

DEVAL L. PATRICK Governor

TIMOTHY P. MURRAY Lieutenant Governor

## COMMONWEALTH OF MASSACHUSETTS EXECUTIVE OFFICE OF ENERGY & ENVIRONMENTAL AFFAIRS DEPARTMENT OF ENVIRONMENTAL PROTECTION SOUTHEAST REGIONAL OFFICE

IAN A. BOWLES Secretary

LAURIE BURT Commissioner

December 21, 2010

Steven R. Novick, Chief Emergency Response & Removal USEPA Region 1 5 Post Office Square Boston, Massachusetts 02109-3912

RE: NEW BEDFORD

Release Tracking Number 4-0015685
Parker Street Waste Site
Property P-011

Dear Mr. Novick:

As you are aware, on April 26, 2010, the United States Environmental Protection Agency (USEPA), in coordination with the Massachusetts Department of Environmental Protection (MassDEP), began field implementation of a Sampling and Analysis Plan (the SAP), dated April 2010, to determine if contaminants of concern (COCs) associated with the Parker Street Waste Site (PSWS) were present on approximately 63 land parcels comprising 47 privately owned properties in the vicinity of the PSWS. The SAP was prepared jointly by the USEPA, MassDEP, Roux Associates, Inc. and E<sup>2</sup> Inc. c/o Citizen's Leading Environmental Action Network and Weston Solutions.

As described in the SAP, the USEPA, MassDEP and their environmental contractors collected soil samples from borings installed at the 63 parcels and submitted the soil samples for analysis at fixed laboratories. The soil samples were analyzed for COCs typically associated with the PSWS, including polychlorinated biphenyls (PCBs), polycyclic aromatic hydrocarbons (PAHs), arsenic, barium, cadmium, chromium and lead. Soil borings were advanced to a depth approximately 12 feet below ground surface (bgs). The following vertical horizons were analyzed: 0 - 1 bgs, 1 - 3 bgs, and 3 - 12 bgs.

As the SAP analytical results from individual properties are received from the laboratory and validated, MassDEP and its Site Assessment Remediation Support Services (SARSS) contractor MACTEC have been performing evaluations of the data to determine whether remedial action is required under the MassDEP Waste Site Cleanup requirements contained in 310 CMR 40.0000, the Massachusetts Contingency Plan (the MCP). The MCP establishes numerical and performance standards for addressing releases of oil and/or hazardous materials to the environment. On August 19, 2010, MassDEP requested USEPA assistance to address properties where an Imminent Hazard may exist and/or where concentrations in the top three feet of soil exceeded the applicable MCP category S-1 soil standards, meaning a Condition of No Significant Risk did not exist. This request was made based on the

information available at the time and was followed-up with specific risk characterizations by property for the purpose of typology chart development and risk communication with property owners.

Enclosed is a copy of the results from the risk evaluation conducted by MACTEC for the property identified as P-011. These results are the basis for MassDEP's communication with you regarding typology chart development for this property. This evaluation compared the sample results from the soil samples collected from the 7 boring locations on this property to the MCP category S-1 soil standards and to either potential Imminent Hazard values listed in the MCP or site-specific Imminent Hazard (IH) values. Given that each property was evaluated separately, and because additional sampling was not planned as part of this effort, both the average concentration and the 95% upper confidence limit of the average concentration (95% UCL) of COCs detected for each depth zone (0-1 ft. bgs, 0-3 ft. bgs and >3 ft. bgs) were evaluated. The 95% UCL provides an added measure of conservatism that can be used when evaluating data from a limited data set. If either the average concentration or the 95% UCL for a given depth zone exceeded the applicable S-1 soil standard or IH value, then the communication was made, for the purpose of developing the typology chart for the property, that an IH existed and/or a Condition of No Significant Risk did not exist. For property P-011, MassDEP provided you the following determinations:

An Imminent Hazard condition, as defined in the MCP, was determined to exist for the current use of the property for the top 1 foot of soil. Specifically, lead was detected in soil boring P-011-SB-04 in the top foot of soil at concentrations greater than or equal to the site-specific Imminent Hazard levels established by MassDEP for this Site. The MCP requires elimination or control of all Imminent Hazards. This may be accomplished by removing the top foot of soil in the vicinity of these soil borings and replacing it with clean soil or it can be accomplished by otherwise covering those areas with clean soil or an impervious surface or cap. No activities should occur on this property that will disrupt the top foot of soil until removal or cover measures are complete.

A condition of No Significant Risk, as defined in the MCP, was determined not to exist for current use of the property for the soil located between the ground surface and 3 feet in depth. Specifically, concentrations of PAHs and/or lead were detected in samples collected from the top three 3 feet in soil borings P-011-SB-02 and P-011-SB-04 above the applicable MCP S-1 soil standards. The MCP requires actions to be taken to address this condition, which may include removal of this layer of soil in the vicinity of these soil borings and replacing it with clean soil or covering those areas in this layer of soil with an appropriate cap material. No activities should occur at the property that will disrupt soil located from the ground surface to a depth of 3 feet until removal or cover measures are complete.

Furthermore, a condition of No Significant Risk, as defined in the MCP, for foreseeable future use of the property has not been determined to exist for the soil located between 3 feet and 12 feet below the ground surface. This is because concentrations of PAHs and/or lead were detected above the applicable MCP S-1 soil standard in the soil borings identified as P-011-SB-03 and P-011-SB-04 in samples collected from a depth greater than 3 feet. Because this soil is at depth, it does not necessarily need to be removed to be protective of the current use of the property. MassDEP and MACTEC are performing a more in-depth risk evaluation of the sample data from greater than 3 feet in depth from this property to better determine whether the presence of these contaminants at these levels and depths in these limited areas constitute a Condition of No Significant Risk. This additional evaluation includes reviewing the available data for this specific property along with data from adjacent parcels to confirm whether or not a Condition of No

Significant Risk exists. By increasing the data set being evaluated, it is possible that the 95% UCL can be eliminated from consideration for decision-making. Until MassDEP completes this evaluation, soil below 3 feet should not be disturbed on this property unless it is under the direction and supervision of a Licensed Site Professional, and in consultation with MassDEP.

Given the findings above, MassDEP has verified that its previous request for USEPA assistance on this property was appropriate. MassDEP continues to evaluate the SAP data on both a property-specific basis and by evaluating data from adjacent parcels to refine its risk evaluations to be able to more specifically inform USEPA of the level of assistance required for other properties.

USEPA has informed MassDEP that the determinations and request provided in this letter will be used for response action decision-making as the USEPA works with the Potentially Responsible Parties, MassDEP and landowners in planning and conducting appropriate removal actions to address contamination in the zero to 1 foot, and 1 to 3 foot soil layers. MassDEP will continue to coordinate with USEPA throughout the response action alternative review process and will also work with the Potentially Responsible Parties and land owners to address conditions associated with contamination present at a depth greater than 3 feet below the ground surface.

The information and determinations contained herein are based solely on review of the data available from SAP implementation and do not apply to any other actions or aspects of the PSWS not reviewed as part of the SAP. Additional sampling or inclusion of existing sample data generated by others as part of the risk evaluations could impact or refine the findings of the risk-based analysis performed by MassDEP and MACTEC. Additionally, as stated above, MassDEP and MACTEC are performing more in-depth risk evaluation and SAP data analysis for this property and surrounding properties intended to refine the information we provide to USEPA for response action decision-making.

MassDEP's findings do not preclude future audits and/or review of past, current, or future actions related to the PSWS nor do they in any way constitute a release from any liability, obligation, action or penalty under M.G.L. c. 21E, 310 CMR 40.0000, or any other law, regulation, or requirement. Finally, these findings do not limit MassDEP's authority to take or arrange, or to require any Responsible Party or Potentially Responsible Party to perform, any response action authorized by M.G.L. c. 21E which MassDEP deems necessary to protect health, safety, public welfare, or the environment

Please feel free to contact me at the letterhead address, or by calling 508.946.2708 if you have any questions related to the information provided herein. MassDEP appreciates the opportunity to collaborate with you on this important effort.

David Johnston, Acting Regional Director

J/MC/lm

Enclosure

ec: CLEAN, President - Eddie Johnson

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cc: Owner, Property P-011

Table P-011

Comparison of Exposure Point Concentrations to Imminent Hazard Levels
Parker Street

New Bedford, Massachusetts

Parameter	DRAFT Recommended Parker Street IH Value (mg/Kg)	MCP S-1 Direct Contact (mg/Kg)	MCP Upper Concentration Limit (mg/kg)		0-1 ft [1]		1-3 ft [1]					
				Frequency of Detection	Range of Detected	Average	95% UCL [3]	Frequency of Detection	Range of Detected Concentrations	Average	95% UCL [3]	Frequer Detec
PAHs (mg/Kg)												
2-Methylnaphthalene	61,000	300	5,000	1 / 7	0.93 - 0.93	0.27	NC [a]	0 / 7	All ND	NA	NC [b]	1 /
Acenaphthene	180,000	1,000	10,000	1 / 7	3.93 - 3.93	0.70	NC [a]	0 / 7	All ND	NA	NC [b]	1 /
Acenaphthylene	180,000	1,000	10,000	0 / 7	All ND	NA	NC [b]	3 / 7	0.19 - 0.28	0.18	0.28 NP [f]	3 /
Anthracene	920,000	1,000	10,000	4 / 7	0.26 - 4.81	0.88	5.2 NP [c]	4 / 7	0.2 - 0.71	0.33	0.59 NP [f]	8 /
Benzo(a)anthracene	160	7	3,000	7 / 7	0.16 - 13.1	2.5	9.8 G [k]	4 / 7	1.07 - 7.63	1.9	4.2 NP [f]	11 /
Benzo(a)pyrene	16	2	300	6 / 7	0.17 - 14.6	2.7	11.5 NP [d]	4 / 7	1.01 - 6.45	1.9	5.0 NP [f]	10 /
Benzo(b)fluoranthene	160	7	3,000	7 / 7	0.2 - 20.1	3.7	25 G[I]	4 / 7	1.31 - 7.66	2.5	6.9 NP [f]	11 /
Benzo(g,h,i)perylene	120,000	1,000	10,000	5 / 7	0.19 - 4.71	1.1	3.9 NP [d]	4 / 7	0.72 - 1.72	0.71	1.4 NP [f]	9 /
Benzo(k)fluoranthene	1,600	70	10,000	4/7	0.32 - 7.26	1.3	3.5 NP [e]	4 / 7	0.46 - 2.41	0.79	1.8 NP [f]	8 /
Chrysene	16,000	70	10,000	7/7	0.18 - 13.1	2.5	9.7 G[k]	4 / 7	0.95 - 7.26	1.8	4.1 NP [f]	11 /
Dibenz(a,h)anthracene	16	0.7	300	3 / 7	0.21 - 1.37	0.36	1.4 NP [f]	4 / 7	0.18 - 0.56	0.26	0.43 NP [f]	7/
Fluoranthene	120,000	1,000	10,000	7/7	0.31 - 25.8	4.8	18.9 G[k]	5 / 7	0.16 - 7.7	2.3	4.5 NP [f]	12 /
Fluorene	120,000	1,000	10,000	1/7	2.73 - 2.73	0.53	NC [a]	1 / 7	0.25 - 0.25	0.17	NC [a]	2 /
Indeno(1,2,3-cd)pyrene	160	7	3,000	5 / 7	0.19 - 6.33	1.4	5.2 NP [d]	4 / 7	0.77 - 2.07	0.79	1.6 NP [f]	9 /
Naphthalene	61,000	100	10,000	1/7	4.14 - 4.14	0.73	NC [a]	0 / 7	All ND	NA	NC [b]	1 /
Phenanthrene	120,000	500	10,000	7/7	0.16 - 20.3	3.5	31 NP [g]	4 / 7	0.65 - 2.73	1.1	2.7 NP [f]	11 /
Pyrene	92,000	1,000	10,000	7/7	0.25 - 21.2	4.3	15.8 G[k]	5 / 7	0.18 - 11.6	2.9	6.1 NP [h]	12 /
PCBs (mg/Kg)											***	
Aroclor-1016	10	2	100	0 / 7	All ND	NA	NC [b]	0 / 7	All ND	NA	NC [b]	0 /
Aroclor-1221	10	2	100	0 / 7	All ND	NA	NC [b]	0 / 7	All ND	NA	NC [b]	0 /
Aroclor-1232	10	2	100	0 / 7	All ND	NA	NC [b]	0 / 7	All ND	NA	NC [b]	0 /
Aroclor-1242	10	2	100	0 / 7	All ND	NA	NC [b]	0 / 7	All ND	NA	NC [b]	0 /
Aroclor-1248	10	2	100	0 / 7	All ND	NA	NC [b]	0 / 7	All ND	NA	NC [b]	0 /
Aroclor-1254	10	2	100	0 / 7	All ND	NA	NC [b]	0 / 7	All ND	NA	NC [b]	0 /
Aroclor-1260	10	2	100	0 / 7	All ND	NA	NC [b]	0 / 7	All ND	NA	NC [b]	0 /
Aroclor-1262	10	2	100	0 / 7	All ND	NA	NC [b]	0 / 7	All ND	NA	NC [b]	0 /
Aroclor-1268	10	2	100	0 / 7	All ND	NA	NC [b]	0 / 7	All ND	NA	NC [b]	0 /
PCBs (Total)	10	2	100	0 / 7	All ND	NA	NC [b]	0 / 7	All ND	NA	NC [b]	0 /

Table P-011 Comparison of Exposure Point Concentrations to Imminent Hazard Levels Parker Street New Bedford, Massachusetts

Parameter	DRAFT Recommended Parker Street IH Value (mg/Kg)	MCP S-1 Direct Contact (mg/Kg)	MCP Upper Concentration Limit (mg/kg)		0-1 ft [1]			1-3 ft [1]				
				Frequency of Detection		Average	95% UCL [3]	Frequency of Detection	Range of Detected Concentrations	Average	95% UCL [3]	Frequer Detec
Inorganics (mg/Kg)												
Aluminum		NS	NS	7/7	4930 - 8310	6677	7571 N [m]	7 / 7	4030 - 9260	6474	7696 N [m]	14 /
Antimony		20	300	0 / 7	All ND	NA	NC [b]	0 / 7	All ND	NA	NC [b]	0 /
Arsenic	40	20	200	5 / 7	2.5 - 3.1	2.3	2.9 NP [f]	3 / 7	2.7 - 5.7	2.1	5.7 NP [f]	8 /
Barium	200,000	1,000	10,000	7/7	11.3 - 43	23	30 N [m]	7 / 7	14.3 - 75.8	30	50 G [k]	14 /
Beryllium		100	2,000	0 / 7	All ND	NA	NC [b]	0 / 7	All ND	NA	NC [b]	0 /
Cadmium	60	2	300	0 / 7	All ND	NA	NC [b]	0 / 7	All ND	NA	NC [b]	0 /
Calcium		NS	NS	7/7	301 - 746	548	686 N [m]	7/7	202 - 1120	496	730 N [m]	14 /
Chromium	200	30	2,000	7/7	14.5 - 18.8	16.2	17.2 N [m]	7/7	5.1 - 18.2	11.8	15.2 N [m]	14 /
Cobalt		NS	NS	0 / 7	All ND	NA	NC [b]	0 / 7	All ND	NA	NC [b]	0 /
Copper		N5	NS	0 / 7	All ND	NA	NC [b]	0 / 7	All ND	NA	NC [b]	0 /
Iron		NS	NS	7/7	6200 - 12800	9154	10963 N[m]	7 / 7	5410 - 10100	7864	8914 N [m]	14 /
Lead	1,000	300	3,000	7/7	30.2 - 1410	257	2172 NP [g]	7/7	3.8 - 150	63	110 N [m]	14 /
Magnesium		NS	NS	7/7	880 - 1440	1153	1317 N [m]	7/7	872 - 2370	1515	1909 N [m]	14 /
Manganese		NS	NS	0 / 7	All ND	NA	NC [b]	0 / 7	All ND	NA	NC [b]	0 /
Mercury		20	300	0/7	All ND	NA	NC [b]	0 / 7	All ND	NA	NC [b]	0 /
Nickel		20	7,000	0/7	All ND	NA	NC [b]	0 / 7	All ND	NA	NC [b]	0 /
Potassium		NS	NS	0 / 7	All ND	NA	NC [b]	0 / 7	All ND	NA	NC [b]	0 /
Selenium		400	8,000	0 / 7	All ND	NA	NC [b]	0 / 7	All ND	NA	NC [b]	0 /
Silver		100	2,000	0 / 7	All ND	NA	NC [b]	0 / 7	All ND	NA	NC [b]	0 /
Sodium		NS	NS	0 / 7	All ND	NA	NC [b]	0 / 7	All ND	NA	NC [b]	0 /
Thallium		8	800	0 / 7	All ND	NA	NC [b]	0 / 7	All ND	NA	NC [b]	0 /
Vanadium		600	10,000	0 / 7	All ND	NA	NC [b]	0 / 7	All ND	NA	NC [b]	0 /
Zinc		2,500	10,000	0 / 7	All ND	NA	NC [b]	0 / 7	All ND	NA	NC [b]	0 /
Cyanide		100	4,000	0 / 7	All ND	NA	NC [b]	0 / 7	All ND	NA	NC [b]	0 /

mg/Kg = milligrams per kilogram NA = Not applicable ND = Not detected NS = No Standard Available

- [1] One-half the detection limit is used for all non-detects for all average calculations.
- [2] Average and 95% UCL values are calculated based on a weighted average due to depth.
- [3] 95% UCL is calculated using ProUCL software (V. 4.00.04).

NC - Not Calculated

- [a] Only one distinct data value was detected
- [b] All values non detect

NP - Non-Parametric Distribution

[c] 97.5% KM (Chebyshev) UCL

[d] 95% KM (Chebyshev) UCL

[e] 95% KM (BCA) UCL

[f] 95% KM (Percentile Bootstrap) UCL

[g] 99% Chebyshev (Mean, Sd) UCL

[h] 95% KM (t) UCL

[i] 95% Chebyshev (Mean, Sd) UCL

[j] 99% KM (Chebyshev) UCL

G - Gamma Distribution

[k] 95% Approximate Gamma UCL

[I] 95% Adjusted Gamma UCL

N - Normal Distribution [m] 95% Student's-t UCL

LN - Log Normal Distribution

[n] 95% Chebyshev (MVUE) UCL

Bold values exceed MCP S-1 or MCP UCL.

Bold-shaded values exceed the DRAFT Recommended Parker Street IH Value.