



FINAL COMPLETION REPORT



**ENVIRONMENTAL • GEOTECHNICAL
BUILDING SCIENCES • MATERIALS TESTING**

**LEDERLE GRC
LOWRISE - ROOM A106 RENOVATIONS**

**PREPARED FOR:
UNIVERSITY OF MASSACHUSETTS
ENVIRONMENTAL HEALTH & SAFETY
118 DRAPER HALL
40 CAMPUS CENTER WAY
AMHERST, MASSACHUSETTS 01003**

SEPTEMBER 23, 2019

**PREPARED BY:
ATC GROUP SERVICES LLC
73 WILLIAM FRANKS DRIVE
WEST SPRINGFIELD , MA 01089**

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1.0 INTRODUCTION

ATC Group Services LLC (ATC) has prepared this Final Completion Report for polychlorinated biphenyl (PCB) removal and disposal activities conducted at the Lederle Graduate Research Center (LGRC), Lowrise Building (Room A106) located at the University of Massachusetts campus in Amherst. The work included removal and disposal of ten (10) perimeter window units located in Room A106 which contained PCB glazing sealants.

The remediation work was performed as part of the Consent Agreement/Final Order (CAFO) between the University of Massachusetts and the U.S. Environmental Protection Agency (EPA Region 1) dated June 20, 2012.

Thirty (30) day notification to the EPA Region 1 office on the remediation work was provided by UMASS on August 16, 2018. Refer to **Appendix A**.

The work was also performed to support to the renovation work completed at the interior of the space.

2.0 CHARACTERIZATION SAMPLING

The glazing sealants in the perimeter windows at the LGRC Lowrise Building contains PCBs >50 ppm as outlined by the Consent Agreement/Final Order between UMASS and the USEPA dated June 20, 2012. Therefore, no additional sampling of the glazing sealants was performed as part of the remediation work associated with removal of the window units at Room A106.

A survey for asbestos containing material (ACM) was performed by ATC for the area being renovated. Results of that survey indicated the glazing sealants on the window units to contain asbestos.

3.0 ABATEMENT ACTIVITIES

This section provides a summary of PCB and asbestos abatement site activities.

3.1 Window Glazing Abatement

PCB and/or asbestos-containing window glazing compound was removed from the ten (10) window units at Room A106 on October 4, 2018. The following work activities were adhered to for removal and disposal of the window units:

- The work area was demarcated with caution tape and asbestos signs so only trained and authorized personnel were allowed in the area.
- The supervisor and all workers performing the work held current training certificates for 40 hour Hazardous Waste Operations and Emergency Response (HAZWOPER) and Massachusetts asbestos licenses.

- Containment around each window unit was established in accordance with Massachusetts Department of Labor Standards (DLS) 453 CMR 6.14 and Massachusetts Department of Environmental Protection (DEP) 310 CMR 7.15 Asbestos Regulations.
- Negative pressure was also established inside the containment.
- A three (3) stage decontamination chamber was constructed which consisted of an equipment room, shower and clean room.
- The containment remained up during all phases of the remediation project and was not torn down until clearance criteria has been met.
- Wetting of asbestos and PCBs was done with low pressure spray equipment, using water amended with a wetting agent/surfactant.
- The window unit was then removed “intact” (i.e. sash and framework) and sealed with two (2) layers of six mil polyethylene sheeting and duct tape. All packaged materials were properly labeled as asbestos and PCB waste.
- All material was then removed from the work area and transported to the on-site container for disposal as asbestos and PCB waste.
- Each window opening and the containment area was then properly cleaned utilizing wet methods and HEPA vacuuming.
- All tools and equipment were removed from the work area and decontaminated in the decontamination chamber. Cloth, mops and other cleaning aids were disposed of as asbestos and PCB containing waste.
- All containers were properly labeled and marked in accordance with 40 CFR 761.40 and Massachusetts Department of Environmental Protection MADEP CMR 7.15 Regulations.
- A final visual inspection was performed by ATC and the Contractor’s Site Supervisor to ensure no visible debris was present within the containment.
- ATC also performed air monitoring for asbestos outside the work areas during active removal of the window units and final air clearance testing prior to tear down the containments. All air samples were analyzed by Phase Contrast Microscopy (PCM) in accordance with the NIOSH 7400 Method.
- All window units and associated components were transported under manifest and disposed of as PCB hazardous waste at a TSCA approved landfill.

4.0 ASBESTOS AIR SAMPLING/FINAL VISUAL INSPECTION

This section summarizes the post remediation testing performed to ensure all materials were properly removed and the abatement action was complete:

4.1 Asbestos Air Sampling/Final Visual

Upon completion of the work, a final visual inspection was performed within the containment to ensure all materials were abated and the area was decontaminated to a level of no visible debris in accordance with Massachusetts DLS 453 CMR 6.00 Regulations.

Ambient air samples were collected during the abatement to ensure no elevated fiber levels existed outside the containment area. Final air clearance testing was also performed after the containment passed a visual inspection by ATC.

All air samples collected were analyzed for asbestos by Phase Contrast Microscopy (PCM). Acceptable standards for the work shall be less than 0.01 fibers per cubic centimeter or air (<0.01 f/cc) for each sample.

Results indicated all air samples collected to be below 0.01 f/cc of air which is the State of Massachusetts and federal EPA standard for re-occupancy following asbestos abatement activities.

Refer to **Appendix B** for a copy of the Asbestos PCM Air Sample Analysis Report and Final Visual Inspection Forms.

5.0 WASTE DISPOSAL

Asbestos and PCB containing waste generated at the Site included window units (sash, framework, etc.) and associated materials. A total of 1,000 kilograms of asbestos and PCB containing waste was transported from the site on October 23, 2018 on a Uniform Hazardous Waste Manifest to Cycle Chem, Inc. located in Elizabeth, New Jersey (EPA ID No. ND002200046). The associated shipping and disposal document is included under **Appendix C**.

APPENDIX A

PCB REMEDIATION ACTIVITY 30 DAY NOTIFICATION

UMassAmherst | Environmental Health & Safety

40 Campus Center Way, 117 Draper Hall
Amherst, MA 01003-9244
www.ehs.umass.edu/

Voice: 413.545.2682
Fax: 413.545.2600

August 16, 2018

Ms. Kimberly Tisa, PCB Coordinator
U.S. Environmental Protection Agency Region 1
5 Post Office Square – Suite 100
Boston, Massachusetts 02109-3912

Re: **PCB Remediation Activity 30 Day Notification**
Lederle Graduate Research Center – Lowrise, Room A106
University of Massachusetts, Amherst, Massachusetts

Dear Ms. Tisa:

This letter has been prepared to provide notification to the United States Environmental Protection Agency (EPA) regarding the implementation of polychlorinated biphenyl (PCB) remediation activities on the first floor at the University of Massachusetts (UMass) Lederle Graduate Research Center (LGRC) Low-rise, located at 740 North Pleasant Street on the UMass campus in Amherst, Massachusetts. These activities are being conducted in response to the removal of PCB containing window glazing sealants at the LGRC- Lowrise and in accordance with the Consent Agreement/Final Order dated June 20, 2012. The activities included in this notification are currently planned to begin in September 2018.

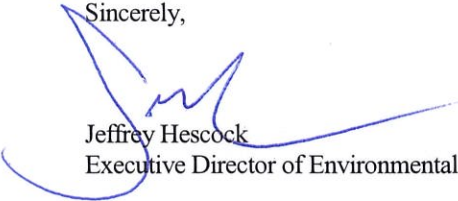
The PCB remediation activities are integrated into planned renovation activities to the first floor computer room A106. The PCB remediation activities will include the removal and off-site disposal of ≥ 50 ppm PCB containing glazing sealants and window frames and components associated with 10 windows (240 LF of glazing sealant). The windows will be removed as a single unit, wrapped and bagged, and brought into a full asbestos containment area where the window will be broken down to fit into Gaylord boxes for disposal.

- Containment and controls consisting of polysheeting, wet methods, and PPE will be established in accordance with applicable asbestos regulations;
- Window removal will be conducted by the Remediation Subcontractor in accordance with the project specifications. All workers will have 40 Hour Hazardous Waste Operations and Emergency Response Training (HAZWOPER) and hold a current 8 hour annual refresher certificate;
- All waste materials (glazing sealants, window frames, and components (including glass), PPE, disposable tools and equipment, etc.) are to be removed for off-site disposal in accordance with 40 CFR 761.62 to an out of state hazardous waste landfill as ≥ 50 ppm PCB and asbestos waste;
- Inspections and verification associated with PCB related activities will be conducted by the Owners' Consultant (Cardino ATC).

The contractor's PCB work plan is attached for your reference.

If you have any comments, questions, or require further information, please do not hesitate to e-mail or call me at the number listed above.

Sincerely,

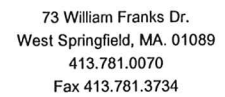


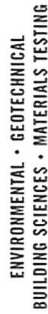
Jeffrey Hescoc

Executive Director of Environmental Health and Safety and Emergency Management

APPENDIX B

ASBESTOS AIR SAMPLE (PCM) RESULTS/ & FINAL VISUAL INSPECTIONS

[illegible]

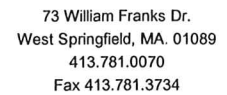


Laboratory ID #'s: AA000005 (MA) - CT.PH-0255 (CT) - CE947001 (VT)

73 William Franks Drive, West Springfield, MA 01089
(413) 781-0070 (Phone) - (413) 781 3734 (Fax)

Received By and Date:

Notes:

[illegible]



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PHASE CONTRAST MICROSCOPY AIR SAMPLING CHAIN OF CUSTODY

Laboratory ID #s: AA000005 (MA) - CT-PH-0255 (CT) - CE947001 (VT)

ATC Group Services, LLC.

73 William Franks Drive, West Springfield, MA 01089
(413) 781-0070 (Phone) - (413) 781 3734 (Fax)

Project Name: LEGISLATIVE 106A - UNASS KHEEST

Project #: 1830W18080

Client: GOLDMAN REYNOLDS ARCHITECTS

Location: LEGISLATIVE - 1106 WJ ADEP

Project Manager: DEBBIE WISSMAN

Project Monitor: ARAC PANT

Collection Date: 7/31/18

Analysis Date: 7/31/18

Analyst Signature: [Signature]

Rotometer #: 2008

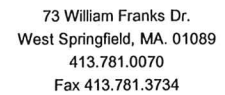
Relinquished By and Date: /

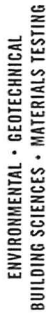
Received By and Date: /

Sample #	Sample Location	Sample Type (1-10)	Time		Flow Rate		Total Time (Mins)	Volume (L)	Adjusted Count (Fbs/Fds)	Result (f/cc)
			Start	End	Start	End				
A073118-01	Field Blank								0/100	
-02	Field Blank								0/100	
-03	LOBBY @ LEAR DOORS	1,4	0830	1430	5.2	5.2	360	1872	8/100	0.002
-04	HALL ADJ 106A/DEAN	1,4	0832	1432	5.2	5.2	360	1872	5/100	0.001
-05	ENTR 147 OUT BARBERS	1,4	0834	1434	5.2	5.2	360	1872	6.5/100	0.002
-06										
183-2	Reference Slide								100/	
A0073118-05	Duplicate Slide								6/100	0.002

Sample Type:	1) Area Background		2) Pre-Abatement		3) During Prep		4) During Removal		5) During Final Clean	
	6) During Glovebag Removal		7) Final Air Clearance		8) Exposure Assessment		9) Associated Work		10) Other	

Notes:

[illegible]



Laboratory ID #'s: AA000005 (MA) - CT.PH-0255 (CT) - CE947001 (VT)

73 William Franks Drive, West Springfield, MA 01089
(413) 781-0070 (Phone) - (413) 781 3734 (Fax)

Location: _____

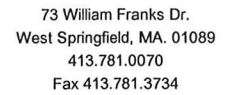
Analysis Date:

8/1/18

Received By and D

Sample Type:	1) Area Background	2) Pre-Abatement	3) During Prep	4) During Removal	5) During Final Clean
	6) During Glovebag Removal	7) Final Air Clearance	8) Exposure Assessment	9) Associated Work	10) Other

Notes:

[illegible]



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PHASE CONTRAST MICROSCOPY AIR SAMPLING CHAIN OF CUSTODY

Laboratory ID #: AA000005 (MA) - CT.PH-0255 (CT) - CE947001 (VT)

ATC Group Services, LLC.

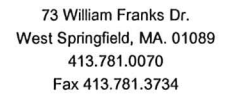
73 William Franks Drive, West Springfield, MA 01089
(413) 781-0070 (Phone) - (413) 781 3734 (Fax)

Project Name: LEGISLATIVE BATHING UNIT, MASS AVIATION Project Manager: DEEJACK WISSMAN Analyst Signature: [Signature]
Project #: 1830W18050 Project Monitor: ARIC PONS Rotometer #: 2008
Client: COMMONWEALTH OF MASSACHUSETTS Collection Date: 8/12/18 Relinquished By and Date: 1
Location: LEGISLATIVE BATHING UNIT, MASS AVIATION Analysis Date: 8/2/18 Received By and Date: 1

Sample #	Sample Location	Sample Type (1-10)	Time		Flow Rate		Total Time (Mins)	Volume (L)	Adjusted Count (Fbs/Fds)	Result (f/cc)
			Start	End	Start	End				
1830W18050-01	Field Blank								0/100	
1830W18050-02	Field Blank								0/100	
1830W18050-03	LOBBY RENT	1,4	0730	1300	5.2	5.2	330	1716	8/100	0.002
1830W18050-04	HALL @ A106	1,4	0732	1302	5.2	5.2	330	1716	6/100	0.002
1830W18050-05	A107 @ OUTBAGGED	1,4	0734	1304	5.2	5.2	330	1716	75/100	0.002
1830W18050-06	A106 SOUTH	1,4	1330	1500	14.6	14.6	90	1314	3/100	0.002
1830W18050-07	A106 EAST	7	1330	1500	14.6	14.6	90	1314	3/100	0.002
1830W18050-08	A106 NORTH	7	1331	1501	14.6	14.6	90	1314	2/100	0.002
1830W18050-09	A106 WEST	7	1331	1501	14.6	14.6	90	1314	1/100	0.002
183-2	Reference Slide								100/179	
1830W18050-07	Duplicate Slide								3/100	0.002

Sample Type:	1) Area Background	2) Pre-Abatement	3) During Prep	4) During Removal	5) During Final Clean
	6) During Glovebag Removal	7) Final Air Clearance	8) Exposure Assessment	9) Associated Work	10) Other

Notes:

[illegible]



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PHASE CONTRAST MICROSCOPY AIR SAMPLING CHAIN OF CUSTODY

Laboratory ID #'s: AA000005 (MA) - CT.PH-0255 (CT) - CE947001 (VT)

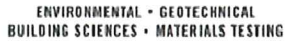
ATC Group Services, LLC.
73 William Franks Drive, West Springfield, MA 01089
(413) 781-0070 (Phone) - (413) 781 3734 (Fax)

Project Name: LGEC LOW RISE AIRCRAFT WINGS AMHERST Project Manager: DEREK WISSMAN Analyst Signature: [Signature]
Project #: 183DW18050 Project Monitor: DEREK WISSMAN Rotometer #: 2008
Client: GARDNER RENOVAC ARCHITECTS Collection Date: 8/15/18 Relinquished By and Date: [Signature]
Location: LGEC LOW RISE PH#A106 Analysis Date: 8/15/18 Received By and Date: [Signature]

Sample #	Sample Location	Sample Type (1-10)	Time		Flow Rate		Total Time (Mins)	Volume (L)	Adjusted Count (Fbs/Fds)	Result (f/cc)
			Start	End	Start	End				
AP081518A-01	Field Blank								0 / 100	
-02	Field Blank								0 / 100	
-03	HALL @ A106	1,3	0900	1230	8.1	8.1	210	1701	11 / 100	0.003
-04	HALL @ A106	1,4	1240	1440	8.1	8.1	120	972*	7 / 100	0.003
-05	A106 DOOR 1	7	1450	1620	14.6	14.6	90	1314	2 / 100	20.002
-06	A106 BETWEEN DOORS	7	1450	1620	14.6	14.6	90	1314	2 / 100	20.002
-07	A106 DOOR 2	7	1450	1620	14.6	14.6	90	1314	3 / 100	20.002
									-5	
190-1	Reference Slide								100/29	
AP081518A-06	Duplicate Slide								2/100	20.002

Sample Type:	2) Pre-Abatement		3) During Prep		4) During Removal		5) During Final Clean	
	1) Area Background	6) During Glovebag Removal	7) Final Air Clearance	8) Exposure Assessment	9) Associated Work	10) Other		

Notes: WORK FASTER THAN EXPECTED - SAMPLE INUND/INACCURATE DUE TO LOW VOLUME



73 William Franks Dr.
West Springfield, MA. 01089
413.781.0070
Fax 413.781.3734

ASBESTOS PCM AIR SAMPLE ANALYSIS REPORT

[illegible]



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PHASE CONTRAST MICROSCOPY AIR SAMPLING CHAIN OF CUSTODY

Laboratory ID #s: AA000005 (MA) - CT.PH-0255 (CT) - CE947001 (VT)

ATC Group Services, LLC.
73 William Franks Drive, West Springfield, MA 01089
(413) 781-0070 (Phone) - (413) 781 3734 (Fax)

Project Name: UNASS AMHERST- LERC A106 Project Manager: DW Analyst Signature: [Signature]
Project #: 183DW18050 Project Monitor: AP Rotometer #: [Signature]
Client: GARDNER REINFORCE Collection Date: 10/10/18 Relinquished By and Date: [Signature]
Location: UNASS AMHERST- LERC A106 Analysis Date: 10/10/18 Received By and Date: [Signature]

Sample #	Sample Location	Sample Type (1-10)	Time		Flow Rate		Total Time (Mins)	Volume (L)	Adjusted Count (Fbs/Fds)	Result (f/cc)
			Start	End	Start	End				
AP010183-01	Field Blank								0/100	
✓ -02	Field Blank								0/100	
✓ -03	A106 @ N CONT. WALLS	1,3,4	0930	1230	8.3	8.3	180	1494	10/100	0.003
✓ -04	A106 @ PEI REAR	7	1245	1415	14.6	14.6	90	1314	2/100	20.002
✓ -05	A106 @ PEI FRANS	7	1245	1415	14.6	14.6	90	1314	3/100	20.002
✓ -06	A106 @ DECON	1,4	1255	1505	80.3	10.3	125	1288	9/100	0.003
183-2	Reference Slide								100/82	
AP010183-06	Duplicate Slide								3/100	20.002

Sample Type:	1) Area Background	2) Pre-Abatement	3) During Prep	4) During Removal	5) During Final Clean
	6) During Glovebag Removal	7) Final Air Clearance	8) Exposure Assessment	9) Associated Work	10) Other

Notes:



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PHASE CONTRAST MICROSCOPY AIR SAMPLING CHAIN OF CUSTODY

Laboratory ID #: AA000005 (MA) - CT-PH-0255 (CT) - CE947001 (VT)

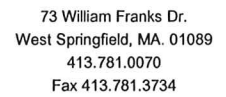
ATC Group Services, LLC.
73 William Franks Drive, West Springfield, MA 01089
(413) 781-0070 (Phone) - (413) 781 3734 (Fax)

Project Name: UMASS AMHERST LIBC A106 Project Manager: DW Analyst Signature: [Signature]
Project #: 183DW18080 Project Monitor: AP Rotometer #: 2008
Client: GLADWIN REMEDIATION Collection Date: 10/11/18 Relinquished By and Date: 10/11/18
Location: UGR- A106 Analysis Date: 10/11/18 Received By and Date: 10/11/18

Sample #	Sample Location	Sample Type (1-10)	Time		Flow Rate		Total Time (Mins)	Volume (L)	Adjusted Count (Fbs/Fds)	Result (f/cc)
			Start	End	Start	End				
A101118-01	Field Blank								0/100	
-02	Field Blank								0/100	
-03	HALL @ A106	1,4	0700	0830	10.3	10.3	90	927	4/100	0.002
-04	A106 @ DEAN	1,4	0705	0835	10.3	10.3	90	927	45/100	0.002
-05	NPE1 REAR	7	0900	1030	14.6	14.6	90	1314	2/100	0.002
-06	NPE1 FRONT	7	0901	1031	14.6	14.6	90	1314	3/100	0.002
-07	HALL @ A106	1,3	0930	1430	5.1	5.1	300	1530	13/100	0.004
-08	NPE2 REAR	7	1600	1730	14.6	14.6	90	1314	2/100	0.002
-09	NPE2 FRONT	7	1605	1735	14.6	14.6	90	1314	4/100	0.002
100-1	Reference Slide									
A101118-06	Duplicate Slide								100/26	
									3/100	0.002

Sample Type:	Pre-Abatement		During Prep		During Removal	
	1) Area Background	2) Pre-Abatement	3) During Prep	4) During Removal	5) During Final Clean	10) Other
	6) During Glovebag Removal	7) Final Air Clearance	8) Exposure Assessment	9) Associated Work		

Notes: WORK PROCEEDED FASTER THAN EXPECTED. NEEDED PUMPS FOR FAC.

[illegible]



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PHASE CONTRAST MICROSCOPY AIR SAMPLING CHAIN OF CUSTODY

Laboratory ID #s: AA000005 (MA) - CT.PH-0255 (CT) - CE947001 (VT)

ATC Group Services, LLC.

73 William Franks Drive, West Springfield, MA 01089
(413) 781-0070 (Phone) - (413) 781 3734 (Fax)

Project Name: UMA LARC A106 Project Manager: DW Analyst Signature: [Signature]
Project #: 183AW18080 Project Monitor: AP Rotometer #: 2008
Client: COMMONWEALTH OF MASSACHUSETTS Collection Date: 10/22/18 Relinquished By and Date: [Signature]
Location: UMA LARC A106 Analysis Date: 10/22/18 Received By and Date: [Signature]

Sample #	Sample Location	Sample Type (1-10)	Time		Flow Rate		Total Time (Mins)	Volume (L)	Adjusted Count (Fbs/Fds)	Result (f/cc)
			Start	End	Start	End				
AP02218A-01	Field Blank								0/100	
-02	Field Blank								0/100	
-03	EXT. @ UNIT DECON	13.4	0745	1045	8.3	8.3	180	1494	3/100	20.002
-04	STORAGE UNIT CASE	7	1100	1230	14.6	14.6	90	1314	1.5/100	20.002
-05	STORAGE UNIT FRONT	7	1100	1230	14.6	14.6	90	1314	1/100	20.002
190-1	Reference Slide								100/26	
AP02218A-04	Duplicate Slide								1.5/100	20.002

Sample Type:	1) Area Background	2) Pre-Abatement	3) During Prep	4) During Removal	5) During Final Clean
	6) During Glovebag Removal	7) Final Air Clearance	8) Exposure Assessment	9) Associated Work	10) Other

Notes:



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BUILDING SCIENCES • MATERIALS TESTING

73 William Franks Drive
West Springfield, MA, 01089
Tel: 413-781-0070
Fax: 413-781-3734

CERTIFICATION OF VISUAL INSPECTION

CLIENT: GOODMAN REINDELF ARCHITECTS
PROJECT NUMBER: 183DW18080
GENERAL LOCATION: UMASS AMHERST - LGRL LOW RISE
ABATEMENT CONTRACTOR: ADEP
METHOD OF ABATEMENT: FULL CONTAINMENT
TYPE AND QUANTITY OF MATERIAL ABATED: ~40 L1 SF MASTIC AREAS @ FRAME SUPPORTS,
~100FT² BLUE DRUMBS ON STICK PWS, ~100FT W6X (INTERIOR), ~200FT² UAT/MASTIC,
SUSPECT MATERIAL REMAINING IN WORK AREA: UAT/MASTIC, FRAME SUPPORT ~5FT² DUCT
SPECIFIC AREA INSPECTED: # A106

CERTIFICATION OF VISUAL INSPECTION

In accordance with Specification for this project and any applicable regulations the Contractor hereby certifies that he has visually inspected the work area (all surfaces including pipes, beams, ledges, walls, ceiling and floor, decontamination unit, sheet plastic, equipment, etc.) and has found no visible dust, debris or residue.

Supervisor (Signature): Hj Date: 8-2-18
(Print Name): HENRY ADREV
Accreditation Number: AS 032375 State: MA

OWNER'S REPRESENTATIVE CERTIFICATION

The Owner's Representative hereby certifies that he as accompanied the Contractor on his visual inspection and verifies that this inspection has been thorough and to the best of his knowledge and believes the Contractor certification above is true and honest one.

Project Monitor (Signature): AP Date: 8/2/18
(Print Name): ARIC PAW
Accreditation Number: AM900181 State: MA



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73 William Franks Drive
West Springfield, MA, 01089
Tel: 413-781-0070
Fax: 413-781-3734

CERTIFICATION OF VISUAL INSPECTION

CLIENT: GOODMAN REINDORF ARCHITECTS
PROJECT NUMBER: 1830W18080
GENERAL LOCATION: LGRC LOW RISE - UMASS AMHERST
ABATEMENT CONTRACTOR: ADEP
METHOD OF ABATEMENT: FOIL CONTAINMENT
TYPE AND QUANTITY OF MATERIAL ABATED: ~10 FT² UAT/MASTIC, 2 FIRE DOOR
SUSPECT MATERIAL REMAINING IN WORK AREA: UAT/MASTIC OUT of SOW
SPECIFIC AREA INSPECTED: ALSO DOORWAY AREAS

CERTIFICATION OF VISUAL INSPECTION

In accordance with Specification for this project and any applicable regulations the Contractor hereby certifies that he has visually inspected the work area (all surfaces including pipes, beams, ledges, walls, ceiling and floor, decontamination unit, sheet plastic, equipment, etc.) and has found no visible dust, debris or residue.

Supervisor (Signature): Warne M. Date: 8/15/18
(Print Name): Warne Medina
Accreditation Number: AS902258 State: MA

OWNER'S REPRESENTATIVE CERTIFICATION

The Owner's Representative hereby certifies that he has accompanied the Contractor on his visual inspection and verifies that this inspection has been thorough and to the best of his knowledge and believes the Contractor certification above is true and honest one.

Project Monitor (Signature): [Signature] Date: 8/15/18
(Print Name): ARIE PONT
Accreditation Number: AM900481 State: MA



ENVIRONMENTAL • GEOTECHNICAL
BUILDING SCIENCES • MATERIALS TESTING

73 William Franks Drive
West Springfield, MA, 01089
Tel: 413-781-0070
Fax: 413-781-3734

CERTIFICATION OF VISUAL INSPECTION

CLIENT: Goodman Bender
PROJECT NUMBER: 1830W18080
GENERAL LOCATION: UNIVERS AUHERST- LGRC A106
ABATEMENT CONTRACTOR: ADEP
METHOD OF ABATEMENT: FULL CONTAINMENT
TYPE AND QUANTITY OF MATERIAL ABATED: ~ 200 FT² UR+MASTIC, ~ 25 FT² GUE
SUSPECT MATERIAL REMAINING IN WORK AREA: N/A
SPECIFIC AREA INSPECTED: A106, EAST SIDE, SOUTH END

CERTIFICATION OF VISUAL INSPECTION

In accordance with Specification for this project and any applicable regulations the Contractor hereby certifies that he has visually inspected the work area (all surfaces including pipes, beams, ledges, walls, ceiling and floor, decontamination unit, sheet plastic, equipment, etc.) and has found no visible dust, debris or residue.

Supervisor (Signature): Warne M. Date: 10/10/18
(Print Name): Warne Medina
Accreditation Number: AS902268 State: MA

OWNER'S REPRESENTATIVE CERTIFICATION

The Owner's Representative hereby certifies that he has accompanied the Contractor on his visual inspection and verifies that this inspection has been thorough and to the best of his knowledge and believes the Contractor certification above is true and honest one.

Project Monitor (Signature): [Signature] Date: 10/10/18
(Print Name): ERIC PONT
Accreditation Number: AM90081 State: MA



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73 William Franks Drive
West Springfield, MA, 01089
Tel: 413-781-0070
Fax: 413-781-3734

CERTIFICATION OF VISUAL INSPECTION

CLIENT: GOLDMAN RENDORF
PROJECT NUMBER: 1830W18080
GENERAL LOCATION: UNASS AMHERST- LGRC A106
ABATEMENT CONTRACTOR: ADEP
METHOD OF ABATEMENT: FOIL CONTAINMENT
TYPE AND QUANTITY OF MATERIAL ABATED: 6 2X5 WINDOWS w/ POB/ACM
CAULKING + GLAZING, ~100² STICKERS w/ MASTIC
SUSPECT MATERIAL REMAINING IN WORK AREA: N/A
SPECIFIC AREA INSPECTED: A106, EAST WALL, SOUTH ROOM

CERTIFICATION OF VISUAL INSPECTION

In accordance with Specification for this project and any applicable regulations the Contractor hereby certifies that he has visually inspected the work area (all surfaces including pipes, beams, ledges, walls, ceiling and floor, decontamination unit, sheet plastic, equipment, etc.) and has found no visible dust, debris or residue.

Supervisor (Signature): Warne Medina Date: 10/11/18

(Print Name): Warne Medina

Accreditation Number: AS902268 State: MA

OWNER'S REPRESENTATIVE CERTIFICATION

The Owner's Representative hereby certifies that he has accompanied the Contractor on his visual inspection and verifies that this inspection has been thorough and to the best of his knowledge and believes the Contractor certification above is true and honest one.

Project Monitor (Signature): [Signature] Date: 10/11/18

(Print Name): ARIC PARRIS

Accreditation Number: AM900181 State: MA



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73 William Franks Drive
West Springfield, MA, 01089
Tel: 413-781-0070
Fax: 413-781-3734

CERTIFICATION OF VISUAL INSPECTION

CLIENT: GOODMAN REINDOFF
PROJECT NUMBER: 183DW18080
GENERAL LOCATION: DMASS AMHERST - LGRE A106
ABATEMENT CONTRACTOR: ADEP
METHOD OF ABATEMENT: FULL CONTAINMENT
TYPE AND QUANTITY OF MATERIAL ABATED: 4 2X5 windows w/ PCB/ACR window
CAULKING + GLAZING, ~10ft² STICK PINS w/ ADHESIVE
SUSPECT MATERIAL REMAINING IN WORK AREA: N/A
SPECIFIC AREA INSPECTED: A106 EAST WALL, NORTH END

CERTIFICATION OF VISUAL INSPECTION

In accordance with Specification for this project and any applicable regulations the Contractor hereby certifies that he has visually inspected the work area (all surfaces including pipes, beams, ledges, walls, ceiling and floor, decontamination unit, sheet plastic, equipment, etc.) and has found no visible dust, debris or residue.

Supervisor (Signature): Wanda M. Date: 10/11/18

(Print Name): Wanda Medina

Accreditation Number: A503068 State: MA

OWNER'S REPRESENTATIVE CERTIFICATION

The Owner's Representative hereby certifies that he has accompanied the Contractor on his visual inspection and verifies that this inspection has been thorough and to the best of his knowledge and believes the Contractor certification above is true and honest one.

Project Monitor (Signature): [Signature] Date: 10/11/18

(Print Name): ERIC POISE

Accreditation Number: AM900481 State: MA



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West Springfield, MA, 01089
Tel: 413-781-0070
Fax: 413-781-3734

CERTIFICATION OF VISUAL INSPECTION

CLIENT: GOLDMAN RENDOLF
PROJECT NUMBER: 18SDW18080
GENERAL LOCATION: UNIVERSITY AVENUE - LGRC MOB
ABATEMENT CONTRACTOR: ADEP
METHOD OF ABATEMENT: FULL CONTAINMENT/NPE
TYPE AND QUANTITY OF MATERIAL ABATED: REPACKAGED 4 GAYLEDS INTO 5 -
- PCB/ARM SPECIAL/HAZARDOUS WASTE
SUSPECT MATERIAL REMAINING IN WORK AREA: 5 GAYLEDS FOR PICKUP
SPECIFIC AREA INSPECTED: STORAGE UNIT @ LGRC EXTERIOR EAST

CERTIFICATION OF VISUAL INSPECTION

In accordance with Specification for this project and any applicable regulations the Contractor hereby certifies that he has visually inspected the work area (all surfaces including pipes, beams, ledges, walls, ceiling and floor, decontamination unit, sheet plastic, equipment, etc.) and has found no visible dust, debris or residue.

Supervisor (Signature): WARRUE MEDINA Date: 10/22/18

(Print Name): WARRUE MEDINA

Accreditation Number: AS 902268 State: MA

OWNER'S REPRESENTATIVE CERTIFICATION

The Owner's Representative hereby certifies that he has accompanied the Contractor on his visual inspection and verifies that this inspection has been thorough and to the best of his knowledge and believes the Contractor certification above is true and honest one.

Project Monitor (Signature): ALIC POE Date: 10/22/18

(Print Name): ALIC POE

Accreditation Number: 41900151 State: MA

APPENDIX C

WASTE MANIFEST

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator ID Number MAD000844670	2. Page 1 of 1	3. Emergency Response Phone (508) 872-5000	4. Manifest Tracking Number 016828302 JJK	
5. Generator's Name and Mailing Address UNIVERSITY OF MASSACHUSETTS EHS/DEPT117, DRAPER HALL, ROOM 32B, 40 CAMPUS C AMHERST, MA 01003						
Generator's Phone: (413) 545-2682						
6. Transporter 1 Company Name ALLSTATE POWER VAC, INC.						
U.S. EPA ID Number NJD003812047						
7. Transporter 2 Company Name [REDACTED]						
U.S. EPA ID Number [REDACTED]						
8. Designated Facility Name and Site Address CYCLE CHEM INC. 217 SOUTH FIRST STREET ELIZABETH, NJ 07206						
Facility's Phone: (908) 355-5800						
U.S. EPA ID Number NJD002200046						
GENERATOR	9a. HM	9b. U.S. DOT Description (Including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers		11. Total Quantity	12. Unit Wt/Vol
			No.	Type		
	1	RQ UN3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S (POLYCHLORINATED BIPHENYLS, ASBESTOS) 9 PG III ERG# 171	XXX5	CW	1000	#
	2					
	3					
4						
13. Waste Codes MA02 PCB1						
14. Special Handling Instructions and Additional Information LDR On File B04172/B08381/81216/48456/MA6136 (1)PCBE10-2 EW 47803 PCB DEBRIS > 50 PPM; (RQ POLYCHLORINATED BIPHENYLS 1# Asbestos 1#)						
15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable International and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.						
Generator's/Offoror's Printed/Typed Name DOUGLAS MONTMAY						
Signature <i>[Signature]</i>						
Month Day Year 10/23/18						
TRANSPORTER	16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S. Port of entry/exit: _____ Date leaving U.S.: _____					
	17. Transporter Acknowledgment of Receipt of Materials					
	Transporter 1 Printed/Typed Name JOHN E. DINGE					
	Signature <i>[Signature]</i>					
	Month Day Year 10/23/18					
	Transporter 2 Printed/Typed Name [REDACTED]					
	Signature <i>[Signature]</i>					
	Month Day Year [REDACTED]					
DESIGNATED FACILITY	18. Discrepancy					
	18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection					
	(14) 10/23/18					
	18b. Alternate Facility (or Generator) Manifest Reference Number: _____ U.S. EPA ID Number _____					
	Facility's Phone: _____					
	18c. Signature of Alternate Facility (or Generator)					
	Month Day Year [REDACTED]					
	19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)					
	1. H110	2.	3.	4.		
	20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a					
	Printed/Typed Name V. Joseph					
	Signature <i>[Signature]</i>					
	Month Day Year 10/27/18					



SEPTEMBER 09, 2019

MAD000844670

UNIVERSITY OF MASSACHUSETTS - AMHERST
LGRO, 740 N. PLESANT ST
AMHERST, MA 01003

Re: Certificate of Disposal/Recycling
Work Order# 6744
MAD000844670
UNIVERSITY OF MASSACHUSETTS - AMHERST
LGRO, 740 N. PLESANT ST
AMHERST, MA 01003

Dear Sir/Madam:

This letter is to certify that Cycle Chem, Inc. (EPA ID No. NJD002200046) has accepted and processed the following shipments. This acceptance is in accordance with all state and federal regulations and with the requirements set forth in Cycle Chem's Hazardous Waste Facility Permit.

Date In	Manifest In	Prod Code (Off Spec)	Date Out	Manifest Out	Disposal Facility	Disposal Method	Drum Id	Mgt. Code
10/27/2018	016828302JJK-1	PCBE10	11/08/2018	020073024JJK	CHEMICAL WASTE MANAGEMENT, INC.	STABILIZATION	D7657-1	H110
10/27/2018	016828302JJK-1	PCBE10	11/08/2018	020073024JJK	CHEMICAL WASTE MANAGEMENT, INC.	STABILIZATION	D7657-2	H110
10/27/2018	016828302JJK-1	PCBE10	11/08/2018	020073024JJK	CHEMICAL WASTE MANAGEMENT, INC.	STABILIZATION	D7657-3	H110
10/27/2018	016828302JJK-1	PCBE10	11/08/2018	020073024JJK	CHEMICAL WASTE MANAGEMENT, INC.	STABILIZATION	D7657-4	H110
10/27/2018	016828302JJK-1	PCBE10	11/08/2018	020073024JJK	CHEMICAL WASTE MANAGEMENT, INC.	STABILIZATION	D7657-5	H110

Broker:

ACV SC07 NORFOLK
6 SHIRE DRIVE
NORFOLK, MA 02056

Sincerely,

Frank Fraumeni
General Manager
Cycle Chem, Inc.
EPA ID No. NJD002200046

If there are any further questions about the management of your waste, please call 908-355-5800