



73 Williams Franks Drive
West Springfield, MA 01089
Phone: (413) 781-0070
Fax: (413) 781-3734
www.atcassociates.com

May 9, 2011

Ms. Kimberly Tisa
Environmental Scientist and PCB Coordinator
EPA-New England, Region 1
5 Post Office Square
Suite 100
Mail Code OSRR07-2
Boston, MA 02109-3912

**Re: PCB Remediation Plan Amendment
University of Massachusetts – Amherst
Southwest Residential Area Concourse PCB Cleanup
and Disposal Approval Under 40 CFR 761.61(a) and (c) and 761.79(h)**

Dear Ms. Tisa:

On behalf of the University of Massachusetts (UMASS), ATC Associates Inc (ATC) is requesting review and approval of the following Amendment to the existing PCB Cleanup and Disposal Approval (dated August 30, 2011) for PCB bulk product waste (original caulking) and PCB remediation waste (impacted building materials) at the Southwest Residential Area on the UMASS campus in Amherst, Massachusetts.

Specifically, the Amendment would address removal of PCB caulking and impacted building materials at the exterior site areas at both the Crampton and MacKimmie Dormitories that will undergo a Fire Alarm and Sprinkler Upgrade Project during the 2011 summer intermission. This proposed Amendment is in follow up to our email correspondence on May 4, 2011.

The following information has been provided as an Amendment to the Inspection, Modification and Revocation Conditions, Part 15 of the “PCB Cleanup and Disposal Approval Conditions for the Southwest Residential Concourse”:

I. Site Background

Crampton and MacKimmie Dormitories are two (2) of the eleven low-rise buildings located at the Southwest Residential Area. Both buildings are three (3) story concrete structures surrounded by either grass or hardscapes (paving stones, concrete or asphalt). Refer to Attachment A for the Site Locus Maps.

A project was awarded to a General Contractor (Aquadro & Cerruti Inc), for installation of a new Fire Alarm and Sprinkler System at both buildings. The work is scheduled to commence on May 16, 2011 with a completion date of August 1, 2011. As part of that work, limited excavation work needs to be completed at the building exteriors to support the new water line hook-up for the sprinkler system as well as revitalization of the site parking/entrance areas. Refer to Attachment B for the Site Diagram that shows locations of the excavation work for both buildings.

The specific exterior areas affected by this work include the following:

- Water Main Excavation (East Side of the Crampton Dormitory) – Includes removal of the concrete pad/walkway that butts directly up to the building as part of the excavation work for the new water main hook-up. The caulk is located where the concrete pad intersects the building and along the seam within the pad. Refer to Attachment C for the site photo.
- Masonry Steps at the Stonewall Center (North Side of the MacKimmie Dormitory) – Includes removal of the steps that lead up to the entrance door of the Stonewall Center. The caulk is present at the joints where the steps meet the building and retaining wall. Refer to Attachment D for the site photo.
- Brick Pavers at Patio of Stonewall Center (North Side of the MacKimmie Dormitory) – Includes removal of the brick pavers on the patio area. The caulk is present at both intersection points where the brick meets the building and the retaining wall on the Patio. Refer to Attachment E for the site photo.

II. Characterization – Source Material

ATC collected bulk samples of the caulking from various joints to determine levels of PCB's present in the caulking. The samples were analyzed by TestAmerica Analytical Laboratory, using EPA SW-846 Method 8082 and Method 3540C.

Refer to Appendix F for the PCB analytical reports.

A total of six (6) samples were collected. The following Table 1.0 summarizes the results of ATC's sampling:

TABLE 1.0 – SOURCE SAMPLING				
Sample ID	Date	Description/Location	Result (mg/kg)	Detection Limit
SW-1	01/19/11	Excavation area, grey caulking between concrete pad and building	100,000	18,000
SW-2	01/19/11	Stonewall Center, grey caulking at granite steps – South side between steps and building	90,000	14,000
SW-3	01/19/11	Stonewall Center, grey caulking between brick patio and building	19,000	4,500
SW-4	01/19/11	Stonewall Center, grey caulking between brick patio and building	14,000	3,900

TABLE 1.0 – SOURCE SAMPLING (Continued)				
Sample ID	Date	Description/Location	Result (mg/kg)	Detection Limit
SW-PCB-C-1	03/30/11	Stonewall Center, brown caulking between brick and concrete retaining wall (North Wall)	110,000	6,100
SW-PCB-C-2	03/30/11	Stonewall Center, brown caulking between brick and concrete retaining wall (West Wall)	60,000	4,700

Remediation Plan:

- All samples yielded PCB's at concentrations >50 ppm ranging from 14,000 to 110,000 ppm.
- Based upon these results, all caulking to be disturbed during the project will be managed as >50 ppm PCB waste.
- All caulking removal and disposal procedures shall conform to the provisions outlined by Part 4.2 of the PCB Remediation Plan developed by Woodard & Curran dated June 25, 2010 with subsequent Addenda #1 (dated July 27, 2010) and Addenda #2 (dated August 24, 2010).

III. Characterization – Substrates

ATC collected core samples of the concrete pad/walkway and brick pavers where the PCB caulking was present. The samples were analyzed by TestAmerica Analytical Laboratory, using EPA SW-846 Method 8082 and Method 3540C.

Refer to Appendix G for the PCB analytical reports.

A total of twenty-two (22) samples were collected. The following Table 2.0 summarizes the results of ATC's sampling:

TABLE 2.0 – SUBSTRATE SAMPLING					
Distance from caulking	Sample Depth	Material	Description/Location	Sample ID	Result (mg/kg)
Direct Contact	0-0.5	Concrete	Crampton Excavation Area, Left Side Joint On Walkway	CM-PCB-1	2,600
2.0"	0-0.5	Concrete	Crampton Excavation Area, Left Side Joint On Walkway	CM-PCB-2	1.9
5.0"	0-0.5	Concrete	Crampton Excavation Area, Left Side Joint On Walkway	CM-PCB-3	1.4

TABLE 2.0 – SUBSTRATE SAMPLING (Continued)					
Distance from caulking	Sample Depth	Material	Description/Location	Sample ID	Result (mg/kg)
Direct Contact	0-0.5	Concrete	Crampton Excavation Area, Right Side Joint On Walkway	CM-PCB-4	1.1
2.0”	0-0.5	Concrete	Crampton Excavation Area, Right Side Joint On Walkway	CM-PCB-5	0.64
5.0 “	0-0.5	Concrete	Crampton Excavation Area, Right Side Joint On Walkway	CM-PCB-6	0.46
4.0”	0-0.5	Brick	Stonewall Center Patio, West Corner (First Course Of Brick)	CM-PCB-7	0.58
4.0”	0-0.5	Mortar	Stonewall Center Patio, West Corner (First Course Of Brick)	CM-PCB-8	0.39
8.0”	0-0.5	Brick	Stonewall Center Patio, West Corner (2 nd Course Of Brick)	CM-PCB-9	0.30
8.0”	0-0.5	Mortar	Stonewall Center Patio, West Corner (2 nd Course Of Brick)	CM-PCB-10	0.38
4.0”	0-0.5	Brick	Stonewall Center Patio, East Corner (First Course Of Brick)	CM-PCB-11	0.20
4.0”	0-0.5	Mortar	Stonewall Center Patio, East Corner (First Course Of Brick)	CM-PCB-12	0.21
8.0”	0-0.5	Brick	Stonewall Center Patio, East Corner (2 nd Course Of Brick)	CM-PCB-13	0.15
8.0”	0-0.5	Mortar	Stonewall Center Patio, East Corner (2 nd Course Of Brick)	CM-PCB-14	0.25
2.0”	0-0.5	Brick	Stonewall Center Patio, Center Joint on Patio (1 st Course Of Brick)	SW-PCB-15	0.17
2.0”	0-0.5	Mortar	Stonewall Center Patio, Center Joint on Patio (1 st Course Of Brick)	SW-PCB-16	0.17
5.0”	0-0.5	Brick	Stonewall Center Patio, Center Joint on Patio (2 nd Course Of Brick)	SW-PCB-17	ND
5.0”	0-0.5	Mortar	Stonewall Center Patio, Center Joint on Patio (2 nd Course Of Brick)	SW-PCB-18	ND

TABLE 2.0 – SUBSTRATE SAMPLING (Continued)					
Distance from caulking	Sample Depth	Material	Description/Location	Sample ID	Result (mg/kg)
2.0”	0-0.5	Brick	Stonewall Center Patio, Center Joint on Patio (1 st Course Of Brick)	SW-PCB-19	ND
2.0”	0-0.5	Mortar	Stonewall Center Patio, Center Joint on Patio (1 st Course Of Brick)	SW-PCB-20	0.30
5.0”	0-0.5	Brick	Stonewall Center Patio, Center Joint on Patio (2 nd Course Of Brick)	SW-PCB-21	0.10
5.0”	0-0.5	Mortar	Stonewall Center Patio, Center Joint on Patio, ½ Inch Core Sample (2 nd Course Of Brick)	SW-PCB-22	ND

ND = None Detected

Remediation Plan:

Concrete Pad/Walkway – Concrete Steps

- The concrete pad/walkway yielded PCB concentrations ranging from 2,600 to 0.46 ppm.
- Due to the limited amount of concrete to be removed, the pad itself (approximately 10’ x 15’) will be removed and disposed of as >50 ppm PCB waste.
- Additionally, the remaining concrete pad/walkway to each side of the excavation will have the concrete saw-cut 12 inches back from the caulk joint that was removed.
- The underlying soils beneath the concrete pad will also be removed to a depth of one foot below the top of the concrete pad.
- The concrete steps located at the entrance way to the Stonewall Center will also be removed and disposed of as >50 ppm PCB waste along with underlying soil to a depth of one foot below grade.
- All removed concrete and soils will be managed as >50 ppm PCB Waste.
- Verification sampling of the remaining concrete and underlying soils beyond the extent of removal shall also be performed at a frequency of 1 sample per 10 lf of caulked joint.
- All removal and disposal procedures associated with the concrete pad/walkway shall conform to the provisions outlined by Part 6.2 of the PCB Remediation Plan developed by Woodard & Curran dated June 25, 2010 with subsequent Addenda #1 (dated July 27, 2010) and Addenda #2 (dated August 24, 2010).

Brick Pavers at Patio

- The brick and mortar located at the Stonewall Center Patio yielded PCB concentrations ranging from 0.58 to none detect. Samples were collected from both the initial course of brick that was in direct contact with the caulk as well as the 2nd course of brick.
- As a conservative approach, the first two rows of brick and associated mortar to each side of the joint will be removed and disposed of as >50 ppm PCB waste.
- The underlying soils beneath the brick will also be removed to a depth of one foot below grade.
- All removed soil, brick and mortar will be managed as >50 ppm PCB Waste.
- Verification sampling of the remaining brick and underlying soils beyond the extent of removal shall also be performed at a frequency of 1 sample per 10 lf of caulked joint.
- All removal and disposal procedures associated with the brick pavers shall conform to the provisions outlined by Part 6.2 of the PCB Remediation Plan developed by Woodard & Curran dated June 25, 2010 with subsequent Addenda #1 (dated July 27, 2010) and Addenda #2 (dated August 24, 2010).

IV. Ground Level Building Surfaces Not Scheduled For Removal

PCB caulk is present within the intersection points of materials to be remediated as outlined above and building components to remain. Those areas include: (1) the caulk joints at the excavation area for the new water main hook-up; (2) at the building and retaining wall where the stairs are to be removed; and (3) where the brick meets the building and retaining wall on the Stonewall Patio. Based upon the data presented under Section 8 of the original Work Plan, it was concluded that these concrete surfaces adjacent to the caulking have been impacted by PCB's.

Remediation Plan:

- Concrete at the building and the retaining wall not scheduled for removal will be manually cleaned to remove latent dust, dirt and debris.
- Following the caulk removal and surface preparation, two (2) coats of Sikargard 62 colored epoxy will be applied over the former location of the caulk joint, to a minimum distance of 12 inches below the caulked joint and to a distance of final finished grade. The concrete located to a distance of 12 inches above the caulk joint or final grade will be encapsulated with two (2) coats of Sikargard 670W clear acrylic coating.
- Verification sampling of the encapsulant shall be performed at an approximate frequency of 1 wipe sample per 100 linear feet of caulked joint.
- All encapsulation procedures shall conform to the provisions outlined by Part 8.2 of the PCB Remediation Plan developed by Woodard & Curran dated June 25, 2010 with subsequent Addenda #1 (dated July 27, 2010) and Addenda #2 (dated August 24, 2010).

V. Recordkeeping and Documentation

Following completion of the work activities, records and documents per 40 CFR 761 will be generated and maintained at one location. A final report documenting the completion of the additional work activities identified under this Amendment, verification analytical results, volumes of disposed materials, and waste disposal documentation will be prepared and submitted to EPA.

This document will also include any necessary deed notices as required under the risk based approach as well as updated implementation of the long term Monitoring and Maintenance Plan (MMP) for the Southwest Residential Area Concourse.

VI. Schedule

The overall Fire Alarm and Sprinkler Upgrade Project is scheduled to commence on May 16, 2011 with a completion date of August 1, 2011. Due to the extremely aggressive schedule for completion of the project, the PCB remediation work would commence immediately upon receipt of Notification for Approval of this Amendment from the EPA.

VII. Certification

A copy of the written certification signed by the Owner has been provided under Appendix H.

If you have any questions regarding this application, please feel free to call me directly at (413) 664-6687.

Sincerely,

ATC Associates Inc.

ATC Associates Inc.



Derrick Wissman
Senior Project Manager



Brian Williams
Branch Manager

ATTACHMENT A

SITE LOCUS MAP

ATTACHMENT B

SITE DIAGRAM

ATTACHMENT C

SITE PHOTO – CRAMPTON EXCAVATION

ATTACHMENT D

SITE PHOTO – STONEWALL CENTER STEPS

ATTACHMENT E

SITE PHOTO – STONEWALL PATIO

ATTACHMENT F

PCB LABORATORY ANALYTICAL RESULTS (SOURCE MATERIAL)

ATTACHMENT G

PCB LABORATORY ANALYTICAL RESULTS (SUBSTRATE SAMPLING)

ATTACHMENT H

WRITTEN CERTIFICATION