APPENDIX G

Disposal Facility Requests, Historic Fill Notification Forms, and Approval Letters

Historic Fill & Soil Disposal Notification Form
New York City Office of Environmental Remediation

Historic Fill & Soil Disposal Notification Form
New York City Office of Environmental Remediation

Date: October 11, 2016

To operators and representatives of disposal facilities and government regulators:

The New York City Office of Environmental Remediation (OER) operates several environmental remediation regulatory programs in New York City that manage light to moderately contaminated properties that are planned for redevelopment. These projects commonly involve the removal of historical fill and soil from properties for development and other purposes. As with any environmental regulatory program, lawful transport and disposal of historic fill and soil is mandatory. It is also our highest priority.

Disposal facilities, recycling facilities and clean fill facilities (collectively, "receiving facilities") for historic fill and soil may be located in New York or neighboring states. Our research has indicated that a wide range of facility types and a complex set of regulatory requirements and obligations for a receiving facility operation exist within each jurisdiction. Receiving facilities are required to comply with applicable laws and regulations and may operate under state and local authority via permits, licenses, registrations, agreements and other legal instruments that dictate requirements for the material they can receive. Operating requirements may include adherence to applicable chemical standards, guidance levels, criteria, policy or other bases to determine the suitability for receipt of historical fill or soil at a receiving facility. Such requirements may also specify sample frequency, location, sampling method, chemical analytes, or analytical methods. Receiving facility soil/fill sampling requirements often differ from standard remedial investigation protocol performed in the original environmental study of the property.

Given the variability of data requirements for receiving facilities, the wide range of receiving facility types, and the complexity of regulatory requirements and obligations, OER is seeking to assist government regulators and facility operators and their technical representatives to achieve compliance with regulatory requirements for disposal of historic fill and soil at receiving facilities for projects we administer. Further, we seek to ensure that all of the data and information that is developed in OER's regulatory programs (for instance, site environmental history and soil chemistry) is available to government regulators and to facility managers when making decisions on suitability for disposal to a receiving facility.

This document provides formal notification from OER of the availability of environmental information regarding the physical and chemical content of historical fill and soil that is proposed for transfer to a disposal, recycling or clean fill facility from a property located at:

211 West 29th Street, New York, New York
OER Project # 16EHAN062M/ VCP Project # 17CVCP001M

The above referenced property has undergone regulated environmental investigation and is the subject of remedial action work plan under the authority of OER. All environmental data and information generated during this regulatory process is available online in OER's Document Repository listed below. Be advised that many properties are also regulated under state environmental law, and additional data may be available from state agencies. OER reserves the right to share this information with applicable state regulators.

http://www.nyc.gov/html/oer/html/document-repository/document-repository.shtml

Note: when logged on to above URL, select the borough for the site (listed in the address above) and scroll through the list and select the address for the site (listed above). All documents are available in PDF format.

According to New York State DER-10 Technical Guidance for Site Investigation and Remediation, historical fill is non-indigenous fill material deposited on a property to raise its topographic elevation. The origin of historical fill is unknown

but it is commonly known to contain ash from wood and coal combustion, slag, clinker, construction debris, dredge spoils, incinerator residue, and demolition debris. Historic fill is a regulated solid waste in the State of New York. Prior to making a determination regarding the suitability of historic fill and/or soil from this property for disposal at this receiving facility, **we strongly recommend that you review all of the data and information available for this property in our Document Repository** listed above. The repository includes:

- A Phase 1 history of use of the property;
- A Remedial Investigation Report for the property which includes:
    - Boring logs that describe physical observations of the historical fill material made by a trained environmental professional;
    - Chemical data for grab samples of historical fill collected during the remedial investigation;
- A Remedial Action Work Plan for the property.

If you have any questions, please contact Horace Zhang at (212) 788-8484 or Hzhang@dep.nyc.gov for more information.

BAYSHORE
Soil Management, LLC

75 Crows Mill Road, P.O. Box 290
Keasbey, New Jersey 08832
Phone: (732) 738-6000 • Fax: (732) 738-0620
www.bayshorerecycling.com

June 2, 2017

Material Solution Services
Mr. Brian Hilliard
PO Box 143
Orefield, PA 18069

RE: Seafoam (OSP17218)
211 W 29th St
New York, NY 10001
NYC OER No. 16EHAN062M/ VCP No. 17CVCP001M

Dear Mr. Hilliard:

Bayshore Soil Management, LLC (BSM) has reviewed the analytical results for soils/fill materials originating at the 211 W 29th St New York, NY 10001. We understand this site is being remediated under NYC OER No. 16EHAN062M/ VCP No. 17CVCP001M. In review of Alpha Analytical report no. L1601309, samples MW-4 0-7', MW-4 7-14', B-6 0-7', B-6 7-14', MW-3 0-7', MW-3 7-14', and associated samples for VOCs, BSM has identified that soils appear to meet our acceptance criteria for Petroleum Contaminated Soils/ Urban Fill. This decision was based on the submitted generator waste profile and analytical testing results stemming from site remedial investigation work. This review also included review of the following documents:

- Soil Disposal Notification Form, prepared by the New York City Office of Environmental Remediation, dated October 11, 2016.
- Remedial Investigation Report, prepared by Roux Associates, Inc., dated April 2016.
- Remedial Action Work Plan, prepared by Remedial Engineering, P.C., dated July 2016.
- Remedial Action Work Plan (RAWP) Stipulation List, prepared by Remedial Engineering, P.C., dated October 11, 2016.
- Revised Light Non-Aqueous Phase Liquid (LNAPL) Remediation Work Plan, prepared by Roux Associates, Inc., dated March 29, 2017.
- Alpha Analytical report no. L1710573, samples MW-5_23-25, and MW-6_22-25.

Bayshore Soil Management, LLC can only accept non-hazardous contaminated soil and based on our review of the soil chemistry data, the proposed material is acceptable under the guidelines of our operating permits.

The project is currently approved for up to 3,600 tons under **BSM#2717-0765**, with an approval up to 7,200 tons upon BSM collection of additional samples for Total EPH on inbound material to satisfy the facility 1 per 600-ton frequency requirement. Should you have any questions or require further information, please feel free to contact me at 732.738.6000.

Kind Regards,

Jennifer Solewski
Vice President, Business and Technical Development

June 21, 2017

ST Environmental Professionals, Inc.
114 Lutz Road
Boyertown, PA 19512
Phone: 610-845-3070
Fax: 610-845-3137
E-Mail: STEP_CORP@att.net

Mr. John Tallarico, P.E.
Barnsdale Associates
221 West Langhorne Avenue
Bethlehem, PA 18017

Subject: PA Clean Fill Soil Disposal Approval
211 West 29th, NY 10001
6,000 cubic yards (9,000 tons) Soil
STEP Tracking Number **B17067**

Dear Mr. Tallarico,

ST Environmental Professionals, Inc. (STEP) was retained by Barnsdale Associates (Barnsdale) to review the subject project for compliance with Pennsylvania's Management of Fill Policy, (MFP), as revised August 7, 2010. STEP understands that the project consists of excess soil and fill that will be generated during excavation of the site for a new building. This approval letter is for the material characterized as fill that is located from 0' to 14' below grade. STEP's review has relied on the information provided by Earth Efficient for Barnsdale (list attached). The information included site location, excavation and sample location maps. It also included a Remedial Investigation Report (RIR) and Soil Waste Characterization Results report (SWCR). The RIR included a Phase I ESA.

Some of the material addressed in this approval letter is characterized as fill. A review of the boring logs indicated that it consisted predominantly of natural sand silt, gravel and cobbles with some brick fragments and only one indication of minor metal and trace glass. Trace generally refers to a component that comprises less than 1% of the material and is considered a de Minimis amount. Therefore, the material is acceptable as PA Clean Fill.

This approval is for material from the following site defined cells and waste characterization (WC) samples contained in the SWCR:

211 West 29th Street, New York, NY 10001

Barnsdale ***Cell Approval List 05.25.17***

#	Waste Characterization Samples / Cell IDs
1	MW-4 (0-7')
2	MW-4 (7-14')
3	B-6 (0-7')
4	B-6 (7-14')
5	MW-3 (0-7')
6	MW-3 (7-14')

The material has been characterized by sampling and analysis. For each 3,000 cubic yards, the MFP requires three grab samples analyzed for VOCs. For the other analytical parameters the MFP requires analysis of either three composites, formed from four or more individual grab samples, or twelve discrete grab samples.

The excavation map was used to determine all RIR and WC samples that were located within the planned excavation. Table 1 (attached) summarizes all the samples and analyses applied to this approval letter.

On this project sampling consisted of 14 discrete grab samples analyzed for VOCs. Eight composite samples were analyzed for total metals, SVOCs, PCBs and pesticides as well as TCLP VOCs, SVOCs and herbicides. In addition, eight of the grab samples were also analyzed for total SVOCs, PCBs, pesticides and metals. Each composite sample was formed from a seven foot long section of a boring. Based on the site history and Phase I ESA, herbicides were not compounds of concern. Therefore, the sampling and analysis exceeded the MFP requirements. Based on the excavation plan, approximately 3,000 to 4,000 cubic yards will be generated. The sampling and analysis were sufficient for up to 6,000 cubic yards.

All results were not detected or well below the applicable MFP standard with the exception of one grab sample lead result of 2,000 mg/kg and one benzo(a)pyrene result of 32 mg/kg.

The lead results were statistically evaluated. To enable comparison of the grab sample results with the composite sample results, the four highest and reaming four grab sample lead results were averaged to provide two calculated composite samples results. The statistical evaluation of the composite and calculated composite results for lead satisfied the 95% UCL test. Those calculations are attached.

The composite sample that had the single benzo(a)pyrene exceedance was collected from boring MW-4 from 7' to 14'. That boring indicated asphalt at the ground surface. It is believed that the exceedance was due to pieces of asphalt that fell into the boring and were sampled. To evaluate that result it was compared to the mean for the composite samples and the mean for the grab samples. The 32 mg/kg result was 58 and 55.8 standard deviations above the composite and grab means, respectively. That indicated

that the 32 mg/kg was definitively and outlier with a confidence limit of 100% and is not representative of the material covered in this approval letter.

The information provided contains the required site history, previous environmental reports, generator certification forms, analytical results by a PA registered laboratory, chain of custody forms and sample location/site maps.

Based on the available information, the soil represented by the material addressed in this letter meets the criteria in the PA Management of Fill Policy and is suitable for use as Pennsylvania Clean Fill for ongoing reclamation of the Freemansburg Facility. This approval is only valid for entire volume defined by the cells and samples described above. The Facility should ensure that the material received is consistent with the descriptions herein and the attached excavation map.

Please call me if you have any questions.

Yours truly,

Steffan R. Helbig, P.G. (PA Number 00242 G)
President

cc: Angie Brong, Barnsdale

ATTACHMENTS

List of Supplied Documents

Table 1 -Summary of Applicable Samples and Laboratory Analyses

Statistical Evaluation of Lead exceedance

Statistical Evaluation of Benzo(a)pyrene Exceedance

211 West 29th Street – Document List

1	211 W. 29th Soil Waste Characterization Results.pdf
2	211 W. 29th St – Soil Disposal Notification Form.pdf
3	2016-04-15.16EHAN062M.17CVCP001M.211West29thStreet.report.Revised_RIR.pdf
4	2016-07-22.16EHAN062M.17CVCP001M.211West29thStreet.report.Revised_RAWP.pdf
5	2016-10-11.16TMP0065X.16EHAN062M.17CVCP001M.letter.Stip_List
6	workplan.sp1505845.2017-03-29.LNAPL Remediation Plan
7	MW-5 & MW-6 Figure & Laboratory Analytical Report
8	Analytical report 211W29th Street.pdf

TABLE 1
SUMMARY OF APPLICABLE SAMPLES AND LABORATORY ANALYSES
211 West 29th Street

SAMPLE NUMBER	COMPOSITE/ GRAB	DATA LOCATION	ANALYSES
MW-4 3.5'	G	SWCR	VOCs
MW-4 0-7'	C	SWCR	Total SVOCs, PCBs, pesticides, metals & TCLP VOCs, SVOCs and herbicides
MW-4 10.5'	G	SWCR	VOCs
MW-4 7-14'	C	SWCR	Total SVOCs, PCBs, pesticides, metals & TCLP VOCs, SVOCs and herbicides
B-6 3.5'	G	SWCR	VOCs
B-6 0-7'	C	SWCR	Total SVOCs, PCBs, pesticides, metals & TCLP VOCs, SVOCs and herbicides
B-6 10.5'	G	SWCR	VOCs
B-6 7-14'	C	SWCR	Total SVOCs, PCBs, pesticides, metals & TCLP VOCs, SVOCs and herbicides
MW-3 3.5'	G	SWCR	VOCs
MW-3 0-7'	C	SWCR	Total SVOCs, PCBs, pesticides, metals & TCLP VOCs, SVOCs and herbicides
MW-3 10.5'	G	SWCR	VOCs
MW-3 7-14'	C	SWCR	Total SVOCs, PCBs, pesticides, metals & TCLP VOCs, SVOCs and herbicides
B-1_0-2	G	RIR	Total VOCs, SVOCs, PCBs, pesticides and metals
B-2_0-2	G	RIR	Total VOCs, SVOCs, PCBs, pesticides and metals
B-2_14-16	G	RIR	Total VOCs, SVOCs, PCBs, pesticides and metals
B-6 12-14'	G	RIR	Total VOCs, SVOCs, PCBs, pesticides and metals
B-3P_0-2	G	RIR	Total VOCs, SVOCs, PCBs, pesticides and metals
B-3P 16-18'	G	RIR	Total VOCs, SVOCs, PCBs, pesticides and metals
B-5_5-7	G	RIR	Total VOCs, SVOCs, PCBs, pesticides and metals
B-4_0-2	G	RIR	Total VOCs, SVOCs, PCBs, pesticides and metals
RIR:	Remedial Investigation Report		
SWCR:	Soil Waste Characterization Results		

STATISTICAL EVALUATION - LEAD
211 West 29th Street

lead			*lead*		
160					
45			Mean	211.0714286	
400			Standard Error	74.69863489	
150			Median	150	
120			Mode	#N/A	
566	Average of 4 highest grab sample results		Standard Deviation	197.6340112	
36.5	Average of remaining grab sample results		Sample Variance	39059.20238	
			Kurtosis	0.388123356	
			Skewness	1.222336009	
Grab Samples			Range	529.5	
2000			Minimum	36.5	
140			Maximum	566	
63			Sum	1477.5	
61			Count	7	
52			Confidence Level(90.0%)	145.1529143	
37					
30			**95% UCL:**	**356.22**	
27			Standard	450	
			SATISFIES THE 95% UCL TEST		

STATISTICAL EVALUATION - Benzo(a)pyrene Outlier
211 West 29th Street

b(a)p Composite Samples			*b(a)p Composite Samples*			*b(a)p Grab Samples*	
0.99							
0.21			Mean	0.756		Mean	0.752375
0.18			Standard Error	0.240719754		Standard Error	0.197951828
1.4			Median	0.99		Median	0.77
1			Mode	#N/A		Mode	#N/A
			Standard Deviation	0.538265734		Standard Deviation	0.559892321
b(a)p Grab Samples			Sample Variance	0.28973		Sample Variance	0.313479411
1.5			Kurtosis	-2.37869981		Kurtosis	-1.672240512
1.4			Skewness	-0.15882222		Skewness	0.06976488
1.1			Range	1.22		Range	1.451
0.86			Minimum	0.18		Minimum	0.049
0.68			Maximum	1.4		Maximum	1.5
0.27			Sum	3.78		Sum	6.019
0.16			Count	5		Count	8
0.049			Confidence Level(90.0%)	0.513177634		Confidence Level(90.0%)	0.375035299
	Potential Outlier	32	**Number of Standard Deviations between Mean and 32**	**58.0**		**Number of Standard Deviations between Mean and 32**	**55.8**

Soil Safe®
Recycling and Beneficial Re-use of Soils

June 1, 2017

Cory Weissglass
Earth Efficient
30 West Main Street
Riverhead, New York 11901

Re: 211 West 29th Street – New York, NY +/- 7,200 tons of soil.

Dear Mr. Weissglass,

Soil Safe, Inc has received and reviewed the Historic Fill & Soil Disposal Notification Form, dated October 11, 2016, stating that 211 West 29th Street, New York, NY is an OER project, under #16EHAN062M, the Material Characterization Report (MCR), the sampling maps, the Phase I Environmental Site Assessment Report, dated August 2015, the Remedial Investigation Report, dated April 2016, the Revised LNAPL Remediation Work Plan, all three reports prepared by ROUX Associates, Inc., the Remedial Action Work Plan, dated July 2016, the RAWP Stipulation List, both prepared by Remedial Engineering, P.C., the 211 W. 29th Soil Waste Characterization Results, and the MW-5 & MW-6 Figure with laboratory analysis reported by Alpha Analytical; Lab Numbers: L1710573 and L1601309.

We have approved up to 7,200 tons of soils for shipment to our Carteret, NJ Facility under approval number **M6-0978** from any combination of the grids named below:

MW-3 (0-7)	MW-3 (7-14)	MW-4 (0-7)
MW-4 (7-14)	B-6 (0-7)	B-6 (7-14)

Please note that our permissible limits for each delivery are 1% by volume for trash (includes wood, glass, plastics and household debris); loads containing in excess of these limits, at our sole discretion, will be rejected and returned to the project site.

Regards,

Nicholas Bartlinski
Compliance Manager

Cc: Janice Loar
Metro12 Facility

I agree to note the appropriate representative grid (listed above) on each manifest. I confirm the Alpha Analytical Laboratories data listed above is the complete characterization of the approved soil(s).

X _____ 6/1/17
Signature Print Name