UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

13 1 0012

SITE: Browns Dump
BREAK: 13.1
OTHER:

April 1, 2002

4WMD - SSMB

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. and Mrs. Tunsill, Chairperson
Citizens Organized for Environmental Justice, Inc.
P.O. Box 40652
Jacksonville, FL 32203

SUBJ: 33rd and Spire Data
Dioxin Measurements in the Environmental Site Inspection (ESI) Report
Brown's Dump Superfund Site
EPA I.D. Number: FLD 980 847 016

Dear Mrs. Tunsill:

The purpose of this letter is to respond to several issues raised during your tele-conference with Joanne Benante on March 25, 2002.

During the tele-conference, you requested the data EPA has on the 33rd and Spire property. Enclosed with this letter is the data (Enclosure 1). As you can see, ash was not noted in the samples and none of the metals detected exceed an EPA screening value. This data is from the October 2000 RI Report which was placed in the Clanzel T. Brown Community Center, the local repository.

During the call, Ms. Benante and I noted an area of possible confusion regarding your interpretation of the ESI Report. You made the point that the dioxin concentrations reported in the ESI are elevated; hence, EPA should immediately act to remove people. I have gone back and reviewed the ESI Report again in light of your comment; a comment which was also made during our meeting back in January 2002. It appears that you are interpreting the report's statement that the dioxin concentrations are elevated above the concentration detected in the sole background sample to mean that the dioxin concentrations detected in soil are harmful. Exceeding background merely denotes that a release has occurred. To determine the level of risk the dioxin concentrations may pose, the dioxin/furan concentrations should be compared to appropriate risk-based levels.

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Toxicity assessment for chlorinated dioxin and furan congeners is performed via the Toxicity Equivalence Factor (TEF) methodology. The total amount of toxic dioxin and furan congeners present at a site is usually expressed as Toxic Equivalents (TEQ) of 2,3,7,8 - tetrachloro-dibenzodioxin (TCDD) present. The TEQ for all sixteen soil samples collected and analyzed during the Brown's Dump ESI are found at the bottom of Table 5 (Enclosure 2). By comparing the sample TEQ to the interim EPA cleanup level for dioxin, one can see that even the highest TEQ reported in the soil samples, 210 ng/kg, is much lower the interim EPA cleanup/action level for dioxin/furan, 1,000 ng/kg (or 1 ppb).

If you have any questions, please feel free to call me at (404) 562-8938.

Sincerely,

Wesley S. Hardegree

Wesley S. Hardegree
Remedial Project Manager

Enclosures: 1. Selected Tables from the October 2000 RI Report Showing the Concentrations at 33rd and Spire
2. Table 5 from the 1998 ESI Report

TABLE 4-2
Soil Lead Results (mg/kg)
Brown's Dump Site, Remedial Investigation Report, Revision 0, October 2000

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Group	StationID	SampleID	Upper Depth	Lower Depth	Ash Content (%)	Lead by XRF (Field)	Lead by Furnace (Lab)
T2	BDSB109	BDB611	1.5	2	0	17 U	
T2	BDSB109	BDB612	0	0.5	0	**58.8 =**	**65 J**
T2	BDSB110	BDB639	0	0.5	0	**153 =**	
T2	BDSB110	BDB640	0.5	1	0	**61 =**	
T2	BDSB110	BDB641	1	1.5	0	11 U	
T2	BDSB110	BDB642	1.5	2	0	15 U	
T2	BDSB110	BDB645	0	0.5	0	**98.3 =**	**96 =**
T2	BDSB110	BDB686FD	0	0.5	0		**110 =**
T2	BDSB113	BDB617	0	0.5	0	17.1 =	
T2	BDSB113	BDB618	0.5	1	0	12 U	
T2	BDSB113	BDB619	1	1.5	0	15 U	
T2	BDSB113	BDB620	1.5	2	0	15 U	
T2	BDSB113	BDB623	0	0.5	0	15 U	10 J
T2	BDSB142	BDB531	0	0.5	0	39.1 =	
T2	BDSB142	BDB532	0.5	1	0	16 U	
T2	BDSB142	BDB533	1	1.5	0	15 U	
T2	BDSB142	BDB534	1.5	2	0	30 =	
T2	BDSB142	BDB537	0	0.5	0	**50.1 =**	**45 J**
T2	BDSB146	BDB546	0.5	1	0	**64.2 =**	
T2	BDSB146	BDB547	1	1.5	0	**65.7 =**	
T2	BDSB146	BDB548	1	1.5	0	27 =	
T2	BDSB146	BDB549	1.5	2	0	14 U	
T2	BDSB146	BDB550	0	0.5	0	**46.9 =**	**46 J**
T2	BDSB147	BDB602	0	0.5	0	**84.5 =**	
T2	BDSB147	BDB603	0.5	1	0	29.2 =	
T2	BDSB147	BDB604	1	1.5	0	17 U	
T2	BDSB147	BDB605	1.5	2	0	15 U	
T2	BDSB147	BDB606	0	0.5	0	39.4 =	50 J
T2	BDSB148	BDB574	0	0.5	0	**98.2 =**	
T2	BDSB148	BDB575	0.5	1	0	**78.7 =**	
T2	BDSB148	BDB576	1	1.5	0	19.5 =	
T2	BDSB148	BDB577	1.5	2	0	17 U	
T2	BDSB148	BDB579	0	0.5	0	**67.2 =**	**81 J**
T2	BDSB149	BDB580	0	0.5	0	**89 =**	
T2	BDSB149	BDB581	0.5	1	0	**45.8 =**	
T2	BDSB149	BDB582	1	1.5	0	**102 =**	
T2	BDSB149	BDB583	1.5	2	0	**75.3 =**	
T2	BDSB149	BDB584	0	0.5	0	**48.6 =**	**80 J**
T2	BDSB150	BDB918	0	0.5	0	**55.4 =**	
T2	BDSB150	BDB919	0.5	1	0	**42.5 =**	
T2	BDSB150	BDB920	1	1.5	0	17.3 =	
T2	BDSB150	BDB921	1.5	2	0	16 U	
T2	BDSB151	BDB567	0	0.5	0	24.3 =	
T2	BDSB151	BDB568	0.5	1	0	18.1 =	
T2	BDSB151	BDB569	1	1.5	0	16 U	
T2	BDSB151	BDB570	1.5	2	0	16 U	
T2	BDSB151	BDB572	0	0.5	0	28.4 =	24 J
T2	BDSB152	BDB959	0	0.5	0	**48.3 =**	
T2	BDSB152	BDB960	0.5	1	0	17 U	

Enclosure

TABLE 4-5a
Soil Metal Results (mg/kg)-Soil Without Ash (0 to 1-foot bgs interval)
Brown's Dump Site, Remedial Investigation Report, Revision 0, October 2000

		Group	T2		T2		T2		T2		T2		T2		T2		T2
		StationID	BDSB109		BDSB110		BDSB113		BDSB142		BDSB146		BDSB147		BDSB148		BDSB149
		SampleID	BDB612		BDB645		BDB623		BDB537		BDB550		BDB608		BDB579		BDB584
		DateCollected	1-May-2000		2-May-2000		1-May-2000		27-Apr-2000		27-Apr-2000		1-May-2000		28-Apr-2000		28-Apr-2000
		Depth	0 - 0.5		0 - 0.5		0 - 0.5		0 - 0.5		0 - 0.5		0 - 0.5		0 - 0.5		0 - 0.5
		AshContent	0		0		0		0		0		0		0		0
		SampleType	N		N		N		N		N		N		N		N
Parameter	Screening Criteria	Background															
ALUMINUM	7610	11000	2100	=	1400	=	1400	=	1900	=	2000	=	3800	=	2600	=	2000
ANTIMONY	3.13	0.61	0.54	UJ	0.59	UJ	0.53	UJ	0.52	UJ	0.54	UJ	0.51	UJ	0.54	UJ	0.52
ARSENIC	22	2.4	1.6	J	0.83	J	0.47	U	1.2	J	0.52	J	1.4	J	1.3	J	1.9
BARIUM	537	64	20	J	89	J	5.2	J	15	J	18	J	26	J	30	J	41
BERYLLIUM	15.4		0.12	J	0.062	U	0.06	U	0.11	J	0.062	U	0.13	J	0.11	J	0.072
CADMIUM	3.7	0.22	0.28	J	0.72	J	0.092	U	0.16	J	0.2	J	0.37	J	0.43	J	0.84
CHROMIUM, TOTAL	211		6.2	=	6	J	1.9	J	4.6	=	4.6	=	8.4	=	8.1	=	6.3
COBALT	469		0.49	J	0.5	J	0.2	U	0.34	J	0.3	J	0.79	J	0.69	J	0.72
COPPER	291	25	13	=	19	J	1.6	J	9.4	=	9.4	=	14	=	24	=	37
CYANIDE	122		1.2	J	0.8	J	0.69	J	0.52	UJ	0.61	J	1.4	J	1.1	J	1.1
IRON	23,500	7000	4700	=	2500	=	800	=	2400	=	2500	=	6400	=	5100	=	4600
LEAD	400	41	65	J	96	=	10	J	45	J	46	J	50	J	81	J	80
MANGANESE	176	28	57	=	88	=	33	=	21	=	27	=	100	=	70	=	62
MERCURY	2.35	0.06	0.097	J	0.064	J	0.05	J	0.034	J	0.035	J	0.063	J	0.065	J	0.12
NICKEL	156	9.9	2.6	J	2.1	J	0.8	U	1.6	U	1.8	U	3.3	J	3.7	J	3.8
SILVER	39.1		0.2	U	0.21	U	0.2	U	0.2	U	0.21	U	0.19	U	0.21	U	0.2
THALLIUM	0.626	0.7	0.61	U	0.62	U	0.6	U	0.59	U	0.62	U	0.58	U	0.62	U	0.59
VANADIUM	54.7	13	7	J	3.6	J	2.3	J	4.6	J	5.2	J	10	J	6.6	J	6.1
ZINC	2350	110	100	=	220	=	22	=	45	=	46	=	120	=	120	=	200

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TABLE 5

SUMMARY OF DIOXIN/FURAN SURFACE SOIL ANALYTICAL RESULTS
BROWNS DUMP
JACKSONVILLE, DUVAL COUNTY, FLORIDA

	SAMPLE NUMBER															
	Background	On Site														
ANALYTE (ng/kg)	BDSS01	BDSS02	BDSS03	BDSS04	BDSS05	BDSS06	BDSS07	BDSS08	BDSS09	BDSS10	BDSS11	BDSS12	BDSS13	BDSS14	BDSS15	BDSS16
2,3,7,8-Tetrachloro-dibenzodioxin	2.5UR	--	4.2J	--	--	--	1.9J	--	--	--	--	--	7.0J	--	--	--
Tetrachloro-dibenzodioxin (Total)	4.8J	9.0J	57J	4.3J	2.9J	1.4J	9.7J	14J	--	12J	260J	20J	300J	8.9J	58J	14J
1,2,3,7,8-Pentachloro-dibenzodioxin	6.2U	2.5J	12	--	--	--	4.8J	3.0J	5.7J	--	--	5.7U	5J	1.5J	--	1.8J
Pentachloro-dibenzodioxin (Total)	6.2UJ	11J	82J	--	1.3J	--	9.5J	11J	--	--	260J	19J	350J	6.1J	11J	9.1J
1,2,3,4,7,8-Hexachloro-dibenzioxin	6.2U	--	13	2.7J	--	0.9J	--	3.1J	--	--	410	29	110	3.5J	56J	4.6J
1,2,3,6,7,8-Hexachloro-dibenzodioxin	6.2U	18	41	14	15	1.9J	8.2	16	--	--	170	9.6	200	9.1	38J	16
1,2,3,7,8,9-Hexachloro-dibenzodioxin	6.2U	15	47	10	5.3J	1.5J	--	11	--	--	180	9.7	240	7.7	36J	10
Hexachloro-dibenzodioxin (Total)	15J	150J	580J	140J	49J	21J	28J	150J	--	--	2,300J	130J	1,900J	63J	290J	100J
1,2,3,4,6,7,8-Heptachloro-dibenzodioxin	15	310	1,000	270	410	46	99	350	4.9J	25	2,600	180	3,300	230	960	440
Heptachloro-dibenzodioxin (Total)	33J	580J	2,200J	540J	1,200J	100J	200J	710J	11J	54J	4,600J	350J	6,000J	390J	1,800J	770J
Octachloro-dibenzodioxin	130	1,600	7,300J	1,700	11,000J	490	530	2,500J	24	170	17,000	980	23,000	1,500	6,200	3,500J
2,3,7,8-Tetrachloro-dibenzofuran	2.5U	4.5	14	4.6	--	--	3.6	5.7	--	--	57	14	41	--	21J	5.2J
Tetrachloro-dibenzofuran (Total)	11J	80J	130J	38J	16J	24J	38J	51J	1.2J	51J	410J	160J	650J	13J	410J	32J

Enclosure

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TABLE 5 (Con ed)

SUMMARY OF DIOXIN/FURAN SURFACE SOIL ANALYTICAL RESULTS
BROWNS DUMP
JACKSONVILLE, DUVAL COUNTY, FLORIDA

ANALYTE (ng/kg)	SAMPLE NUMBER															
	Background	On Site														
	BDSS01	BDSS02	BDSS03	BDSS04	BDSS05	BDSS06	BDSS07	BDSS08	BDSS09	BDSS10	BDSS11	BDSS12	BDSS13	BDSS14	BDSS15	BDSS16
1,2,3,7,8-Pentachloro-dibenzofuran	6.2U	--	--	17	11	24	19	22	2.7J	31	240	17	230	8.5	270	9.2
2,3,4,7,8-Pentachloro-dibenzofuran	6.2U	3.4J	4.5J	1.9J	--	--	1.2J	5.8	--	--	31	9.5	59	3.1J	58	2.5J
Pentachloro-dibenzofuan (Total)	3.6J	240J	240J	170J	84J	79J	99J	230J	13J	160J	1,100J	210J	1,200J	85J	1,400J	95J
1,2,3,6,7,8-Hexachloro-dibenzofuran	6.2U	8.5	--	15	6.9	10	16	--	1.2J	--	--	--	--	3.6J	100J	7.7
2,3,4,6,7,8-Hexachloro-dibenzofuran	6.2U	14	8.1	9.6	3.2J	2.4J	2.9J	11	--	--	--	--	39	5.8	9.2J	6.4
Hexachloro-dibenzofuran (Total)	4.6J	220J	130J	110J	48J	36J	49J	89J	5.3J	57J	780J	97J	930J	99J	200J	120J
1,2,3,4,6,7,8-Heptacholorodibenzo furan	6.2U	110	140	97	80	15	44	120	2.3J	--	780	59	1,100	220	340	290
1,2,3,4,7,8,9,-Heptachlorodibenzof uran	6.2U	3.7J	--	--	--	--	--	--	--	--	34	2.1J	54	2.8J	12J	3.7J
Heptachloro-dobenzofuran (Total)	6.2UJ	110	360J	98J	380J	34J	68J	190J	3.5J	--	810J	61J	1,100J	220J	340J	290J
Octachloro-dibenzofuran	5.0J	120	390	100	180	21	40	76	3.1J	9.1J	2,800	78	2,900	130	360	200
TEQ (Toxic Equiv. Value, From I-TEF/89)	0.3	15J	44J	13	20J	4.0J	11J	17J	0.4J	2.0	160	15	210	12J	88J	19J

Notes

ng/kg	Nanograms per kilogram
J	Estimated value
R	Rejected data
U	Material analyzed for, but not detected. Number shown is the sample quantitation limit.
--	Material analyzed for, but not detected.

Shaded areas indicate elevated concentrations of constituents.

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