

**TIER CLASSIFICATION  
[310 CMR 40.0510]**

**ATF DAVIDSON  
1 MAIN STREET  
WHITINSVILLE, MASSACHUSETTS**

**RTN 2-0111**

**MARCH 1997**

**PREPARED BY**

**NEAL M. DRAWAS, LSP  
KROLL ASSOCIATES, INC.  
900 THIRD AVENUE  
NEW YORK, NEW YORK 10022**





BH

gtr 4/3/97

**TIER CLASSIFICATION, TIER II EXTENSION &  
TIER II TRANSFER TRANSMITTAL FORM**

Release Tracking Number

2 - 0000111

Pursuant to 310 CMR 40.0510 and 40.0560 (Subpart E)

**A. DISPOSAL SITE LOCATION:**

Disposal Site Name: ATF Davidson

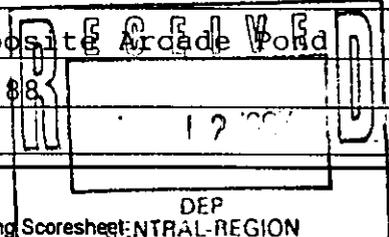
Street: 355 Main Street

Location Aid: opposite Arcade Wood

City/Town: Northbridge

ZIP Code: 01585

Related Release Tracking Numbers That This Submittal Will Address:



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

- Submit a new or revised Tier Classification Submittal for a Tier I Site, including a Numerical Ranking Scoresheet (complete Sections A, B, C, I, J, K and L).
- Submit a new or revised Tier Classification Submittal for a Tier II Site, including a Numerical Ranking Scoresheet (complete Sections A, B, C, F, G, I, J, K and L).
- Submit a Notice that an additional Release Tracking Number(s) is (are) being linked to this Tier Classified Site and rescoring is not required at this time (complete Sections A, B, J, K and L). If this submittal is for a Tier I Site, you must also submit a Minor Permit Modification Transmittal Form (BWSC-109).
- List Additional Release Tracking Number(s): \_\_\_\_\_
- Submit a Phase I Completion Statement supporting a Tier Classification Submittal (complete Sections A, B, I, J, K and L).
- Submit a Tier II Extension Submittal for Response Actions at a Tier II Site (complete Sections A, B, D, F, G, I, J, K and L).
- Submit a Tier II Extension Submittal for Response Actions taken after expiration of a Waiver, pursuant to 310 CMR 40.0630(4) (complete Sections A, B, D, F, J, K and L, and also complete Sections G and I or Section H).\*
- Submit a Tier II Transfer Submittal for a change in person(s) undertaking Response Actions at a Tier II Site (complete Sections A, B, E, F, G, I, J, K, L, M, N and O).
- Submit a Tier II Transfer Submittal for a change in person(s) undertaking Response Actions at a Waiver Site, pursuant to 310 CMR 40.0630(6) (complete Sections A, B, E, F, J, K, L, M, N and O, and also complete Sections G and I or Section H).\*

You must attach all supporting documentation required for each use of form indicated, including copies of any Legal Notices and Notices to Public Officials required by 310 CMR 40.1400.

\*NOTE: The Waiver expires on the effective date of this submittal and all further Response Actions must be taken as a Tier II Site.

**C. TIER CLASSIFICATION SUBMITTAL:**

Numerical Ranking Score for Disposal Site: (from Numerical Ranking Scoresheet) 216

Proposed Tier Classification of Disposal Site: (check one)  Tier IA  Tier IB  Tier IC  Tier II

Check which, if any, of the Tier I inclusionary criteria are met by the Disposal Site, pursuant to 310 CMR 40.0520:

- Groundwater is located within an Interim Wellhead Protection Area or a Zone II, and there is evidence of groundwater contamination by an Oil or Hazardous Material at the time of Tier Classification at concentrations equal to or exceeding the applicable RCGW-1 Reportable Concentration set forth in 310 CMR 40.0360.
- An Imminent Hazard is present at the time of Tier Classification.
- Check here if this Tier Classification revises a previous submittal for this Disposal Site. You must include a revised Numerical Ranking Scoresheet with this submittal. If a Tier I Permit has been issued, you may also need to submit a Major Permit Modification Application (BWSC 10).

If incorporating additional Release(s) into the Disposal Site, list Release Tracking Number(s): \_\_\_\_\_

**D. TIER II EXTENSION SUBMITTAL REQUIREMENTS:**

State the expiration date of the Tier II Classification or Waiver for the Disposal Site, whichever is applicable: \_\_\_\_\_

Attach a statement summarizing why a Permanent or Temporary Solution has not been achieved at the Disposal Site. A Tier II Extension is effective for a period of one year beyond the current expiration date of the Tier II Classification or Waiver.

**E. TIER II TRANSFER SUBMITTAL REQUIREMENTS:**

State the proposed effective date of the change in person(s) undertaking Response Actions at the Disposal Site: \_\_\_\_\_

Attach a statement summarizing the reasons for the proposed change in person(s) undertaking the Response Actions. All Response Actions must be completed by the deadline applicable to the person who first filed either a Tier Classification Submittal for the Disposal Site or received a Waiver of Approvals.



**TIER CLASSIFICATION, TIER II EXTENSION &  
TIER II TRANSFER TRANSMITTAL FORM**  
Pursuant to 310 CMR 40.0510 and 40.0560 (Subpart E)

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**F. DISPOSAL SITE COMPLIANCE HISTORY SUMMARY:**

- > If providing either a Tier Classification Submittal for a Tier II Site or a Tier II Extension Submittal for a Waiver Site, the person named in Section J must provide a Compliance History.
- > If providing a Tier II Extension Submittal for a Tier II Site, the person named in Section J must update their Compliance History since the effective date of the Tier II Classification.
- > If providing a Tier II Transfer Submittal for a Tier II or Waiver Site, the person named in Section M must provide a Compliance History.

Compliance History for (provide only one name per History): \_\_\_\_\_

Check here if there has been no change to the Compliance History of the person named above (Extension Submittal for a Tier II Site ONLY).

List all permits or licenses that have been issued by the Department that are relevant to this Disposal Site:

PROGRAM:	PERMIT NUMBER:	PERMIT CATEGORY:	FACILITY ID:
Air Quality	_____	_____	_____
Hazardous Waste (M.G.L. c. 21C)	_____	_____	_____
Solid Waste	_____	_____	_____
Industrial Wastewater Management	_____	_____	_____
Water Supply	_____	_____	_____
Water Pollution Control/Surface Water	_____	_____	_____
Water Pollution Control/Groundwater	_____	_____	_____
Water Pollution Control/Sewer Connection	_____	_____	_____
Wetland & Waterways	_____	_____	_____

List all other Federal, state or local permits, licenses, certifications, registrations, variances, or approvals that are relevant to this Disposal Site:

ISSUING AUTHORITY OR PROGRAM, OR DOCUMENTATION TYPE:	IDENTIFICATION NUMBER:	DATE ISSUED:
_____	_____	_____
_____	_____	_____
_____	_____	_____

If needed, attach to this Transmittal Form a statement further describing the Compliance History of this Disposal Site. This statement must describe the compliance history of the person named above with the following:

- (1) DEP regulations; and
- (2) other laws for the protection of health, safety, public welfare and the environment administered or enforced by any other government agency.

Such a statement should identify information such as:

- (1) actions relevant to the Disposal Site taken by the Department to enforce its requirements including, but not limited to, a Notice of Noncompliance (NON), Notice of Intent to Assess Civil Administrative Penalty (PAN), Notice of Intent to Take Response Action (NORA), and an administrative enforcement order;
- (2) administrative consent orders;
- (3) judicial consent judgements;
- (4) similar administrative actions taken by other Federal, state or local agencies;
- (5) civil or criminal actions relevant to the Disposal Site brought on behalf of the DEP or other Federal, state, or local agencies; and
- (6) any additional relevant information.

For each action identified, provide the following information:

- (1) name of the issuing authority, type of action, identification number and date issued;
- (2) description of noncompliance cited;
- (3) current status of the matter; and
- (4) final disposition, if any.



**TIER CLASSIFICATION, TIER II EXTENSION &  
TIER II TRANSFER TRANSMITTAL FORM**

Pursuant to 310 CMR 40.0510 and 40.0560 (Subpart E)

Release Tracking Number

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**G. CERTIFICATION OF ABILITY AND WILLINGNESS:**

- > If providing either a Tier II Classification Submittal or a Tier II Extension Submittal, the person who signs this certification **MUST** be the person named in Section J, or that person's agent.
- > If providing a Tier II Transfer Submittal, the person who signs this certification **MUST** be the person named in Section M, or that person's agent.

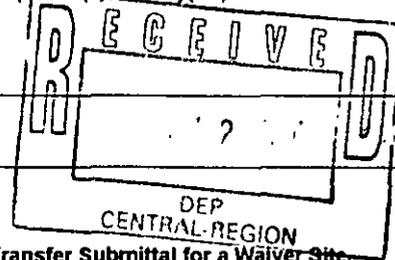
I attest under the pains and penalties of perjury that (i) I/the person(s) or entity(ies) on whose behalf this submittal is made has/have personally examined and am/vis familiar with the requirements of M.G.L. c. 21E and 310 CMR 40.0000; (ii) based upon my inquiry of the/those Licensed Site Professional(s) employed or engaged to render Professional Services for the disposal site which is the subject of this Transmittal Form and of the person(s) or entity(ies) on whose behalf this submittal is made, and my/that person's(s') or entity's(ies') understanding as to the estimated costs of necessary response actions, that/those person(s) or entity(ies) has/have the technical, financial and legal ability to proceed with response actions for such site in accordance with M.G.L. c. 21E, 310 CMR 40.0000 and other applicable requirements; and (iii) that I am fully authorized to make this attestation on behalf of the person(s) or entity(ies) legally responsible for this submittal. I/the person(s) or entity(ies) on whose behalf this submittal is made is aware of the requirements in 310 CMR 40.0172 for notifying the Department in the event that I/the person(s) or entity(ies) on whose behalf this submittal is made learn(s) that it/they is/are unable to proceed with the necessary response actions.

By: \_\_\_\_\_  
(signature)

For: \_\_\_\_\_  
(print name of person or entity recorded in Section J or M, as appropriate)

Title: \_\_\_\_\_

Date: \_\_\_\_\_



**If you are submitting either a Tier II Extension Submittal for a Waiver Site or a Tier II Transfer Submittal for a Waiver Site, you may choose to sign the alternative Ability and Willingness Certification found in Section H in place of providing the certification in Section G and the LSP Opinion in Section I.**

**H. ALTERNATIVE CERTIFICATION OF ABILITY AND WILLINGNESS:**

- > If providing a Tier II Extension Submittal for a Waiver Site, the person who signs this certification **MUST** be the person named in Section J, or that person's agent
- > If providing a Tier II Transfer Submittal for a Waiver Site, the person who signs this certification **MUST** be the person named in Section M, or that person's agent.

I attest under the pains and penalties of perjury that (i) I/the person(s) or entity(ies) on whose behalf this submittal is made has/have personally examined and am/vis familiar with the requirements of M.G.L. c. 21E and 310 CMR 40.0000; (ii) based upon my inquiry of the Consultant-of-Record for the disposal site which is the subject of this Transmittal Form and of the person(s) or entity(ies) on whose behalf this submittal is made, and my/that person's(s') or entity's(ies') understanding as to the estimated costs of necessary response actions, that/those person(s) or entity(ies) has/have the technical, financial and legal ability to proceed with response actions for such site in accordance with M.G.L. c. 21E, 310 CMR 40.0000 and other applicable requirements; and (iii) that I am fully authorized to make this attestation on behalf of the person(s) or entity(ies) legally responsible for this submittal. I/the person(s) or entity(ies) on whose behalf this submittal is made is aware of the requirements in 310 CMR 40.0172 for notifying the Department in the event that I/the person(s) or entity(ies) on whose behalf this submittal is made learn(s) that it/they is/are unable to proceed with the necessary response actions.

By: \_\_\_\_\_  
(signature)

For: \_\_\_\_\_  
(print name of person or entity recorded in Section J or M, as appropriate)

Title: \_\_\_\_\_

Date: \_\_\_\_\_

**I. LSP OPINION:**

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 (iii) the provisions of 309 CMR 4.03(5), to the best of my knowledge, information and belief,

> if Section B of this form indicates that a Tier I or Tier II Classification Submittal which relies upon a previously submitted Phase I Completion Statement is being submitted, this Tier Classification Submittal has been developed in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000;

> if Section B of this form indicates that a Phase I Completion Statement or a Tier I or Tier II Classification Submittal which does not rely upon a previously submitted Phase I Completion Statement is being submitted, 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) complies(y) with the identified provisions of all orders, permits, and approvals identified in this submittal;

SECTION I IS CONTINUED ON THE NEXT PAGE



**TIER CLASSIFICATION, TIER II EXTENSION &  
TIER II TRANSFER TRANSMITTAL FORM**  
Pursuant to 310 CMR 40.0510 and 40.0560 (Subpart E)

Release Tracking Number

2 - 0000111

**I. LSP OPINION: (continued)**

> if Section B of this form indicates that a Tier II Extension Submittal or a Tier II Transfer Submittal is being submitted, the response action(s) that is (are) the subject of this submittal (i) is (are) being 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) complies(y) 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.

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 of the order(s).

LSP Name: Neal m. Drawas LSP #: 9844 Stamp:

Telephone: 508-443-1833 Ext.: \_\_\_\_\_

FAX: (optional) 508-443-1929

Signature: *Neal M. Drawas*

Date: March 7, 1997



**J. PERSON MAKING SUBMITTAL:**

Name of Organization: Arcade Realty Trust

Name of Contact: Leonard Jolles Title: Property Mgr.

Street: 1 Main Street

City/Town: Whitinsville (Northbridge) State: MA ZIP Code: 01588

Telephone: 508-234-6301 Ext.: \_\_\_\_\_ FAX: (optional) \_\_\_\_\_

**K. RELATIONSHIP TO DISPOSAL SITE OF PERSON MAKING SUBMITTAL: (check one)**

RP or PRP Specify:  Owner  Operator  Generator  Transporter Other RP or PRP: \_\_\_\_\_

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

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

Any Other Person Making Submittal Specify Relationship: \_\_\_\_\_

**L. CERTIFICATION OF PERSON MAKING SUBMITTAL:**

I, Leonard Jolles, 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.

By: *Leonard Jolles* Title: Property Mgr.  
(signature)

For: Arcade Realty Trust Date: \_\_\_\_\_  
(print name of person or entity recorded in Section J)

Enter address of the person providing certification(s), including Ability and Willingness Certification where applicable, if different from address recorded in Section J:

Street: same

City/Town: \_\_\_\_\_ State: \_\_\_\_\_ ZIP Code: \_\_\_\_\_

Telephone: \_\_\_\_\_ Ext.: \_\_\_\_\_ FAX: (optional) \_\_\_\_\_

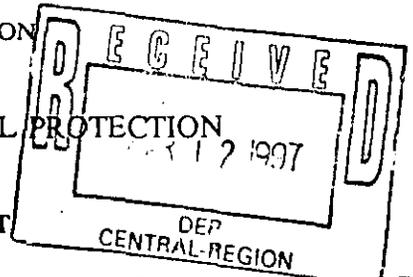
**YOU MUST COMPLETE ALL RELEVANT SECTIONS OF THIS FORM OR DEP MAY RETURN THE DOCUMENT AS INCOMPLETE. IF YOU SUBMIT AN INCOMPLETE FORM, YOU MAY BE PENALIZED FOR MISSING A REQUIRED DEADLINE, AND YOU MAY INCUR ADDITIONAL COMPLIANCE FEES.**

BH

28R 4/3/97

310 CMR: DEPARTMENT OF ENVIRONMENTAL PROTECTION

MASSACHUSETTS DEPARTMENT OF ENVIRONMENTAL PROTECTION  
Bureau of Waste Site Cleanup



NUMERICAL RANKING SYSTEM SCORESHEET  
(310 CMR 40.1511)

CLASSIFICATION SUBMITTAL	
Initial Submittal <input type="checkbox"/>	Re-Classification <input checked="" type="checkbox"/>

DISPOSAL SITE SCORE					
II <u>20</u>	III <u>91</u>	IV <u>40</u>	V <u>65</u>	VI <u>0</u>	TOTAL <u>216</u>

Disposal Site Tier Classification	I			<b>II</b>
Permit Category (Tier I Only)	A	B	C	

I. DISPOSAL SITE INFORMATION

DEP Release Tracking Number(s)	2-0000111
DEP Disposal Site Number(s)	2-0111

UTM Coordinates	N: 4,665,418
	E: 278,463

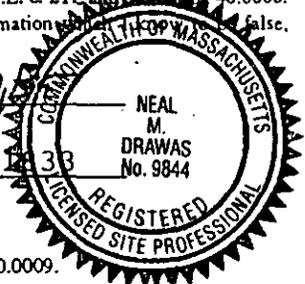
Disposal Site Name	ATF Davidson		
Disposal Site Address	355 Main Street		
	City: Northbridge	Zip: 01588	

Is the Disposal Site classified Tier I because it is located within the boundaries of a Zone II or Interim Wellhead Protection Area and groundwater concentrations equal or exceed RCGW-1 at the time of Tier Classification pursuant to 310 CMR 40.0520(2)(a)1.?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/> see Section VI
Is the Disposal Site classified Tier I because an Imminent Hazard is present at the time of Tier Classification pursuant to 310 CMR 40.0520(2)(a)2.?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>

I attest under the pains and penalties of perjury that I have personally completed this Numerical Ranking System Scoresheet, and have personally examined and am familiar with the information contained in this submittal, including any and all documents accompanying this submittal, and in my professional opinion and judgment based upon: (i) the standard of care in 309 CMR 4.02(1), (ii) the applicable provisions of 309 CMR 4.02(2) and (3), and (iii) the provisions of 309 CMR 4.03(5), to the best of my knowledge, information and belief, this Scoresheet was developed in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000. I am aware that significant penalties may result, including, but not limited to, possible fines and imprisonment, if I submit information that is false, inaccurate or materially incomplete.

Neal M. Drawas 9844  
 Licensed Site Professional Signature LSP Registration Number  
Neal M. Drawas Kröll Env. Enter., Inc.  
 LSP Name (Printed) Company Name

March 7, 1997  
 Date  
508-443-1238  
 Telephone Number



Arcade Realty Trust  
Responsible Party, Potentially Responsible Party, or Other Person who will provide certification in accordance with 310 CMR 40.0009.

40.1511 (Continued)

II. EXPOSURE PATHWAYS

II. EXPOSURE PATHWAYS				
Score according to 40.1512 - Exposure Pathway Designation Criteria				
MEDIA	DESIGNATION			
	NONE or NOT APPLICABLE	EVIDENCE OF CONTAMINATION	POTENTIAL EXPOSURE PATHWAY	LIKELY OR CONFIRMED EXPOSURE PATHWAY
A. SOIL (Includes Sediment)	0	15	100	150
B. GROUNDWATER	0	20	100	150
C. SURFACE WATER (Includes Wetlands)	0	20	100	150
D. AIR	0	15	100	200

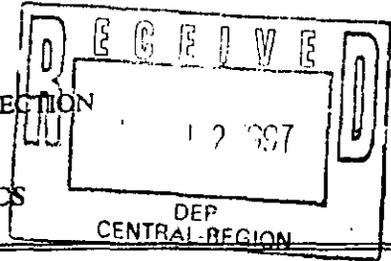
Note: Score only the highest value for each media, i.e., score None or Not Applicable or Evidence of Contamination or Potential Exposure Pathway or Likely or Confirmed Exposure Pathway.

II. (A - D)	
Summary Rationale for Section II A - D Values and Phase I Report References	
Groundwater is designated as "Evidence of Contamination" based on the presence of Vinyl Chloride in two monitoring wells and one Geoprobe location at concentrations exceeding the RC. (Phase I Report, Section V, Table 5.1).	

II.E. OHM SOURCES			
Number of OHM Sources	1	2	≥ 3
	0	25	50

SECTION II SCORE (A. + B. + C. + D. + E.)					
A.	B.	C.	D.	E.	TOTAL: (15 - 700)
0	20	0	0	0	20

Check here if Section VI has been used to amend the score for this Section of the NRS.



40.1511 (Continued)

III. DISPOSAL SITE CHARACTERISTICS

III.A. <b>OHM TOXICITY SCORE</b> <i>Highest OHM Toxicity Score</i> <i>From Table III.A. or Worksheet III.A.1. on Following Pages.</i>	
OHM Scored: <u>Barium</u> Concentration and Media: <u>4,630 ug/l in Groundwater</u>	Toxicity Score (1 - 80) <u>25</u>

III.B. <b>MULTIPLE OHMs</b>		
More Than One OHM With an OHM Toxicity Score of $\geq 30$	No 0	Yes 30

III.C. <b>OHM MOBILITY and PERSISTENCE</b> <i>Score according to 40.1514 - OHM Mobility and Persistence</i>	
OHM Scored: <u>cis 1,2-DCE</u>	Score (0 - 50) <u>50</u>

III.D. <b>DISPOSAL SITE HYDROGEOLOGY</b> <i>Score according to 40.1515 - Soil Permeability</i>			
DEPTH TO GROUNDWATER (in feet)	SOIL PERMEABILITY		
	Low	Medium	High
> 25	2	4	8
10.1 - 25	4	8	12
5.1 - 10	8	12	16
0 - 5	12	16	20

SECTION III SCORE (A + B + C + D)				
A. <u>25</u>	B. <u>0</u>	C. <u>50</u>	D. <u>16</u>	TOTAL: (3 - 180) <u>91</u>

Check here if Section VI has been used to amend the score for this Section of the NRS.	<input type="checkbox"/>
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## 310 CMR: DEPARTMENT OF ENVIRONMENTAL PROTECTION

40.1511 (Continued)

Table III.A. OHM TOXICITY SCORE							
OHM <sup>SM</sup>	CONCENTRATION (soil/sediment: µg/g; surface/groundwater µg/l)						
	≤ 99	100 - 999	1,000 - 9,999	10,000 - 100,000	> 100,000 NAPL < 0.5"	NAPL 0.5" - 12"	NAPL > 12"
Arsenic	20	30	40	50	60		
Benzene	15	25	35	45	55	65	75
Di(2-ethylhexyl)phthalate	10	20	30	40	50	60	70
Cadmium	10	20	30	40	50		
Carbon Tetrachloride	20	30	40	50	60	70	80
Chlorobenzene	5	15	25	35	45	55	65
Chromium III	1	10	20	30	40		
Chromium VI	10	20	30	40	50		
Coal Tar	5	15	25	35	45	55	65
Cyanide	5	15	25	35	45		
1,1 Dichloroethane	10	20	30	40	50	60	70
1,2 Dichloroethane	10	20	30	40	50	60	70
Ethylbenzene	5	15	25	35	45	55	65
Ethylene Dibromide	20	30	40	50	60	70	80
#2 Fuel Oil (virgin product)	5	15	25	35	45	55	65
Gasoline (virgin product)	10	20	30	40	50	60	70
Lead	20	30	40	50	60		
Mercury	20	30	40	50	60	70	80
Methylene Chloride	10	20	30	40	50	60	70
Methyl Ethyl Ketone	5	15	25	35	45	55	65
Methyl Tert Butyl Ether	10	20	30	40	50	60	70
Nickel	5	15	25	35	45		
Phenol	1	10	20	30	40	50	60
PAHs	10	20	30	40	50	60	70
PCBs	20	30	40	50	60	70	80
Tetrachloroethylene	10	20	30	40	50	60	70
Toluene	1	10	20	30	40	50	60
1,1,1 Trichloroethane	5	15	25	35	45	55	65

310 CMR: DEPARTMENT OF ENVIRONMENTAL PROTECTION

Table III.A. OHM TOXICITY SCORE							
OHM	CONCENTRATION (soil/sediment: µg/g; surface/groundwater µg/l)						
	≤ 99	100 - 999	1,000 - 9,999	10,000 - 100,000	> 100,000 NAPL < 0.5"	NAPL 0.5" - 12"	NAPL > 12"
Trichloroethylene	15	25	35	45	55	65	75
Vinyl Chloride	15	25	35	45	55	65	75
Xylenes	1	10	20	30	40	50	60
Zinc	1	10	20	30	40		

310 CMR: DEPARTMENT OF ENVIRONMENTAL PROTECTION

40.1511 (Continued)

Use Worksheet III.A.1. to determine the OHM Toxicity Score for OHM not listed in Table III.A.  
See 40.1513 for Human Health-Based Toxicity Values for each OHM.

Worksheet III.A.1		OHM TOXICITY SCORE					
HUMAN HEALTH-BASED TOXICITY VALUE	CONCENTRATION						
	Use µg/g for Soil and µg/l for Surface Water and Groundwater						
	≤ 99	100 - 999	1,000 - 9,999	10,000 - 100,000	> 100,000 NAPL < 0.5"	NAPL 0.5" - 12"	NAPL > 12"
< 5	1	10	20	30	40	50	60
5 - 19	5	15	25	35	45	55	65
20 - 29	10	20	30	40	50	60	70
30 - 39	15	25	35	45	55	65	75
40 - 50	20	30	40	50	60	70	80

III.A.1. OHM and Concentrations Used in Section III.A.1.				
OHM	Human Health-Based Toxicity Value	Concentration (Soil - µg/g)	Concentration (Water - µg/l)	OHM Toxicity Score
PCE	25		93.3	10
TCE	30		31.4	15
cis 1,2-DCE	18		82.6	5
VCL	38		74.	15
Acetone	8		103.	15
1,2,3-TCB	25 D		7.	10
Barium	8		4,630.	25

D = Default Value of 25 (40.1513(3))

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40.1511 (Continued)

IV. HUMAN POPULATION AND LAND USES

IV.A. HUMAN POPULATION				
Residential Population Within 1/2 Mile	None 0	1 - 99 5	100 - 999 10	≥ 1,000 15
Institutions Within 500 feet	None 0		One or More 10	
On-Site Workers	None 0	1 - 99 5	100 - 999 10	≥ 1,000 15

IV.B. AQUIFERS		
Sole Source Aquifer Name: _____	No 0	Yes 25
Potentially Productive Aquifer	No 0	Medium or High 15

IV.C. WATER USE					
Proximity of Disposal Site to Public Drinking Water Supply Source	Not Applicable (NA) see Section VI 0			Zone A 20	Zone II, IWPA, or SW Intake ≤ 400' 50
Persons Served by Public Drinking Water Supply	NA 0	25 - 999 5	1,000 - 4,999 10	5,000 - 49,999 20	≥ 50,000 25
Private Water Supplies Within 500 Feet	None 0		Commercial Industrial 10	Agriculture Residential (Not Ingested) 15	Drinking Food Processing 25
Alternative Public Water Supply Available (Viable Public Water Supply in Disposal Site Community and Public Water Connection ≤ 500 Feet from Site)	Yes 0			No 25	

SECTION IV SCORE (A + B + C)			
A. 20	B. 0	C. 20	TOTAL: (0 - 205) 40

Check here if Section VI has been used to amend the score for this Section of the NRS.	<input type="checkbox"/>
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40.1511 (Continued)

V. ECOLOGICAL POPULATION

V.A. ENVIRONMENTAL RESOURCE AREAS			
RESOURCE	LOCATION		
Area of Critical Environmental Concern	> 500' from Site 0	≤ 500' from Site 20	On-Site 30
Species of Special Concern, Threatened or Endangered Species Habitat	> 500' from Site 0	On-Site or ≤ 500' from Habitat 30	
Wetlands, Certified Vernal Pool, or Outstanding Resource Water	> 100' from Site 0	≤ 100' from Site 20	On-Site 30
Fish Habitat	> 500' from Site 0	≤ 500' from Site 20	On-Site 30
Protected Open Space (Local/State/Federal/Trustee)	> 500' from Site 0	≤ 500' from Site 20	On-Site 30

SCORE SECTION V.B. ONLY IF SECTION V.A. SCORE IS ≥ 30.

V.B. ENVIRONMENTAL TOXICITY SCORE	
<i>Highest Environmental Toxicity Score From Table V.B. or Worksheet V.B.1. on Following Pages.</i>	
OHM Scored: <u>Acetone</u> / <u>Barium</u>	Toxicity Score (1 - 35)
Concentration and Media: <u>103 ug/l in GW</u> / <u>4,630 ug/l in GW</u>	<u>15</u>

SECTION V. SCORE (A. + B.)		
A. <u>50</u>	B. <u>15</u>	TOTAL: (0 - 185) <u>65</u>

Check here if Section VI has been used to amend the score for this Section of the NRS.	<input type="checkbox"/>
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40.1511 (Continued)

OHM	CONCENTRATION (soil/sediment: µg/g; surface/groundwater µg/l)				
	< 1	1 - 99	100 - 999	1,000 - 9,999	≥ 10,000
Arsenic	5	10	15	20	25
Benzene	0	1	5	10	15
Bis(2-ethylhexyl)phthalate *	5	10	15	20	25
Cadmium	10	15	20	25	30
Carbon Tetrachloride	0	1	5	10	15
Chlorobenzene *	5	10	15	20	25
Chromium III	1	5	10	15	20
Chromium VI	5	10	15	20	25
Coal Tar *	5	10	15	20	25
Cyanide	5	10	15	20	25
1,1 Dichloroethane *	5	10	15	20	25
1,2 Dichloroethane	0	1	5	10	15
Ethylbenzene	0	1	5	10	15
Ethylene Dibromide *	5	10	15	20	25
#2 Fuel Oil (virgin product) *	1	5	10	15	20
Gasoline (virgin product) *	5	10	15	20	25
Lead	5	10	15	20	25
Mercury	15	20	25	30	35
Methylene Chloride *	5	10	15	20	25
Methyl Ethyl Ketone *	5	10	15	20	25
Methyl Tert Butyl Ether *	1	5	10	15	20
Nickel	1	5	10	15	20
Phenol	0	1	5	10	15
PAHs *	5	10	15	20	25
PCBs	15	20	25	30	35
Tetrachloroethylene	0	1	5	10	15
Toluene	0	1	5	10	15
1,1,1 Trichloroethane	0	1	5	10	15
Trichloroethylene	0	1	5	10	15

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Table V.B.		ENVIRONMENTAL TOXICITY SCORE				
OHM		CONCENTRATION (soil/sediment: µg/g; surface/groundwater µg/l)				
		< 1	1 - 99	100 - 999	1,000 - 9,999	≥ 10,000
Vinyl Chloride	*	5	10	15	20	25
Xylenes	*	5	10	15	20	25
Zinc		1	5	10	15	20

\* Scores derived by default methods 40.1516(2).

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NON-TEXT PAGE

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40.1511 (Continued)

Use Worksheet V.B.1. to determine Environmental Toxicity Scores for OHM not listed in Table V.B.  
See 40.1516 for Environmental Toxicity Values for each OHM.

Worksheet V.B.1 ENVIRONMENTAL TOXICITY SCORE					
ENVIRONMENTAL TOXICITY VALUE	CONCENTRATION				
	Use µg/g for Soil and µg/l for Surface Water or Groundwater				
	< 1	1 - 99	100 - 999	1,000 - 9,900	≥ 10,000
10	0	1	5	10	15
20	1	5	10	15	20
30	5	10	15	20	25
40	10	15	20	25	30
50	15	20	25	30	35

V.B.1. OHM and Concentrations Used in Section V.B.1.				
OHM	Environmental Toxicity Value	Concentration (Soil - µg/g)	Concentration (Water - µg/l)	Environmental Toxicity Score
PCE	10		93.3	1
TCE	10		31.4	1
cis 1,2-DCE	10		82.6	1
VCL	--		74.	10
Acetone	30 D		103.	15
1,2,3-TCB	30 D		7.	10
Barium	20 D		4,630.	15

D = Default Value (40.1516(2))

