GZA GeoEnvironmental
of New York

Engineers and Scientists

June 18, 2007
File No. 21.0056196.20

Mr. Eugene Melnyk
NYSDEC Region 9
Division of Environmental Remediation
270 Michigan Avenue
Buffalo, New York 14203

Re: IRM Work Plan Addendum #2
Special Metals Corporation
100 Willowbrook Avenue
Dunkirk, New York
Site # 907031
Order on Consent and Administrative Settlement (Index# B9-0737-07-02)

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Dear Mr. Melnyk:

GZA GeoEnvironmental of New York (GZA), on behalf of Special Metals Corporation (SMC), prepared this second addendum letter to the Interim Remedial Measures (IRM) Work Plan[1] for the above referenced Site. The IRM is being done under an Order on Consent (# B9-0737-0702; Site # 907031) between NYSDEC and SMC to address soil impacted with polychlorinated biphenyls (PCBs) and was approved in a NYSDEC letter dated April 5, 2006. An IRM addendum letter was submitted on April 6, 2007 and approved by NYSDEC on April 16, 2007.

Upon completion of the five excavation areas (Excavation 1 through Excavation 5), as defined in the April 6, 2007 IRM Addendum letter and shown on Figure 1, SMC completed the Remedial Investigation portion of required work, which included:

- Installation, soil and groundwater sampling of eight monitoring wells;
- Collection of two sediment samples from the drainage swale along Willowbrook Avenue;
- Collection of soil samples from seven spilt spoon probes in the area of the southern trench. Based on field conditions, an additional spilt spoon probe was done (seven instead of six as defined in the Remedial Investigation and Feasibility Work Plan).

The location of the monitoring wells, sediment samples and split spoon probes are shown on the attached Figure 1. Table 1 is a summary of the groundwater analytical results, Table 2 is a summary of the monitoring well soil sample analytical results and Table 3 is a summary split spoon soil sample and sediment sample analytical results.

[1] "Interim Remedial Measures Work Plan, PCB Contaminated Soil Excavation and Removal, Special Metals Corporation, 100 Willowbrook Avenue, Dunkirk, New York, Site # 903071", prepared for Special Metal Corporation, by GZA GeoEnvironmental of New York, dated February 22, 2007.

Based on the findings of the RI work, additional PCB impacted soil was identified with concentrations above TAGM 4046[2] recommended soil cleanup objectives that SMC would like to remove as part of the IRM. Figure 1 identifies the approximate limits of the area to be address, identified as Excavation #6.

The procedures and protocols discussed in the February 2007 IRM Work Plan associated with the excavation and disposal of soil, field screening, confirmatory sampling, backfilling of excavations, health and safety, monitoring and reporting will be followed for the additional excavation area (Excavation #6).

The soil to be excavated will be disposed of as hazardous waste at the landfill facility operated by CWM Chemical Services in Model City, NY (CMW).

Due to a public open house scheduled for mid-July, SMC would like to begin the additional IRM activities in late July. SMC is currently in the process of preparing the Site (i.e., landscaping and resurfacing) for the open house. Please confirm our understanding from our June 6th telephone conversation that SMC has the Department's approval to perform this additional IRM work under the terms of the referenced Order on Consent.

Please contact the undersigned if you have any questions or require any additional information.

Sincerely,

GZA GEOENVIRONMENTAL OF NEW YORK

Christopher Boron
Project Manager

Ernest R. Hanna, P.E.
Principal

Attachments: Table 1 through 3
Figure 1

cc: Mr. Martin Doster (NYSDEC)
Mr. Joseph J. Hausbeck, Esq. (NYSDEC)
Mr. Gary Litwin (NYSDOH)
Mr. Dave Murray (PCC) – electronic version
Mr. Robert DiFondi (SMC) – electronic version
Mr. Barry Kogut (BS&K) – electronic version

[2] NYSDEC, Technical and Administrative Guidance Memorandum (TAGM) HWR-94-4046: Determination of Soil Cleanup Objectives and Cleanup Levels, dated January 24, 1994 and revised December 20, 2000

TABLE 1
Summary of Monitoring Well Groundwater Sample Analytical Results
Remedial Investigation/Feasibility Study
Special Metals Corporation
Dunkirk, New York
Site No. 907031

Sample Location	Class GA Criteria	MW-1 5/17/07	Q	MW-2 5/17/07	Q	MW-3 5/17/07	Q	MW-4 5/17/07	Q	MW-5 5/17/07	Q	MW-6 5/17/07	Q	MW-7 5/17/07	Q	MW-8 5/17/07	
Volatile Organics (ug/L)																	
Acetone	50*			2.9	J	4.1	J	3.5	J	13				4.9	J		
Cyclohexane	NV							3.6		46		3.6		11			
Carbon disulfide	NV									1.2							
trans-1,2-Dichloroethene	5	2.4				0.59	J										
cis-1,2-Dichloroethene	5	220	D			49		1.3		8.7		0.74	J				
Benzene	1									5.1				0.64	J		
Trichloroethene	5	92				0.87	J										
Toluene	5							1.3		8.2				0.85	J		
Ethylbenzene	5									3.7				0.69	J		
Total Xylenes	5							1	J	23				4.8			
Isopropylbenzene	5									1.2							
Methylcyclohexane	NV			2.5		7.4		3.7		43		7		15			
Semi-Volatile Organics (ug/L)																	
Biphenyl	5									0.2	J						
Caprolactam	NV									8				5			
Naphthalene	10			4	J					0.3	J						
2-Methylnaphthalene	NV			0.2	J					0.7	J			0.4	J		
Acenaphthene	20			0.4	J	0.4	J										
Phenanthrene	50			0.4	J					0.7	J			0.2	J		
Carbazole	NV			0.6	J												
Pyrene	50					1	J										
Benzo(a)anthracene	0.002			0.2	BJ	0.2	BJ										
Di-n-octylphthalate	50	0.3	BJ	0.4		0.4	BJ										
PCB (ug/L)																	
Total PCBs	0.09**																
Inorganics (ug/L)																	
Barium	1,000	31		150		51		28.9		105		92.3		1,570		152	
Calcium	NV	125,000		140,000		155,000		149,000		134,000		127,000		268,000		232,000	
Cobalt	NV	9															
Iron	300					180				70.5				8,140		228	
Magnesium	35,000 *	46,100		14,000		51,200		44,300		36,300		37,200		77,600		74,800	
Manganese	300	160		110		150		103		570		130		789		446	
Potassium	NV	4,600		8,000		7,200		14,500	E	7,580	E	3,170	E	7,150		7,460	E
Sodium	20,000	122,000		1,240,000		157,000		168,000		23,400		50,300		284,000		162,000	

Notes:

1. Only compounds detected in one or more of the groundwater samples are presented in this table.
2. Blank indicates compound was not detected.
3. NYSDEC Class GA Groundwater Criteria as promulgated in 6 NYCRR 703; Table 1 in Technical and Operational Guidance Series (1.1.1): Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, dated October 1993; revised June 1998; errata dated January 1999; addendum dated April 2000.
4. NV = no value
5. Concentrations that are bold exceed Class GA criteria.
6. Results presented for MW-3 are the higher of this sample and its respective duplicate.
7. ug/L = parts per billion.
8. D = diluted sample result; J = estimated concentration; B = compound was detected in method blank; E = estimated concentration above quality control limits.

TABLE 2
Summary of Monitoring Well Soil Sample Analytical Results
Remedial Investigation/Feasibility Study
Special Metals Corporation
Dunkirk, New York
Site # 907031

Sample Location Sample Date Sample Depth (ft bgs)	TAGM #4046 RSCO[9]	Published Background[10]	MW-1 5/10/2007 0 - 2	Q	MW-1 5/10/2007 2 - 4	Q	MW-2 5/10/2007 0 - 2	Q	MW-2 5/10/2007 2 - 4	Q	MW-2 5/10/2007 11 - 13	Q	MW-3 5/10/2007 0 - 2	Q	MW-3 5/10/2007 2 - 4	Q	MW-4 5/11/2007 2 - 4	Q	MW-5 5/14/2007 0 - 2	Q	MW-5 5/14/2007 4 - 6	Q	MW-6 5/14/2007 0 - 2	Q	MW-7 5/14/2007 0 - 2	Q	MW-8 5/16/2007 0 - 2	Q	MW-8 5/16/2007 2 - 4	Q
Volatile Organics (ug/kg)																														
Acetone	200	NV					22	J	23	J			10	J	21	J			65		43		8	J						
Carbon disulfide	2,700	NV	2	J	2	J	2	J	2	J	1	J	2	J	2	J	2	J	4	J	3	J	3	J	2	J				
Methylene Chloride	100	NV	8		9		12		10		8		12		11		6	B	16	B	15	B	14	B	10	B				
2-Butanone	300	NV																	10	J										
Semi-Volatile Organics (ug/kg)																														
Naphthalene	13,000	NV					3,000										17	BJ	12	J	23	J								
2-Methylnaphthalene	36,400	NV					920	J			9	J							35	BJ	54	BJ								
Acenaphthene	50,000	NV					6,800		210	J																				
Dibenzofuran	6,200	NV					4,900		84	J																				
Fluorene	50,000	NV					7,800		200	J	8	J							8	J										
Phenanthrene	50,000	NV					50,000	D	2,100		41	J					10	BJ	33	J	8	J			10	J			20	J
Anthracene	50,000	NV					14,000		510	J	10	J																		
Carbazole	NV	NV					6,400		240	J																				
Fluoranthene	50,000	NV	46	J			43,000	D	3,100		35	J	45	J			15	BJ	8	J					19	J			32	J
Pyrene	50,000	NV	40	J			33,000	D	2,400		31	J	40	J			12	BJ	9	J					17	J			28	J
Benzo(a)anthracene	224 or MDL	NV	54	J	9	J	15,000		1,300		22	J	56	J					13	J					22	J	150	J	18	J
Chrysene	400	NV	43	J			14,000		1,200		53	J					9	J	21	J					13	J			15	J
bis(2-Ethylhexyl)phthalate	50,000	NV			200	B	330	BJ	470	BJ	120	BJ			120	BJ	530		75	J	160	J	67	J	70	J	750	J	91	J
Benzo(b)fluoranthene	1,100	NV	48	J			15,000		1,400		20	J	40	J			10	J							23	J			19	J
Benzo(k)fluoranthene	1,100	NV					3,700		510	J																				
Benzo(a)pyrene	61 or MDL	NV					12,000		1,100		12	J													11	J			15	J
Indeno(1,2,3-cd)pyrene	3,200	NV					5,400		490	J																			11	J
Dibenzo(a,h)anthracene	14 or MDL	NV					1,600		150	J																				
Benzo(g,h,i)perylene	50,000	NV	48	J			6,000		560	J	8	J													10	J			14	J
Biphenyl	NV	NV					320	J																						
Di-n-octylphthalate		NV																	180	B	190	B	200	B	200	B				
PCB (ug/kg)																														
Aroclor-1242	NV	NV															110	J												
Aroclor-1248	NV	NV	65	J									140	J	89	J			130	J					660		250	J		
Total PCBs	10,000	NV	65		0		0		0		0		140		89				130		0		0		660		250		0	
Inorganics (mg/kg)																														
Aluminum	SB	33,000	14,700	E	10,200	E	10,000	E	9,390	E	8,630	E	18,900	E	13,200	E	13,100		14,700		11,600		14,600		14,200		14,100		12,900	
Arsenic	7.5 or SB	3-12	20.6	N	7.8	N	15.9	N	13.3	N	9.5	N	10.4	N	10.8	N	8.8		8.5		12.8		19.5		12.8		8.6		6.8	
Barium	300 or SB	15-600	221	E	92.1	E	69.8	E	71.2	E	180	E	71	E	175	E	162		60.7		178		96.9		56.7		93.6		79.8	
Beryllium	0.16 or SB	0-1.75	1.1		0.48		0.49		0.65		0.42		0.61		0.51		0.53		0.33		0.49		1.1		0.46		0.71		0.48	
Cadmium	1 or SB	0.1-1	0.26																0.29		0.47		1		0.64					
Calcium	SB	130-35,000	2,220	EN	50,400	EN	6,290	EN	14,200	EN	28,200	EN	780	EN	1,440	EN	3,210		1,210		2,550		1,670		1,710		8,510		2,160	
Chromium	10 or SB	1.5-40	17.2	E	13.5	E	1,200	E	1,150	E	20.9		22	E	20	E	17.5		13.2		30.4		103		26.6		58.8		25.2	
Cobalt	30 or SB	2.5-60	20.2	EN	8	EN	46.9	EN	51.3	EN	10.5	EN	6.8	EN	10	EN	10.4		4.8		13.4		28		6.7		18.8		7.8	
Copper	25 or SB	1-50	34.8	E	26.1	E	108	E	136	E	33.2	E	9.8	E	36	E	25.7		14.9		43.2		56.9		29.2		21.2		17.5	
Iron	2,000 or SB	2,000-550,000	37,100	E	21,000	E	42,600	E	37,800	E	21,500	E	27,900	E	33,500	E	26,300		23,400		28,900		37,600		28,900		23,500		19,000	
Lead	SB	20-500[10]	16		9.9		30.5		36		13.7		19.2		14.1		12.2		15.9		18.1		28.8		18.6		31		16.3	
Magnesium	SB	100-5,000	4,280	EN	6,270	EN	3,820	EN	4,810	EN	7,980	EN	2,470	EN	4,760	EN	4,650		2,310		4,200		4,450		3,160		4,140		2,440	
Manganese	SB	50-5,000	471	E*	271	E*	502	E*	668	E*	309	E*	109	E*	202	E*	304		162		399		482		128		400		247	
Mercury	0.1	0.001-0.2							0.023				0.038				0.031	N	0.045	N					0.036	N	0.032		0.035	
Nickel	13 or SB	0.5-25	39.2	EN	22.5	EN	836	EN	1,040	EN	36	EN	18.6	EN	32.7	EN	30.8		14		52.7		53.5		28.9		90		23	
Potassium	SB	8,500-43,000	1,070	N	1,190	N	986	N	959	N	1,720	N	1,080	N	1,750	N	900		701		1,070		1,040		993		1,130		858	
Selenium	2 or SB	0.1-3.9							8.2																					
Sodium	SB	6,000-8,000	823		621		727		489		340		646		297		293								209					
Vanadium	150 or SB	1-300	19.5	E	17.3	E	173	E	77.5	E	16.4	E	27.7	E	17.6	E	21.4		22.6		19.9		58.7		24.4		24.9		19.6	
Zinc	20 or SB	9-50	121	EN	55.3	EN	78.9	EN	72.6	EN	55.9	EN	68.9	EN	51	EN	66.1		50.6		150		106		63.5		66.6		54.8	

Notes:
1. Only compounds detected in one or more soil samples are presented in this table.
2. Blank indicates compound was not detected.
3. TAGM # 4046 RSCO are Recommended Soil Cleanup Criteria from NYSDEC Technical and Administrative Guidance Memorandum No. HWR-94-4046.
4. NV = no value; SB = site background; MDL = method detection limit
5. Concentrations that are bold exceed RSCO.
6. Published background as noted in NYSDEC Technical and Administrative Guidance Memorandum No HWR-94-4046.
7. D = diluted sample result; J = estimated concentration; B = compound was detected in method blank; E = estimated concentration above quality control limits; N = compound is a tentative identification.

DRAFT

TABLE 3
Summary of Parkinging Lot Soil Boring Soil Sample Analytical Results
Remedial Investigation/Feasibility Study
Special Metals Corporation
Dunkirk, New York
Site # 907031

Sample Location Sample Date Sample Depth (ft bgs)	TAGM #4046 RSCO[9]	Published Background[10]	SPR-2 5/15/2007 0.5 - 2	Q	SPR-2 5/15/2007 2 - 4	Q	SPR-4 5/15/2007 0.5 - 2	Q	SPR-4 5/15/2007 2 - 4	Q	SPR-5 5/15/2007 0.5 - 2	Q	SPR-5 5/15/2007 4 - 6	Q	SPR-6 5/15/2007 0.5 - 2	Q	SPR-6 5/15/2007 2 - 4	Q	SPR-7 5/15/2007 PURPLE LAYER	Q	SS-6 5/17/2007 0.3	Q	SS-7 5/17/2007 0.3	Q
Volatile Organics (ug/kg)																								
Acetone	200	NV	45		27	J	31				52		32		63		36		NT		NT		NT	
Carbon disulfide	2,700	NV	2	J	2	J	2	J	2	J	2	J	2	J	3	J	2	J	NT		NT		NT	
Methylene Chloride	100	NV	12	B	12	B	10	B	11	B	12	B	14	B	13	B	11	B	NT		NT		NT	
Toluene	1,500								2	J									NT		NT		NT	
2-Butanone	300	NV													7	J			NT		NT		NT	
Semi-Volatile Organics (ug/kg)																								
2-Methylnaphthalene	36,400	NV									12	J							NT		NT		NT	
Phenanthrene	50,000	NV	77	J							24	J							NT		NT		NT	
Fluoranthene	50,000	NV	140	J					87	J	32	J							NT		NT		NT	
Pyrene	50,000	NV	120	J					73	J	30	J							NT		NT		NT	
Benzo(a)anthracene	224 or MDL	NV	65	J			10	J	43	J	19	J							NT		NT		NT	
Chrysene	400	NV	63	J					47	J	32	J							NT		NT		NT	
bis(2-Ethylhexyl)phthalate	50,000	NV	370	J							440		2,000				100	J	NT		NT		NT	
Benzo(b)fluoranthene	1,100	NV	100	J							29	J							NT		NT		NT	
Benzo(k)fluoranthene	1,100	NV									10	J							NT		NT		NT	
Benzo(a)pyrene	61 or MDL	NV	53	J							20	J							NT		NT		NT	
Indeno(1,2,3-cd)pyrene	3,200	NV	38	J							14	J							NT		NT		NT	
Benzo(g,h,i)perylene	50,000	NV	53	J							21	J							NT		NT		NT	
Di-n-octylphthalate	50000	NV			200	B	200	BJ			190	B					190	B	NT		NT		NT	
PCB (ug/kg)																								
Aroclor-1242	NV	NV	1,200,000		57	J					6,200		940		170,000									
Aroclor-1248	NV	NV					3,000		210	J	7,100								2,600,000					
Total PCBs	10,000	NV	1,200,000		57		3,000		210		13,300		940		170,000		0		2,600,000		0		0	
Inorganics (mg/kg)																								
Aluminum	SB	33,000	NT		NT		17,000		12,800		11,800		10,800		NT		9,930		NT		NT		NT	
Arsenic	7.5 or SB	3-12	NT		NT		14.9		11.8		10		7.1		NT		9.9		NT		NT		NT	
Barium	300 or SB	15-600	NT		NT		67.1		159		112		134		NT		121		NT		NT		NT	
Beryllium	0.16 or SB	0-1.75	NT		NT		0.8		0.76		0.64		0.5		NT		0.48		NT		NT		NT	
Cadmium	1 or SB	0.1-1	NT		NT						0.27				NT				NT		NT		NT	
Calcium	SB	130-35,000	NT		NT		1,460		3,850		1,520		6,170		NT		16,700		NT		NT		NT	
Chromium	10 or SB	1.5-40	NT		NT		21.2		15.9		60.5		22.1		NT		14.4		NT		NT		NT	
Cobalt	30 or SB	2.5-60	NT		NT		16		20.2		14.2		10.1		NT		12.4		NT		NT		NT	
Copper	25 or SB	1-50	NT		NT		34.9		35.3		30.1		24		NT		35.3		NT		NT		NT	
Iron	2,000 or SB	2,000-550,000	NT		NT		38,700		29,500		23,400		22,300		NT		25,100		NT		NT		NT	
Lead	SB	20-500 [10]	NT		NT		25.2		20		17.7		12		NT		13.8		NT		NT		NT	
Magnesium	SB	100-5,000	NT		NT		3,390		4,500		3,110		3,950		NT		6,360		NT		NT		NT	
Manganese	SB	50-5,000	NT		NT		194		277		224		311		NT		396		NT		NT		NT	
Mercury	0.1	0.001-0.2	NT		NT		0.059	N			0.035	N	39.3		NT				NT		NT		NT	
Nickel	13 or SB	0.5-25	NT		NT		32.8		41.2		100		1,340		NT		32.6		NT		NT		NT	
Potassium	SB	8,500-43,000	NT		NT		1410		1,400		1,390				NT		1,370		NT		NT		NT	
Sodium	SB	6,000-8,000	NT		NT		821		480		467		382		NT				NT		NT		NT	
Vanadium	150 or SB	1-300	NT		NT		26.7		16.4		26.8		22.1		NT		21.8		NT		NT		NT	
Zinc	20 or SB	9-50	NT		NT		68.1		70.9		70.5		58.9		NT		92.4		NT		NT		NT	

Notes:
1. Only compounds detected in one or more soil samples are presented in this table.
2. Blank indicates compound was not detected.
3. TAGM # 4046 RSCO are Recommended Soil Cleanup Criteria from NYSDEC Technical and Administrative Guidance Memorandum No. HWR-94-4046.
3. NT indicates compound was not tested.
4. NV = no value; SB = site background; MDL = method detection limit
5. Concentrations that are shaded exceed RSCO.
6. Published background as noted in NYSDEC Technical and Administrative Guidance Memorandum No HWR-94-4046.
7. J = estimated concentration; B = compound was detected in method blank; N = compound is a tentative identification.

MW-1
MW-2
MW-3
MW-4
MW-5
MW-6
MW-7
MW-8
APPROXIMATE PROPERTY/FENCE LINE
APPROXIMATE LOCATION OF GAS AND WATER LINE TRENCH EXCAVATION
APPROXIMATE LOCATION OF ELECTRIC TRENCH EXCAVATION
APPROXIMATE BUILDING ADDITION FOOTPRINT
EXISTING BUILDING
APPROXIMATE AREA OF EXCAVATION
EXCAVATION #1
EXCAVATION #2
EXCAVATION #3
EXCAVATION #4
EXCAVATION #5
APPROXIMATE AREA OF PCB IMPACTED SOIL IDENTIFIED IN THE ELECTRIC TRENCH
APPROXIMATE LOCATION OF COMMUNICATION TRENCH EXCAVATION
GUARD HOUSE
APPROXIMATE AREA OF CONCERN
SPR-1
SPR-2
SPR-3
SPR-4
SPR-5
SPR-6
SPR-7
APPROXIMATE LOCATION OF LIMITED IMPACTED SOIL ENCOUNTERED DURING EXCAVATION
APPROXIMATE LOCATION OF SOUTHERN TRENCH EXCAVATION
APPROXIMATE LIMITS OF BEAUTIFICATION BERM
APPROXIMATE LIMITS OF PROPOSED EXCAVATION #6
SS-7 (ND)
SS-6 (ND)
FORMER SS-3 (ND FOR PCBs)
WILLOWBROOK AVENUE
NORTH

LEGEND:

- MW-1 — APPROXIMATE LOCATION AND DESIGNATION OF MONITORING WELL
- SPR-6 — APPROXIMATE LOCATION AND DESIGNATION OF SOIL BORING
- SS-6 — APPROXIMATE LOCATION AND DESIGNATION OF SWALE SURFACE SOIL SAMPLE

NOTES:

1. BASE MAP ADAPTED FROM A 2004 AERIAL PHOTOGRAPH DOWNLOADED FROM http://www.nysgis.state.ny.us/gateway/mg/interactive_main.html, AND FIELD OBSERVATIONS.

2. THE SIZE AND LOCATION OF EXISTING SITE FEATURES SHOULD BE CONSIDERED APPROXIMATE.

DRAWN BY: DEW

DATE: JUNE 2007

GZA GeoEnvironmental of New York

APPROXIMATE SCALE IN FEET

0 30 60 120

SPECIAL METALS CORPORATION
DUNKIRK FACILITY
100 WILLOWBROOK AVENUE
DUNKIRK, NEW YORK
IRM ADDENDUM LETTER #2
ADDITIONAL IRM EXCAVATION LOCATION PLAN

PROJECT No.
21.0056196.20

FIGURE No.
1