PARADIGM
ENVIRONMENTAL SERVICES, INC.

Sampling & Analysis Summary

Corning Tioga Avenue Demolition Project

On October 18-19, 2006, Paradigm Environmental performed sampling of building construction materials at the Corning Tioga Avenue facility. The sampling procedure involved drilling into interior walls at approximately 4-5 feet above grade using a hammer drill. The drill bit was advanced to an approximate depth of 3 inches, or until a void was encountered. Multiple holes were routinely drilled to acquire sufficient material for testing. Drill tailings were collected onto cardboard held under the sampling location, and the resulting material was placed into 4 oz. jars. Sub-samples were collected from all available sidewalls in a designated building or area, and composited to one sample.

All samples were analyzed for RCRA metals using EPA methods 6010 and 7471 (Hg). The results were assessed to identify any samples having the potential to exceed TCLP limits when extracted, (see EPA method 1311, section 1.2). A total of 10 samples were selected for further analysis via TCLP, (see analytical summary table).

Subsequent to the assessment of buildings designated in the original sampling plan, Paradigm returned to the site on November 30, 2007, to conduct sampling at the Fala Building. The approach to sampling was modified, as the walls were entirely constructed of metal and the interior was completely covered with insulation. Samples of the insulation were obtained at the lower, middle, and upper levels (2 each) and composited to one sample. Again, the sample was analyzed for RCRA metals, followed by TCLP extraction as per the analytical summary table.

Field Sampling Locations:

OSC Area # 1, General Machine Shop – Divide building into A-D sectors. In each sector, take 3-4 sidewall samples and composite to 1 sample. Analyze samples for RCRA metals.

Sector A – 3 sub-samples
Sector B – 3 sub-samples
Sector C – 3 sub-samples
Sector D – 3 sub-samples

OSC Area # 2, Central Trades - Divide building into A&B sectors. In each sector, take 3-4 sidewall samples and composite to 1 sample. Analyze samples for RCRA metals.

Sector A – 3 sub-samples
Sector B – 3 sub-samples

OSC Area # 3, Mason Shop - Take 4 sidewall samples and composite to 1 sample. Analyze for RCRA metals.

4 sub-samples taken

OSC Area # 4, F. B. Warehouse - Take 4 sidewall samples and composite to 1 sample. Analyze for RCRA metals.

4 sub-samples taken

OSC Area # 4, Flaring - Take 4 sidewall samples and composite to 1 sample. Analyze for RCRA metals.

4 sub-samples taken

OSC Area # 4, Gun Mounts - Take 4 sidewall samples and composite to 1 sample. Analyze for RCRA metals.

4 sub-samples taken

OSC Area # 4, Multiform - Take 4 sidewall samples and composite to 1 sample. Analyze for RCRA metals.

4 sub-samples taken

OSC Area # 4, Main Building – Divide building into 6 sectors, 1 sector surrounding each of 4 tanks on north side of building, 2 sectors for the remaining floor space. In each sector, take 2-4 sidewall samples and composite to 1 sample. Analyze sample for RCRA metals.

Sector A – 3 sub-samples
Sector B – 3 sub-samples
Sector C – 3 sub-samples
Sector D – 3 sub-samples
Sector E – 2 sub-samples
Sector F – 3 sub-samples

OSC Area # 6, Boiler House & Switch House – Take 3 sidewall samples in Boiler House and 1 sidewall sample in Switch house. Composite all samples to 1 and analyze for RCRA metals.

3 sub-samples taken in Boiler House. Switch House sidewalls are metal.

OSC Area # 6, EP Rooms – Take 1 sample in each of 3 rooms and composite to 1 sample. Analyze for RCRA metals.

EP sidewalls are metal.

OSC Area # 6, Bag House - Take 1 sidewall sample for RCRA metals.

Bag House sidewalls are metals.

OSC Area # 7, Fall Brook Mixing - Take 4 sidewall samples and composite to 1 sample. Analyze for RCRA metals.

4 sub-samples taken

OSC Area # 7, Batch Material Storage - Take 4 sidewall samples and composite to 1 sample. Analyze for RCRA metals.

4 sub-samples taken

OSC Area # 7, Cullet Storage & Cullet Shed - Take 3 sidewall samples in Cullet Storage and 1 sidewall sample in Cullet Shed. Composite all samples to 1 and analyze for RCRA metals.

4 sub-samples taken in Cullet Storage, and 1 in Cullet Shed.

OSC Area # 8, Engineering Storage Building – Take 1 sidewall sample in each of 2 rooms and composite to 1 sample. Analyze for RCRA metals.

2 sub-samples taken

OSC Area # 8, WWTP-1 – Take 2 sidewall samples and composite to 1 sample. Analyze for RCRA metals.

4 sub-samples taken

OSC Area # 8, WWTP-2 – Take 2 sidewall samples and composite to 1 sample. Analyze for RCRA metals.

4 sub-samples taken

OSC Area # 4, Fala Building – Sample insulation at lower, middle, and upper levels of interior. Composite to 1 sample.

6 sub-samples taken

Area 6

Area #1

ASBESTOS

General Machine Shop

- Black Roof Cement (Lower Roof)
- Black Roof Cement (Upper Roof)
- Roof Flashing Material
- 9x9 Green Floor Tile/Mastic
- Gray Window Glaze
- 9x9 Black Floor Tile/Mastic
- 12x12 Floor Tile/Mastic
- Brown Window Caulk

Storage Shed
- Black Roof Membrane
- Roof Cement
- Gray Electrical Board
- Black/Gray Rope
- Black Mastic on walls

Area #2

Asbestos

Central Trades
- 12x12 Gray Floor Tile
- White Window Glaze
- Roofing (Presumed)

Area #5

Asbestos

Hose House #5
- Roof Material

Area #6

Asbestos

Boiler House
- Pipe Insulation
- Outdoor Piping
- Pipe Fittings
- Wall Material

Machine Shop Next to EP Fan Room
-Red Gaskets

EP Fan Room
- Roof Tar

Area #7

Asbestos

Cullet Storage
- Pipe Fitting
- White Rope
- Roof Flashing
- Roof Shingle
- Roof Tar

Batch Material Storage
- Rolled Roofing
- Black Tar

Building Next to Batch Material
- Rolled Roof, Flashing, & Tar

Area #4

Asbestos

Main Building
- Roofing
- Roofing Tar
- Roof Flashing
- Floor Tile & Mastic
- Transite
- Fittings
- Pipe Insulation

Gunmounts
- Roofing
- Roofing tar
- Kilns
- Floor Tile

Labs
- Lab Fume Hoods
- Roof Tar

Area #3

Asbestos

Storage #1
- White Pipe Fittings
- White Rope
- Roof Flashing
-Roofing Shingles

Area #8

CHEMUNG RIVER

OUTFALL 003

WWTP-2

WWTP-1

OUTFALL 003A

LAGOON

LAGOON

WATER TANK

SUB-STATION

SWITCHGEAR LOCAL POWER CO

SUB-STATION

CULLET SHED

WORLD KITCHEN ANNEX

FIRE PUMP

EQUILIZATION TANK - FALL BROOK

ENGINEERING STORAGE BUILDING

NON-HAZ WASTE STORAGE

PRIMARY HAZARDOUS

Railway must remain open

TRASH

TRANS

TRANS ROOM

LITHARGE SILO

TUB

HOSE HOUSE #4

P.W. CULLET STORAGE

DOCK

ALL BROOK MIDDLE

BAG HOUSE

BATCH MATERIAL STORAGE

CULLET STORAGE

CULLET SHED

RECEIVING DOCK

COMPUTER

STEEL STORAGE

Contractor Support Area

GAS METER HOUSE

PALLET STORAGE

CULLET

CULLET

CULLET

HOSE HOUSE #5

PUMP HOUSE

TRANS. & SWITCHGEAR BLDG.

VPSA

OILER SHED

MULTIFORM OFF.

MULTIFORM

MAIN MOUNTS

FALL BROOK MAIN BUILDING

E.B. WARE HOUSE

E.B. WARE HOUSE

PLARING

GENERAL MACHINE SHOP

GENERAL MACHINE SHOP 1ST FLOOR

GENERAL MACHINE SHOP ANNEX

CENTRAL TRADES

MASON SHOP

PARKING LOT

GATE

GAURD SHACK

FALL BROOK SHIPPING DOCK

GATE 4

GATE 3

OFFICE

Contractor Access Gate

Alternate Egress & Rally Point #2

Main Entrance & Rally Point #1

Alternate Egress & Rally Point #3

GAURD

PARKING

STEUBEN ST.

SITE

PRIVATE PROPERTY

PRIVATE PROPERTY

RL ST.

OMBIA ST.

OIL-FILLED ELECTRICAL TRANSFORMER
AIR POLLUTION CONTROL DEVICE
COMPRESSED GAS
SUMP/PIT
WELL
SILO
HAZARDOUS WASTE STORAGE
AST(s) OTHER
AST(s) WWTP
GLASS TANK AREA CLEANING (MULTIPLE FLOORS)
MIX HOUSE CLEANING (MULTIPLE FLOORS)
OUTSIDE PAVEMENT WASH
CULLET STORAGE AREA CLEANING

X DRILL AND SAMPLING LOCATIONS - PARADIGM ENVIRONMENTAL SERVICES, INC. OCT/NOV 2006

NOTES:
1. PLAN BASED ON DRAWING PROVIDED BY CORNING.
2. ALL LOCATIONS APPROXIMATE

N
W
E
S

0 80 160 240 320

APPROXIMATE SCALE IN FEET

CORNING DEMOLITION PLOT PLAN
ONTARIO SPECIALTY CONTRACTING

S:\33123\001\BDA\REPORT\FINAL DRAFT MAY 3 2006\33123-BLDG-DECON-ASMT_R2.DWG

Corning Tioga Avenue Demolition Project

OSC Area #		7	7	7	8	8	8	6	3	2	2	1	1	1	1	4	4	4	4	4	4	4	4	4	4	4
Totals in mg/Kg	Divide by 20 Rule	Cullet Storage	Batch Material Storage	Fall Brook Mixing	WWTP-2	WWTP-1	Eng. Storage Building	Boiler House	Mason Shop	Central Trades, Sector A	Central Trades, Sector B	General Machine Shop, Sector A	General Machine Shop, Sector B	General Machine Shop, Sector C	General Machine Shop, Sector D	Multiform	Gun Mounts	F.B. Warehouse	Flaring	Fall Brook Main Building, Sector A	Fall Brook Main Building, Sector B	Fall Brook Main Building, Sector C	Fall Brook Main Building, Sector D	Fall Brook Main Building, Sector E	Fall Brook Main Building, Sector F	Fala Building Insulation
Sample ID #		10743	10744	10745	10746	10747	10748	10749	10750	10751	10752	10753	10754	10755	10756	10757	10758	10759	10760	10761	10762	10763	10764	10765	10766	12319
Arsenic	100	6.04	6.65	14.2	5.67	5.68	4.35	7.66	5.08	5.86	4.26	5.45	5.41	5.36	4.59	5.52	4.23	4.54	4.37	5.03	5.80	91.8	5.02	8.27	6.40	6.00
Barium	2000	83.5	166	424	96.1	107	31.3	75.2	250	38.8	24.0	141	102	101	40.1	1180	189	133	235	1580	1040	108	40.5	170	347	24.1
Cadmium	20	0.494	<0.512	2.69	0.516	<0.518	0.611	1.73	<0.414	1.09	<0.482	<0.481	0.370	<0.570	<0.468	1.21	<0.414	<0.413	<0.469	0.602	<0.495	6.38	<0.546	2.10	0.629	<0.386
Chromium	100	14.1	5.18	7.49	15.5	9.23	14.1	11.0	7.44	10.6	10.1	85.0	25.9	9.47	10.1	16.5	9.21	10.8	27.4	49.9	50.3	8.10	9.54	21.8	12.2	3.68
Lead	100	50.9	45.6	**275**	9.30	21.7	48.2	58.3	17.9	10.0	5.76	**413**	**111**	10.9	7.75	**117**	21.6	55.8	**135**	**299**	**311**	**1720**	**122**	**154**	53.3	**243**
Mercury	4.00	<0.0187	<0.0180	<0.0197	<0.0181	<0.0189	<0.0177	0.2370	<0.0186	0.5190	0.0497	<0.0191	<0.0180	0.5544	<0.0189	0.1669	<0.0190	0.0649	<0.0197	<0.0187	<0.0174	0.0215	1.15	0.0771	0.0298	<0.0179
Selenium	20	<0.456	<0.512	<0.465	<0.495	<0.518	<0.504	<0.440	<0.414	<0.340	<0.482	<0.481	<0.358	<0.573	<0.468	<0.556	<0.414	<0.413	<0.469	<0.466	<0.495	<0.447	<0.546	<0.490	<0.337	<0.386
Silver	100	1.63	<1.02	<0.930	1.73	1.36	<1.01	1.36	0.922	1.01	<0.963	1.50	1.19	<1.14	<0.937	2.02	0.935	1.06	1.26	<0.933	<0.991	1.00	<1.09	1.17	1.12	<0.772

* Data highlighted in blue indicates the potential to exceed TCLP limits based on direct analysis of material.

TCLP Extracts in mg/l	TCLP Limit																									
Barium	100															0.256				0.267	0.426					1.01
Chromium	5.0											0.135														0.131
Lead	5.0			0.932								<0.100	<0.100			<0.100			<0.100	<0.100	<0.100	**31.7**	<0.100	<0.100		**7.82**

** Data highlighted in yellow exceeds TCLP limits.