

Method III Risk Characterization
for Constituents
in Site Soil

Somerville Auto Repair, Inc.
453 Somerville Avenue
Somerville, Massachusetts

Prepared for:

Coler & Colantonio, Inc.
101 Accord Park Drive
Norwell, MA 02061-1685

Prepared by:

LaGoy Risk Analysis, Inc.
P.O. Box 498
Hopkinton, MA 01748

June 20, 2006

1.0 INTRODUCTION

Under the Massachusetts Contingency Plan (MCP), Risk Characterization is required for certain disposal sites where oil and/or hazardous materials have been detected. The Risk Characterization evaluates whether residual chemicals detected at a disposal site pose a risk of harm to human health, safety, public welfare, and the environment or are only present at levels that pose No Significant Risk. A level of No Significant Risk exists if site concentrations are below applicable standards established in the Massachusetts Department of Environmental Protection (MADEP) guidance and if the cumulative cancer risk at the site does not exceed one in one hundred thousand (10^{-5}), the hazard index does not exceed one, and the site does not pose a risk to safety, public welfare, or the environment based on a consideration of site conditions and applicable standards. The results of the Risk Characterization are used as the basis for a decision as to whether or not remedial action is necessary at the site.

This characterization has been performed as a Method 3 Risk Characterization per section 40.0942(3) of the MCP. The purpose of this Method 3 Risk Characterization is to evaluate the potential for health and other risks associated with the residual chemicals detected in soil at the site at 453 Somerville Avenue in Somerville, Massachusetts. The primary chemicals of concern at the site are metals, most notably lead. This risk characterization describes chemical concentrations, the toxicology of chemicals of concern, potential exposure routes, and potential risks associated with current and potential future site conditions.

Section 2 of the risk characterization contains information on the chemicals detected at the site and the exposure point concentrations that will be used for these chemicals. In Section 3, information is presented on the environmental fate and transport of the key site chemicals and on the key toxicological characteristics of these compounds. As part of the toxicological assessment section, health-based criteria, and other established criteria and guidance that may be helpful in assessing potential risks are identified. A human health exposure assessment, including a discussion of exposure pathways, a description of potential receptors, and a quantitative estimate of exposure, is presented in Section 4. Section 5 contains the human health risk characterization, in which information on the toxicity of the chemicals (from Section 3) is combined with the results of the exposure assessment (from Section 4) to determine if the site poses a risk to health. A discussion of the uncertainties in the human health risk assessment is also included in this section. Risks to the environment, public welfare, and safety are evaluated in section 6. The conclusions of the risk characterization are presented in Section 7.

2.0 SITE CHARACTERISTICS

Detailed information on site features and on the oil and hazardous materials at the site is provided in the Phase I Environmental Site Assessment prepared by Coler & Colanotnio, Inc. for the site. The Phase I recommended that some limited sampling be conducted at the site. The Response Action Outcome report summarizes the sampling and analysis activities that have been conducted to date and the presents the findings. The investigations indicate that residual constituents are present in soil at the site.

2.1 Site Description

The property at 453 Somerville Avenue is located on the northeast side of Somerville Avenue in a mixed commercial and residential area of Somerville, Massachusetts and consists of a 4912 square feet lot with a single story, slab-on-grade concrete building located in the northeast side of the lot. The building is 1300 square feet in size and except for a small office and mezzanine, primarily consists of the automobile repair bays. An inspection by Coler & Colantonio identified several drums of oil, transmission fluid, and coolant stored in the building, hydraulic lifts with exterior fluid cylinders, and a parts washing station but no evidence of releases from any of these possible sources. No underground storage tanks were identified as having existed at the site. Most of the site that is not covered by the building is paved. A chain link fence surrounds the site.

A residential property is located to the north of 453 Somerville Avenue. An automobile painting and body-work (Maaco) facility is located south of the site, along with a commercial storage facility and another residence. A residence and a restaurant are located to the east of the site and vacant land is located to the west. The property is grandfathered for its current use under existing zoning.

The site topography slopes to the south and east. The nearest surface water body is probably the Charles River, which is located approximately a mile to the southeast of the site. Soils on the site were noted to consist primarily of fill in the upper 5 feet, with coal, brick pieces, ash, and slag observed. No odors or elevated headspace readings were noted. Soil beneath the fill was noted to be silt or sand. Most borings hit refusal at 12 feet. One well was installed on the site at B-5 but a groundwater sample could not be collected from this well. Groundwater was encountered at approximately 12.5 feet below ground surface (bgs). Groundwater flow was assumed to be to the southeast, in the direction of local topography and the Charles River.

The site is not located in an Area of Critical Environmental Concern, estimated habitat for rare species, in a priority habitat for rare species, near a vernal pool, or near protected open space. The site is not located in a current or potential drinking water source area.

2.2 Nature and Extent of Chemicals at the Site

The property was first noted to be used for industrial purposes in 1925, with "Edison Electric Illuminating Transformers" noted on a Sanborn Map. This business was replaced by an automobile repair facility sometime in the late 1930s. It should be noted that transformers at that time would not have used polychlorinated biphenyls (PCBs). In addition, no hydraulic lifts with underground hydraulic oil tanks were identified on the site. However, soil samples were analyzed for PCBs for completeness. Soil samples were also analyzed for extractable petroleum hydrocarbons, metals, and polycyclic aromatic hydrocarbons (PAHs) to determine if a possible release of waste oil or oil had occurred on the site.

Investigation of the site consisted of a Limited Subsurface Investigation that involved advancing 6 borings in March 2006. The intent was to complete several of these borings as groundwater monitoring wells but at most locations, refusal in apparent bedrock occurred before water was encountered. One well (B-5) was completed as a groundwater monitoring well. However, there was not sufficient water in this well to collect a sample. The initial investigation identified slightly elevated levels of metals, PAHs, and petroleum constituents on the site. PCBs were not detected. The petroleum constituent present at the highest concentration was the C11-C22 aromatics, which are the polycyclic aromatic hydrocarbons (PAHs) and may be present as a result of the presence of coal ash. It should be noted that the C19-C36 aliphatics were at an order of magnitude lower concentration than the C11-C22 aromatics, suggesting that the C11-C22 aromatics may not be petroleum-derived. The lack of odor in this sample, and the presence of coal slag, further supports this contention. A "120-day" reporting condition was reported to MADEP, based on elevated levels of lead in soil. More detail on soil sampling results is available in the RAO report prepared by CDW. Maximum concentrations detected at the site and the number of samples is summarized on Table 1.

The investigation on this site was limited to a small number of borings, the collection of a small number of soil samples, and no groundwater sampling. However, the nature and extent of the sampling appears adequate for the site for the following reasons:

- The site is small (just over a 10th of an acre) and covered by a building and pavement. A visual inspection of the site surfaces did not indicate evidence of releases.
- Based on the nature of the business (auto repair) some samples were requested. These samples did not indicate any evidence of a significant release. The chemicals analyzed were chemicals that would be of concern at an auto repair business.
- Samples were collected from across the site and focused on the active areas of the site.

- No odors or elevated photoionization detector (PID) reading indicate of a problem were noted.
- The chemicals detected in soil appear to be related to fill and the presence of coal than to any site release, even though for purposes of this assessment, they are treated as potentially site-related.
- Although no groundwater sample was collected, no evidence of the presence of mobile constituents was indicated by the soil sampling, PID readings, odors, or visual inspection of the property.

Based on these findings, the site assessment appears to adequately cover this site.

2.3 Background Concentrations

Certain materials, most notably the metals, are naturally occurring in the environment. Other constituents, such as certain organochlorine pesticides, have become ubiquitous in our environment as a result of their persistence in the environment and widespread use. Still other chemicals, including arsenic, lead, and the PAHs occur both naturally and as a result of widespread human use of the materials or of processes that generate the materials. Chemicals that are present at a site as a result of either a natural source or a ubiquitous anthropogenic source (e.g., arsenic, lead, or PAHs) are considered to be present at background levels. Under the MCP (and consistent with other regulatory guidance) the presence of chemicals at levels that are consistent with background does not pose a significant risk at the site.

PAHs

The PAHs can be present in the environment from natural sources. In addition, they may be present in the environment from widespread use by humans (i.e., the chemicals are ubiquitous). Distinguishing site-related contamination from non site-related background levels of these materials can be difficult.

As noted above, the PAHs are products of incomplete combustion, are present as components of petroleum products (fuel oils, diesel fuels, creosote, etc.), and are also produced naturally by some plants and microorganisms. Consequently, these materials are widespread in the environment. Many authors have measured environmental concentrations of the PAHs. Blumer et al (1977) measured levels of PAHs ranging from 4 mg/kg in an alpine meadow and 7 mg/kg in a Maine forest to 100 - 300 mg/kg in an urban area near a highway. Both lower and higher values have been reported by other authors (IARC 1983). In general, the lowest levels are seen in rural areas away from major highways (0.01 - 10 mg/kg; IARC 1983). Urban soils have somewhat higher levels (1 - 100 mg/kg; IARC 1983) and industrial areas have even higher levels (1 - >100 mg/kg; IARC 1983).

The Massachusetts Highway Department collected a large database (over 800 samples) of samples during excavation work on a large urban project. These samples and other data were analyzed by the MADEP for the presence of PAHs and metals. Data from this analysis are summarized in a technical update paper entitled: "Background Levels of

Polycyclic Aromatic Hydrocarbons and Metals in Soil (May 2002).” A review of the samples indicated that PAHs are present at concentrations consistent with urban background PAH levels.

Results from the MADEP analysis were compared to site samples to evaluate if the PAHs present at the site were site-related or were consistent with urban background. Table 2 presents concentrations expected by MADEP to be present in natural soils and in urban fill, and compares these values with site PAH levels. Maximum site concentrations were used for this comparison. As can be seen from this comparison, maximum concentrations of the PAHs at the site were generally above the expected background soil concentrations for urban fill. None of the PAHs were present at concentrations above the maximum levels detected in urban fill in the MADEP database. The presence of ash, cinders, and asphalt indicates that these PAHs are likely associated with the urban fill on the site. Finally, there was no definable source of the PAHs on site. Therefore, the PAHs are not considered to be site-related. Concentrations detected at the site were generally consistent with the 95% upper confidence limit on the MADEP 2002 dataset, and concentrations were generally an order of magnitude below the maximum levels reported in the MADEP study.

Metals

As noted above, metals can be present in soil naturally or as a result of release from anthropogenic sources. Natural metal concentrations are variable across Massachusetts. MADEP has calculated a 90th percentile value for metal levels in natural soils and in urban fill. Table 2 compares site concentrations with the urban fill background levels. Barium, cadmium, lead, and selenium were present in soils at concentrations that exceed the urban fill concentrations. These metals will be carried through the risk characterization as site-related constituents. It should be noted, however, that all may be present as a result of the presence of coal in the samples. For example, the maximum lead concentration of 1700 mg/kg was observed in the 0-5 feet depth in Sample B-1, and the boring log indicated the presence of fill including coal ash in this sample. According to a United States Geological Services (USGS) report edited by D.W. Golightly and F.O. Simon entitled “Methods for Sampling and Inorganic Analysis of Coal,” lead levels measured in coal ash range from 18.7 mg/g to 110 mg/kg, or from 18,700 mg/kg to 110,000 mg/kg. Based on these values, the reported site concentration of 1700 mg/kg could simply represent a sample that contained between 2 and 10% coal ash. The other metals may also be present simply as a result of the coal ash. However, for purposes of this assessment, all are considered to be potentially site related.

2.4 Exposure Point Concentrations

The concentration of a chemical constituents in a medium to which an individual is exposed is termed the exposure point concentration or EPC. As noted in the MCP (310 CMR 40.0926; as amended in October 1999), “the objective [of the EPC] shall be to identify a conservative estimate of the arithmetic mean concentration which represents the average concentration contacted by a receptor at the Exposure Point over the period of

exposure." The EPC therefore should be conservative (health protective) and representative of concentrations that may be encountered at the site. The MCP also notes that the purpose of the assessment can influence the selection of EPCs. Maximum concentrations detected at a site may be used for screening purposes to show that a pathway clearly does not pose a risk. In this section, EPCs are developed for the chemicals in soil and groundwater.

For this site, the maximum concentration of each constituent was used as the EPC for all constituents except lead. Six samples for lead were collected in shallow soils (less than 5 feet bgs) and the average of these samples was used as the EPC for this constituent. For the B-1 sample, the initial result was 870 mg/kg, with a duplicate sample showing a level of 1700 mg/kg. The two samples from this location were averaged prior to averaging with samples from other locations. All samples were collected from depths of 0-5 feet below ground surface (bgs). For exposure to chemicals in soil, all areas of the site are considered equally accessible spatially and vertically. Table 1 contains these EPCs for soil. These EPCs provide representative yet conservative estimates of concentrations to which receptors may be exposed at the site.

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RISKS TO THE ENVIRONMENT, PUBLIC WELFARE, AND SAFETY

As part of a Method 3 Risk Characterization, risks to public welfare, safety, and the environment must be evaluated. These risks are evaluated in this section for the site at 100 Somerville Avenue in Somerville, Massachusetts.

6.1 Risks to the Environment

Method 3 Risk Characterization evaluates whether residual chemicals detected at a disposal site pose a risk of harm to the environment. The site is located in a mixed commercial and residential area in Somerville, a densely populated urban area. The potential for site constituents in groundwater to impact aquatic life was not evaluated as it was not possible to collect a groundwater sample but the lack of evidence of a release in wells, the nature of the chemicals detected (lead and the C11-C22 aromatics, the two constituents detected above Method 1 standards, are not very mobile) and the distance to any potential receptor all suggest that chemicals at the site will not pose a threat to aquatic receptors.

The site consists of a small (approximately one-tenth acre) property with a single-story building and a paved parking lot in a commercial and residential area, and therefore, does not and will not provide desirable habitat for terrestrial species. Consequently, no pathway exists for exposure by environmental receptors to site soil. Based on a consideration of groundwater and soil, a level of No Significant Risk to the environment exists for current and future conditions at the site.

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6.2 Risks to Public Welfare

Residual chemicals at the site do not present nuisance conditions (i.e., unpleasant odors or similar effects) and are unlikely to significantly impact property values. No chemical is present in soil at a level that exceeds its UCL. Therefore, a level of No Significant Risk to welfare exists for current and future conditions at the site.

6.3 Risks to Safety

In accordance with 310 CMR 40.0960,

"A level of no significant risk to safety exists or has been achieved if the conditions at the disposal site which are related to a release of oil and/or hazardous material do not currently and will not in the foreseeable future pose a threat of physical harm or bodily injury to people.

Such release-related conditions may include but are not limited to:

- (a) the presence of rusted or corroded drums or containers, open pits, lagoons or other dangerous structures;

- (b) any threat of fire or explosion, including the presence of explosive vapors resulting from the release of oil and/or hazardous material; and
- (c) any uncontained materials which exhibit the characteristics of corrosivity, reactivity or flammability described at 310 CMR 40.0347.

A site inspection conducted by Coler & Colantonio and a review of previous response actions conducted at the site, have not identified any of the conditions noted above or other conditions which could pose a risk of physical harm or bodily injury to the public. Consequently, a condition of No Significant Risk to safety exists at the disposal site.

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7.0 CONCLUSIONS

A Method 3 Risk Characterization characterizes the risk of harm to health, public welfare, safety, and the environment. Risks to human health associated with the residual constituents present in soil at the site at 453 Somerville Avenue in Somerville, Massachusetts were characterized using standard risk assessment procedures as developed by the USEPA and MADEP. In order to ensure that public health is adequately protected, conservative (unlikely to underestimate risk) assumptions were used in deriving both the exposure estimate and the toxicity values. Because of the use of these conservative (although not necessarily worst case) assumptions, it is likely that the actual potential for non-cancer and cancer risks is even lower than estimated in this report.

A condition of no significant risk of harm to human health exists or has been achieved if no standards are exceeded and cumulative cancer and non-cancer risks are below state target levels (310 CMR 40.993(7)). No standards are exceeded as no applicable standards exist. For both current and potential future use scenarios, the calculated Non-cancer Risks do not exceed the Cumulative Receptor Non-cancer Risk Limit of an HI of 1 and the calculated Cumulative Cancer Risk does not exceed the Target Risk Level of a 10^{-5} risk for all quantified exposure scenarios, including unrestricted future use of the site. PAHs are present at concentrations that are consistent with background for urban fill soil with evidence of coal and ash and by definition does not pose a significant risk. Consequently, a condition of No Significant Risk of Harm to Human Health has been achieved at the site. However, as for all such urban fill containing coal and ash, care should be taken to ensure that the soil remains in place and it is prudent to limit exposure to the extent possible.

A Stage 1 Environmental Screening was conducted to evaluate risks to ecological receptors at the site. For soils, the urban nature of the area and the paved condition of the site should limit the potential for adverse effects to terrestrial organisms. The nature of the chemicals at the site, the limited groundwater detected, and the distance to an possible receptors indicate that the site is unlikely to pose a risk to aquatic receptors; and, a level of No Significant Risk to the Environment exists at the site for current and for future conditions.

Risks to public welfare and safety were evaluated separately. The residual constituents in soil and groundwater are considered unlikely to pose a nuisance risk to workers or residents and are below upper concentration limits (UCLs). Therefore, a Condition of No Significant Risk to Public Welfare is considered to exist at the site for current and for future conditions. Finally, consideration of chemical characteristics and behavior indicate that the residual chemicals will not pose a risk to safety and a Condition of No Significant Risk to Safety exists at the site.

COLANTONIO

ENGINEERS AND SCIENTISTS

July 9, 2006

Mayor Joseph A. Curtatone
City of Somerville
City Hall
93 Highland Avenue, Somerville, MA 02143

**RE: Availability of Response Action Outcome Statement
Somerville Auto Repair
453 Somerville Avenue, Somerville, Massachusetts**

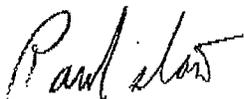
Dear Mayor Curtatone:

In accordance with the requirements of the Massachusetts Contingency Plan (MCP), Coler & Colantonio, Inc. is notifying you of the availability of a Response Action Outcome Statement for the above-referenced location.

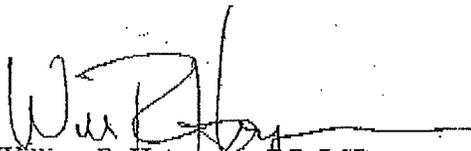
On behalf of Somerville Auto Repair, Coler & Colantonio, Inc. has submitted the Response Action Outcome Statement to the Department of Environmental Protection (DEP). Interested parties may contact the DEP during business hours at (978) 694-3200 or Coler & Colantonio, Inc. at (781) 982-5400 for more information.

Sincerely,

COLER & COLANTONIO, INC.

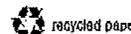


Paul Iorio
Senior Project Manager



William R. Hoyetman, RG, LSP
Assistant Division Manager

CC: Ms. Noreen Burke, Director of the City of Somerville Board of Health



**COLER &
COLANTONIO** INC.
ENGINEERS AND SCIENTISTS

July 9, 2006

Ms. Noreen Burke
City of Somerville
Board of Health
50 Evergreen Avenue, Somerville, MA

**RE: Availability of Response Action Outcome Statement
Somerville Auto Repair
453 Somerville Avenue, Somerville, Massachusetts**

Dear Ms. Burke:

In accordance with the requirements of the Massachusetts Contingency Plan (MCP), Coler & Colantonio, Inc. is notifying you of the availability of a Response Action Outcome Statement for the above-referenced location.

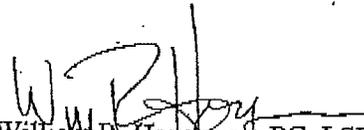
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Sincerely,

COLER & COLANTONIO, INC.



Paul Iorio
Senior Project Manager



William R. Hoyerman, PG, LSP
Assistant Division Manager

CC: City of Somerville Mayor Joseph A. Curtatone

LEGEND

• Approximate Boring Locations
 Site Plan is based on the Somerville Assessors Map and field observation.
 Underground utilities are shown and are approximate.

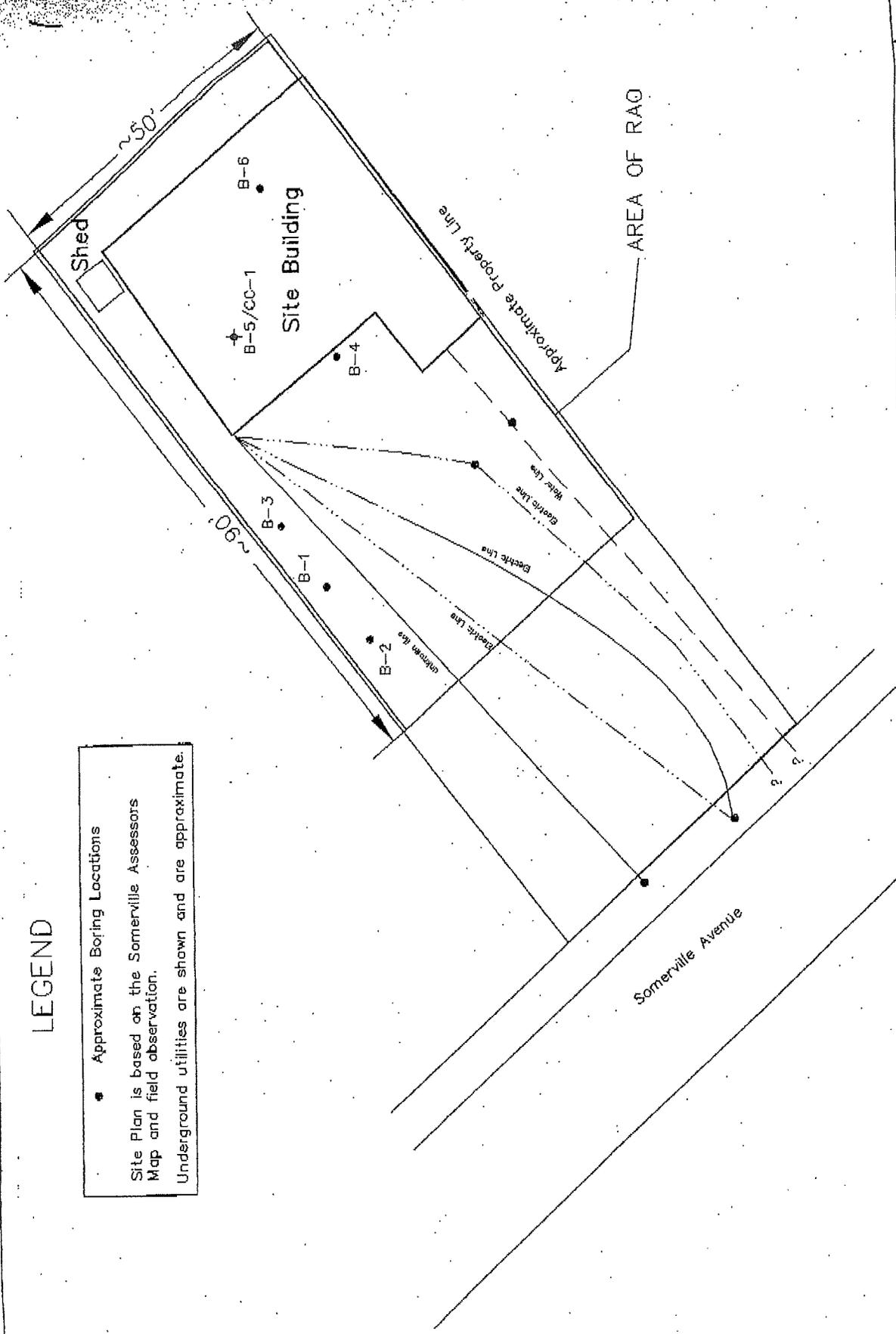


FIGURE 2 - SITE PLAN
 AREA OF RAO
 453 SOMERVILLE AVENUE
 SOMERVILLE, MASSACHUSETTS

COLER & COLANTONIO
 ENGINEERS AND SCIENTISTS
101 Forest Park Drive
 Somerville, MA 02148-1625
 (617) 362-5000



Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

SCANNED
Release Tracking Number
3 - 26058

RESPONSE ACTION OUTCOME (RAO) STATEMENT

Pursuant to 310 CMR 40.0580 (Subpart E) & 40.1056 (Subpart J)

A. SITE LOCATION:

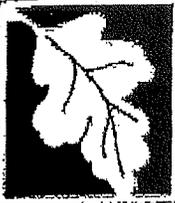
- 1. Site Name/Location Aid: Somerville Auto Repair
- 2. Street Address: 453 Somerville Avenue
- 3. City/Town: Somerville 4. ZIP Code: 02143-0000
- 5. Check here if a Tier Classification Submittal has been provided to DEP for this disposal site.
 - a. Tier 1A b. Tier 1B c. Tier 1C d. Tier 2
- 6. If a Tier I Permit has been issued, provide Permit Number: _____

B. THIS FORM IS BEING USED TO: (check all that apply)

- 1. List Submittal Date of RAO Statement (if previously submitted): _____
mm/dd/yyyy
- 2. Submit a Response Action Outcome (RAO) Statement
 - a. Check here if this RAO Statement covers additional Release Tracking Numbers (RTNs). RTNs that have been previously linked to a Primary Tier Classified RTN do not need to be listed here.
 - b. Provide additional Release Tracking Number(s) covered by this RAO Statement. - -
- 3. Submit a Revised Response Action Outcome Statement
 - a. Check here if this Revised RAO Statement covers additional Release Tracking Numbers (RTNs), not listed on the RAO Statement or previously submitted Revised RAO Statements. RTNs that have been previously linked to a Primary Tier Classified RTN do not need to be listed here.
 - b. Provide additional Release Tracking Number(s) covered by this RAO Statement. - -
- 4. Submit a Response Action Outcome Partial (RAO-P) Statement
Check above box, if any Response Actions remain to be taken to address conditions associated with this disposal site having the Primary RTN listed in the header section of this transmittal form. This RAO Statement will record only an RAO-Partial Statement for that RTN. A final RAO Statement will need to be submitted that references all RAO-Partial Statements and, if applicable, covers any remaining conditions not covered by the RAO-Partial Statements.
- 5. Submit an optional Phase I Completion Statement supporting an RAO Statement
- 6. Submit a Periodic Review Opinion evaluating the status of a Temporary Solution for a Class C RAO Statement (Section E is optional)
- 7. Submit a Retraction of a previously submitted Response Action Outcome Statement (Sections D & E are not required)

(All sections of this transmittal form must be filled out unless otherwise noted above)

RECEIVED
JUL 26 2006
DEP
NORTHEAST REGIONAL OFFICE



Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC104

RESPONSE ACTION OUTCOME (RAO) STATEMENT

Release Tracking Number

Pursuant to 310 CMR 40.0580 (Subpart E) & 40.1056 (Subpart J)

3 - 26058

C. DESCRIPTION OF RESPONSE ACTIONS: (check all that apply, for volumes list cumulative amounts)

- 1. Assessment and/or Monitoring Only
- 2. Temporary Covers or Caps
- 3. Deployment of Absorbent or Containment Materials
- 4. Temporary Water Supplies
- 5. Structure Venting System
- 6. Temporary Evacuation or Relocation of Residents
- 7. Product or NAPL Recovery
- 8. Fencing and Sign Posting
- 9. Groundwater Treatment Systems
- 10. Soil Vapor Extraction
- 11. Bioremediation
- 12. Air Sparging
- 13. Removal of Contaminated Soils

a. Re-use, Recycling or Treatment i. On Site. Estimated volume in cubic yards _____

ii. Off Site. Estimated volume in cubic yards _____

ii.a. Facility Name: _____ Town: _____ State: _____

ii.b. Facility Name: _____ Town: _____ State: _____

iii. Describe: _____

b. Landfill

i. Cover Estimated volume in cubic yards _____

Facility Name: _____ Town: _____ State: _____

ii. Disposal Estimated volume in cubic yards _____

Facility Name: _____ Town: _____ State: _____

14. Removal of Drums, Tanks or Containers:

a. Describe Quantity and Amount: _____

b. Facility Name: _____ Town: _____ State: _____

c. Facility Name: _____ Town: _____ State: _____



Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC104

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3 - 26058

C. DESCRIPTION OF RESPONSE ACTIONS (cont): (check all that apply, for volumes list cumulative amounts)

15. Removal of Other Contaminated Media:

a. Specify Type and Volume: _____

b. Facility Name: _____ Town: _____ State: _____

c. Facility Name: _____ Town: _____ State: _____

16. Other Response Actions:

Describe: _____

17. Use of Innovative Technologies:

Describe: _____

D. RESPONSE ACTION OUTCOME CLASS:

Specify the Class of Response Action Outcome that applies to the disposal site, or site of the Threat of Release.
Select ONLY one Class.

1. Class A-1 RAO: Specify one of the following:

a. Contamination has been reduced to background levels. b. A Threat of Release has been eliminated.

2. Class A-2 RAO: You MUST provide justification that reducing contamination to or approaching background levels is infeasible.

3. Class A-3 RAO: You MUST provide an implemented Activity and Use Limitation (AUL) and justification that reducing contamination to or approaching background levels is infeasible.

4. Class A-4 RAO: You MUST provide an implemented AUL, justification that reducing contamination to or approaching background levels is infeasible, and justification that reducing contamination to less than Upper Concentration Limits (UCLs) 15 feet below ground surface or below an engineered barrier is infeasible. If the permanent solution relies upon an engineered barrier, you must also provide a Phase III report justifying the selection of the engineered barrier.



Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

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RESPONSE ACTION OUTCOME (RAO) STATEMENT

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3 - 26058

D. RESPONSE ACTION OUTCOME CLASS (cont.):

- 5. Class B-1 RAO: Specify one of the following:
 - a. Contamination is consistent with background levels
 - b. Contamination is NOT consistent with background levels.
- 6. Class B-2 RAO: You MUST provide an implemented AUL.
- 7. Class B-3 RAO: You MUST provide an implemented AUL and justification that reducing contamination to less than Upper Concentration Limits (UCLs) 15 feet below ground surface is infeasible.
- 8. Class C RAO: Specify one:
 - a. Monitoring
 - b. Passive Operation and Maintenance
 - c. Active Operation and Maintenance (defined at 310 CMR 40.0006)

E. RESPONSE ACTION OUTCOME INFORMATION:

1. Specify the Risk Characterization Method(s) used to achieve the RAO described above:
 - a. Method 1
 - b. Method 2
 - c. Method 3
 - d. Method Not Applicable-Contamination reduced to or consistent with background, or Threat of Release abated
2. Specify all Soil and Groundwater Categories. More than one Soil Category and more than one Groundwater Category may apply at a Site. Be sure to check off all APPLICABLE categories.
 - a. Soil Category(ies) Applicable:

<input type="checkbox"/> i. S-1/GW-1	<input type="checkbox"/> iv. S-2/GW-1	<input type="checkbox"/> vii. S-3/GW-1
<input type="checkbox"/> ii. S-1/GW-2	<input checked="" type="checkbox"/> v. S-2/GW-2	<input type="checkbox"/> viii. S-3/GW-2
<input type="checkbox"/> iii. S-1/GW-3	<input checked="" type="checkbox"/> vi. S-2/GW-3	<input type="checkbox"/> ix. S-3/GW-3
 - b. Groundwater Category(ies) Impacted:
 - i. GW-1
 - ii. GW-2
 - iii. GW-3
 - iv. No Groundwater Impacted
3. Specify remediation conducted.
 - a. Check here if soil remediation was conducted.
 - b. Check here if groundwater remediation was conducted.
4. Estimate the number of acres this RAO Statement applies to: _____



Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC104

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Pursuant to 310 CMR 40.0580 (Subpart E) & 40.1056 (Subpart J)

5. LSP SIGNATURE AND STAMP:

I attest under the pains and penalties of perjury that I have personally examined and am familiar with this transmittal form, including any and all documents accompanying this submittal. In my professional opinion and judgment based upon application of (i) the standard of care in 309 CMR 4.02(1), (ii) the applicable provisions of 309 CMR 4.02(2) and (3), and 309 CMR 4.03(2), and (iii) the provisions of 309 CMR 4.03(3), to the best of my knowledge, information and belief,

If Section B indicates that either an RAO Statement, Phase I Completion Statement and/or Periodic Review Opinion is being provided, the response action(s) that is (are) the subject of this submittal (i) has (have) been developed and implemented in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, (ii) is (are) appropriate and reasonable to accomplish the purposes of such response action(s) as set forth in the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, and (iii) comply(ies) with the identified provisions of all orders, permits, and approvals identified in this submittal.

I am aware that significant penalties may result, including, but not limited to, possible fines and imprisonment, if I submit information which I know to be false, inaccurate or materially incomplete.

1. LSP #: 2093

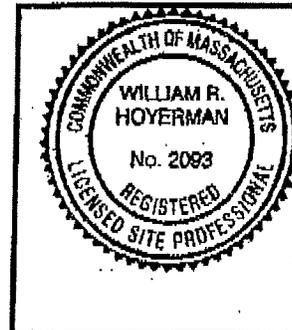
2. First Name: William 3. Last Name: Hoyerman

4. Telephone: (781) 982-5476 5. Ext.: 6. FAX: (781) 982-5486

7. Signature: [Handwritten Signature]

8. Date: 07/13/2006
mm/dd/yyyy

9. LSP Stamp:



3. PERSON MAKING SUBMITTAL:

1. Check all that apply: a. change in contact name b. change of address c. change in the person undertaking response actions

2. Name of Organization: Somerville Auto Repair, Inc.

3. Contact First Name: George 4. Last Name: Eleftherakis

5. Street: 453 Somerville Avenue 6. Title: Operator

7. City/Town: Somerville 8. State: MA 9. ZIP Code: 02143-0000

10. Telephone: (617) 625-1779 11. Ext.: 12. FAX:



Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC104

RESPONSE ACTION OUTCOME (RAO) STATEMENT

Release Tracking Number

Pursuant to 310 CMR 40.0580 (Subpart E) & 40.1056 (Subpart J)

-

H. RELATIONSHIP TO RELEASE OR THREAT OF RELEASE OF PERSON MAKING SUBMITTAL:

1. RP or PRP a. Owner b. Operator c. Generator d. Transporter

e. Other RP or PRP Specify: _____

2. Fiduciary, Secured Lender or Municipality with Exempt Status (as defined by M.G.L. c. 21E, s. 2)

3. Agency or Public Utility on a Right of Way (as defined by M.G.L. c. 21E, s. 5(j))

4. Any Other Person Making Submittal Specify Relationship: _____

I. REQUIRED ATTACHMENT AND SUBMITTALS:

1. Check here if the Response Action(s) on which this opinion is based, if any, are (were) subject to any order(s), permit(s) and/or approval(s) issued by DEP or EPA. If the box is checked, you MUST attach a statement identifying the applicable provisions thereof.

2. Check here to certify that the Chief Municipal Officer and the Local Board of Health have been notified of the submittal of an RAO Statement that relies on the public way/rail right-of-way exemption from the requirements of an AUL.

3. Check here to certify that the Chief Municipal Officer and the Local Board of Health have been notified of the submittal of a RAO Statement with instructions on how to obtain a full copy of the report.

4. Check here to certify that documentation is attached specifying the location of the Site, or the location and boundaries of the Disposal Site subject to this RAO Statement. If submitting an RAO Statement for a PORTION of a Disposal Site, you must document the location and boundaries for both the portion subject to this submittal and, to the extent defined, the entire Disposal Site.

5. Check here if required to submit one or more AULs. You must submit an AUL Transmittal Form (BWSC113) and a copy of each implemented AUL related to this RAO Statement. Specify the type of AUL(s) below: (required for Class A-3, A-4, B-2, B-3 RAO Statements)

a. Notice of Activity and Use Limitation b. Number of Notices submitted: _____

c. Grant of Environmental Restriction d. Number of Grants submitted: _____

6. If an RAO Compliance Fee is required for any of the RTNs listed on this transmittal form, check here to certify that an RAO Compliance Fee was submitted to DEP, P. O. Box 4062, Boston, MA 02211.

7. Check here if any non-updatable information provided on this form is incorrect, e.g. Site Address/Location Aid. Send corrections to the DEP Regional Office.

8. Check here to certify that the LSP Opinion containing the material facts, data, and other information is attached.



Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC104

RESPONSE ACTION OUTCOME (RAO) STATEMENT

Release Tracking Number

Pursuant to 310 CMR 40.0580 (Subpart E) & 40.1056 (Subpart J)

3 - 26058

J. CERTIFICATION OF PERSON MAKING SUBMITTAL:

1. I, George Eleftherakis, attest under the pains and penalties of perjury (i) that I have personally examined and am familiar with the information contained in this submittal, including any and all documents accompanying this transmittal form, (ii) that, based on my inquiry of those individuals immediately responsible for obtaining the information, the material information contained in this submittal is, to the best of my knowledge and belief, true, accurate and complete, and (iii) that I am fully authorized to make this attestation on behalf of the entity legally responsible for this submittal. I/the person or entity on whose behalf this submittal is made am/is aware that there are significant penalties, including, but not limited to, possible fines and imprisonment, for willfully submitting false, inaccurate, or incomplete information.

2. By: [Signature] 3. Title: Operator
Signature

4. For: _____ 5. Date: _____
(Name of person or entity recorded in Section G) mm/dd/yyyy

6. Check here if the address of the person providing certification is different from address recorded in Section G.

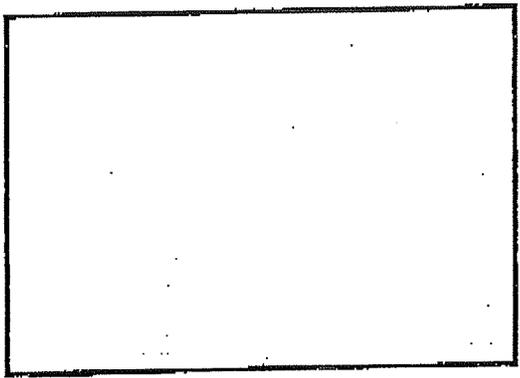
7. Street: _____

8. City/Town: _____ 9. State: _____ 10. ZIP Code: _____

11. Telephone: _____ 12. Ext: _____ 13. FAX: _____

YOU MUST LEGIBLY COMPLETE ALL RELEVANT SECTIONS OF THIS FORM OR DEP MAY RETURN THE DOCUMENT AS INCOMPLETE. IF YOU SUBMIT AN INCOMPLETE FORM, YOU MAY BE PENALIZED FOR MISSING A REQUIRED DEADLINE.

Date Stamp (DEP USE ONLY:)





COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS
DEPARTMENT OF ENVIRONMENTAL PROTECTION
NORTHEAST REGIONAL OFFICE
205B LOWELL STREET, WILMINGTON, MA 01887, 978-694-8200

SCANNED

MITT ROMNEY
Governor

KERRY HEALEY
Lieutenant Governor

STEPHEN R. PRITCHARD
Secretary

ROBERT W. GOLLEDGE, Jr.
Commissioner

JUL 21 2006

Somerville Auto Repair, Inc.
453 Somerville Avenue
Somerville, MA 02143

RE: **Somerville**
453 Somerville Avenue
RTN 3-26058

Attention: Mr. George Eleftherakis

**NOTICE OF RESPONSIBILITY PER M.G.L. c.21E & 310 CMR 40.0000,
the MCP**

THIS IS AN IMPORTANT NOTICE. FAILURE TO TAKE ADEQUATE ACTION IN
RESPONSE TO THIS NOTICE COULD RESULT IN SERIOUS LEGAL
CONSEQUENCES.

Dear Mr. Eleftherakis:

Information contained in a Release Notification Form (RNF) submitted to the Department of Environmental Protection (MassDEP) on July 18, 2006 and submitted by Somerville Auto Repair, Inc. indicates that there is or has been a release of oil and/or hazardous material at the above-referenced property which exceeds a "120 day" reporting threshold (310 CMR 40.0315) and which requires one or more response actions.

Based on this information, MassDEP has reason to believe that the subject property or portion(s) thereof is a disposal site as defined in the Massachusetts Oil and Hazardous Material Release Prevention and Response Act, M.G.L. c. 21E, and the Massachusetts Contingency Plan, 310 CMR 40.0000 (the MCP). M.G.L. c. 21E and the MCP govern the assessment and cleanup of disposal sites.

The purpose of this notice is to inform you of your legal responsibilities under state law for assessing and/or remediating the subject release. For purposes of this notice, the terms and phrases used herein shall have the meaning ascribed to them by the MCP unless the text clearly indicates otherwise.

This information is available in alternate format. Call Donald M. Gomes, ADA Coordinator at 617-556-1057. TDD Service - 1-800-298-2207.

MASSDEP on the World Wide Web: <http://www.mass.gov/dep>

Printed on Recycled Paper

Somerville Auto Repair, Inc.

Page -2-

STATUTORY LIABILITIES

MassDEP has reason to believe that you (as used in this letter, "you" refers to Somerville Auto Repair, Inc.) are a Potentially Responsible Party (a PRP) with liability under M.G.L. c. 21E, § 5, for response action costs. Section 5 makes the following parties liable to the Commonwealth of Massachusetts: current owners or operators of a site from or at which there is or has been a release/threat of release of oil or hazardous material; any person who owned or operated a site at the time hazardous material was stored or disposed of; any person who arranged for the transport, disposal, storage or treatment of hazardous material to or at a site; any person who transported hazardous material to a transport, disposal, storage or treatment site from which there is or has been a release/threat of release of such material; and any person who otherwise caused or is legally responsible for a release/threat of release of oil or hazardous material at a site.

This liability is "strict", meaning it is not based on fault, but solely on your status as an owner, operator, generator, transporter or disposer. It is also joint and several, meaning that you may be liable for all response action costs incurred at the site, regardless of the existence of any other liable parties.

The MCP requires responsible parties to take necessary response actions at properties where there is or has been a release or threat of release of oil and/or hazardous material. If you do not take the necessary response actions, or fail to perform them in an appropriate and timely manner, MassDEP is authorized by M.G.L. c. 21E to have the work performed by its contractors. By taking such actions, you can avoid liability for response action costs incurred by MassDEP and its contractors in performing these actions, and sanctions, which may be imposed for failure to perform response actions under the MCP.

You may be liable for up to three (3) times all response action costs incurred by MassDEP. Response action costs include, without limitation, the cost of direct hours spent by MassDEP employees arranging for response actions or overseeing work performed by persons other than MassDEP or its contractors, expenses incurred by MassDEP in support of those direct hours, and payments to MassDEP's contractors. (For more detail on cost liability, see 310 CMR 40.1200.)

MassDEP may also assess interest on costs incurred at the rate of twelve percent (12%), compounded annually. To secure payment of this debt, the Commonwealth may place liens on all of your property in the Commonwealth. To recover the debt, the Commonwealth may foreclose on these liens or the Attorney General may bring legal action against you.

In addition to your liability for up to three (3) times all response action costs incurred by MassDEP, you may also be liable to the Commonwealth for damages to natural resources caused by the release. Civil and criminal liability may also be imposed under M.G.L. c. 21E, § 11, and civil administrative penalties may be imposed under M.G.L. c. 21A, § 16 for each violation of M.G.L. c. 21E, the MCP, or any order, permit or approval issued thereunder.

Somerville Auto Repair, Inc.

Page -3-

NECESSARY RESPONSE ACTIONS

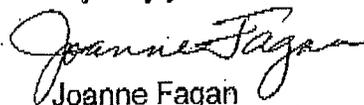
The subject site shall not be deemed to have all the necessary and required response actions taken unless and until all substantial hazards presented by the site have been eliminated and a level of No Significant Risk exists or has been achieved in compliance with M.G.L. c. 21E and the MCP. In addition, the MCP requires persons undertaking response actions at disposal sites to perform Immediate Response Actions (IRAs) in response to "sudden releases", Imminent Hazards and Substantial Release Migration. Such persons must continue to evaluate the need for IRAs and notify MassDEP immediately if such a need exists.

It is important to note that you must dispose of any Remediation Waste generated at the subject location in accordance with 310 CMR 40.0030 including, without limitation, contaminated soil and/or debris. Any Bill of Lading accompanying such waste must bear the seal and signature of an LSP or, if the response action is performed under the direct supervision of MassDEP, the signature of an authorized representative of MassDEP.

MassDEP encourages parties with liabilities under M.G.L. c. 21E to take prompt action in response to releases and threats of release of oil and/or hazardous material. By taking prompt action, you may significantly lower your assessment and cleanup costs and avoid the imposition of, or reduce the amount of, certain permit and annual compliance fees for response actions payable under 310 CMR 4.00.

If you have any questions relative to this notice, you should contact Joanne Fagan at the letterhead address or (978) 694-3390. All future communications regarding this release must reference the Release Tracking Number (RTN) 3-26058 contained in the subject block of this letter.

Very truly yours,



Joanne Fagan
Brownfields & Permits Section Chief
Bureau of Waste Site Cleanup

cc: Board of Health, City of Somerville, Noreen Burke, "via electronic submittal",
nburke@ci.somerville.ma.us

MassDEP database (NOR / Issued)

12



Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC103

RELEASE NOTIFICATION & NOTIFICATION
RETRACTION FORM

Release Tracking Number

3 - 26088

Pursuant to 310 CMR 40.0335 and 310 CMR 40.0371 (Subpart C)

A. RELEASE OR THREAT OF RELEASE LOCATION:

1. Release Name/Location Aid: Somerville Auto Repair
2. Street Address: 453 Somerville Avenue
3. City/Town: Somerville ZIP Code: 02143-0000

RECEIVED

JUL 18 2006

NORTHEAST REGIONAL OFFICE
DEP

B. THIS FORM IS BEING USED TO: (check one)

- 1. Submit a Release Notification
- 2. Submit a Retraction of a Previously Reported Notification of a Release or threat of release including supporting documentation required pursuant to 310 CMR 40.0335 (Section 40.0335(1)(b) not required)

(All sections of this transmittal form must be filled out unless otherwise noted above)

C. INFORMATION DESCRIBING THE RELEASE OR THREAT OF RELEASE (TOR):

1. Date and time of Oral Notification, if applicable: _____ Time: _____ AM PM
mm/dd/yyyy hh:mm

2. Date and time you obtained knowledge of the Release or TOR: 03/27/2006 Time: 03:00 AM PM
mm/dd/yyyy hh:mm

3. Date and time release or TOR occurred, if known: _____ Time: _____ AM PM
mm/dd/yyyy hh:mm

Check all Notification Thresholds that apply to the Release or Threat of Release:
(for more information see 310 CMR 40.0310 - 40.0315)

4. 2 HOUR REPORTING CONDITIONS 5. 72 HOUR REPORTING CONDITIONS 6. 120 DAY REPORTING CONDITIONS

- a. Sudden Release
- b. Threat of Sudden Release
- c. Oil Sheen on Surface Water
- d. Poses Imminent Hazard
- e. Could Pose Imminent Hazard
- f. Release Detected in Private Well
- g. Release to Storm Drain
- h. Sanitary Sewer Release (Imminent Hazard Only)

- a. Subsurface Non-Aqueous Phase Liquid (NAPL) Equal to or Greater than 1/2 Inch
- b. Underground Storage Tank (UST) Release
- c. Threat of UST Release
- d. Release to Groundwater near Water Supply
- e. Release to Groundwater near School or Residence
- f. Substantially Released Material

- a. Release of Hazardous Material(s) to Soil or Groundwater Exceeding Reportable Concentration(s)
- b. Release of Oil to Soil Exceeding Reportable Concentration(s) and Affecting More than 2 Cubic Yards
- c. Release of Oil to Groundwater Exceeding Reportable Concentration(s)
- d. Subsurface Non-Aqueous Phase Liquid (NAPL) Equal to or Greater than 1/8 Inch and Less than 1/2 Inch

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JUL 18 2006

DEP

NORTHEAST REGIONAL OFFICE



Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC103

RELEASE NOTIFICATION & NOTIFICATION
RETRACTION FORM

Release Tracking Number

3 - 26058

Pursuant to 310 CMR 40.0335 and 310 CMR 40.0371 (Subpart C)

C. INFORMATION DESCRIBING THE RELEASE OR THREAT OF RELEASE (TOR): (cont.)

7. List below the Oils (O) or Hazardous Materials (HM) that exceed their Reportable Concentration (RC) or Reportable Quantity (RQ) by the greatest amount.

O or HM Released	CAS Number, If known	O or HM	Amount or Concentration	Units	RCs Exceeded, if Applicable (RCS-1, RCS-2, RCGW-1, RCGW-2)
Lead		O	1,700	MG/KG	RCS-1
EPH C11-C22 Aromatics		O	1,470	MG/KG	RCS-1
Assorted PAHs		HM			RCS-1
* (EG) Benzo(a)anthracene			26	PPM	

8. Check here if a list of additional Oil and Hazardous Materials subject to reporting is attached.

D. PERSON REQUIRED TO NOTIFY:

1. Check all that apply: a. change in contact name b. change of address c. change in the person notifying

2. Name of Organization: Somerville Auto Repair, Inc.

3. Contact First Name: George 4. Last Name: Eleftherakis

5. Street: 453 Somerville Avenue 6. Title: Operator

7. City/Town: Somerville 8. State: MA 9. ZIP Code: 02143-0000

10. Telephone: (617) 625-1779 11. Ext.: _____ 12. FAX: _____

13. Check here if attaching names and addresses of owners of properties affected by the Release or Threat of Release, other than an owner who is submitting this Release Notification (required).

E. RELATIONSHIP OF PERSON TO RELEASE OR THREAT OF RELEASE:

1. RP or PRP a. Owner b. Operator c. Generator d. Transporter

e. Other RP or PRP Specify: _____

2. Fiduciary, Secured Lender or Municipality with Exempt Status (as defined by M.G.L. c. 21E, s. 2)

3. Agency or Public Utility on a Right of Way (as defined by M.G.L. c. 21E, s. 5(j))

4. Any Other Person Otherwise Required to Notify Specify Relationship: _____

Revised: 06/27/2003

* Per phone conv. w/ Bill Hoyerman 12 50 7/18
one of several "assorted PAHs" (781-982 5776); Benzo(a)anthracene is
of the highest concentrations * EG
Page 2 of 3

**COLER &
COLANTONIO** INC
ENGINEERS AND SCIENTISTS

7 3-26058

453. SOMERVILLE AVE
SOMERVILLE

RECEIVED
SCANNED

JUL 18 2006

DEP
NORTHEAST REGIONAL OFFICE

July 17, 2006

Veena Nag
MADEP NERO
205B Lowell Street
Wilmington, MA 01887

RE: Release Notification Form
Somerville Auto Repair
Somerville, MA 02143

Dear Ms. Babroudi:

Per our conversation this morning, I am submitting the corrected (original) Release Notification Form (RNF) BWSC 103 to the MADEP NERO. This RNF is to replace the previously received form which identified an incorrect date of "knowledge of release" (3/15/06) for Section C; Item 2. Attached is a corrected copy of the RNF form which identifies the correct date of knowledge of release as 3/27/06.

We would appreciate if this amended original form be utilized and entered as correct. We apologize for our error and inconvenience for which it may have caused. Should you have any questions, please contact the undersigned at 781-792-2230.

Sincerely,

Coler & Colantonio, Inc.



Paul Iorio
Senior Project Manager



Fax Transmittal
978-694-3496
3 Pages

July 13, 2006

Ida Babroudi
MADEP NERO
205B Lowell Street
Wilmington, MA 01887

RE: Release Notification Form
Somerville Auto Repair
Somerville, MA 02143

Dear Ms. Babroudi:

Per our conversation this morning, we prepared and recently submitted a Release Notification Form (RNF) BWSC 103 to the MADEP NERO with an incorrect date of "knowledge of release" (3/15/06) for Section C; Item 2. This form will be received by the MADEP NERO Data Entry this week. Attached is a corrected copy of the RNF form which identifies the correct date of knowledge of release as 3/27/06.

As requested, we will submit an amended RNF form with original signature by the Responsible Party to be received by the MADEP NERO Data Entry by July 20, 2006. We would appreciate if this amended original form be utilized and entered as correct. We apologize for our error and inconvenience for which it may have caused. Should you have any questions, please contact the undersigned at 781-792-2230.

Sincerely,

Coler & Colantonio, Inc.

Paul Iorio
Senior Project Manager

**COLER &
COLANTONIO** INC.
ENGINEERS AND SCIENTISTS

July 12, 2006

Data Entry
MADEP-NERO
205B Lowell Street
Wilmington, MA 01887

RE: Release Notification Form
Somerville Auto Repair,
453 Somerville Avenue
Somerville, Massachusetts

Dear Sir or Madam:

On behalf of Somerville Auto Repair, Coler & Colantonio, Inc. has prepared the attached Release Notification Form for the above referenced Site.

Please contact us if you have any questions.

Sincerely,
Coler & Colantonio, Inc.



Paul Iorio
Senior Project Manager

RECEIVED

JUL 14 2006

DEP
NORTHEAST REGIONAL OFFICE



Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC103

RELEASE NOTIFICATION & NOTIFICATION
RETRACTION FORM

Release Tracking Number

3 - 26058

Pursuant to 310 CMR 40.0335 and 310 CMR 40.0371 (Subpart C)

F. CERTIFICATION OF PERSON REQUIRED TO NOTIFY:

1. I, George Eleftherakis, attest under the pains and penalties of perjury (i) that I have personally examined and am familiar with the information contained in this submittal, including any and all documents accompanying this transmittal form, (ii) that, based on my inquiry of those individuals immediately responsible for obtaining the information, the material information contained in this submittal is, to the best of my knowledge and belief, true, accurate and complete, and (iii) that I am fully authorized to make this attestation on behalf of the entity legally responsible for this submittal. I/the person or entity on whose behalf this submittal is made am/is aware that there are significant penalties, including, but not limited to, possible fines and imprisonment, for willfully submitting false, inaccurate, or incomplete information.

2. By: [Signature]
Signature

3. Title: Operator

4. For: George Eleftherakis
(Name of person or entity recorded in Section D)

5. Date: 7/14/06
mm/dd/yyyy

6. Check here if the address of the person providing certification is different from address recorded in Section D.

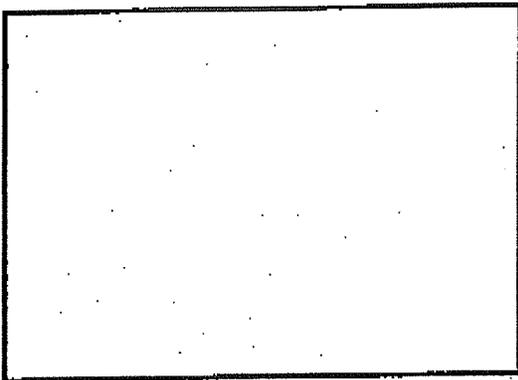
7. Street: _____

8. City/Town: _____ 9. State: _____ 10. ZIP Code: _____

11. Telephone: _____ 12. Ext: _____ 13. FAX: _____

YOU MUST LEGIBLY COMPLETE ALL RELEVANT SECTIONS OF THIS FORM OR DEP MAY RETURN THE DOCUMENT AS INCOMPLETE. IF YOU SUBMIT AN INCOMPLETE FORM, YOU MAY BE PENALIZED FOR MISSING A REQUIRED DEADLINE.

Date Stamp (DEP USE ONLY:)



F A X

**COLER &
COLANTONIO**
ENGINEERS AND SCIENTISTS

101 Accord Park Drive, Suite One
Norwell MA 02061-1685

To:

Company

Fax Number

Business Phone

From:

Fax Number

Business Phone

Date & Time:

Pages

Re

Hello Veena,

As mentioned, I previously emailed this letter to Ida. I will be sending the corrected RNF to you today by overnight mail. Sorry for the inconvenience.

Paul Iorio

3-26058

**COLER &
COLANTONIO**
ENGINEERS AND SCIENTISTS

RECEIVED

JUL 18 2006

DEP
NORTHEAST REGIONAL OFFICE

July 17, 2006

Veena Nag
MADEP NERO
205B Lowell Street
Wilmington, MA 01887

RE: Release Notification Form
Somerville Auto Repair
Somerville, MA 02143

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Sincerely,

Coler & Colantonio, Inc.



Paul Iorio
Senior Project Manager

**COLER &
COLANTONIO INC**
ENGINEERS AND SCIENTISTS

Fax Transmittal
978-694-3496
3 Pages

July 13, 2006

Ida Babroudi
MADEP NERO
205B Lowell Street
Wilmington, MA 01887

RE: Release Notification Form
Somerville Auto Repair
Somerville, MA 02143

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As requested, we will submit an amended RNF form with original signature by the Responsible Party to be received by the MADEP NERO Data Entry by July 20, 2006. We would appreciate if this amended original form be utilized and entered as correct. We apologize for our error and inconvenience for which it may have caused. Should you have any questions, please contact the undersigned at 781-792-2230.

Sincerely,

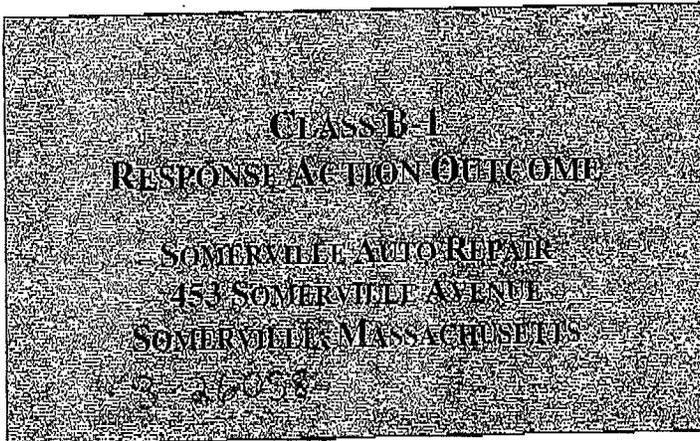
Coler & Colantonio, Inc.



Paul Iorio
Senior Project Manager

SCANNED 3

V/A



July 12, 2006

RECEIVED

Prepared for:

JUL 26 2006

DEP

George Eleftherakis
 Somerville Auto Repair, Inc.
 453 Somerville Avenue
 Somerville, Massachusetts 02143

NORTHEAST REGIONAL OFFICE

Prepared by:

Coler & Colantonio, Inc.
 101 Accord Park Drive
 Norwell, Massachusetts 02061-1685
 (781)-982-5400

Prepared by:

Glen A. Cote
Project Scientist

Reviewed by:

William Hoyerhan, P.G., LSP
Assistant Division Manager

Project No. 11-1252.01

TABLE OF CONTENTS

TABLE OF CONTENTS	1
1.0 INTRODUCTION	1
1.1 Background	1
1.2 Class of Response Action Outcome	2
1.3 Contents of the RAO Statement	2
1.4 Identification Of The Potentially Responsible Party	3
2.0 SITE DESCRIPTION	3
2.1 Applicable MADEP Reporting and Cleanup Categories	4
3.0 METHODOLOGIES	5
3.1 Soil Borings	5
3.2 Groundwater	5
4.0 FIELD DATA REVIEW	6
5.0 LABORATORY ANALYTICAL DATA REVIEW	6
5.1 Soil Analytical Data Review	6
5.2 Groundwater Analytical Data Review	8
6.0 IMMINENT HAZARD EVALUATION	8
7.0 RISK CHARACTERIZATION	8
7.1 Selection of Method for Risk Characterization	8
7.2 Method 3 Risk Characterization (Summary)	8
7.3 Site Hydrogeologic Characteristics	9
8.0 FEASIBILITY OF REMEDIATING TO BACKGROUND	10
9.0 ELIMINATION OF UNCONTROLLED SOURCES	11
10.0 NEED FOR OPERATION AND MAINTENANCE	12
11.0 ACTIVITY AND USE LIMITATION	12
12.0 AREA OF RAO	12
13.0 CERTIFICATION OF THE RESPONSE ACTION OUTCOME	12
14.0 PUBLIC NOTIFICATION ACTIVITIES	13

Figures

- Figure 1 Site Locus
- Figure 2 Site Plan/Area of RAO
- Figure 3 Resource Map

Tables

- Table 1 Summary of Soil Analytical Data
- Table 2 Summary of Soil Analytical Data - Lead
- Table 3 Summary of Exposure Point Concentrations

Appendices

- Appendix A Laboratory Analytical Reports
- Appendix B Soil Boring Logs
- Appendix C Method 3 Risk Characterization Report
- Appendix D Public Notification Letters
- Appendix E Copy of BWSC Transmittal Form
- Appendix F Statement of Limitations
- Appendix G Photos of Soil Samples with Coal & Slag
- Appendix H Data Usability - Quality Assurance

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1.0 INTRODUCTION

1.1 Background

Coler & Colantonio, Inc. (C&C) is submitting this Class B-1 Response Action Outcome (RAO) for the 120-day Reportable Condition detected during assessment activities at the property referenced as 453 Somerville Avenue, Somerville, Massachusetts ("Site"); see Figure 1-Site Locus. A release was detected following the collection and laboratory analysis of two soil samples (B-1/S-1 and B-5/S-1) that were collected in order to evaluate soil conditions at the property. A Bureau of Waste Site Cleanup Transmittal Form BWSC-103 Release Notification and Notification Retraction form was submitted to the Massachusetts Department of Environmental Protection (DEP) on July 12, 2006. Since this filing is being submitted before the 120-day notification period, no Release Tracking Number (RTN) has been assigned to the release.

In January 2006, Coler & Colantonio, Inc. completed initial due diligence type Site assessment activities and recommended the completion of a subsurface investigation due to current and historic Site usage. In March 2006, a total of six soil borings and one groundwater monitoring well were installed within the Site building and associated property; see Figure 2-SitePlan/Area of RAO. A total of five soil samples were collected and submitted for a variety of analysis and two samples (B-1/S-1 and B-5/S1) exhibited specific contaminant concentrations of lead, cadmium, and/or extractable petroleum hydrocarbons (EPHs) and target polycyclic aromatic hydrocarbons (PAHs) above applicable Reportable Concentrations (RCS-1). However, these compounds were determined to be indicative of urban fill due to the presence of brick fragments, slag, and coal/wood ash, and therefore are exempt from MADEP reporting requirements. Due to the presence of only minor perched water on confirmed ledge/bedrock, and minimal recharge, groundwater sampling was not performed.

The property consists of a small (approximately one tenth acre) property with a single story building and paved parking area. This area of Somerville was historically used for residential and commercial purposes dating back prior to at least 1900. Additionally, based on historic mapping, the subject Site property has been developed since at least 1884. Initially, a residential dwelling existed on the Site property from at least 1884 until the early 1900's, followed by a commercial/industrial facility up until the construction of the existing building in approximately 1930.

Laboratory analytical data, which is located in Appendix A, in conjunction with a Method 3 Risk Characterization, has documented that a condition of No Significant Risk (NSR) has been achieved at the Site. Although residual concentrations of EPHs, PAHs, lead, and cadmium exceed applicable Method 1 risk characterization standards, as provided in 310 CMR 40.0975(6)(a) and 40.0974, the Method 3 Risk Characterization, completed by LaGoy Risk Analysis, Inc. (LaGoy) of Hopkinton, Massachusetts has determined that the condition of NSR is appropriate. See Section 7.0 for a summary of the Method 3 Risk Characterization and the Method 3 Risk Characterization

report is included as Appendix C. The findings of the investigation conducted by Coler & Colantonio, Inc. indicate that a **Class B-1 RAO** has been achieved. Our findings are based on information obtained during the soil assessment activities. No remediation has occurred at the Site, and an Activity and Use Limitation (AUL) is not necessary to maintain a condition of No Significant Risk.

1.2 Class of Response Action Outcome

The License Site Professional (LSP) evaluation of the assessment activities and the laboratory analytical results presented here in the RAO Statement establish that no response actions are necessary to meet the requirements of a **Class B-1 RAO** pursuant to the MCP (310 CMR 40.1045). The data from the soil borings and risk characterization presented in this RAO establish that a permanent solution has been achieved relative to the Reportable Condition initially detected on March 15, 2006. No remedial activities have been performed at the Site and no further actions are required to maintain a level of No Significant Risk. Levels of lead, PAHs, and EPH's in proximity to Boring B-1 and B-5 at a depth of 0-5 feet below grade (b.g.) have not been reduced to background. Levels of PAHs and lead are attributed to urban fill, wood, and/or coal ash and are therefore exempt from MADEP reporting in accordance with 310 CMR 40.0317 (9). Refer to Appendix G for photographs of the coal, coal ash, and slag present in the soil samples. Although one EPH carbon fraction concentration in B-5 at a depth of 0-5 feet b.g. was detected above the Reportable Concentration for S-1 soils, the (average) EPH exposure point concentration (EPC) for all samples analyzed is below the applicable Method 1 S-1 Cleanup Standard (S-1/GW-2 & 3). The Method 3 Risk Characterization prepared by LaGoy documents that the residual levels of contaminants (EPH, PAHs, and metals) detected do not pose a risk to health, public welfare, safety or the environment and a Condition of No Significant Risk exists without remediation at the Site or an AUL and therefore, the RAO Class B-1 category is appropriate for the Site. This Method 3 Risk Characterization utilizes maximum concentrations detected for EPCs and not averages for all contaminants detected except for lead. A discussion of the feasibility of remediating to background is addressed in Section 8.0. Data Usability-Quality Assurance is in Appendix H.

1.3 Contents of the RAO Statement

In accordance with the Massachusetts Contingency Plan (310 CMR 40.1066) the Site has achieved a level of No Significant Risk within 120 days of the date of the RNF, therefore the submission of the \$1,200.00 RAO fee is waived.

This report is intended to provide sufficient data to support the RAO. The components of an RAO Statement, as outlined on 310 CMR 40.1056, include at a minimum:

- The disposal site name, address and DEP Release Tracking Numbers (as appropriate);
- The class of the RAO;

*Class B-1RAO Statement
July 12, 2006
Project # 11-1252.01*

*Somerville Auto Repair, Inc.,
453 Somerville Avenue
Somerville, MA*

*Prepared by: Coler & Colantonio, Inc.
Page 2 of 12*

- The MCP Method(s) used to characterize the risk of harm posed by the Site to health, public welfare and the environment, pursuant to 310 CMR 40.0900;
- The relationship of the RAO statement to any other RAO Statements that have been filed for the disposal site, if applicable, together with a statement as to whether any additional response actions are needed for any other portions of the disposal site;
- Indication as to whether the RAO is based upon the implementation of any AULs and if so, the type of AUL implemented at the disposal site;
- An Opinion from the LSP as to whether the requirements of the applicable class of RAO specified in 310 CMR 40.1000 have been met; and,
- A certification of the RAO Statement and all documents submitted with the RAO Statement as required by 310 CMR 40.0009.

1.4 Identification Of The Potentially Responsible Party

George Eleftherakis (Operator) has been identified as the Responsible Party for the release from historic fill material at the Site. The contact information for Somerville Auto Repair is as follows:

George Eleftherakis (Operator)
Somerville Auto Repair, Inc.
453 Somerville Avenue
Somerville, Massachusetts 02143
(617) 625-1779

Response Action Outcome (RAO) Transmittal Form is attached to the cover of the report submitted to the DEP NERO. As of this date, an RTN has not been assigned to the Reportable Condition.

2.0 SITE DESCRIPTION

The following description of current Site characteristics is based on information provided by municipal agencies, review of the *Boston North, Massachusetts Quadrangle* USGS 7.5 minute topographic map, Figure 1, and observations made by C&C, Inc. during Site inspections between December 2005 and March 2006.

The Site currently operates as Somerville Auto Repair. The Site parcel is rectangular shaped, and fronts Somerville Avenue. The Site is improved by a 1,300 square foot, one-story, concrete slab-on-grade, steel/masonry framed building constructed in approximately 1930. Apparently, the Site has operated primarily as an auto repair garage or auto body shop since at least 1937 and has been "grandfathered" as such, or for other non-conforming uses, since that date. Previously, the Site was occupied by an electrical (related) facility during the 1920's, and earlier. Prior to this period, a

residential dwelling was located on the Site since at least 1884. According to City of Somerville Assessor's mapping, the Site parcels contain 4,912 square feet of land. A variety of subsurface utilities are between the building and Somerville Avenue. The attached Figure 2 Site Plan depicts the present building configuration on the property, approximate utility locations, soil boring locations and identifies the Area of RAO.

2.1 Applicable MADEP Reporting and Cleanup Categories

Reporting Categories (RC's) determine the levels of OHM that require reporting to the MADEP and are based on different criteria than the MADEP Cleanup Standards.

Because the Site is located in a residential area and affected soil samples were collected within 500 feet of a residential dwelling, the Reporting Category for soils at the property is RCS-I.

According to the DEP Site Scoring Map (Mass GIS Priority Resources Map - Figure #3) for the Site, the Site is not located within a Zone II, Approved or Interim Wellhead Protection Area, surface water supply, or potentially productive aquifer. The Site is not located in a Current Drinking Water Source Area or a Potential Drinking Water Source Area, therefore, the RCGW-1 or the Method 1 GW-1 Cleanup Standard is not applicable.

The majority of the property, specifically areas of identified contaminant impact, are either beneath the Site building or within 30 feet of an occupied structure. Although groundwater samples were not retrievable from the one installed groundwater monitoring well due to minimal recharge on perceived ledge/bedrock, depth to groundwater is conservatively determined to be less than 15 feet b.g., therefore the GW-2 criteria is considered applicable. All groundwater in the Commonwealth has a potential to discharge to surface water. Therefore, the Method 1 Standards for GW- 3 are also applicable for the Site.

Soil cleanup objectives are partially based on groundwater categories. The criteria for determining which soil category or categories are applicable to the Site are identified in section 310 CMR 40.0933(4) of the MCP. Soil at a given site is classified as S-1, S-2, or S-3 based upon the potential for exposure to the impacted soils. Category S-1 is associated with the highest potential for exposure (most conservative or health protective) and Category S-3 is associated with the lowest potential for exposure. The Site is presumed to continue it's present usage as an auto repair facility or for commercial purposes; impacted soils are potentially accessible at a depth of between 0 and 5 feet b.g. beneath a paved surface, and; child's frequency and intensity of use are low. Therefore, the S-2 soil criteria could be considered, however, because institutional controls (Activity and Use Limitations) would be required for all soil cleanup standards, other than the S-1 standard, the S-1 soil criteria is currently applicable. Since the groundwater is classified as GW-2 and GW-3, the soils at the Site are compared to the S-1/GW-2 and S-1/GW-3 Method 1 Cleanup Standards.

3.0 METHODOLOGIES

3.1 Soil Borings

3.2

On March 6, 2006, C&C advanced six borings (B-1, B-2, B-3, B-4, B-5 and B-6) at the Site using a direct push (GeoProbeTM) track drill rig with a five-foot long, two-inch diameter macro core sampler. Soil boring locations are depicted on Figure 2 – Site Plan/Area of RAO. Continuous samples were collected from all six borings to refusal. Soil samples were evaluated for indications (i.e., olfactory, visual,) of the potential presence of contamination.

Soil samples were field screened utilizing a Thermo[®] Photo Ionization Detector (PID) equipped with a 10.6 lamp and calibrated to read as benzene. Soil types were described and samples were collected in appropriate containers for the intended analysis. Headspace testing was completed in accordance with MADEP Protocol for every five-foot core sample. Field data accumulated during this investigation has been summarized for each soil boring in Appendix B - Soil Boring Logs.

Soil samples were collected for laboratory analyses in order to better determine potential impact of oil or hazardous material (OHM) and provide information for soil disposal or on site re-use. Samples were collected for laboratory analysis and placed directly into pre-cleaned laboratory grade glass containers in accordance with appropriate MADEP methodology (*Implementation of the MADEP VPH/EPH Approach – Final Policy October 31, 2002*).

3.2 Groundwater

Coler & Colantonio, Inc. attempted to install groundwater monitoring wells at the Site, however, due to drill refusal on perceived ledge/bedrock, only one well was installed at B-5, located beneath the footprint of the building. The well (CC-1) was constructed of 1.5-inch diameter PVC with a ten-foot well screen to a depth of 13 feet b.g., which was refusal; water was identified at 12.5 feet b.g.. Sand pack was placed between the well screen and the annular space of the borehole to minimize sediment collecting within the well. The well was finished with a flush mount well cover. Due to minimal groundwater collection at the time of installation with less than six inches of standing water present, no purging was performed.

On March 10, 2006, Coler & Colantonio returned to the Site to attempt to collect a groundwater sample from CC-1. Groundwater did not recharge the well after initial purging therefore sample collection was not performed nor feasible. Coler & Colantonio, Inc. believes that the groundwater encountered was a small pocket of perched groundwater above the bedrock, and not representative of the groundwater aquifer.

4.0 FIELD DATA REVIEW

Soil borings at the Site encountered urban fill material from surface grade to approximately five feet b.g. The fill material was composed of a variety of materials including, brick fragments, ash, coal, and slag. Shallow fill samples contained 15-40% coal & steel slag fragments between 0.25 & 1 centimeter in diameter. Refer to Appendix G for photographs of the coal, coal ash, and slag present in the soil samples. At depths beyond five feet brown to yellow fine to coarse grained sand with low levels of gravel were encountered. It is not certain if the soils encountered beyond five feet in depth were native soils that had been reworked or soils from other locations. At boring B-5 silty soils were observed from ten to 12.5 feet in depth.

Headspace test results did not detect measurable concentrations of total organic vapors (TOVs) greater than 2.0 parts per million volumetric (ppmv) at all soil borings locations, and considered to be consistent with background levels in the fill materials. Pieces of brick, coal and ash type materials were visually observed in many of the soil samples collected. Refer to Appendix G for photographs of the coal, coal ash, and slag present in the soil samples. No odors consistent with potential OHM was observed in any of the soil samples recovered.

5.0 LABORATORY ANALYTICAL DATA REVIEW

Soil samples were submitted for a variety of parameters in order to better determine whether the Site was impacted by OHM and to determine if background levels of fill material were present.

Laboratory analytical results have been tabulated for soils as Table 1; Table 2 tabulates soil data for lead and it's calculated exposure point concentrations (EPCs), and Table 3 calculates the EPCs for all other compounds other. Comparable and EPCs are also tabulated. These results were compared to applicable Reportable Concentrations and background levels for fill materials. Since a Method 3 Risk Characterization was completed, Method 1 Cleanup Standards have not been tabulated. Copies of the complete laboratory data are included as Appendix A.

5.1 Soil Analytical Data Review

Five composite soil samples (B-1 (0-5'), B-4 (0-5'), B-5 (0-5'), B-5(10-15') and B-6(0-5')) were selected based upon location and visual fill material and analyzed for EPHs, target PAHs, RCRA 8 total metals, and or polychlorinated biphenyls (PCBs).

In B-5 (0-5'), this analysis detected levels of EPH carbon fraction (C₁₁-C₂₂ aromatics) of 1,470 milligrams per kilograms (mg/kg) which is above the applicable RCS-1 standard of 200 mg/kg but below the S-2/GW-2/GW-3 Cleanup Standard of 2,000 mg/kg. The EPH carbon fraction concentrations for samples B-1/S-1 and B-5/S-1 are not detected EPH above the RCS-1 value. The EPC for the C₁₁-C₂₂ aromatics was 548 mg/kg, which is below the applicable Method 1 S-1/GW-2/GW-3 Standard of 800 mg/kg. Sample B-5 (10-15') was collected beneath B-5 (1-5') and no

EPH carbon fractions or PAHs were detected above the laboratory detection limits (DLs) This documents that the extent of elevated EPH carbon fractions are limited to the shallow fill type soils (0-5'). No odors or elevated head space test readings were noted from either sample, nonetheless the highest EPH carbon fraction concentration detected at the Site was utilized as an EPC for the Method 3 Risk Characterization. These same samples were submitted for PAH compounds. Specific PAH compounds above RCS-1 standards and background levels for fill material were detected in both B-1 (0-5') and B-5 (0-5'). However, these compounds are typical constituents of the coal and coal ash that were observed in the fill materials. The Method 3 Risk Characterization evaluates the risk associated with these PAHs based using the highest concentration detected. As discussed in Section 7.0 and the appended Method 3 Risk Characterization documentation, these compounds are exempt from DEP reporting requirements. The visual observations of multiple granular pieces of slag and coal fragments in the fill materials, lack of significant head space test readings and olfactory evidence of impact all indicate that the petroleum contaminants detected are associated with the urban fill.

Six composite soil samples from surface grade to five feet b.g. were submitted for lead analysis. A concentration of lead at 870 mg/kg was detected in B-1 (0-5'), which was above the applicable RCS-1 standard, and S-1/GW-2/GW-3 Cleanup Standard of 300 mg/kg. Due to this elevated concentration, the sample was re-analyzed to document the accuracy of the analysis, the second analysis detected a concentration of 1,700 mg/kg. Due to the elevated lead concentrations in the soil and in an effort to verify that the lead concentrations are a background condition for the Site, Coler & Colantonio, Inc. submitted sample B-2/S-1 and B-3/S-1 for lead analyses. The laboratory data indicated that lead concentrations are present in the samples above the laboratory DLs, although below the applicable Method 1 cleanup standards.

The variation of the lead concentrations in the samples indicates that the elevated levels of lead are likely associated with fill material. Please note that only sample B-1/S-1 have lead concentrations above the S-1 Method 1 Standard of 300 mg/Kg. EPCs for lead were calculated multiple ways: averaging both analysis results from B-1 (0-5') and then averaging all other samples resulting in a EPC of 335 mg/Kg; averaging all samples resulting in a EPC of 471 mg/Kg; and averaging all samples excepting the reanalysis for lead resulting in a EPC of 266 mg/Kg. The conservative (health protective) estimate for EPCs of 335 mg/Kg was utilized for the Method 3 Risk Characterization.

Four composite soil samples from surface grade to five feet b.g. were also submitted for cadmium analysis. A concentration of cadmium at 10 mg/kg was detected in B-1/S-1 (0-5'), which was above the applicable RCS-1 standard, and S-1/GW-2/GW-3 Cleanup Standard of 2 mg/kg. The EPC for cadmium was calculated to be 2.88 mg/Kg, which is above the applicable Method 1 cleanup standards of 2 mg/kg. As discussed in Section 7.0, cadmium is present naturally in soils at concentrations that exceed the urban fill concentrations and may be present due to steel slag, coal and coal ash. The Method 3 Risk Characterization addresses the elevated levels of cadmium and documents that the cadmium concentration does not pose as a Significant Risk of Harm to Human Health at the Site at these concentrations.

5.2 Groundwater Analytical Data Review

As previously stated, groundwater samples were not collected due to either refusal prior to encountering apparent groundwater, or minimal infiltration/recovery. The water encountered is not believed to be the groundwater aquifer. Soil sampling at B-5 only detected contaminants in the shallow (0-5') soils and no EPH Carbon fractions or PAHs were detected at depth (10-15') indicating that impact is isolated to the shallow fill materials, and therefore impact of groundwater by contaminants is not anticipated.

6.0 IMMINENT HAZARD EVALUATION

In accordance with 310 CMR 40.0426 and 40.0950, conditions at the Site were continually evaluated to assess whether they posed or could pose an Imminent Hazard to human health, safety, public welfare or the environment as described in 310 CMR 40.0321 and 40.0950. This evaluation was based on the type of contaminant release, the frequency and intensity of use of the Site by adults and children, and the nature of the surrounding potential receptors. Based on Site research, field observations, field screening results and laboratory analytical results, at no time were Site conditions determined to pose or potentially pose an Imminent Hazard, as defined.

7.0 RISK CHARACTERIZATION

7.1 Selection of Method for Risk Characterization

Due to the presence of one or more contaminants above applicable Method 1 Cleanup Standards, a Method 3 Risk Characterization was completed to identify and characterize the risk to health, public welfare, and the environment. Peter LaGoy, of LaGoy Risk Analysis, Inc., completed the Method 3 Risk Characterization. A summary of the results of the Method 3 Risk Characterization follows in Section 7.2, the complete report and tabulated data is included as Appendix C.

Additionally, Method 1 Cleanup Standards, as outlined in 310 CMR 40.0970, were utilized for comparative purposes prior to completing the Method 3 Risk Characterization. Many contaminants were detected below applicable Method 1 Standards. Based on the available analytical information regarding Site conditions, the contamination at the Site is limited to soil. The Method 3 Risk Characterization was completed for all contaminants detected.

7.2 Method 3 Risk Characterization (Summary)

A Method 3 Risk Characterization was prepared by LaGoy that documents the residual levels of contaminants (EPH, PAHs, and metals) detected do not pose a risk to health, public welfare, safety

or the environment and a Condition of No Significant Risk exists without remediation at the Site or an AUL therefore, the RAO Class B-1 category is appropriate for the Site. This Method 3 Risk Characterization utilizes maximum concentrations detected for EPCs and not averages for all contaminants detected except for lead, where EPCs were utilized. A discussion of the feasibility of remediating to background is addressed in Section 8.0, the complete Method 3 Risk Characterization is included in Appendix C.

Risks to human health associated with the residual constituents present in soil at the Site were characterized using standard risk assessment procedures as developed by the USEPA and MADEP. In order to ensure that public health is adequately protected, conservative (unlikely to underestimate risk) assumptions were used in deriving both the exposure estimate and the toxicity values. Because of the use of these conservative (although not necessarily worst case) assumptions, it is likely that the actual potential for non-cancer and cancer risks is even lower than estimated in this report.

A condition of no significant risk of harm to human health exists as PAHs are present, however, at concentrations that are consistent with background for urban fill soil with evidence of coal and ash and by definition does not pose a significant risk. Metals can be present in soil naturally or as a result of release from anthropogenic sources. Natural metal concentrations are variable across Massachusetts. Barium, cadmium, lead, and selenium were present in soils at concentrations that exceed the urban fill concentrations. These metals were evaluated through the risk characterization as Site-related constituents. Additionally, it should be noted, that all may be present as a result of the presence of coal in the samples. Consequently, a condition of No Significant Risk of Harm to Human Health has been achieved at the Site.

A Stage 1 Environmental Screening was conducted to evaluate risks to ecological receptors at the site. For soils, the urban nature of the area and the paved condition of the site should limit the potential for adverse effects to terrestrial organisms. The nature of the chemicals at the Site, the limited groundwater detected, and the distance to an possible receptors indicate that the site is unlikely to pose a risk to aquatic receptors, and, a level of No Significant Risk to the Environment exists at the Site for current and for future conditions.

Risks to public welfare and safety were evaluated separately. The residual constituents in soil and groundwater are considered unlikely to pose a nuisance risk to workers or residents and are below upper concentration limits (UCLs). Therefore, a Condition of No Significant Risk to Public Welfare is considered to exist at the Site for current and for future conditions. Finally, consideration of chemical characteristics and behavior indicate that the residual chemicals will not pose a risk to safety and a Condition of No Significant Risk to Safety exists at the site.

7.3 Site Hydrogeologic Characteristics

Observations of the Site geology have been made during the subsurface activities. The general Site geology consists of an upper layer (0-5' b.g.) of urban fill material over what are believed to be

native materials. These native materials consist of fine to coarse sands and silts, with some gravel and pebbles. Refusal on competent material was encountered at depths between approximately 10 and 13 feet b.g.

Wet soils or substantial groundwater was not identified prior to encountering drill refusal. Debris primarily consisting of brick fragments, slag, coal, and coal ash were encountered beneath the concrete slab or asphalt surface and five feet b.g. Refer to Appendix G for photographs of the coal, coal ash, and slag present in the soil samples. Based on topography only, the inferred direction of groundwater flow is to the south.

8.0 FEASIBILITY OF REMEDIATING TO BACKGROUND

An evaluation of the feasibility of remediating to background concentrations is required to support a Class B-1 RAO, pursuant to 310 CMR 40.1020(3) and 40.0860. This evaluation has been conducted in accordance with DEP Policy #WSC-04-160, Conducting Feasibility Evaluations under the MCP. The stated policy includes Conditions for Categorical Feasibility and Conditions for Categorical Infeasibility, which were reviewed to determine if the Site fell into one or the other of those categories. If conditions at the Site are either categorically feasible or categorically infeasible to achieve background, a site-specific feasibility evaluation would not be required.

Categorical Feasibility

Section 9.3.1 of the above reference policy states in part that ...

"it is DEP's position that it is feasible to achieve background at a site where a condition of NSR [no significant risk] has been reached, the remaining contamination is limited to 20 cubic yards or less of soil contaminated solely by petroleum products, and where such soil:

- is located less than three feet below the ground surface
- is not covered by pavement or permanent structure;
- is not located within a sensitive environment (e.g., wetlands); and
- is not located in an area where removal activities will substantially interrupt public service or threaten public safety."

Categorical Infeasibility

Section 9.3.2 of the above referenced policy states in part that ...

"remedial actions to achieve or approach background may be considered to be categorically infeasible, i.e., the incremental cost of conducting a remedial action would be substantial and almost always disproportionate to the incremental benefit or risk reduction. In these cases, documentation that disposal site conditions are consistent with the criteria provided in any one (emphasis added) of the subsections of 9.3.2 below would be sufficient to support a conclusion that achieving or approaching background is not feasible."

Determination

Class B-1RAO Statement
July 12, 2006
Project # 11-1252.01

Somerville Auto Repair, Inc.,
453 Somerville Avenue
Somerville, MA

Prepared by: Coler & Colantonio, Inc.
Page 10 of 12

Table 9-1 of the policy indicates that the petroleum compounds found at the Site are degradable/nonpersistent metals (lead) however is a persistent contaminant. Therefore, the Site conditions are consistent with the criteria provided in Subsection 9.3.2.4 Remediation of Persistent Contaminants Located in S-2 and S-3 Soils. Since the elevated concentrations of lead are located within the footprint of the Site building, the widespread presence of these contaminants is associated with fill material across the Site and likely a regional area well beyond the property boundaries, the criteria of Subsection 9.3.3.1 are met. The area with residual EPH impact is also located within the footprint of the building, a permanent structure. Residual levels of lead and PAHs typical of urban fill materials were detected under the paved portion of the property therefore the criteria for Subsection 9.3.3.1 is met for these constituents.

In order to remediate to background, removal of the soil would be the most efficient remedial technique. The feasibility analysis focused on the low levels of impact detected from the samples collected from the six soil borings. Based upon the analytical results and EPC analysis which revealed samples to be below applicable S-2 (GW-2 and GW-3) soil standards, the feasibility analysis resulted in a conclusion that excavation of the area to reduce concentrations of contaminants associated with past usage, urban fill material, and building demolition is technically feasible, but not cost-effective. Cost-effectiveness is a criteria included in the feasibility analysis, pursuant to 310 CMR 40.0860(4) and 40.0860(6). Excavation is projected to have no significant impact on the reduction of risk to health, safety, and the environment, since a Method 3 Risk Characterization has documented a Condition of No Significant Risk. The expense and risks to human safety associated with mobilization and excavation of soil is deemed to be cost-prohibitive. Excavation would be anticipated to result in a marginal reduction in risk; remediation of these concentrations of PAHs and metals using in-situ remedial techniques would be of questionable efficacy, and also cost-prohibitive. The feasibility evaluation demonstrates that the costs of achieving background concentrations is disproportionate to the incremental benefit of risk reduction and environmental restoration in an area which would be expected to be impacted by similar concentrations from urban fill.

Thus, it can be concluded that the residual impacts remaining at the Site are categorically infeasible for achieving or are background levels associated with urban fill. In conclusion, a site-specific evaluation is not deemed warranted or required.

9.0 ELIMINATION OF UNCONTROLLED SOURCES

Based upon PID screening, analytical results, and field observations at the time of the assessment, concentrations of petroleum-related compounds, metals and PAHs in soil remain at the Site. Excepting for fill material related to historic Site usage or development, no specific source of contamination has been identified and therefore cannot be eliminated. No documented evidence suggesting the possibility of any additional uncontrolled sources or a Substantial Release Migration condition at the Site has been found during the course of the Assessment Activities. Neither field observations nor PID readings from soil sampled in the borings at the Site indicate the presence of

release related elevated concentrations of any of the compounds that were analyzed. This indicates that no uncontrolled source exists at the Site.

10.0 NEED FOR OPERATION AND MAINTENANCE

Since the RAO Statement is not contingent on the implementation of on-Site treatment or recovery systems, and a Method 3 Risk Characterization has documented a Condition of No Significant Risk, Operation and Maintenance protocol at the Site is not warranted.

11.0 ACTIVITY AND USE LIMITATION

The Site meets the criteria of No Significant Risk during any foreseeable time, as defined by 310 CMR 40.1005, the Method 3 Risk Characterization has documented that the concentrations of residual contaminants in the fill materials do not represent a condition of significant risk without an Activity and Use Limitation and therefore, this Site meets the requirements of a Class B-1 RAO.

12.0 AREA of RAO

The area applicable to this RAO is described as the rectangular portion of the rear of the property (approximately 50 feet by 90 feet) that was assessed as defined in the attached Figure 2. Based on the information gathered regarding the historic usage of the property, all indications suggest that the area of the property adjacent to Somerville Avenue (the area not included in the RAO) would have similar, or lower, concentrations of residual contaminants than the rear portion (the Area of RAO). However, since this portion of the property was not accessed due to underground utility lines, See photos Appendix G we cannot make any representation in that regard therefore it is not included in the Area of RAO. This Class B-1 RAO pertains to constituents EPH Carbon Fractions, PAHs, and lead located in the fill materials at the Site.

13.0 CERTIFICATION OF THE RESPONSE ACTION OUTCOME

The LSP of record is of the professional opinion that a Class B-1 Response Action Outcome Statement can be issued according to the determination of No Significant Risk at the Site. The No Significant Risk determination is based upon the results of the Method 3 Risk Characterization for soil contaminant concentrations with respect to EPH Carbon Fraction C₁₁-C₂₂ Aromatics, metals and PAHs which are above Method 1 cleanup standards as documented in this RAO Statement.

It is the opinion of the LSP that the exposure point concentrations have been effectively assessed and evaluated and that condition quoted above is met at the Site. Please refer to the attached Bureau of Waste Site Cleanup Transmittal Form BWSC-104 for the certification of the LSP and the "Person Making Submittal". Copies of both the BWSC-104 - RAO Statement form, and BWSC-103 Release Notification and Notification Retraction form are included as Appendix E.

14.0 PUBLIC NOTIFICATION ACTIVITIES

Public involvement activities at the disposal Site have not been required to date because the release was not performed to address an Imminent Hazard condition. However, in accordance with 310 CMR 40.1403(3) (f), required public involvement activities at the Site include notification to the Somerville Board of Health and the Town Manager of the availability of the RAO Statement. A copy of this notification letter is included in Appendix D and will be sent to the Board of Health and the Town Manager at the time of the submittal of this RAO.