

June 12, 2017

Mr. Hans Jensen  
Strategic Planning and Community Development  
City of Somerville  
93 Highland Avenue  
Somerville, MA 02143

RE: Peer Review  
Draft Release Abatement Measures Plan (*dated -5/18/2017*)  
343 – 349, and 351 Summer Street  
Somerville, Massachusetts

Dear Mr. Jensen,

As requested, Nangle Consulting Associates, Inc. (NCA) has completed a peer review of the above referenced draft Release Abatement Measure (RAM) Plan, and offer comments contained herein for your consideration. In the way of review, this office received an earlier draft of this document, which was discussed in-part with the Licensed Site Professional (LSP) for the Applicant (Mr. Robert Bird) during the public informational meeting that was held on 17 May 2017. Of particular note was the request for a more timely submission of testing data, specifically with respect to the March 2017 sampling program, which was not received by this office until May 2017. The remaining issues that we recommend be reviewed with the Applicant for further clarification are represented below.

### **Summary of Peer Review Comments**

Overall, please be advised that the EviroTrac draft RAM Plan does, in our opinion, meet the general requirements of the Massachusetts Contingency Plan (MCP); however we have identified a few issues that, as stated above, we believe require further clarification. These are summarized below using a format linked to specific excerpts in the draft RAM Plan identified by page and section references.

#### **Page 5 – Section 4.2**

*The objective of the RAM is to manage potentially impacted soil during site work. ....Planned site work and construction activities will generate approximately 8,000 cubic yards of soil for export. Approximately 4,000 cubic yards of the total exceeds RCS-I reportable concentrations for lead and PAHs and will likely be disposed at a MA landfill in accordance with MassDEP Policy # COMM-97-001.*

A summary of the exceedances of applicable Reportable Concentration (RC) values for Contaminants of Concern (COC) that were detected across the site during the March 2017 sampling event is provided on Table 1.0 of the attachments, while a Sketch Plan of Site depicting the approximate EnviroTrac sampling locations is presented as Figure 1.

As evidenced from a review of Table 1.0 and Figure 1, a heterogeneous distribution of the COC, both vertically in the fill unit and horizontally across the disposal site has been identified. The use of composite sampling techniques over the 0-15 foot interval at those locations containing RC exceedances, together with the absence of any clearly defined source conditions raises, in our professional opinion, uncertainties regarding the ability to clearly segregate the remedial waste volumes identified above (Page 5 – Section 4.2). While EnviroTrac did perform additional sampling over discrete sampling intervals, the absence of any RC exceedances in those samples does not serve to provide further definition of the distribution for the COC detected in the 0-15 foot composite samples.

**Page 6 – Section 4.3.1**

*Based upon visual observations of coal and coal ash in the field, six of the soil samples were submitted to MicroVision Laboratories in Chelmsford, Massachusetts for coal, coal ash, and wood ash analysis.*

The draft EnviroTrac RAM Plan identifies the presence of coal and coal ash as stated above. This finding is consistent with earlier opinions rendered by this office pertaining to the detection of low levels of contaminants during the initial field sampling program. We would suggest that the RAM Plan identify whether or not this additional data is sufficient to establish a basis for characterizing certain site contaminants as a background condition and if so, what effect that conclusion would have upon proposed soil management activities.

**Page 6 – Section 4.3.2**

*Based on laboratory results, excavated soils which exhibit concentrations less than MCP RCS-1 Reportable Concentrations and no other signs of contamination may be re-used on or off-site and will be managed in accordance with 310 CMR 40.0030 and the Similar Soils Provision Guidance (Policy #WSC-13-500). For soil not suitable for on-site reuse, LSP packages for disposal facility approval and associated Bill of Lading (BOL) or Material Shipping Record (MSR) will be prepared. Following the receipt of disposal facility approval, soil will be transported off-site. The “anti-degradation” provisions contained in 310 CMR 40.0032(3), which prohibit the transport and disposal/reuse of contaminated soils at locations with significantly lower concentrations of oil and hazardous material will be taken into consideration for potential transport and reuse of soils.*

The draft RAM Plan identifies the entire property as the disposal site (RTN 3-34098) from ground surface to a depth of approximately 15 feet from surface grade. As such, it would seem that all soil transported off-site for re-use/recycling/disposal should be managed as remediation waste under a BOL and under the oversight of an LSP, rather than using an MSR. In addition, it has been stated that approximately 8,000 cubic yards of excess excavated material will be stockpiled /transported offsite, subject to the possible onsite re-use of some material. As the management of remedial waste is considered to be an integral part of the proposed RAM Plan, the direct loading and transport, is in our professional opinion, a significant issue to be monitored and addressed. It is our understanding that a Transportation and Management Plan has been developed and we recommended that this document be attached to the RAM Plan to provide an understanding of the protocols to be maintained during site work. Related to the above, given the heterogeneity of the fill unit that is present across the site and the nature of contaminant distribution, it is recommended that any excavated material proposed for onsite reuse be further characterized for primary COC to ensure consistency with the “anti-degradation” provisions cited in the excerpt above.

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**Page 8 – Section 6.0**

**During RAM activities, monitoring conditions at the Property with respect to worker health and safety will be conducted in accordance with the Health and Safety (H&S) Plan (Appendix B). All workers will be notified of the requirements of the H&S Plan and protocols for handling potentially impacted soils. The H&S Plan will be available at the Property throughout the duration of the construction.**

The Health and Safety Plan identifies asbestos as a contaminant of concern. We recommend that EnviroTrac provide an explanation as to why this is included. In addition, while a monitoring program for VOCs and dust is provided, there are no clear actions levels identified for the Contaminants of Concern, or description of those measures to be taken should those levels be exceeded. Clear actions levels and plans for mitigation should be established prior to the implementation of the RAM.

**Hager GeoScience Geophysical Survey Page 3 – Section 5.0**

*Based on GPR reflections and elevated EM signal amplitudes, four potential USTs (red boxes) were located in the 351 Summer Street survey area (Grid A). These are shown as red boxes on Plates 2 and 4 and are recommended for “ground-truthing”. Due to the location, response, and limitations in coverage at the southwestern corner of Grid A, we particularly recommend ground-truthing the possible UST feature in this area.*

As discussed during the public information meeting, it is our understanding that additional test pits will be placed upon the site to follow up on the ground penetrating radar (GPR) investigation referenced above. During this scope of work, the project’s LSP has indicated that additional test pits will be placed adjacent to northerly abutting properties to provide further characterization of conditions within this portion of the site. The results of this investigation should be provided to the City in a timely manner for review.

Upon your review of our peer review comments, if you should have any questions or require any additional information, please feel free to contact us at your convenience.

Very Truly Yours,

Nangle Consulting Associates, Inc.

Jeffrey A. Nangle, P.E., L.S.P.

**Table 1.0 Summary of EnviroTrac RC Exceedances in Soil - March 2017 (mg/kg)**

Site Location: 343 - 349 & 351 Summer Street - Somerville, MA

LOCATION	PC-1	PC-4	PC-5	PC-6	PC-12	PC-12	PC-13	PC-15	PC-16	PC-16A	PC-16B	PC-17	PC-18	PC-18B	PC-19	PC-19B	PC-19C	RCS-1 2014	
SAMPLE DEPTH (ft.)	0-15 COMP	0-15 COMP	0-15 COMP	0-15 COMP	0-15 COMP	5 - 10	0 - 5	0-15 COMP	0 - 5 COMP	0 - 5	0 - 5	0 - 5 COMP	0 - 5 COMP	0 - 5	0 - 5 COMP	0 - 5	0 - 5		
SAMPLE DATE	28-Mar-17																		
Semi-Volatiles (mg/kg)																			
Acenaphthylene	NE	2.65	NE	1.09	NE	-	-	NE	NE	-	-	NE	NE	-	NE	-	-	1	
Benzo(a)anthracene	11.60	10.80	NE	7.67	NE	-	-	NE	NE	-	-	NE	7.62	-	9.24	-	-	7	
Benzo(a)pyrene	9.02	7.70	2.04	8.75	NE	-	-	5.22	NE	-	-	3.40	7.01	-	8.73	-	-	2	
Benzo(b)fluoranthene	9.00	7.33	NE	8.03	NE	-	-	NE	NE	-	-	NE	NE	-	8.46	-	-	7	
Dibenzo(a,h)anthracene	2.06	1.57	NE	1.49	NE	-	-	1.05	NE	-	-	NE	1.25	-	1.53	-	-	0.7	
Phenanthrene	20.80	33.50	NE	15.10	NE	-	-	NE	NE	-	-	NE	14.90	-	13.20	-	-	10	
Metals (mg/kg)																			
Lead	NE	NE	NE	NE	238	488	340	NE	516	1,270	1,190	NE	NE	293	NE	471	320	200	

File No. 746.02

Samples collected by EnviroTrac in March 2017

NE - No exceedance of applicable RC value

RC criteria effective April 25 2014

SKETCH PLAN OF SITE  
343-349 & 351  
SUMMER STREET  
SOMERVILLE  
MASSACHUSETTS

APPROXIMATE  
SAMPLE  
LOCATIONS

