET FROM THE CONTAINMENT, DURING REMOVAL	12:20 PM 2:40 PM	140	1316	<0.004
028 3/23/11	AREA, CROSSWIND, NEAR CONTAINMENT, DURING REMOVAL	12:22 PM 2:42 PM	140	1540	<0.003
029 3/23/11	AREA, DOWNWIND, FIFTY FEET FROM THE CONTAINMENT, DURING REMOVAL	12:24 PM 2:44 PM	140	1540	<0.003
030 3/24/11	FIELD BLANK, RESULT NOT REPORTED	N/A		N/A	N/A
031 3/24/11	FIELD BLANK, RESULT NOT REPORTED	N/A		N/A	N/A
032 3/24/11	AREA, DOWNWIND, FIFTY FEET FROM THE CONTAINMENT, DURING REMOVAL	7:20 AM 10:20 AM	180	1692	<0.003

ANALYTICAL RESULTS OF AIR SAMPLES

SAMPLE NUMBER AND DATE	SAMPLE DESCRIPTION	SAMPLE PERIOD	PUMP TIME (MIN.)	SAMPLE VOLUME (LITERS)	TOTAL FIBER CONCENTRATION (FIBERS/CC)
033 3/24/11	AREA, CROSSWIND, NEAR CONTAINMENT, DURING REMOVAL	7:25 AM 10:25 AM	180	2160	<0.002
034 3/24/11	AREA, UPWIND, FIFTY FROM THE CONTAINMENT, DURING REMOVAL	7:29 AM 10:27 AM	178	1958	<0.003
035 3/24/11	AREA, DOWNWIND, FIFTY FEET FROM CONTAINMENT, DURING REMOVAL	12:20 PM 3:20 PM	180	1692	<0.003
036 3/24/11	AREA, CROSSWIND, NEAR CONTAINMENT, DURING REMOVAL	12:25 PM 3:22 PM	177	2142	<0.002
037 3/24/11	AREA, UPWIND, FIFTY FEET FROM CONTAINMENT, DURING REMOVAL	12:27 PM 3:23 PM	176	1936	<0.003
038 3/25/11	FIELD BLANK, RESULT NOT REPORTED	N/A		N/A	N/A
039 3/25/11	FIELD BLANK, RESULT NOT REPORTED	N/A		N/A	N/A
040 3/25/11	AREA, UPWIND, FIFTY FEET FROM CONTAINMENT, DURING REMOVAL	7:39 AM 10:19 AM	160	1584	<0.003
041 3/25/11	AREA, CROSSWIND, TEN FEET FROM CONTAINMENT, DURING REMOVAL	7:43 AM 10:23 AM	160	1936	<0.003
042 3/25/11	AREA, DOWNWIND, FIFTY FEET FROM CONTAINMENT, DURING REMOVAL	7:45 AM 10:24 AM	159	1749	<0.003
043 3/25/11	AREA, UPWIND, FIFTY FEET FROM CONTAINMENT, DURING REMOVAL	12:24 PM 2:34 PM	130	1287	<0.004
044 3/25/11	AREA, CROSSWIND, TEN FEET FROM CONTAINMENT, DURING REMOVAL	12:25 PM 2:25 PM	120	1452	<0.003
045 3/25/11	AREA, DOWNWIND, FIFTY FEET FROM CONTAINMENT, DURING REMOVAL	12:26 PM 2:26 PM	120	1320	<0.004
046 3/28/11	FIELD BLANK, 0 FIBERS/100 FIELDS	N/A		N/A	N/A
047 3/28/11	FIELD BLANK, 0 FIBERS/100 FIELDS	N/A		N/A	N/A
048 3/28/11	AREA, UPWIND, FIFTY FEET FROM CONTAINMENT, DURING REMOVAL	7:34 AM 10:04 AM	150	1320	<0.004
049 3/28/11	AREA, CROSSWIND, TEN FEET FROM CONTAINMENT, DURING REMOVAL	7:36 AM 10:06 AM	150	1650	<0.003
050 3/28/11	AREA, DOWNWIND, FIFTY FEET FROM CONTAINMENT, DURING REMOVAL	7:39 AM 10:09 AM	150	1485	<0.003

ANALYTICAL RESULTS OF AIR SAMPLES

SAMPLE NUMBER AND DATE	SAMPLE DESCRIPTION	SAMPLE PERIOD	PUMP TIME (MIN.)	SAMPLE VOLUME (LITERS)	TOTAL FIBER CONCENTRATION (FIBERS/CC)
051 3/28/11	AREA, UPWIND, FIFTY FEET FROM CONTAINMENT, DURING REMOVAL	12:52 PM 2:55 PM	123	1353	<0.004
052 3/28/11	AREA, CROSSWIND, TEN FEET FROM CONTAINMENT, DURING REMOVAL	12:53 PM 2:58 PM	125	1438	<0.003
053 3/28/11	AREA, DOWNWIND, FIFTY FEET FROM CONTAINMENT, DURING REMOVAL,	12:54 PM 3:04 PM	130	1254	0.007
054 3/29/11	FIELD BLANK, 0 FIBERS/100 FIELDS	N/A		N/A	N/A
055 3/29/11	FIELD BLANK, 0 FIBERS/100 FIELDS	N/A		N/A	N/A
056 3/29/11	AREA, UPWIND, FIFTY FEET FROM CONTAINMENT, DURING REMOVAL	7:15 AM 10:10 AM	175	1540	<0.003
057 3/29/11	AREA, CROSSWIND, FIFTEEN FEET FROM CONTAINMENT, DURING REMOVAL	7:16 AM 10:11 AM	175	1925	<0.003
058 3/29/11	AREA, DOWNWIND, FIFTY FEET FROM CONTAINMENT, DURING REMOVAL	7:18 AM 10:15 AM	177	1558	<0.003
059 3/29/11	AREA, UPWIND, FIFTY FEET FROM CONTAINMENT, DURING REMOVAL	12:21 PM 3:01 PM	160	1408	<0.003
060 3/29/11	AREA, CROSSWIND, FIFTEEN FEET FROM CONTAINMENT, DURING REMOVAL	12:21 PM 3:01 PM	160	1760	<0.003
061 3/29/11	AREA, DOWNWIND, FIFTY FEET FROM CONTAINMENT, DURING REMOVAL	12:23 PM 3:03 PM	160	1408	<0.003
062 3/30/11	FIELD BLANK, 0 FIBERS/100 FIELDS	N/A		N/A	N/A
063 3/30/11	FIELD BLANK, 0 FIBERS/100 FIELDS	N/A		N/A	N/A
064 3/30/11	AREA, UPWIND, FIFTY FEET FROM CONTAINMENT, DURING REMOVAL	7:08 AM 10:05 AM	177	1947	<0.003
065 3/30/11	AREA, CROSSWIND, FIFTEEN FEET FROM CONTAINMENT, DURING REMOVAL	7:12 AM 10:06 AM	174	1340	<0.004
066 3/30/11	AREA, DOWNWIND, FIFTY FEET FROM CONTAINMENT, DURING REMOVAL	7:14 AM 10:08 AM	174	1340	<0.004
067 3/30/11	AREA, UPWIND, FIFTY FEET FROM CONTAINMENT, DURING REMOVAL	11:05 AM 2:25 PM	200	2200	<0.002
068 3/30/11	AREA, CROSSWIND, FIFTEEN FEET FROM CONTAINMENT, DURING REMOVAL	11:06 AM 2:27 PM	201	1548	<0.003

ANALYTICAL RESULTS OF AIR SAMPLES

SAMPLE NUMBER AND DATE	SAMPLE DESCRIPTION	SAMPLE PERIOD	PUMP TIME (MIN.)	SAMPLE VOLUME (LITERS)	TOTAL FIBER CONCENTRATION (FIBERS/CC)
069 3/30/11	AREA, DOWNWIND, FIFTY FEET FROM CONTAINMENT, DURING REMOVAL	11:08 AM 2:30 PM	202	1555	0.004
070 3/31/11	FIELD BLANK, 0 FIBERS/100 FIELDS	N/A		N/A	N/A
071 3/31/11	FIELD BLANK, 0 FIBERS/100 FIELDS	N/A		N/A	N/A
072 3/31/11	AREA, UPWIND, FIFTY FEET FROM CONTAINMENT, DURING REMOVAL	7:10 AM 10:20 AM	190	2090	<0.002
073 3/31/11	AREA, CROSSWIND, FIFTEEN FEET FROM CONTAINMENT, DURING REMOVAL	7:11 AM 10:21 AM	190	1672	<0.003
074 3/31/11	AREA, DOWNWIND, FIFTY FEET FROM CONTAINMENT, DURING REMOVAL	7:13 AM 10:23 AM	190	1881	<0.003
075 3/31/11	AREA, UPWIND, FIFTY FEET FROM CONTAINMENT, DURING REMOVAL	11:25 AM 2:15 PM	170	1870	<0.003
076 3/31/11	AREA, CROSSWIND, FIFTEEN FEET FROM CONTAINMENT, DURING REMOVAL	11:26 AM 2:16 PM	170	1496	<0.003
077 3/31/11	AREA, DOWNWIND, FIFTY FEET FROM CONTAINMENT, DURING REMOVAL	11:28 AM 2:18 PM	170	1683	<0.003

AIR FLOW RATE RANGE: 5.0 - 12.6 LITERS PER MINUTE (LPM)
FILTER DIAMETER: 25 MM, FILTER PORE SIZE: 0.8 UM
GRATICULE FIELD AREA: 0.00785 +/- 0.00032 SQ. MM
LOWER LIMIT OF QUANTIFICATION: 10 FIBERS PER 100 FIELDS

SAMPLES WERE COLLECTED USING VACUUM PUMPS WITH AIR FLOW RATES SET BY VARIABLE-FLOW ORIFICES. A CALIBRATED ROTAMETER WAS USED TO DETERMINE THE AIR FLOW RATE AT THE BEGINNING AND END OF EACH SAMPLING PERIOD. SAMPLES WERE COLLECTED USING MIXED CELLULOSE/ESTER FILTERS IN THREE-PIECE CASSETTES IN OPEN-FACED CONFIGURATIONS. THE CASSETTES WERE SECURED AT A HEIGHT OF 3 TO 5 FEET ABOVE FLOOR LEVEL FACING DOWNWARD AT AN ANGLE OF 45 DEGREES. SAMPLE ANALYSIS WAS PERFORMED IN ACCORDANCE WITH THE NATIONAL INSTITUTE FOR OCCUPATIONAL SAFETY AND HEALTH (NIOSH) 7400 METHOD, ISSUE 2, 8/15/94, PHASE CONTRAST MICROSCOPY (PCM). FIBER COUNTS ARE BLANK-CORRECTED WHENEVER FIELD BLANK COUNTS EXCEED THE LOWER LIMIT OF QUANTIFICATION. NOTE THAT THIS REPORT RELATES ONLY TO THE FILTERS ANALYZED.

LABORATORY RELATIVE STANDARD DEVIATIONS IN FIBER CONCENTRATION: 0.162, 0.145, AND 0.064 ON SAMPLES WITH 0-20, 21-50, AND 51 OR MORE FIBERS PER 100 FIELDS, REPECTIVELY.

ALL SAMPLES ARE STORED AT THE COVINO LABORATORY FOR A PERIOD OF THREE MONTHS. REQUESTS FOR FURTHER ANALYSIS OR RETURN OF SAMPLES MUST BE MADE WITHIN THIS PERIOD TO GUARANTEE AVAILABILITY.

LABORATORY CERTIFICATIONS:

MA # AA000006, CT # PH-0248, RI # AAL-025C3, VT # AL017034, ME # LA-062

ANALYST(S): ROB THOMSON
DAN TYROS
JANAK BRAHMBATT
RAMON BUENAVENTURA



APPROVED SIGNATORY: A. ECKMANN, CIH, LABORATORY DIRECTOR

DATE OF ISSUE: June 03, 2011

PERSONAL SAMPLE RESULTS

COVINO



300 Wildwood Avenue • Woburn, Massachusetts 01801 • Tel 781.933.2555 • Fax 781.932.9402 • email mail@covinoinc.com

DATE ANALYZED: 4/5/2011

CLIENT: ENVIRONMENTAL MANAGEMENT PROFESSIONALS
 94 SAWYERS LANE
 MARSHFIELD, MA 02050

LOCATION: WR GRACE CONSTRUCTION PRODUCTS
 62 WHITTEMORE AVENUE
 CAMBRIDGE, MASSACHUSETTS

PROJECT: 1001508

ANALYTICAL RESULTS OF AIR SAMPLES

SAMPLE NUMBER AND DATE	SAMPLE DESCRIPTION	SAMPLE PERIOD	PUMP TIME (MIN.)	SAMPLE VOLUME (LITERS)	TOTAL FIBER CONCENTRATION (FIBERS/CC)
	NOTE, WHERE SAMPLE FILTERS WERE HEAVILY LOADED WITH NON-FIBROUS DEBRIS, THE SAMPLES COULD NOT BE ANALYZED DUE TO FILTER OVERLOAD IN ACCORDANCE WITH NIOSH 7400 METHOD COUNTING RULES				
305956 4/5/11	FIELD BLANK, SAMPLE COLLECTED ON 3/22/2011, 0 FIBERS/100 FIELDS	N/A		N/A	N/A
305957 4/5/11	FIELD BLANK, SAMPLE COLLECTED ON 3/22/2011, 0 FIBERS/100 FIELDS	N/A		N/A	N/A
305958 4/5/11	PERSONAL, SAMPLE COLLECTED ON 3/22/2011, NEIL CHAPMAN OF P. GIOIOSO & SONS, INC., EXCAVATION OPERATOR, DURING PREPARATIONS AND REMOVAL, UNABLE TO ANALYZE SAMPLE DUE TO FILTER OVERLOAD	7:51 AM 3:31 PM	461	922	
305959 4/5/11	PERSONAL, SAMPLE COLLECTED ON 3/22/2011, JIMMY MICHAUD OF PARTNERS ENVIRONMENTAL, INC, ABATEMENT WORKER, DURING PREPARATIONS AND REMOVAL	7:52 AM 3:32 PM	461	922	< 0.005
305963 4/5/11	FIELD BLANK, SAMPLE COLLECTED ON 3/28/2011, 0 FIBERS/100 FIELDS	N/A		N/A	N/A
305964 4/5/11	FIELD BLANK, SAMPLE COLLECTED ON 3/28/2011, 0 FIBERS/100 FIELDS	N/A		N/A	N/A
305965 4/5/11	PERSONAL, SAMPLE COLLECTED ON 3/28/2011, JIMMY MICHAUD OF PARTNERS ENVIRONMENTAL, INC., ABATEMENT WORKER, DURING REMOVAL, UNABLE TO ANALYZE SAMPLE DUE TO FILTER OVERLOAD	7:10 AM 3:30 PM	490	980	
305966 4/5/11	PERSONAL, SAMPLE COLLECTED ON 3/28/2011, NEIL CHAPMAN OF P. GIOIOSO & SONS, INC., EXCAVATION OPERATOR, DURING REMOVAL, UNABLE TO ANALYZE SAMPLE DUE TO FILTER OVERLOAD	7:11 AM 3:31 PM	490	980	
305970 4/5/11	FIELD BLANK, SAMPLE COLLECTED ON 3/28/2011, 0 FIBERS/100 FIELDS	N/A		N/A	N/A



ANALYTICAL RESULTS OF AIR SAMPLES

SAMPLE NUMBER AND DATE	SAMPLE DESCRIPTION	SAMPLE PERIOD	PUMP TIME (MIN.)	SAMPLE VOLUME (LITERS)	TOTAL FIBER CONCENTRATION (FIBERS/CC)
305971 4/5/11	FIELD BLANK, SAMPLE COLLECTED ON 3/28/2011, 0 FIBERS/100 FIELDS	N/A		N/A	N/A
305972 4/5/11	PERSONAL, SAMPLE COLLECTED ON 3/28/2011, JIMMY MICHAUD OF PARTNERS ENVIRONMENTAL, INC., ABATEMENT WORKER, DURING REMOVAL, UNABLE TO ANALYZE SAMPLE DUE TO FILTER OVERLOAD	7:05 AM 3:35 PM	510	1020	
305973 4/5/11	PERSONAL, SAMPLE COLLECTED ON 3/28/2011, NEIL CHAPMAN OF P. GIOIOSO & SONS, INC., EXCAVATION OPERATOR, DURING REMOVAL, UNABLE TO ANALYZE SAMPLE DUE TO FILTER OVERLOAD	7:05 AM 3:35 PM	510	1020	
305977 4/5/11	FIELD BLANK, SAMPLE COLLECTED ON 3/30/2011, 0 FIBERS/100 FIELDS	N/A		N/A	N/A
305978 4/5/11	FIELD BLANK, SAMPLE COLLECTED ON 3/30/2011, 0 FIBERS/100 FIELDS	N/A		N/A	N/A
305979 4/5/11	PERSONAL, SAMPLE COLLECTED ON 3/30/2011, JIMMY MICHAUD OF PARTNERS ENVIRONMENTAL, INC., ABATEMENT WORKER, DURING REMOVAL, UNABLE TO ANALYZE SAMPLE DUE TO FILTER OVERLOAD	7:05 AM 3:05 PM	480	960	
305980 4/5/11	PERSONAL, SAMPLE COLLECTED ON 3/30/2011, NEIL CHAPMAN OF P. GIOIOSO & SONS, INC., EXCAVATION OPERATOR, DURING REMOVAL, UNABLE TO ANALYZE SAMPLE DUE TO FILTER OVERLOAD	7:05 AM 3:05 PM	480	960	
305984 4/5/11	FIELD BLANK, SAMPLE COLLECTED ON 3/31/2011, 0 FIBERS/100 FIELDS	N/A		N/A	N/A
305985 4/5/11	FIELD BLANK, SAMPLE COLLECTED ON 3/31/2011, 0 FIBERS/100 FIELDS	N/A		N/A	N/A
305986 4/5/11	PERSONAL, SAMPLE COLLECTED ON 3/31/2011, JOE OF P. GIOIOSO & SONS, INC., WORKER, DURING REMOVAL, UNABLE TO ANALYZE SAMPLE DUE TO FILTER OVERLOAD	7:05 AM 3:25 PM	500	1000	
305987 4/5/11	PERSONAL, SAMPLE COLLECTED ON 3/31/2011, NEIL CHAPMAN OF P. GIOIOSO & SONS, INC., EXCAVATION OPERATOR, DURING REMOVAL	7:10 AM 3:25 PM	500	1000	<0.005



AIR FLOW RATE RANGE: 2.0 - 2.0 LITERS PER MINUTE (LPM)
FILTER DIAMETER: 25 MM, FILTER PORE SIZE: 0.8 UM
GRATICULE FIELD AREA: 0.00785 +/- 0.00032 SQ. MM
LOWER LIMIT OF QUANTIFICATION: 10 FIBERS PER 100 FIELDS

SAMPLES WERE COLLECTED USING PERSONAL AIR SAMPLING PUMPS WITH AIR FLOW RATES AT THE BEGINNING AND END OF EACH SAMPLING PERIOD DETERMINED USING A CALIBRATED ROTAMETER. THE SAMPLES WERE COLLECTED ON MIXED CELLULOSE/ESTER FILTERS IN THREE-PIECE CASSETTES IN OPEN-FACED CONFIGURATIONS. THE SAMPLES WERE ANALYZED ACCORDING TO THE NATIONAL INSTITUTE FOR OCCUPATIONAL SAFETY AND HEALTH (NIOSH) 7400 METHOD, ISSUE 2, 8/15/94, PHASE CONTRAST MICROSCOPY (PCM). FIBER COUNTS ARE BLANK-CORRECTED WHENEVER FIELD BLANK COUNTS EXCEED THE LOWER LIMIT OF QUANTIFICATION. NOTE THAT THIS REPORT RELATES ONLY TO THE FILTERS ANALYZED.

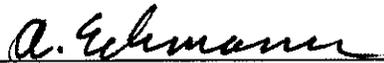
LABORATORY RELATIVE STANDARD DEVIATIONS IN FIBER CONCENTRATION: 0.162, 0.145, AND 0.064 ON SAMPLES WITH 0-20, 21-50, AND 51 OR MORE FIBERS PER 100 FIELDS, REPECTIVELY.

ALL SAMPLES ARE STORED AT THE COVINO LABORATORY FOR A PERIOD OF THREE MONTHS. REQUESTS FOR FURTHER ANALYSIS OR RETURN OF SAMPLES MUST BE MADE WITHIN THIS PERIOD TO GUARANTEE AVAILABILITY.

LABORATORY CERTIFICATIONS:

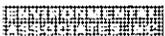
MA # AA000006, CT # PH-0248, RI # AAL-025C3, VT # AL017034, ME # LA-062

ANALYST(S): RAMON BUENAVENTURA



APPROVED SIGNATORY: A. ECKMANN, CIH, LABORATORY DIRECTOR

DATE OF ISSUE: June 03, 2011



APPENDIX E

Waste Shipment Records

WASTE SHIPMENT RECORD K8 14449

GENERATOR

1. Work site (Generator): Name: WR GRACE & CO-CONN Mailing Address: 62 WHITTEMORE AVENUE City/State/Zip: CAMBRIDGE MA 02140-1692		Owner's Name: WR GRACE & CO-CONN Owner's telephone no.: 617-498-4416						
2. Remover's name and address: PARTNERS ENVIRONMENTAL 36 PLEASANT VIEW AVE LYNN MA 01902-1127		Remover's telephone no.: 781-710-8063 800-963-4776						
3. Waste Disposal Site (WDS): Name: WPMH - TREE Mailing Address: PO Box 7065 City/State/Zip: Rochester, NH 03839		WDS telephone no.: 800-963-4776						
Physical Site Location: 90 Rochester Neck Road Rochester, NH 03839		Additional Information: Profile No. <table border="1" style="display: inline-table; text-align: center;"><tr><td>4</td><td>9</td><td>0</td><td>0</td><td>3</td><td>8</td></tr></table>	4	9	0	0	3	8
4	9	0	0	3	8			
4. Name and address of responsible agency: DEPARTMENT OF ENVIRONMENTAL PROTECTION 205B LOWELL STREET, WILMINGTON, MA 01887								

5. Description of materials: RQ, ASBESTOS, 9, NA2212, III RQ = 1 LB (ONE POUND)		6. Containers: No. 1 Type ROLLOFF m ³ (yd ³) 15YD³
---	--	--

8. Special handling instructions and additional information (provided by generator):
* EMERGENCY RESPONSE NUMBER: **617-876-1400**

9. OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations. NOTE: Generator must retain a copy of this form.

TRANSPORTER

10. Transporter 1 (Acknowledgement of receipt of materials): Printed/typed name & title: DAVID P. CROCE DIRECTOR OF FACILITIES		Signature: <i>David Croce</i>	Month Day Year: 03 23 2011
Printed/typed name & title: GLOBAL REMEDIATION SERVICES		Signature: <i>J Miller</i>	Month Day Year: 3-23-11
Address and telephone no.: 700 RICHMOND STREET EAST TAUNTON, MA 02718			

11. Transporter 2 (Acknowledgement of receipt of materials): Printed/typed name & title:			Signature:	Month Day Year:
Address and telephone no.:				

DISPOSAL SITE

12. Discrepancy indication space

13. Waste disposal site owner or operator: Certification of receipt of asbestos materials covered by this manifest except as noted in item 12.
Rejected: Yes No

Printed/typed name & title: Emetdelso	Signature: <i>Emetdelso</i>	Month Day Year: 3 23 11
--	-----------------------------	--------------------------------



Turnkey Landfill
 30 Rochester Neck Rd
 Rochester, NH, 03839
 Ph: (800) 963-4776

Original
 Ticket# 728316

Customer Name ENVIRONMENTPROFESS Environment Carrier GLOBAL GLOBAL REMEDIATION SERVICES
 Ticket Date 03/23/2011 Vehicle# RB Volume
 Payment Type Credit Account Container
 Manual Ticket# Driver
 Hauling Ticket# Check#
 Route Billing # 0112094
 State Waste Code None Gen EPA ID Not Required
 Manifest 14449 PO
 Destination Profile 490088NH (NON FRIABLE ASBESTOS DEB
 Generator NE-WRGRACE W R GRACE

Time	Scale	Operator	Inbound	Gross	Volume
In 03/23/2011 08:42:14	scale 1	inbou eric metzler		76580 lb	
Out 03/23/2011 09:37:41	scale 2	outbo phil boisvert		42420 lb	
				Net	34160 lb
				Tons	17.08

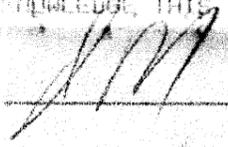
Comments



Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1 Asb Non-Fri-Tons-A 100		17.08	Tons				MA
2 FUEL-Fuel Surchang 100			%				MA
3 EVF-P-Standard Env 100			%				MA

Total Fees
 Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE, THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE.

Driver's Signature 

WASTE SHIPMENT RECORD RS 14450

GENERATOR

1. Work site (Generator): Name WR GRACE & CO-CONN Mailing Address 62 WHITTEMORE AVENUE City/State/Zip CAMBRIDGE, MA 02140-1692	Owner's Name WR GRACE & CO-CONN WR GRACE & CO-CONN	Owner's telephone no. 617-498-4416
---	--	--

2. Remover's name and address: PARTNERS ENVIRONMENTAL 36 PLEASANT VIEW AVENUE, LYNN, MA 01902-1127	Remover's telephone no. 781-710-8063
---	--

3. Waste Disposal Site (WDS) Name WMNH - TREE Mailing Address PO Box 7065 City/State/Zip Rochester, NH 03839	WDS telephone no. 800-963-4776	Additional Information: Profile No. <table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 20px; text-align: center;">4</td> <td style="width: 20px; text-align: center;">9</td> <td style="width: 20px; text-align: center;">0</td> <td style="width: 20px; text-align: center;">0</td> <td style="width: 20px; text-align: center;">8</td> <td style="width: 20px; text-align: center;">8</td> </tr> </table>	4	9	0	0	8	8
4	9	0	0	8	8			
Physical Site Location 90 Rochester Neck Road Rochester, NH 03839								

4. Name and address of responsible agency DEPARTMENT OF ENVIRONMENTAL PROTECTION 205B LOWELL STREET, WILMINGTON, MA 01887
--

5. Description of materials RQ, ASBESTOS, 9, NA2212, III RQ = 1 LB (ONE POUND)	6. Containers No. Type 1 ROLLOFF	7. Total quantity m ³ (yd ³) 15YD 3
---	---	---

8. Special handling instructions and additional information (provided by generator.) * EMERGENCY RESPONSE NUMBER: (860) 342-0667 617-876-1400 <i>Call GTS-11</i>
--

9. OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations. NOTE: Generator must retain a copy of this form.

Printed/typed name & title DAVID F. GROCE DIRECTOR OF FACILITIES	Signature <i>David F. Groce</i>	Month Day Year 3 24 11
--	------------------------------------	---------------------------

TRANSPORTER

10. Transporter 1 (Acknowledgement of receipt of materials) Printed/typed name & title GLOBAL REMEDIATION SERVICES	Signature <i>[Signature]</i>	Month Day Year 3-23-11
Address and telephone no. 700 RICHMOND STREET EAST TAUNTON, MA 02718		

11. Transporter 2 (Acknowledgement of receipt of materials) Printed/typed name & title	Signature	Month Day Year
Address and telephone no.		

DISPOSAL SITE

12. Discrepancy indication space	Rejected: Yes <input type="checkbox"/> No <input type="checkbox"/>
---	---

13. Waste disposal site owner or operator: Certification of receipt of asbestos materials covered by this manifest except as noted in item 12.		
Printed/typed name & title [Signature]	Signature <i>[Signature]</i>	Month Day Year 3 24 11



Turnkey Landfill
 30 Rochester Neck Rd
 Rochester, NH, 03839
 Ph: (800) 963-4776

Original
 Ticket# 728534

Customer Name ENVIRONMENTPROFESSION Environment Carrier GLOBAL GLOBAL REMEDIATION SERVICES
 Ticket Date 03/24/2011 Vehicle# R8 Volume
 Payment Type Credit Account Container
 Manual Ticket# Driver
 Hauling Ticket# Check#
 Route Billing # 0112894
 State Waste Code None Gen EPA ID Not Required
 Manifest 14450 PD
 Destination Profile 490088NH (NON FRIABLE ASBESTOS DEP)
 Generator NE-WRGRACE W R GRACE

Time	Scale	Operator	Inbound	Gross	
In 03/24/2011 07:19:49	scale 1 inbound	eric metzler		84440 lb	
Out 03/24/2011 08:26:13	scale 2 outbound	phil boisvert		41420 lb	
				Net	43020 lb
				Tons	21.51

Comments

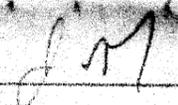


WASTE MANAGEMENT

Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1 Asb Non Fri-Tons-A	100	21.51	Tons				MA
2 FUEL-Fuel Surcharg	100		%				MA
3 EVF-P-Standard Env	100		%				MA

Total Fees
 Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE, THIS TRUCK CONTAINS NO HAZARDOUS OR UNCLE SAM...

Driver's Signature 

405WM-Gonic, NH

WASTE SHIPMENT RECORD

14451

GENERATOR

1. Work site (Generator): Name: GRACE & CO-CONN Mailing Address: 52 WHITTEMORE AVENUE City/State/Zip: CAMBRIDGE, MA 02142-1502		Owner's Name: GRACE & CO-CONN Owner's telephone no.: 617-498-4416
--	--	--

2. Remover's name and address: PARTNERS ENVIRONMENTAL 36 PLEASANT VIEW AVENUE, LYNN, MA 01902-1127	Remover's telephone no.: 617-713-4725
--	--

3. Waste Disposal Site (WDS) Name: WMNH - FREE Mailing Address: PO Box 7055 City/State/Zip: Rochester, NH 03839	WDS telephone no.: 603-763-4725
Physical Site Location: 90 Rochester Neck Road, Rochester, NH 03839	Additional Information: Profile No. 490035

4. Name and address of responsible agency: DEPARTMENT OF ENVIRONMENTAL PROTECTION 205B LOWELL STREET, WILMINGTON, MA 01887
--

5. Description of materials: RQ, ASBESTOS, 9, NA2212, III RQ = 1 LB (ONE POUND)	6. Containers No. 1 Type ROLLOFF	7. Total quantity m ³ (yd ³) 15 YD³
---	--	--

8. Special handling instructions and additional information (provided by generator.) * EMERGENCY RESPONSE NUMBER: (866) 342-0667 617-876-1400 <i>Cont of OAC</i>
--

9. OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations. NOTE: Generator must retain a copy of this form.

TRANSPORTER

Printed/typed name & title: DAVID F. CROSS DIRECTOR OF FACILITIES	Signature: <i>David Cross</i>	Month Day Year: 4 7 11
---	-------------------------------	-------------------------------

10. Transporter 1 (Acknowledgement of receipt of materials) Printed/typed name & title: GLOBAL REMEDIATION SERVICES	Signature: <i>[Signature]</i>	Month Day Year: 4-5-11
Address and telephone no.: 700 RICHMOND STREET EAST TAUNTON, MA 02718		

11. Transporter 2 (Acknowledgement of receipt of materials) Printed/typed name & title:	Signature:	Month Day Year:
Address and telephone no.:		

DISPOSAL SITE

12. Discrepancy indication space	Rejected: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
13. Waste disposal site owner or operator: Certification of receipt of asbestos materials covered by this manifest except as noted in item 12. Printed/typed name & title: <i>[Signature]</i>	Signature: <i>[Signature]</i>	Month Day Year: 4 5 11



Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (800) 963-4776

Original
Ticket# 730489

Customer Name ENVIRONMENTPROFESSION ENVIRONMENT
Ticket Date 04/05/2011
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code None
Manifest 14451
Destination
Generator NE-WRGRACE W R GRACE

Carrier GLOBAL GLOBAL REMEDIATION SERVICES
Vehicle# RB
Container
Driver
Check#
Billing # 0112894
Gen EPA ID Not Required
PO
Profile 490088NH (NON FRIABLE ASBESTOS DEB)

Time	Scale	Operator	Inbound	Gross	Volume
In 04/05/2011 00:32:13	scale 1 inbound	eric metzler		73360 lb	
Out 04/05/2011 10:30:28	scale 2 outbound	phil burverl		42980 lb	
				Net 30380 lb	
				Tons 15.19	

Consents

Product	LDX	Qty	UCM	Rate	Fee	Amount	Origin
1	Asb Non Fri-Tons-A	100	15.19	Tons			MA
2	FUEL-Fuel Surcharg	100	%				MA
3	EVF-P-Standard Env	100	%				MA

Total Fees
Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE

Driver's Signature _____



Turnkey Landfill
 20 Rochester Neck Rd
 Rochester, NH 03839
 Pt: (800) 935-4776

Original
 Ticket# 730450

Customer Name ENVIRONMENTAL PROFESSIONAL ENVIRONMENT Carrier GLOBAL GLOBAL REMEDIATION SERVICES
 Ticket Date 04/05/2011 Vehicle# RB Volume
 Payment Type Credit Account Container
 Manual Ticket# Driver
 Hauling Ticket# Check#
 Route Billing # 0112894
 State Waste Code None Gen EPA ID Not Required
 Manifest 14452 PO
 Destination Profile 49008ANH (NON FRIABLE ASBESTOS DEB)
 Generator NE-WRGRACE W R GRACE

	Time	Scale	Operator	Inbound	Gross	
In	04/05/2011 07:58:22	scale 1	inbou eric metzler		60300 lb	
Out	04/05/2011 09:05:49	scale 2	outbou phil boisvert		42940 lb	
					Net	17360 lb
					Tons	12.68

Comment:



Product	LDX	Qty	UOM	Rate	Fee	Amount	Origin
1	Asb Non Fri-Tons-A	100	12.68	Tons			MA
2	FUEL-Fuel Surcharg	100	%				MA
3	EVF-P-Standard Env	100	%				MA

Total Fees
 Total Ticket

SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNIDENTIFIED WASTE.

Driver's Signature _____

APPENDIX F

Asbestos Notification Form



Asbestos Notification Form ANF-001

A. Asbestos Abatement Description (cont.)

11. Total amount of each type of Asbestos Containing Materials (ACM) to be removed, enclosed, or encapsulated:

pipes or ducts (linear ft)	/		other surfaces (square ft)	/	
Boiler, breaching, duct, tank surface coatings	lin. ft	sq. ft	Insulating cement	lin. ft	sq. ft
Corrugated or layered paper pipe insulation	/		Trowel/Sprayer coatings	/	
	lin. ft	sq. ft		lin. ft	sq. ft
Spray-on fireproofing	/		Transite board, wall board	/	
	lin. ft	sq. ft		lin. ft	sq. ft
Cloths, woven fabrics	/		Other, please specify:		
	lin. ft	sq. ft			
Thermal, solid core pipe insulation	/			/ 1000	
	lin. ft	sq. ft		lin. ft	sq. ft

12. Describe the decontamination system(s) to be used:

Three Stage Decon

13. Describe the containerization/disposal methods to comply with 310 CMR 7.15 and 453 CMR 6.14(2) (g):

20YD Roll-off Containers/lined w/6mil. poly

14. For Emergency Asbestos Operations, the DEP and DOS officials who evaluated the emergency:

Name of DEP official	Title
Date of Authorization	Waiver #
Name of DOS official	Title
Date of Authorization	Waiver #

15. Do prevailing wage rates as per M.G.L. c. 149, § 26, 27 or 27A-F apply to this project? Yes No

B. Facility Description

1. Current or prior use of facility: Active

2. Is the facility owner-occupied residential with 4 units or less? Yes No

3. W.R.GRACE 66 WHITTEMORE AVE
 Facility Owner Name Address
CAMBRIDGE 02139
 City/Town Zip Code Telephone

4. Name of Facility Owner's On-Site Manager Address
 City/Town Zip Code Telephone



Asbestos Notification Form ANF-001

B. Facility Description (cont.)

5.

a. Name of General Contractor b. Address

c. City/Town d. Zip Code e. Telephone Number (area code and extension)

f. Contractor's Worker's Comp. Insurer g. Policy Number h. Exp. Date (mm/dd/yyyy)

6. What is the size of this facility? a. Square Feet b. Number of floors

C. Asbestos Transportation and Disposal

1. Transporter of asbestos-containing material from site to temporary storage site (if necessary):

N/A N/A

a. Name of Transporter b. Address

c. City/Town d. Zip Code e. Telephone Number

2. Transporter of asbestos-containing waste material from removal/temporary site to final disposal site:

N/A N/A

a. Name of Transporter b. Address

c. City/Town d. Zip Code e. Telephone Number

3.

N/A N/A

a. Refuse Transfer Station and Owner b. Address

c. City/Town d. Zip Code e. Telephone Number

4.

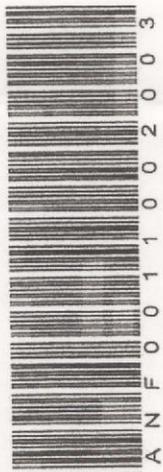
N/A N/A

a. Final Disposal Site Location Name b. Final Disposal Site Location Owner's Name

c. Final Disposal Site Address d. City/Town

e. State f. Zip Code g. Telephone Number

Note: Transfer Stations must comply with the Solid Waste Division Regulations 310 CMR 19.000



D. Certification

The undersigned hereby states, under the penalties of perjury, that he/she has read the Commonwealth of Massachusetts regulations for the Removal, Containment or Encapsulation of Asbestos, 453 CMR 6.00 and 310 CMR 7.15, and that the information contained in this notification is true and correct to the best of his/her knowledge and belief.

<input type="text"/>	<input type="text"/>
ANTHONY MELLO	ANTHONY MELLO
a. Name	b. Authorized Signature
<input type="text"/>	<input type="text"/>
VICE PRESIDENT	3/16/11
c. Position/Title	d. Date (mm/dd/yyyy)
<input type="text"/>	<input type="text"/>
(781) 710-8063	PARTNERS ENVIRONMENTAL CO
e. Telephone Number	f. Representing
<input type="text"/>	<input type="text"/>
36 PLEASANTVIEW AVE	
g. Address	
<input type="text"/>	<input type="text"/>
LYNN	01902
h. City/Town	i. Zip Code