SCANNED

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3-15009-Bos-Rox

Weston & Sampson ENGINEERS, INC



Tel: (978) 532-1900 Fax: (978) 977-0 Innovative Solutions since 1899

Boston Redevelopment Authority WSE Project No. 200157.A

Roxbury Parcel f-3 Trement 3-15009

April 13, 2000

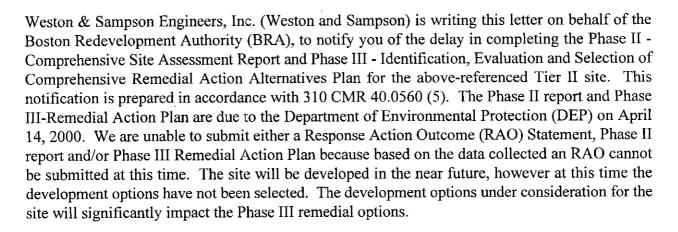
Mr. Steve Johnson, Chief Bureau of Waste Site Cleanup Department of Environmental Protection 205A Lowell Street Wilmington, Massachusetts 01887

Re:

Notification of Delay in Completing Phase II and Phase III Reports :

BRA Parcel P-3 RTN 3-15009

Dear Mr. Johnson:



Background

In 1998, Weston & Sampson conducted a subsurface investigation that included installation of Results of the investigation identified total petroleum twelve borings/monitoring wells. hydrocarbons (TPH), lead and several polynuclear aromatic hydrocarbons (PAHs) exceeding reportable concentrations (RCs).

Following the initial fieldwork, 17 additional soil borings were advanced to further characterize the extent of contamination in fill in the areas where RCS-1 standards were exceeded. Fifteen of the 17 soil borings were advanced in a topographically elevated fill area in one portion of Parcel P-3. TPH, several PAHs and lead concentrations in soil from the top 9 feet in this area exceeded applicable Method 1 cleanup standards. In addition, PAH concentrations exceeded applicable Method 1 cleanup standards in all 15 soil borings in this area.



Mr. Steve Johnson April 13, 2000 Page 2

Several PAHs also exceeded Method 1 cleanup standards in fill between 0 and 3 feet below pavement in a second area of P-3. Select soil samples containing the highest lead concentrations were analyzed for the Toxicity Characteristics Leaching Procedure (TCLP); TCLP lead concentrations were below the RCRA action level of 5 milligram per liter (mg/l). Concentrations of TPH, PAHs, and lead do not exceed Upper Concentration Limits (UCLs). The Phase I report and Tier Classification submittal was issued to DEP on April 14, 1998. The site was classified as a Tier II site.

Based on the data collected to date, contamination does not appear to have impacted all of P-3, and the "disposal site" is delineated as two separate non-contiguous parcels. The disposal site occupies approximately 2.5 acres of the entire 9-acre parcel. Consequently, the areal and vertical extent of contamination is fairly well understood at the site.

Access to the 1.5-acre portion of the disposal site is restricted by the presence of a 6-foot high chain-link fence, installed by the BRA to restrict access to this portion of P-3. Exposure to contaminated soils in the 1-acre portion of the disposal site is eliminated due to paving. Currently there are no on-site workers at the disposal site.

Reasons for Delay

BRA has considered a number of options for site development and is working closely with the surrounding community regarding the type of development for the area. Consequently the various development options have not yet been finalized. Similarly, it is likely that an RAO will require an Activity and Use Limitation (AUL). Without knowing the future development options for this property, it is difficult to prepare an AUL without being too restrictive to the whole of the P-3 site. Despite the extensive soil boring program conducted to date, there are a few data gaps that need to be addressed prior to the finalization of a Phase II or RAO. Consequently, additional data and further discussion of development options are required prior to completion of the Phase II/III and/or RAO.

Measures Taken to Minimize Delay and Schedule

Weston and Sampson has submitted to the BRA a scope of work (SOW) to perform the following:

- Collect additional subsurface data;
- Perform a Method 3 Risk Characterization;
- Evaluate Remedial Alternatives; and
- Prepare a Phase II/III Report.

Mr. Steve Johnson April 13, 2000 Page 3

BRA has verbally approved the SOW and we anticipate completing these tasks during the next six months. In addition, we will discuss future development options with BRA in order to evaluate the various Remedial Options and, should the data be favorable, prepare an RAO Statement (instead of the Phase II/III Report).

Should you have any questions, please do not hesitate to contact our office at (978) 532-1900.

Very truly yours,

WESTON & SAMPSON ENGINEERS, INC.

OBhuna

Prasanta K. Bhunia, Ph.D., LSP Associate

cc: Mr. Thomas Ahern, Boston Redevelopment Authority

Mr. Richard Mertens, Boston Redevelopment Authority

Mr. Paul Osborn, Boston Redevelopment Authority

File

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Wassachusetts Department of Environmental Protection Bureau of Waste Site Cleanup

BWSC-107A

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

Pursuant to 310 CMR 40.0510 and 40.0560 (Subpart E)

			racking
Nun	nbe	r	
3	_		15000

A: 	DISPOSAL SITE LOCATION:
N٤	posal Site Parcel P-3 me:
St	eet: Tremont and Whittier Streets Location Aid: UTMs: 4688700 mN, 327800 mE
Ci	y/Town: Boston (Roxbury) ZIP 02120-0000 Code:
Αd	lated Release Tracking Numbers That This Submittal Will Gress:
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 Storesheet APR 1 n 1998 (complete Sections A, B, C, I, J, K and L).
Į	Submit a new or revised Tier Classification Submittal for a Tier II Site, including a Numerical Ranking SCHEP/NOFTHEAST REGION (complete Sections A, B, C, F, G, I, J, K and L). WOBURN, MASS.
	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).
Ì	List Additional Release Tracking Number(s):
V	Submit a Phase I Completion Statement supporting a Tier Classification Submittal (complete Sections A, B, I, J, K and Ł).
	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 <i>or</i> 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).
L	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.
	TIER CLASSIFICATION SUBMITTAL:
	inerical Ranking Score for Disposal Site: (from Numerical Ranking 143 (resheet)
Pr	oposed Tier Classification of Disposal Site: (check one) Tier IA Tier IB Tier IC Tier II
Ch	ck 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 square Francticle 3 evidence and durawater 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.
	All miniminent razard is present at the time of Tiel
	Classification. Check here if this Tier Classification revises a previous submittal for this Disposed Ste Volumes Application Ranking Scoresheet with this submittal. If a Tier I Permit has been issued, you may also need to submit Majos Fermit Modification Application (BWSC 10).
	If incorporating additional Release(s) into the Disposal Site, list Release Tracking Number(s):
Š	TIER II EXTENSION SUBMITTAL QUIREMENTS: and the expiration date of the Tier II Classification or Waiver for the Disposal Site, whichever is plicable:
	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.
Ē.	IER II TRANSFER SUBMITTAL REQUIREMENTS:
St Si	ate the proposed effective date of the change in person(s) undertaking Response Actions at the Disposal
ΑII	Attach a statement summarizing the reasons for the proposed change in person(s) undertaking the Response Actions. 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.



Massachusetts Department of Environmental Protection Bureau of Waste Site Cleanup

BWSC-107A

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

Release Tracking Number

Pursuant to 310 CMR 40.0510 and 40.0560 (Subpart E)

umber 3 - 15009

Ļ				<u> </u>	
> -	DISPOSAL SITE COMPLIANCE HIST If providing either a Tier Classification Sul Section J must provide a Compliance Histo If providing a Tier II Extension Submittal to effective date of the Tier II Classification. If providing a Tier II Transfer Submittal fol	bmittal for a ory. for a Tier II S	Tier II Site or a T	amed in Section J must update the	eir Compliance History since the
C H	 mpliance History for (provide only one nam story):	e per	Boston Red	evelopment Authority	
	Check here if there has been no change	to the Comp	liance History of t	he person named above (Extension	Submittal for a Tier II Site ONLY).
Lį	l It all permits or licenses that have been issu	ued by the D	epartment that are	e relevant to this Disposal Site:	
į	PROGRAM:	PERMIT	NUMBER:	PERMIT CATEGORY:	FACILITY ID:
Α	Quality	NA		NA	NA NA
Н	zardous Waste (M.G.L. c. 21C)	NA_		NA	NA ¹¹
S	id Waste	NA		NA NA	NA NA
in	 dustrial Wastewater Management	NA_		NA	NA
٧	ater Supply	NA		NA	NA NA
٧	 ater Pollution Control/Surface Water 	NA		NA	NA
٧	iter Pollution Control/Groundwater	NA		NA	NA
V	 hiter Pollution Control/Sewer Connection 	NA	· · · · · · · · · · · · · · · · · · ·	NA	NA
W	etland & Waterways	NA.		NA	NA
Li	st all other Federal, state or local permits, li II ISSUING AUTHORITY OR PROGRAM, OF NA			ions, variances, or approvals that a IDENTIFICATION NUMBER: NA	re relevant to this Disposal Site: DATE ISSUED: NA
	needed, attach to this Transmittal Form a s cribe the compliance history of the persor (1) DEP regulations; and	named abo	ve with the following	ng:	
a	(2) other laws for the protection of health, gincy.	safety, public	c welfare and the o	environment administered or enforc	ed by any other government
S	tich a statement should identify information		ionarimant to a-f-	eroo ito roquiromonte including had	not limited to a Netice of
а	(1) actions relevant to the Disposal Site ta Noncompliance (NON), Notice of Intennt an administrative enforcement order; (2) administrative consent orders; (3) judicial consent judgements; (4) similar administrative actions taken by (5) civil or criminal actions relevant to the (6) any additional relevant information.	t to Assess (Civil Administrative	e Penalty (PAN), Notice of Intent to gencies;	Take Response Action (NORA),
F	each action identified, provide the following	ng informatio	n:		
	(1) name of the issuing authority, type of a (2) description of noncompliance cited; (3) current status of the matter; and (4) final disposition, if any.	action, identif	ication number an	d date issued;	



TI

GUCERTIFICATION OF ABILITY AND WILLINGNESS:

Massachusetts Department of Environmental Protection Bureau of Waste Site Cleanup

BWSC-107A

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

Pursuant to 310 CMR 40.0510 and 40.0560 (Subpart E)

Release Tracking Number 15009

- 1	<u> </u>					
	f providing either a Tier II Classification Submittal or a Tier II Extensi	on Submittal, the	person who s	igns t	his certification MUST be the	
` (named in Section J, or that person's agent. If providing a Tier II Transfer Submittal, the person who signs this certi	fication MUST be	the person par	ned ir	n Section M. or that person's	
l a Prope pe for this	test under the pains and penalties of perjury that (i) I/the person(s) or entired and am/is familiar with the requirements of M.G.L. c. 21E and 31 of essional(s) employed or engaged to render Professional Services for the son(s) or entity(ies) on whose behalf this submittal is made, and my/that the sesary response actions, that/those person(s) or entity(ies) has/have the submittal in accordance with M.G.L. c. 21E, 310 CMR 40.0000 and other attention on behalf of the person(s) or entity(ies) legally responsible in mittal is made is aware of the requirements in 310 CMR 40.0172 for no losse behalf this submittal is made learn(s) that it/they is a considered.	ntity(ies) on whose to CMR 40.000; (he disposal site what t person's(s') or en te technical, finance er applicable requinant for this submittal. tifying the Departn	behalf this sul (ii) based upon nich is the subj ntity's(ies') und cial and legal a rements; and (l/the person(s) nent in the eve	bmitta my ir ect of erstar bility iii) tha or er nt tha	al is made has/have personally nquiry of the/those Licensed Site f this Transmittal Form and of the nding as to the estimated costs of to proceed with response actions at I am fully authorized to make ntity(ies) on whose behalf this at I/the person(s) or entity(ies) on	
-						
В	July 1	Title:	Dieron	~ >		
أ	(signature)				- • •	
Fo	Boston Redevelopment Authority	Date:	APR	7	1998	
1	(print name of person or entity recorded in Section J or M, as appropri	riate)				
Н.	If you are submitting either a Tier II Extension Submittal for you may choose to sign the alternative Ability in place of providing the certification in S ALTERNATIVE CERTIFICATION OF ABILITY AND WILLING	and Willingness (lection G and the	Certification for	bund	in Section H	
>	f providing a Tier II Extension Submittal for a Waiver Site, the person	n who signs this ce	ertification MUS	ST be	the person named in Section J,	
or >	hat person's agent from the person's agent If providing a Tier II Transfer Submittal for a Waiver Site, the person of	who sions this cort	tification MICT	r ha +1	ha naraan namad in Castlan M	
or		who sighs this cert	uncation wos	DE II	ne person nameo in Section W.	
ex Co su pe c. or re	Ittest under the pains and penalties of perjury that (i) I/the person(s) or externined and am/is familiar with the requirements of M.G.L. c. 21E and 3 on sultant-of-Record for the disposal site which is the subject of this Transilymittal is made, and my/that person's(s') or entity's(ies') understanding asison(s) or entity(ies) has/have the technical, financial and legal ability to £21E., 310 CMR 40.0000 and other applicable requirements; and (iii) that is intity(ies) legally responsible for this submittal. I/the person(s) or entity cuirements in 310 CMR 40.0172 for notifying the Department in the everade learn(s) that it/they is/are unable to proceed with the necessary resp	10 ČMR 40.0000; (smittal Form and o as to the estimated proceed with resp I am fully authoriz (ies) on whose bel it that I/the person	(ii) based upon of the person(s d costs of nece conse actions f ted to make thi half this submit	my in my in same or such that is a my in m	nquiry of the ntity(ies) on whose behalf this response actions, that/those ch site in accordance with M.G.L. station on behalf of the person(s) made is aware of the	
В		Title:				
زد	(signature)					
Fo	4 3 :	Date:				
	(print name of person or entity recorded in Section J or M, as appropri	iate)				
1.	LSP OPINION:					
1	 altest under the pains and penalties of perjury that I have personally exa	minad and am fare	viliar with this to		nittal form including any and all	
do	ocuments accompanying this submittal. In my professional opinion and j	udgment based up	pon application	of (i)	the standard of care in 309 CMR	
	C2(1), (ii) the applicable provisions of 309 CMR 4.02(2) and (3), and (iii) and belief,	tne provisions of 3	509 GMR 4.03(5), to	the best of my knowledge, inform	atio
>	if Section B of this form indicates that a Tier I or Tier II Classification if the property being submitted this Tier Classification Submitted has been decided.	Submittal which n	elies upon a pr	eviou	usly submitted Phase I Completion	!

SECTION I IS CONTINUED ON THE NEXT PAGE

and 310 CMR 40.0000;

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) had (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;



Massachusetts Department of Environmental Protection Bureau of Waste Site Cleanup

BWSC-107A

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

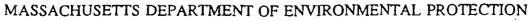
Pursuant to 310 CMR 40.0510 and 40.0560 (Subpart E)

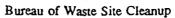
Release Tracking <u>Number</u>

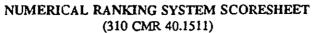
3 15009

÷	<u> 1125 Osimion: (cominuea)</u>					
th 41 M sl	if Section B of this form indicates that a Tier II Extension S that is (are) the subject of this submittal (i) is (are) being imple 40.0000, (ii) is (are) appropriate and reasonable to accomplish M.G.L. c. 21E and 310 CMR 40.0000, and (iii) complies(y) with bmittal.	emented in accordan- in the purposes of such that identified provi-	ce with the applich response act sions of all orde	icable provision ion(s) as set for rs, permits, and	ns of M.G.L. c. 21E and 310 CMR of the in the applicable provisions of approvals identified in this	,
l to	I im aware that significant penalties may result, including, but to be false, inaccurate or materially incomplete.	t not limited to, possi	ble fines and im	prisonment, if I	submit information which I know	
	Check here if the Response Action(s) on which this opini issued by DEP or EPA. If the box is checked, you MUST	ion is based, if any, a T attach a statement	are (were) subje identifying the a	ct to any order(s), permit(s) and/or approval(s) sions thereof.	
L	LEP Name: Dr. Prasanta K. Bhunia	SP#: 2999	Stamp:	PRAS	MASSACA	
T	Telephone 978-532-1900 E	xt.: 2287		PRAS	ANTA	
	F/X: 978-977-0110 (of/tional)		•	BHUNIA	A, Ph.D.	
`	Synature: Po-Rhunia			3/c/ No.	2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
D	Drite: 4 10 98			A CONCED SITE	PHOFE	
J.	J. PERSON MAKING SUBMITTAL:				4433	_
	Name of Boston Redevelopment Au Organization:	thority				
	Name of Mr. Thomas N. O'Brien (c/o Contact:			etor		
S	Seet: 1 City Hall Plaza	Mertens)	•			
С	Cy/Town: Boston		State: MA	ZIP Cod	e: 02201-1007	
T	Telephone: 617-722-9950		FAX:	617-742-7	783	
K.	K. RELATIONSHIP TO DISPOSAL SITE OF PERSON			eck one)		
5	RP or PRP Specify Owner Operator	Generator Tra	insporter Other	RP or PRP: _		
	Fiduciary, Secured Lender or Municipality with Exempt S	Status (as defined by	M.G.L. c. 21E,	s. 2)		
	Agency or Public Utility on a Right of Way (as defined by	y M.G.L. c. 21E, s. 5	(j))			
	Any Other Person Making Submittal Specify Relationship:					
L.	L. CERTIFICATION OF PERSON MAKING SUBMITTA	AL:				_
ir m	I Thomas O'Brien farilliar with the information contained in this submittal, including uitry of those individuals immediately responsible for obtain my knowledge and belief, true, accurate and complete, and (i responsible for this submittal. Write person or entity on whose including, but not limited to, possible fines and imprisonment,	ling any and all docu ning the information, ii) that I am fully auth behalf this submitta	ments accompa the material info norized to make It is made am/is	inying this trans irmation contair this attestation aware that the	ned in this submittal is, to the best of on behalf of the entity legally re are significant penalties.	
F	By Williams		Title	Direct	or	
_	(signature)		: .	,	1000	
F	For Boston Redevelopment Authority (print name of person or entity recorded in Section J)		Date:	APR 7	1998	
	Enler address of the person providing certification(s), includir recorded in Section J:	ng Ability and Willing	ness Certificatio	n where applica	able, if different from address	
	Street:					
c	City/Town:		State:	ZIP Co	de:	
Т	Telephone:	Ext.	FAX: (optional)			
	YOU MUST COMPLETE ALL RELEVANT SEC INCOMPLETE. IF YOU SUBMIT AN IN A REQUIRED DEADLINE, AND	COMPLETE FORI	ORM OR DEI	BE PENALIZI	ED FOR MISSING	

310 CMR: DEPARTMENT OF ENVIRONMENTAL PROTECTION







			(310	CIVIL 40.11.			 	
CLASSIFICATION	SUBMITTAL	DISPOSAL SITE SCORE						
Initial Submittal	1 Submittal Re-Classification II III			III	īv	v	VI	TOTAL
X			15	_73_	35	_20_	0	143
Disposal Site Tier Classifi	cation	-				I	·	(II)
ermit Category (Tier I O	nly)				A	В	С	
			0000+0	404444444	.00000			, و
			DISPOSAL	STTE INEC	RMATION	ine de I	- 	
i 			DISI OSAL	SITE INTO	MATION	' 		
DEP Release Tracking Number(s)	3-15009						N: 4,688,700) m
DEP Disposal Site Number(s)					UTM Coo	ordinates	E: 327,800 m	
								
Disposal Site Name	D1 D 2							
Disposal Site Address	Parcel P-3		· · · · · · · · · · · · · · · · · · ·					·
	Tremont and City: Boston/			reel				Zip:
Is the Disposal Site classi Protection Area and groun pursuant to 310 CMR 40.	ndwater concentrations e						Yes	No
Is the Disposal Site classipursuant to 310 CMR 40.	ified Tier I because an Ir	nmine	ent Hazard is pr	esent at the tim	e of Tier Classi	ification	Yes	No X
test under the pains and niliar with the information see upon: (i) the standard best of my knowledge, in aware that significant to urate or materially incompared to the standard aware that significant to the standard to th	n contained in this submit of care in 309 CMR 4.0 aformation and belief, this penalties may result, inc	ttal, ii 2(1), Scot	neluding any an- (ii) the applicablesheet was deve- g, but not limit	d all documents le provisions or cloped in accord ed to, possible	accompanying f 309 CMR 4.03 ance with the ap	this submitt 2(2) and (3), pplicable pro	al, and in my profession, and (iii) the provisions ovisions of M.G.L. c. 21	nal opinion and judg s of 309 CMR 4.03(3 E and 310 CMR 40.0 which I know to be
Licensed Site Professional	KIA	Ī	2999 SP Registration			Date		
Prasanta K. Bl	nunia		eston & S		ngineers.	, Inc.	(978) 532 - 190	0
LSI Name (Printed)		C	Company Name			Tele	phone Number	ADD WEALTH OF M
sponsible Party, Potenti	ially Responsible Party, o	or Oth	ner Person who	will provide ce	nification in ac	cordance wi	ith 310 CMR 40.0009.	PRASANT BHUNIA, Ph
3/\$5 (Effective 2/1	/95)					:	310 CMR - 1751	3/8/200758

40.1511 (Continued)	II. EXPOST	URE PATHWAYS		•						
II.	EXPOSURE PATHWAYS									
Score a	Score according to 40.1512 - Exposure Pathway Designation Criteria									
DESIGNATION										
MEDIA	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 Pathway or Likely or Confirmed Exposure		ne or Not Applicable or Evid	dence of Contamination	or Potential Exposure						
II. (A - D) Summary R	ationale for Section II A	A - D Values and Phase I Rep	port References							
A. OHM in soil >RCs, site ad	ccess restrict	red. See p. 5-1	, 5-2, 6-1, T	ables 3 & 4						
<u> </u>				i						

II. (A D)	Summary Rationale for Section II A - D Values and Pha	se I Report References								
A. OHM in soil >R	A. OHM in soil >RCs, site access restricted. See p. 5-1, 5-2, 6-1, Tables 3 & 4									
B. Contaminants i	B. Contaminants in groundwater were below RCs. p. 5-2, 6-1, Table 5									
C. There are no surface water bodies at the site. p. 2-5, Figure 3										
D. No VOCs detected in air; background concentrations were <0.2 ppm on the PID.										
p. 5-1, Table	2		•							
	<u> </u>									
II.E.	OHM SOURCES									
		1	2 ≥3							
Number of OHM Sources		0	25 50							
		-	-							
	SECTION II SCORE (A. + B. + C. + I). + E.)								
A. B.	C D.	E.	TOTAL: (15 - 700)							
15	0 0 0	_0	15							

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





				•
10.1511 (Continued) III. DISPO	SAL SITE CHARACTE	RISTICS		
[I.A.	OHM TOXICITY SCORE			
	Highest OHM Toxicity Score A. or Worksheet III.A.1. on Foll	owing Pages.		
Онм Scored:Lead			Toxicity Sc	pare (1 - 80)
Concentration and Media: total lead soil, 5	,000 ug/g			40
]]II.B.	MULTIPLE OHMs		· · · · · · · · · · · · · · · · · · ·	
More Than One OHM With an OHM Toxicity Score of ≥ 30			No .	Yes
			(0)	30
II.C. OHM	MOBILITY and PERSISTEN	CE		
Scare accordin	g to 40.1514 - OHM Mobility an	d Persistence		
OHM Scored:			Score	(0 - 50)
Lead			2:	5
U.D. DISI	POSAL SITE HYDROGEOLO	GY		•
Score au	ccording to 40.1515 - Soil Permi	ability		
DEPTH TO GROUNDWATER		SOIL PERMEAB	ILITY	
(in feet)	Low	Medium		High .
> 25	. 2	4		. 8
10.1 - 25	4	8	,	12
5.1 - 10	8	12		16
0 - 5	12	16		20
SEC	TION III SCORE (A + B + C	+ D)		

SECTION III SCORE (A + B + C + D)									
Α.	В.	C.	D.	TOTAL: (3 180)					
40	0	25	8	73					

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

X

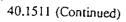


Table III.A.			онм тохісп	Y SCORE						
ОНМ	CONCENTRATION (soil/sediment: µg/g; surface/groundwater µg/l)									
	≤ 99	100 - 999	1,000 - 9,999	10,000 - 100,000	> 100,000 NAPL < 0.5	NAPL 0.5" - 12"	NAPL > 12"			
Arsenic	20	30	40	50	60		- 12			
Benzene	15	25	35	45	55	65	75			
Bis(2-ethylhexyl)phthalste	10	20	30	40	\$0	60	70			
Cadmium	10	20	30	40	50					
Carbon Tetrachloride	26)	-30	40	50	60	70	80			
Chlorobenzene	5	15	25	35	45	55 ·	65			
Chremium III		10	20	30	40		93			
Chromium VI	10	20	30	40	50	٠				
Coal Tar	5	-13	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			
Physicare	\$	15	25	35	45	55	65			
Ethylene Dibromide	20	30	40	50	60	70	80			
F2 Fuel Off (strgig product)	- 5	15	(3)	35	45	55	65			
Gasoline (virgin product)	10	20	30	40	50	60	70			
æd	20	30	(6)	50	60	•	70			
Mercury	20	30	40	50	60	70	80			
dethylene Chiwide	10	20	30	40	50	60	70			
Aethyl Ethyl Ketone	5	15	25	35	45	55				
dethyl Tert Bulyl Ether	10	20	30	40	50	60	65			
lickel	5	15	25	35	45		70			
hend	1	10	20	30	40	50	<i>(</i> 2)			
AHs	10	20	30 .	40	50	60	60			
CBs .	20	30	40	50	60	70	70			
etrachloroethylene	10	20	30	40	50		80			
bluene	ı	10	20	30	40	60	70			
1,1 Trichloroethane	5	15	25	35	45	50 55	60			

Table III.A.			онм тохісіт	Y SCORE						
	CONCENTRATION (soil/sediment: µg/g; surface/groundwater µg/l)									
ОНМ	≤ 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			
Estenes		10	20	- 30	40	50	60			
Zinc	1	10	20	30	40					

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			онм тохісіт	Y SCORE			
HUMAN HEALTH-BASED TOXICITY VALUE	CONCENTRATION Use pg/g for Soil and pg/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	5 5	65	75
40 - 50	20	30	40	50	60	70	80

IIIA.I.	OHM and Concentration	OHM and Concentrations Used in Section III A.1.				
ОНІЛ	Human Health-Based Toxicity Value	Concentration (Soil - pg/g)	Concentration (Water - pg/l)	OHM Toxicity Score		
Naphthalene	18	82		5		
2-Methylnaphthalene	25***	23		10		
Benzo(a)anthracene	28	39		10		
Chrysene	28	44		10 ·		
Benzo(b)fluoranthene	28	34	•	10		
Benzo(k)fluoranthene	28	35		10		
Benzo(a)pyrene	44	39		20		
Dibenzo(a,h)anthracene	25**	47		10		
Indeno(1,2,3-cd)pyrene	25**	14		10		
Phenanthrene	25	110		20		
				:		
			_	,		

* Assumed value

4(1511 (Continued)

IV. HUMAN POPULATION AND LAND USES

V.A		HUMAN PO	PULATION				
Residential Population	None		1 - 99		100 - 999		≥ 1,000
Within 1/2 Mile	0		5		10		(15)
Institutions	N	one				One or More	
Within 500 feet		0				10	•
On-Site Workers	None		1 - 99		100 - 999		≥ 1,000
:	o	}	5	_	10		15
V.B.		AQUI	FERS ====================================				· · · · · · · · · · · · · · · · · · ·
iole Source Aquifer					No	.	Yes
Vame:					<u> </u>		25
otentially Productive Aquifer					No No	,	Medium or High
					(0)	<u>_</u>	15
IV.C.		WATE	ER USE				
Proximity of D Public Drinking Wa		N	iot Applicable ((NA)	. 2	Cone A	Zone II, IWPA, or
•	ater Supply Source				1		SW Intake ≤ 400°
	ater Supply Source		0			20 .	SW Intake ≤ 400°
	ater Supply Source	NA ·	<u>0</u> 25 - 999	1,000 - 4,	999 5,00	20	Ì
		na ·		1,000 - 4,	999 5,00		50
	: Drinking Water Supply	0	25 - 999		rial Ag	0 - 49,999	50 ≥ 50,000 25 Drinking
Persons Served by Public	: Drinking Water Supply	⊚ No	25 - 999 5	10 Commen	rial Ag	0 - 49,999 20 griculture	50 ≥ 50,000 25 Drinking
Persons Served by Public Private Water Suppl Alternative Public W	ic Drinking Water Supply lies Within 500 Feet	⊚ No	25 - 999 5	Comment Industri	rial Ag	0 - 49,999 20 griculture esidential 4 Ingested)	50 ≥ 50,000 25 Drinking Food Processing
Persons Served by Public Private Water Suppl Alternative Public W (Viable Public Water Supply)	: Drinking Water Supply Lies Within 500 Feet	⊚ No	25 - 999 5	Comment Industri	rial Ag	0 - 49,999 20 griculture esidential 4 Ingested)	50 ≥ 50,000 25 Drinking Food Processing
Persons Served by Public Private Water Suppl Alternative Public W (Viable Public Water Supply)	ic Drinking Water Supply lies Within 500 Feet ater Supply Available in Disposal Site Community stion 500 Feet from Site)	()	25 - 999 5	Commerce Industri	rial Ag	20 griculture esidential t Ingested) 15 No	50 ≥ 50,000 25 Drinking Food Processing
Persons Served by Public Private Water Suppl Alternative Public W (Viable Public Water Supply and Public Water Connec	ater Supply Available in Disposal Site Community tion ≤ 500 Feet from Site)	O No	25 - 999 5	Commerce Industri	ial Ag	20 griculture esidential t Ingested) 15 No 25	50 ≥ 50,000 25 Drinking Food Processing
Persons Served by Public Private Water Suppl Alternative Public W (Viable Public Water Supply)	ic Drinking Water Supply lies Within 500 Feet ater Supply Available in Disposal Site Community stion 500 Feet from Site)	()	25 - 999 5	Commerce Industri	rial Ag	20 griculture esidential t Ingested) 15 No 25	≥ 50,000 25 Drinking Food Processing

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

40.1511 (Continued)

V. ECOLOGICAL POPULATION

V.A. EN	NVIRONMENTAL RESOURCE A	REAS	
A'ESOURCE		LOCATION	
Area of Critical Environmental Concern	> 500' from Site	≤ 500' from Site	On-Site
	<u></u>	20	30
Species of Special Concern,	> 500° from Site	On-Site or ≤ 50	O' from Habitat
Threatened or Endangered Species Habitat	<u> </u>	3	o
Wetlands, Certified Vernal Pool, or	> 100' from Site	≤ 100' from Site	On-Site
Outstanding Resource Water	<u></u>	20	30 ,
Fish Habitat	> 500° from Site	≤ 500' from Site	On-Site
·		20 .	30
Protected Open Space (Local/State/Federal/Trustee)	> 500' from Site	≤ 500° from Site	On-Site
(Local/State/Pederal/Trustee)	0	20	30
	NVIRONMENTAL TOXICITY SC Highest Environmental Toxicity Sco ble V.B. or Worksheet V.B.J. on Follo	ore	
OHM Scored: Concentration and Media:			Foxicity Score (1 - 35)
	SECTION V. SCORE (A. + B.)	
A. B.			TAL: (0 - 185)
	N/A		20
Check here if Section VI has been used to amend the score	e for this Section of the NRS.		
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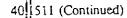


Table V.B.	ENVIRO	NMENTAL TOXICI	TY SCORE		
	co	NCENTRATION (soil	/sediment: µg/g; surfa	ce/groundwater µg/l)	
ОНМ	<1	1 - 99	100 - 999	1,000 - 9,999	≥ 10,000
Arsenic	5	10	15	20	25
Benzene	0	1	5	10	15
Bis(2-ethylheryfiphthalale	5	10	15	20	25
Cadmium	10	15	20	25	30
Carbon Tetrachloride	0	1	5	10	15
Chlorobenzene *	5	10	15	20	25
Съгонин III	11	- 5	10	15	20
Chromium VI	5	10	15	20 ·	25
Cent Tor	\$ 5	10	Ľ	.20	25 %
Cyanide	5	10	15	20	25
1.1 Dichloroethane	- 5	10	L5	20	25
1,2 Dichloroethane	0	1	5	10	15
Ethylbenzene	0		- 5	10	15
Ethylene Dibromlde *	5	10	15	20 .	25
#2 Fuel Oil (virgin preduct) *	1	5	10	15	20
Gasoline (virgin product) °	5	10	15	20	25
Lead	3	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 **		•	10	15	20
Nickel	1	5	10	15	20
Phonol	0		\$	10	15
PAHs •	5	10	15	20 _	25
PCBs	15	20	25	- 30-	35
Tetrachioroethylene	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

Table V.B.		ENVIR	ONMENTAL TOX	ICITY SCORE				
ОНИ		С	CONCENTRATION (soil/sediment: pg/g; surface/groundwater pg/l)					
	<u> </u>	< 1	1 - 99	100 - 999	1,000 - 9,999	≥ 10,000		
Vinyl Chloride	•	5	10	15	20	25		
Xylenes	•	5	- 10	15	26	25		
Zinc		1	5	10	15	20		

Scores derived by default methods 40.1516(2).

NON-TEXT PAGE

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	ENV	IRONMENTAL TO	KICITY SCORE		
ENVIRONMENTAL TOXICTTY VALUE		Use µg/g for S	CONCENTRATIO		:1
	< 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

VB.1.		OHM and Concentrati	ions Used in Section V.B.1.		
ОНМ		Environmental Toxicity Value	Concentration (Soil - µg/g)	Concentration (Water - pg/l)	Environmental Toxicity Score
					i,
				,	
! 	<u> </u>				
	l				

40.15 1 (Continued)

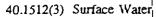
VI. MITIGATING DISPOSAL SITE-SPECIFIC CONDITIONS

VI.	MITIGATING DISPOSAL SITE-SPECIFIC CONDITIONS	
scon	hisposal site-specific conditions that warrant amending the site score. Changes directly related to NRS Sections or Subsection scores may not reduce confirmore than the relevant subsection value assigned for the disposal site in that subsection. Section VI must reference specific pages of the Phase I ection VI may not exceed ± 50 Points and may be scored only in 5-point increments. Attach additional pages as necessary.	the ·
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	<u> </u>	
		•
	Score 'sposal Site Score Amendment (Not to Exceed ± 50 Points)	
<u> </u>		

40,1512(3) Surface Water

II.C.	SURFACE WATER EXPOSURE CRITERIA	
DEFINITION	As defined by 310 CMR 40.0006, including rivers, streams, lakes, porids, springs, impoundmen wetlands, coastal waters and vernal pools.	is, estuaries,
DESIGNATION	CRITERIA	POINTS
NONE or NOT APPLICABLE	 OHM likely antibutable to the disposal site has not been identified in, and is not anticipated to be identified in, surface waters. 	0
	Any of the Following	
	A release (past or on-going) of OHM to surface water has been identified. or Oualitative evidence of a release.	
EVIDENCE OF CONTAMINA'ITON (Assumes No Exposure Pathway)	OHM-attributable visible sheen or discoloration; or OHM entering surface water; or OHM-attributable stained soils in contact with surface water; or There is a reasonable likelihood that OHM will be identified in surface water as a result of OHM migration. or OHM, likely attributable to the disposal site, has been identified in groundwater at	20
	concentrations that are likely to result in detectable concentrations in surface water. Either of the Following	
POTENTIAL, EXPOSURE PATHWAY	 OHM, likely to be attributable to the disposal site, has been identified in a surface water known to be used for drinking, swimming, boating or fishing.	100
LIKELY or CONFILMED EXPOSURE PATHWAY	 Any of the Following There is a reasonable likelihood that a surface public drinking water supply has been or may be impacted by OHM from the disposal site. OHM, possibly attributable to the disposal site, has been identified at the entry point to a public drinking water supply distribution system. A fish advisory likely attributable to the disposal site is in effect.	150
	the disposal site is located in or contains: an Area of Critical Environmental Concern (ACEC); a mapped habitat of a Species of Special Concern, Endangered or Threatened Species; a Certified Vernal Pool; a Restricted Wetland; an Outstanding Resource Water; a fish habitat; or a Protected Open Space.	

II.B.	GROUNDWATER EXPOSURE CRITERIA	·
DEFINITION	Score source area and extent of plume(s) as defined by most recent field studies.	
DESIGNATION	CRITERIA	POINTS
NONE or NOT APPLICABLE	Either of the Following ➤ OHM likely attributable to the disposal site has not been identified in, and is not anticipated to be identified in, groundwater. or ➤ OHM has not been identified in groundwater at concentrations ≥ applicable groundwater RCs. This criteria may be met by conducting a response action, in accordance with these regulations, to reduce groundwater concentrations.	G
EVIDENCE OF CONTAMINATION (Assumes No Exposure Pathway)	Any of the Following Any of the Following A release of OHM to groundwater has been identified but no laboratory analysis has been conducted. or A non-equeous phase liquid (NAPL) has been identified in or on the groundwater. or OHM has been identified in groundwater at concentrations ≥ applicable groundwater RCs.	20
POTENTIAL EXPOSURE PATHWAY	 Either of the Following A private drinking water well is located within 500' of any portion of a disposal site where OHM has been identified in groundwater at concentrations ≥ 310 CMR 40.0974(2). The disposal site is located within a Zone II or upgradient of a public well within an Interim Wellhead Protection Area and OHM has been identified in groundwater at concentrations ≥ 310 CMR 40.0974(2). 	100
LIKELY or CONFIRMED EXPOSURE PATHWAY	Either of the Following • OHM, possibly attributable to the disposal site, has been identified in a public or private drinking water supply well. Drinking water samples shall be taken prior to treatment or blending. or • A reasonable likelihood exists that a public or private drinking water supply well has been or is likely to be impacted by OHM from the disposal site.	150



II.C.	SURFACE WATER EXPOSURE CRITERIA	
DEFINITION	As defined by 310 CMR 40.0006, including rivers, streams, lakes, ponds, springs, impoundmen wetlands, coastal waters and vernal pools.	ls, estuaries
DESIGNATION	CRITERIA	POINTS
NONE or NOT APPLICABLE	OHM likely attributable to the disposal site has not been identified in, and is not anticipated to be identified in, surface waters.	0 -
	Any of the Following	• ;
	A release (past or on-going) of OHM to surface water has been identified. or	
	Qualitative evidence of a release. OHM-attributable visible sheen or discoloration; or OHM entering surface water; or	
EVIDENCE OF CONTAMINATION	OHM-attributable stained soils in contact with surface water; or There is a reasonable likelihood that OHM will be identified in surface water as a result of OHM migration.	20
(Assumes No Exposure Pathway)	OHM, likely attributable to the disposal site, has been identified in groundwater at concentrations that are likely to result in detectable concentrations in surface water.	- 1.
	Either of the Following	
POTENTIAL EXPOSURE	OHM, likely to be attributable to the disposal site, has been identified in a surface water known to be used for drinking, swimming, boating or fishing.	100
PATHWAY	 OHM, likely to be attributable to the disposal site, has been identified at concentrations ≥ Ambient Water Quality Criteria (AWQC) pursuant to 40.1505(2) and 40.1516(1). 	100
	Any of the Following	
	There is a reasonable likelihood that a surface public drinking water supply has been or may be impacted by OHM from the disposal site.	
LIKELY or CONFIRMED	OHM, possibly attributable to the disposal site, has been identified at the entry point to a public drinking water supply distribution system.	150
EXPOSURE PATHWAY	A fish advisory likely attributable to the disposal site is in effect. or	E .
:	 OHM likely attributable to the disposal site present has been identified at concentrations ≥ Ambient Water Quality Criteria (AWQC) pursuant to 40.1505(2) and 40.1516(1), and the disposal site is located in or contains: an Area of Critical Environmental Concern 	:
	(ACEC); a mapped habitat of a Species of Special Concern, Endangered or Threatened Species; a Certified Vernal Pool; a Restricted Wetland; an Outstanding Resource Water; a fish habitat; or a Protected Open Space.	

1/13/95 (Effective 2/1/95)

40 1512(4) Air

II.D.	AIR EXPOSURE CRITERIA				
DEFINITION Air contamination includes both vapors, particularly focusing on indoor air, and particulates. Score only releases regulated under C. 21E; do not score permitted releases associated with on-going commercial or industrial processes.					
DESIGNATION	CRITERIA	POINTS			
NONE or NOT APPLICABLE	OHM likely annibutable to the disposal site has not been identified in, and is not anticipated to be identified in, air.	-0			
EVIDENCE OF CONTAMINATION (Assumes No Exposure Pathway)	Any of the following A release, or potential release, of OHM to air has been identified. OHM that may be released to air as particulate material has been identified in the top 6" of the ground surface. Unbroken paved/concrete slab surfaces may be interpreted as preventing release of particulates to air. OF OHM that may be released to air as a vapor has been identified in an open container or surface impoundment that is part of the disposal site. OF An odor that is reasonably attributable to a release of OHM at the disposal site has been identified.	. 15			
POTENTIAL EXPOSURE PATHWAY	 OHM releases, likely attributable the disposal site, have been repeatedly identified in ambient air within 100° of a residence, school, hospital, nursing home, or playground when such releases are above ambient background concentrations and are not related to permitted releases. Total volatile organic compounds have been identified in groundwater at concentrations ≥ 5 mg/l within 30 feet of a school or occupied residence where the depth to groundwater is ≤ 15 feet. Soil gas surveys or indoor air sampling may be conducted to demonstrate no exposure to OHM. A reasonable likelihood exists that the indoor air quality of an occupied building will be impacted by OHM likely attributable to the disposal site. 	100			
LIKELY or CONFIRMED EXPOSURE PATHWAY	Either of the Following OHM has been identified in indoor air in an occupied building, above background concentrations, when the OHM is likely attributable to a non-permitted release at the disposal site. or A reasonable likelihood exists that OHM likely attributable to the disposal site is affecting air quality in an occupied building.	200			

40.1513 Human Health-Based Toxicity Values and Scores

(1) The Human Health-Based Toxicity Values found in 310 CMR 40.1513(2) shall be used to score OHM not included in Table III.A. of the Scoresheet. If a site-related OHM is not listed in 310 CMR 40.1513(2) use the Relative Toxicity Value Matrix [310 CMR 40.1513(3)] to derive a OHM-specific Toxicity Value. Correlate the value derived using 310 CMR 40.1513(3) with the OHM concentration to determine the OHM Toxicity Score using Worksheet III.A.1. in the Scoresheet. Record each OHM name, Toxicity Value, concentration and Toxicity Score in Table III.A.1 of the Scoresheet.

(2) Human Health-Based Toxicity Values

	40.1513(2) Human Health-Based Toxicity Values and Scores						
ОНИ	- CAS Number	Chronic Oral RfD mg/kg/d	Oral Cancer Slope Factor 1/(mg/kg/d)	CLASS	Inhalition Cancer Slope Factor 1/(mg/kg/d)	CLASS	HUMAN TOXICITY VALUE
Acenaphthene	83329	6.0e-02					8
Acenaphthylene	208968			D	[D	2.5
Acephate	30560191	4.0e-03	8.7e-03	С	į	, ND	30
Acetaldehyde	75070			}	!		25
Acetone .	67641	1.0e-01		D	,	D	8
Acetone Cyanobydrin	75865	7.0e-02					8
Acetonitrile	75058	6.0e-03		D]		25
Acetophenone	98862	1.0e-01		D	i	D	8
Acetyl Chloride	75365			D	,	D	2.5
Acrolein	107028	2.0e-02		С	[С	25 .
Acrylamide	79061	2.0e-04	4.5e+00	B2	4.5e+00	B2	46
Acrylic acid	79107	8.0e-02		1	·		8
Acrylonitrile	107131		5.4e-01	B1	2.4e-(I)	Bı	28
Alachlor	15972608	1.0e-02	8.0e-02	B2	l	B2	25
Aldicarb	116063	2.0c-04		D		D	40 \cdots
Aldrin	309002	3.0e-05	1.7e+01	B2	1.7c+()1	B2	50 ±
Alkanes/Alkenes		·			ļ		25
Allyl Al∞hol	107186	5.0e-03	•	ł	į	Į	25
Allyl Chloride	107051	5.0e-02		С		С	22
Aluminum phosphide	. 20859738	4.0e-04		}	}	ì	40
Ametryn	834128	9.0e-03		1	}	{	18
Aminopyridine, 4-	504245	2.0e-05	l	D	Į	D	40
Ammonia	7664417		1]	1		25
Ammonium Acetate	631618			D	1	D	25
Aniline	62533		5.7e-03	B2		B2	22
Anthracene	120127	3.0e-01		D		, D	4









- "Superfund Public Health Evaluation Manual", Office of Emergency and Remedial Response Office of Solid Waste and Emergency Response, U.S. Environmental Protection Agency, 1986. Solubility of 1,000,000 mg/l assigned because of reported "infinite solubility" in the literature.
 - Phonity Pollutants," EPA Contract Nos. 68-01-3867 and 68-03-2981 by SRA International for Monitoring and Data Support Division, Office of Water Regulations and Standards. Mabey, W.R., J.H. Smith, R.T. Rodoll, H.L. Johnson, T. Mill, T.W. Chou, J. Gates, I.W. Patridge, H. Jaber, and D. Vanderberg. "Aquatic Fate Process Data for Organic Environmental Criteria and Assessment Office (ECAO), EPA, Health Effects Assessments for Specific Chemicals, 1985.
 - Dawson, et al., Physical/Chemical Properties of Hazardous Waste Constituents, by Southeast Environmental Research Laboratory for US EPA, 1980. Washington, DC, 1982.
 - Jaber, et al., "Data Acquisition for Environmental Transport and Fate Screening", Office of Health and Environmental Assessment, US EPA, Washington DC, EPA 600/6-84-009, 1984
 - ORD, US EPA, "Treatability Manual, Volume 1", EPA 600/2-82-001a.
- US EPA, "Basics of Pump-and-Treat Ground-Water Remediation Technology," EPA/600/8-901003, Robert S. Kerr Environmental Research Laboratory, March 1990. Verschueren K., "Handbook of Environmental Data for Organic Chemicals", Van Nostrand Reinhold Co., New York, 2nd ed., 1983. Manufacturer's data; Texas Petrochemicals Corp., Gasoline Grade Methyl-tert-butyl-ether Shipping Specifications and Technical Data, 1986.
 - CRC Handbook of Chemistry and Physics, 71st Edition, CRC Press, Ohio, 1990.
- Lyman W.J. et al., "Research and Development of Methods for Estimating Physicochemical Properties of Organic Compounds of Environmental Concem," June 1981
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 Volskay V.T., Grady C.P., "Toxicity of Selected RCRA Compounds to Activated Sludge Microorganisms," Journal WPCP, Vol 60, No. 10, 1850, 1988.

 - Klecka G.M., Gonsoir S.J., "Removal of 1,4-Dioxane from Wastewater," Journal of Hazardous Materials, 13, 161-168, 1986.
- Nyer D., Boeticher G., and Morello B., "Using the Properties of Organic Compounds to Help Design a Treatment System," Groundwater Monitoring Review, Fall, 1991, pp. 81-86.
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 - Weiss, G., "Hazardous Chemicals Data Book", 2nd edition, Noyes Data Corp., New York, 1986.
- US Public Health Service, Agency for Toxic Substances and Disease Registry, "Draft Toxicological Profile for Selected PCBs," November 1987. US Public Health Service, Agency for Toxic Substances and Disease Registry, "Draft Toxicological Profile for Benzo(a)pyrene," October 1987.
 - Merck Index, 9th edition, Merck and Co. Inc., New Jersey, 1976.

1/13/95 (Effective 2/1/95) 40.1514(3) Metals

METAL	Mobility	Score
Arsenic - H ₂ AsO ₄	Slowly mobile	15
Asbestos - > 2µ	lmmobile	5
A sbestos - < 2µ	Slowly mobile	15
Beryllium · Be**	Moderately mobile	. 25
Cadmium - Cd**	Slowly mobile	15
Chromium - Cr*** or Cr*6	Slowly mobile	LS .
Copper - Cia**	Moderately mobile	25
Cyanide - CN	Relatively mobile	35
Lead - Pb**	Moderately mobile	25)
Mercury - Hg**	Slowly mobile	. 15
Selenium - ISeO4 & SeO3	Relatively mobile	35
Zinc - Zn**	Moderately mobile	25

Fuller, "Movement of Selected Metals, Asbestos, and Cyanide in Soils: Application to Waste Disposal Problems," EPA-600/2-77-020, April 1977.

310 CMR: DEPARTMENT OF ENVIRONMENTAL PROTECTION





OHM MOBILITY AND PERSISTENCE FACTORS								
•	Organic Compounds							
F	RANGE and VALUE							
FACTOR	LO#	(Value)	MEDIUM (Value)		HIGH (Value)			
Solubility (mg/L)	< 1	(0)	1 - 1,0	00` (5)	> 1,000	(10)		
Vapor Pressure (mm Hg)	10.0 >	(0)	- 10.0	1 (5)	> 1	(10)		
К	> 10,000	(0)	10 - 10.	.000 (5)	< 10	(10)		
Degradation Potential	Non-Persistent (NP)		(0)	Persistent (P)		(10)		
Specific Gravity (20° C)	< 1		(0)	> 1		(10)		

Radionuclides

Radionuclides present in quantities greater than their federal Reportable Quantity (40 CFR Part 302.4, Appendix B) where the quantity is known or in concentrations greater than background where the quantity is not known shall be assigned a *Mobility and Persistence Score* equal to 40.

40.1515 Soil Permeability Criteria

	SOIL PERMEABILITY				
VALUES	CRITERIA				
LOW	Permeability: < 10E-7 cm/s Soil or Bedrock Type: clay; shale; compact till; unfractured metamorphic and igneous rocks.				
MEDIUM	Permeability: 10E-7 to < 10E-3 cm/s Soil or Bedrock Type: silt, fine sand and silty sand; loess; silty clays; clay loams, silty loams, sandy loams, and loamy sands; less to moderately permeable limestones, dolomites, and sandstone; moderately permeable to coarse till; moderately fractured igneous and metamorphic rocks. Fill is considered moderately permeable unless disposal site-specific condition indicate otherwise.				
нісн	Permeability: ≥ 10E-3 cm/s Soil or Bedrock Type: gravel, sand; highly fractured igneous and metamorphic rocks; permeable basalt and lavas; karst limestone and dolomite.				

OHM MOBILITY FOR: -

PHENANTHRENE NOT VOLATILE 4(0) SG \$174 (3) ASSUME PERSISTE (0)
BENZO (C) PYRENE NOT VOLATILE * (0) CASSUME > 1 (10) - (-0)

* A DEP SHOUTFORM

xx Chemical Ergineers Hundbrush.

1/13/95 (Effective 2/1/95)

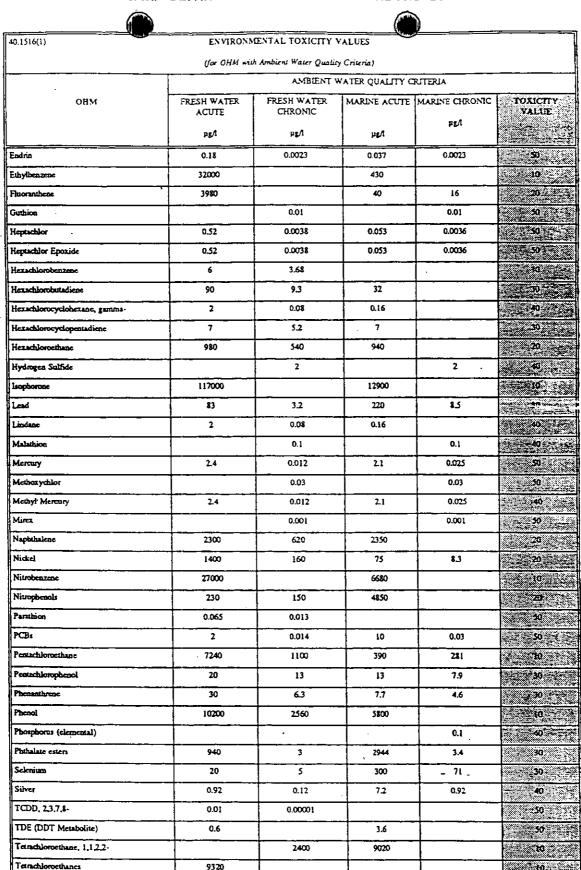
40.1516 Environmental To Values

(1) Environmental Toxicity Values

40.1516(1)	ENVIRON	MENTAL TOXICITY	VALUES		
		th Ambiens Water Quali			
			WATER QUALITY	RITELIA	
онм	FRESH WATER ACUTE	FRESH WATER CHRONIC		MARINE CHRONIC	TOXICITY VALUE
	Лдя	pg/l	рел	pg/I	ALUE.
Acenaphthese	1700	\$20	970	710	20
Acrolein	68	21	55	<u> </u>	- 10
Acrylonitrile	7550	2600	 		510
Aldrin	30	<u> </u>	1.3		40.1
Antimony	81	30	1500	500	30
Anenica	250		2319		30,
Benzene	5300		5100	700	#10
Benzidine	2500	·	 		. 20,
Beryllium	130	5.3	 		36
Beazene Hiszachlonde	100		0.34		30
admium	3.9	1.1	43	9.3	40
Carbon Tet achloride	35200	·	50000		70
Chlordane	2.4	0.0043	0.09	0.004	50
Dioroform	28900	1240			
hiorophensi, 2-	4380			·	***10 ** 72
hiorophenia, 4-		·	29700		- 30
μοιργτίοι	0.083	0.041	0.011	0.0056	10
hromium III	1700	210	10300	17.0036	40
hromium VI	16	11	1100	50	20
opper	18	12	2.9	30	.30 .
yanide	22	5.2	1		30.7
DT	1.1	0.001	0.13	0.001	- 30
DE	1050		14	0.001	50 =
emeton	- - - - - - - - 	0.1		·	30 10 10
i-2-Ethylhexyl Phthalate	400	360	400		40
chlorobenzmer	1120	763	1970	360	20
chloroethuie, 1,2-	118000	20000			10.00
chloroethylenes	11600		113000		· • 10
chlorophenol, 2,4-	2020	365	224000	<u> </u>	10
chloropropi ne	23000	5700	- 10000		20
chloropropi ne	6060	244	10300	.040	10
eldrin	2.5	0.0019	790		. 20
nethylphenal, 2,4-	2120	0.0017	0.71	0.0019	+50 -c= 3;
ntrotaluene			500		20 📜
uitrotoluene, 2,4-	330	230	590		- 10 - 2
henylhydrizine, 1,2-	270				20
losulfans	0.22	0056			30
		0.056	0.034	0.12087	5.40 \$1.35

1/13/95 (Effective 2/1/95)

310 CMR - 1790



5280

840

10200

440

Tetrachloroethylene

Tetrachlorphenol, 23,5,6-

450

30

40.1516(1)		ENVIRON	VALUES					
		(for OHM with Ambient Water Quality Criteria)						
		AMBIENT WATER QUALITY CRITERIA						
	онм	FRESH WATER ACUTE	FRESH WATER CHRONIC	MARINE ACUTE	MARINE CHRONIC	TOXICTTY		
		Λgq	µg∕l	ng/l	ρgΛ			
Thallium	İ	1400	40	2130		30		
Toluene	!	17500		6300	5000	-10		
Tozaphene		0.73	0.0002	0.21	0.0002	50		
Trichloroe han	c, 1,1,1-			31200		10		
Trichlores han	c, 1,1,2-		9400			10		
Trichloree han	es	18000				10		
Trichloroethyle	EDE	45000	21900	2000		10		
Trichloropieso	ol, 2.4.5-	. 100	- 63	240	11	70		
Trichloropheno	ol. 2.4.6-		970			10		
Zinc		120	110	95	86	. 20		





ENVIRONMENTAL TOXICITY DEFAULT VALUES

Default values shall be assigned for all OHMs not listed in 310 CMR 40.1516(1) according to the following criteria.

CHEMICAL CLASS	ENVIRONMENTAL TOXICITY VALUE
Alcohol	20
Aldehydes	30
Alkanes	20
Alkenes .	30
Amines	20
Aromatics	30
Esters	40
Ethers	20
Halogenated Hydrocarbons (except Ethers)	30
Ketones	30
Organic Acids	40
Pesticides	40
Metals .	20
<u></u>	The same of the sa

NOTE: Use the <u>HIGHEST</u> Default Value applicable to the OHM under consideration.

Example: A halogenated pesticide would be assigned a default value of 40.4 () a get

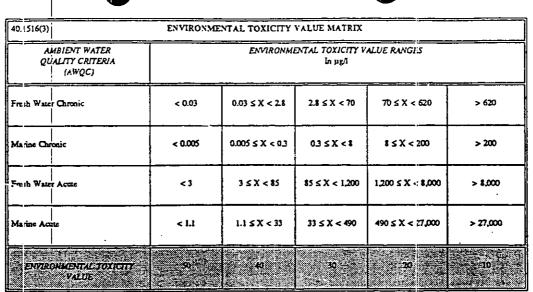
A halogenated alkane would be assigned a default value of 30.

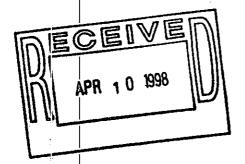
NOTE: For radionuclides, no Environmental Toxicity Value has been established.

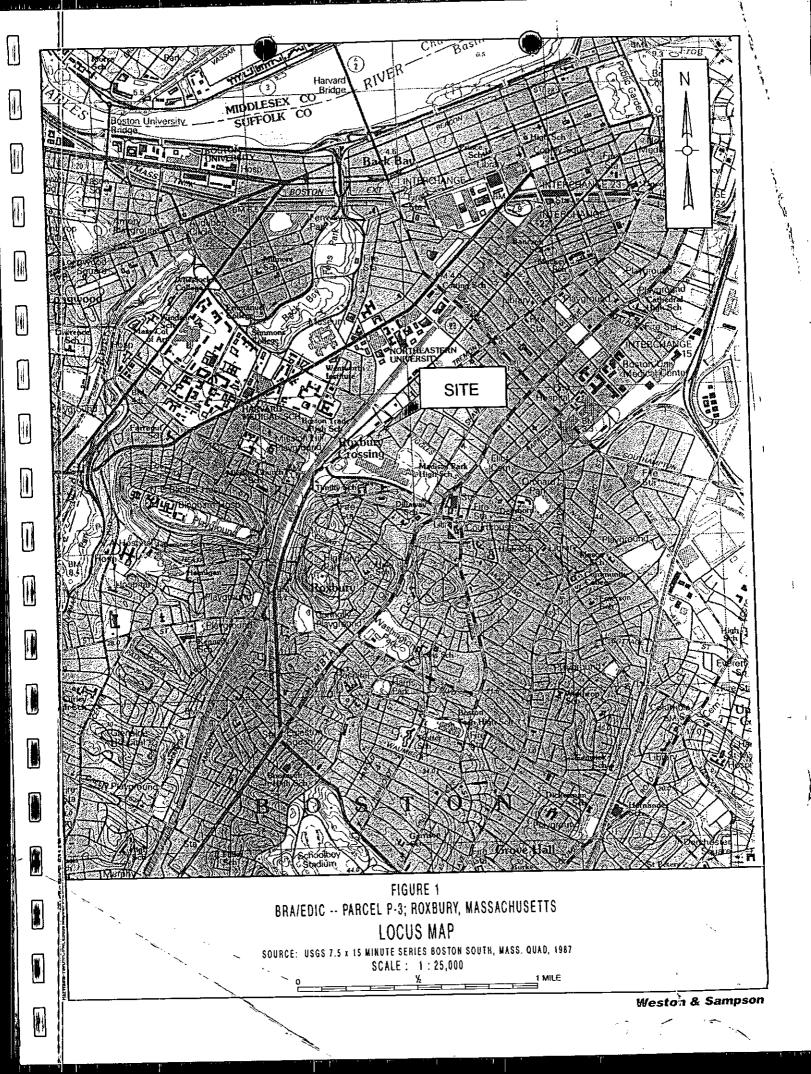
Radionuclides present in quantities greater than their federal Reportable Quantity (40) CFR Part 302.4, Appendix B) where the quantity is known or in concentrations greater than background where the quantity is not known shall be assigned an *Environmental Toxicity Scon*: equal to 30. This score shall be entered directly in Worksheet V.B.1...

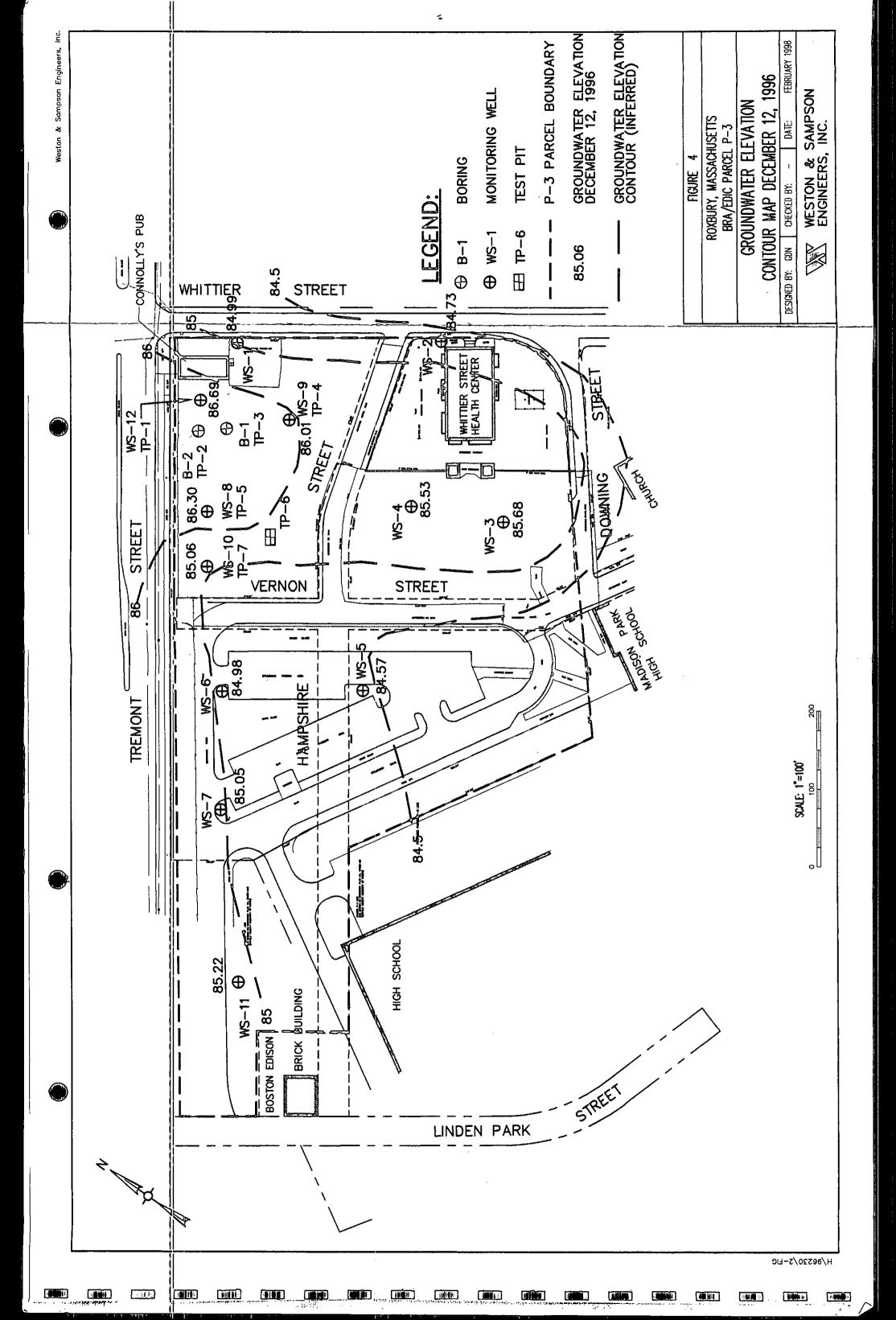
THE DEFINITION OF ENVIRONMENTAL PROTECTION

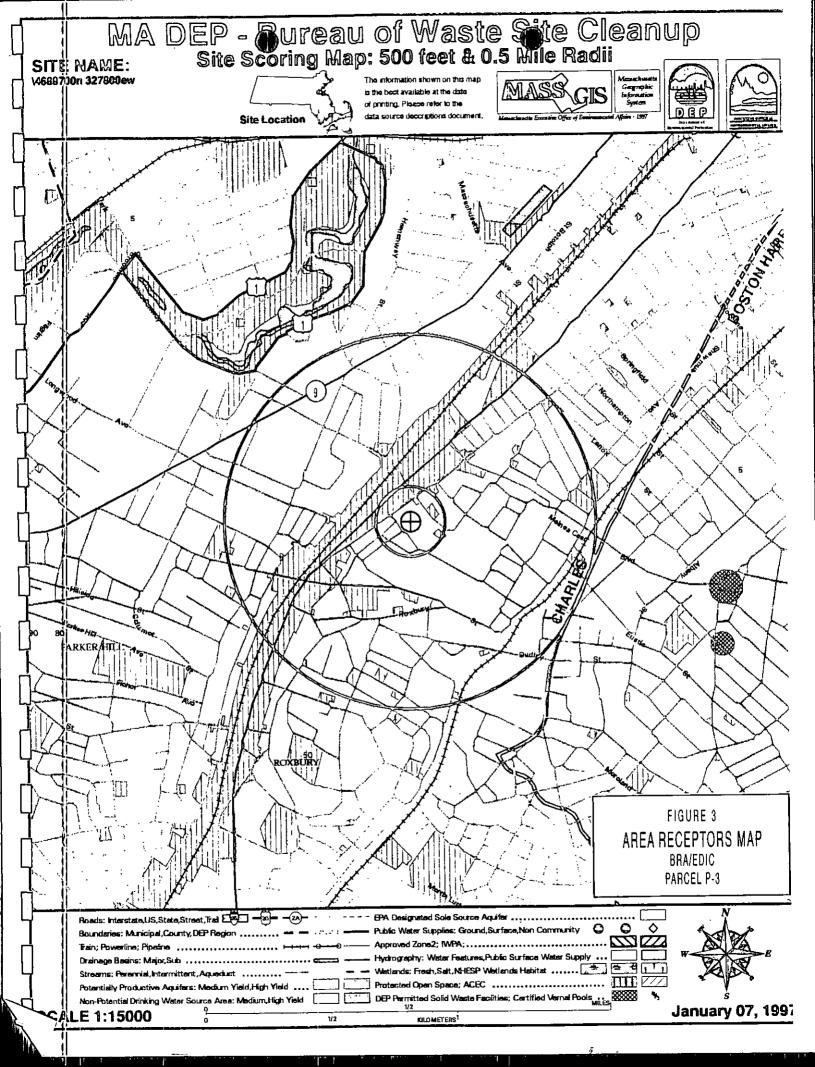
40.1516(3) Environmental T Value Matrix













Environmental Consultants since 1899

Boston Redevelopment Authority WSE Job # 96230.A

April 6, 1998

The Honorable Thomas M. Menino, Mayor Boston City Hall 1 City Hall Square Boston, Massachusetts 02201

Ré: Public Notification – Phase I Initial Site Investigation and Tier II Classification

RTN 3-15009 BRA Parcel P-3

Whittier and Tremont Streets Roxbury, Massachusetts

Dear Mayor Menino:

Weston & Sampson Engineers, Inc. (WSE) was contracted by the Boston Redevelopment Authority (BRA) to perform a Phase I Initial Site Investigation and Tier Classification (PHI/TC) at the above referenced site. Results of this investigation required that the site be classified as a Tier II disposal site in accordance with the Massachusetts Contingency Plan (MCP), 310 CMR 40.0000. A legal notice for the Initial Site Investigation and Tier II Classification will be published in the Boston Herald newspaper.

The PHI/TC report is being submitted to the Department of Environmental Protection Northeast Regional Office (DEP-NERO) in Woburn where it will be available for public review. If you have any questions regarding this site, please feel free to call WSE at (978) 532-1900 or Richard Mertens at BRA at (617) 722-4300, ext 4283.

Very truly yours,

WESTON & SAMPSON ENGINEERS, INC.

George D. Naslas Project Manager

cc:

Ms. Lillian Shirley, City of Boston, Board of Health

Mr. Paul Osborn, BRA Mr. Richard Mertens, BRA DEP-NERO, Woburn, MA.

File

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BOSTON REDEVELOPMENT AUTHORITY PARCEL P-3, WHITTIER & TREMONT STREET ROXBURY, MASSACHUSETTS RTN 3-15009

Pursuant to the Massachusetts Contingency Plan (310 CMR 40.0480), an Initial Site Investigation has been performed at the above referenced location. A release of oil and/or hazardous materials has occurred at this location which is a disposal site (defined by M.G.L. c. 21E, Section 2). This site has been classified as Tier II, pursuant to 310 CMR 40.0500. Response actions at this site will be conducted by The Boston Redevelopment Authority who has employed Mr. Prasanta K. Bhunia, L.S.P., Weston & Sampson Engineers, Inc. to manage response actions in accordance with the Massachusetts Contingency Plan (310 CMR 40.0000).

M.G.L. c. 21E and the Massachusetts Contingency Plan provide additional opportunities for public notice of and involvement in decisions regarding response actions at disposal sites: 1) The Chief Municipal Officer and Board of Health of the community in which the site is located will be notified of major milestones and events, pursuant to 310 CMR 40.1403; and 2) Upon receipt of a petition from ten or more residents of the municipality in which the disposal site is located, or of a municipality potentially affected by a disposal site, a plan for involving the public in decisions regarding response actions at the site will be prepared and implemented, pursuant to 310 CMR 40.1405.

To obtain more information on this disposal site and the opportunities for public involvement during its remediation, please contact Mr. Richard Mertens, Environmental Review Office, Boston Redevelopment Authority, 1 City Hall Square, Boston, Massachusetts 02201 at (617) 722-4300 ext 4283.

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COMMONWEALTH OF MASSACHUSETTS EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS DEPARTMENT OF ENVIRONMENTAL PROTECTION

Northeast Regional Office, One Commerce Way, Woburn, MA 01801

TRUDY COXE Secretary DAVID B. STRUHS

Commissioner

ARGEO PAUL CELLUCCI Governor

BOSTON REDEVELOPMENT AUTHORITY ONE CITY HALL SQ BOSTON. MA 02201-1007

Attn: RICHARD MERTENS

February 23, 1998

RTN: 3-0015009 ROXBURY PARCEL P-3 TREMONT/WHITTIER ST

RE: 310 CMR 40.0000, Notice of Due Date for Tier Classification Submittal.

Dear RICHARD MERTENS,

On 04/14/1997 the Department of Environmental Protection (DEP) was notified of a release or threat of release of Oil and Hazardous Material at PARCEL P-3 TREMONT/WHITTIER ST, ROXBURY. This release constitutes a 120 DY release condition pursuant to 310 CMR 40.0000, the Massachusetts Contingency Plan (MCP), and Chapter 21E of the Massachusetts General Laws.

The purpose of this letter is to remind you that the one year period, following the date of notification, for you to submit either a Response Action Outcome (RAO) Statement, a Downgradient Property Status Submittal or a Tier Classification Submittal is about to expire. This letter describes the significance of this deadline so that you can take appropriate action to minimize your cleanup costs, maintain compliance with the MCP, and avoid possible DEP enforcement action for failing to submit an RAO Statement, a Downgradient Property Status Submittal or a Tier Classification Submittal to DEP.

PLEASE BE ADVISED that, as of the date of this letter, DEP has <u>not</u> received either a RAO Statement, a Downgradient Property Status Submittal or a Tier Classification Submittal for the above listed site. The one year period for submitting one of these documents will expire on 04/14/1998.

The MCP requires, among other provisions, that a location affected by a release (i. e., the site) meet one of the following milestones within one year of notification:

- Conditions at the site meet the requirements of a Response Action Outcome, and an RAO Statement and supporting documentation are submitted to the appropriate regional office. If you submit an RAO Statement more than 120 days after the date of notification and prior to Tier Classification, you must also pay DEP an RAO Compliance Fee of \$750.00; or
- A Downgradient Property Status is established for the site, and a Downgradient Property Status Transmittal Form and supporting documentation are submitted to the appropriate regional office. You must also pay DEP a Downgradient Property Status Compliance Fee of \$1000.00; or
- The site is Tier Classified as either a Tier I or Tier II site, and a Tier Classification Transmittal Form and supporting documentation are submitted to the appropriate regional office. For Tier I sites, you must also include a Tier I Initial Permit Application and pay a Permit Application Fee of \$3,550; Tier II sites do not require a Permit and do not pay a Permit Application Fee. If a site is Tier Classified within one year of notification, the DEP will not assess an Annual Compliance Fee for the first year. After Tier Classification, Comprehensive Response Actions must then be undertaken to assess and clean up that site.

Please note that if you fail to submit either an RAO Statement, a Downgradient Property Status Submittal or a Tier Classification Submittal to DEP by 04/14/1998, the above referenced site will be categorically classified as a Tier IB Disposal Site and, if not otherwise exempt, you will be assessed a Tier IB Annual Compliance Fee for the first year, for response actions which you carried out.

Licensed Site Professional (LSP):

In order to clean up and/or address a release or threat of release, the services of a Licensed Site Professional (LSP) are required. LSPs are professionals licensed by the Commonwealth of Massachusetts to issue Waste Site Cleanup Activity Opinions in connection with response actions at sites. The MCP requires the preparation of one or more Waste Site Cleanup Activity Opinions for every release reported to DEP. For a list of LSP names please contact the Board of Registration at (617) 556-1145.

You and your Licensed Site Professional (LSP) may obtain copies of all DEP forms and applications by contacting your regional service center at (617) 932-7677 or 7678. You may direct other questions concerning this letter to the regional service center, as well.

Very truly yours.

Richard Chalpin, Regional Engineer

Northeast Regional Office Bureau of Waste Site Cleanup



WILLIAM F. WELD Governor ARGEO PAUL CELLUCCI Lt. Governor

COMMONWEALTH OF MASSACHUSET **EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS**

DEPARTMENT OF ENVIRONMENTAL PROTECTION

ONE WINTER STREET, BOSTON, MA 02108 617-292-5500

TRUDY COXE Secretary

DAVID B. STRUHS Commissioner

December 1, 1997

Egleston Square Development Corporation c/o Richard Mason, Senior Project Manager 2010 Columbus Avenue Roxbury, MA 02119

> Release Tracking No.: 3-0003938 Release City: Boston (Roxbury)

Release Addr: 3060-3070 Washington Street

Covenant Not to Sue - Certificate of Completion

Dear Mr. Mason,

I am pleased to announce the issuance of a Certificate of Completion for the above-referenced Covenant Not to Sue project based upon the receipt of a Class A-3 Response Action Outcome Statement on October 6, 1997. Please find enclosed the original signed Certificate copy.

Should you have any further questions concerning this application, please feel free to contact me personally at (617) 292-5941.

Thank you for your interest and participation in this important pilot project.

Sincerely

Robert P. Kalaghan, Acting Director

Division of Fiscal Management, Cost Recovery, Revenues and Administration

Bureau of Waste Site Cleanup

Mr. Dennis P. Crimmins, Esq., PLCPT, 585 Commercial Street, CC:

Boston, MA 02109

Margaret Stolfa, Chief Counsel, BWSC

Nancy Harper, Assistant Attorney General, OAG, EPD

DEP NERO, BWSC

DEP Boston, BWSC, CNTS File



Commonwealth of Massachusetts Executive Office of Environmental Affairs

Department of Environmental Protection

William F. Weld Governor Trudy Coxe Secretary, EOEA Thomas B. Powers Acting Commissioner

EXHIBIT C

CERTIFICATE OF COMPLETION
PILOT COVENANT NOT TO SUE PROGRAM
M.G.L. c. 21E, s. 3A(j)

From:	The Department of Environmental Protection
To:	Egleston Sq. Development Corp. ("Applicant")
Date	of Issuance: December 1, 1997
DEP R	elease Tracking Nc(s). 3-3938
City(ies)/Town(s) Roxbury/Boston

This Certificate of Completion ("Certificate") is issued in accordance with a certain Agreement entered into by DEP and the Commonwealth of Massachusetts with Applicant, dated August 25, 1995, to signify only that the Department has received (i) a Class A or Class B Response Action Outcome Statement for the release(s) identified by the DEP Release Tracking Number(s) referenced above, and (ii) payment in full of the sum set forth in the Agreement, such sum representing all or a portion of the past costs and fees owing the Commonwealth for the release(s).

This Certificate shall not be deemed or construed to imply the Department's approval of the adequacy of any response action(s) undertaken at the subject property, nor shall issuance of this Certificate operate to bar the Department from auditing any person, site or response action, or from requesting any person to provide information to the Department, or to relieve any person of his/her obligation to comply with any such request.

Issued by: Assistant Commissioner, Bureau of Waste Site Cleanup

One Winter Street • Boston, Massachusetts 02108 • FAX (617) 556-1049 • Telephone (617) 292-5500



COMMONWEALTH OF MASSACHUSETTS EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS DEPARTMENT OF ENVIRONMENTAL PROTECTION METROPOLITAN BOSTON'- NORTHEAST REGIONAL OFFICE



VILLIAM F. WELD Governor

ARGEO PAUL CELLUCCI

TRUDY COXE Secretary

DAVID B. STRUHS Commissioner

URGENT LEGAL MATTER: PROMPT ACTION NECESSARY
CERTIFIED MAIL: RETURN RECEIPT REQUESTED MAY 28 1997

Boston Redevelopment Authority 1 City Hall Plaza Boston, MA 02201-1007 RE: Boston/Roxbury Parcel P-3 Tremont & Whittier St. RTN #3-15009

NOTICE OF RESPONSIBILITY;
M.G.L. c. 21E & 310 CMR
40.0000

Attention: Mr. Richard Mertens

Dear Mr. Mertens:

Information contained in a Release Notification Form (RNF) submitted to the Department of Environmental Protection (the Department or DEP) on April 14, 1997 and submitted by Boston Redevelopment Authority 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, the Department 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). The assessment and cleanup of disposal sites is governed by M.G.L. c. 21E and the MCP.

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.

STATUTORY LIABILITIES

The Department has reason to believe that you (as used in this letter, "you" refers to Boston Redevelopment Authority) 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, the Department 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 the Department and its contractors in performing these actions, and any 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 the Department. Response action costs include, without limitation, the cost of direct hours spent by Department employees arranging for response actions or overseeing work performed by persons other than the Department or their contractors, expenses incurred by the Department in support of those direct hours, and payments to the Department's contractors. (For more detail on cost liability, see 310 CMR 40.1200.)

The Department 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 the Department, 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.

NECESSARY RESPONSE ACTIONS

The subject site shall not be deemed to have had 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 the Department immediately if such a need exists.

You must employ or engage a Licensed Site Professional (LSP) to manage, supervise or actually perform the necessary response actions at the subject site. In addition, the MCP requires persons undertaking response action at a disposal site to submit to the Department a Response Action Outcome Statement (RAO) prepared by an LSP in accordance with 310 CMR 40.1000 upon determining that a level of No Significant Risk already exists or has been achieved at a disposal site or portion thereof. [You may obtain a list of the names and addresses of these licensed professionals from the Board of Registration of Hazardous Waste Site Cleanup Professionals at (617) 556-1091].

The Department has determined that the following response actions are necessary at the subject site:

Initial site investigation activities in accordance with 310 CMR 40.0405 are necessary. In addition, unless an RAO is submitted earlier, a completed Tier Classification Submittal pursuant to 310 CMR 40.0510, and, if appropriate, a completed Tier I Permit Application pursuant to 310 CMR 40.0700, must be submitted to DEP within one year of the initial date notice of a release is provided to the Department pursuant to 310 CMR 40.0300 or from the date the Department issues a Notice of Responsibility (NOR), whichever occurs earlier.

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 the Department, the signature of an authorized representative of the Department.

However, please be advised that if information is obtained after making a oral or written notification to indicate that the release or threat of release didn't occur, failed to meet the reporting criteria at 310 CMR 40.0311 through 40.0315, or is exempt from notification pursuant to 310 CMR 40.0317, a Notification Retraction must be submitted within 60 days of the initial notification pursuant to 310 CMR 40.0335.

The Department 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 Lilla Dick at the letterhead address or (617) 932-7600. All future communications regarding this release must reference the Release Tracking Number (RTN #3-15009) contained in the subject block of this letter.

Very truly yours,

Kingsley Ndi

Chief, Notification Branch

KN/LD

cc: Boston Board of Health Boston Fire Department

> Weston & Sampson Engineers, inc. 5 Centennial Drive Peabody, MA 01960 Attn: Mr. Prasanta K. Bhunia

DEP data base/file



Massachus Department of Environmental Bureau of Waste Site Cleanup

BWSC-1030

Release Tracking Number RELEASE NOTIFICATION & NOTIFICATION RETRACTION FORM 15009 Pursuant to 310 CMR 40.0335 and 310 CMR 40.0371 (Subpart If assigned by DEP

A. I	RELEASE OR THREAT OF RELEASE LOCATION:	J										
Stre	et: Parcel P-3, Tremont and Whittier Streets	Location Aid: UTMs: 4688700 mN, 327800 mE										
City	Town: Boston (Roxbury)	ZIP 02120-0000 Code:										
B. TO:	HIS FORM IS BEING USED (check one)											
- (Submit a Release Notification (complete all sections of this form).											
	Submit a Retraction of a Previously Reported Notification of a Rel this form). You MUST attach the supporting documentation required by 310	ease or Threat of Release (complete Sections A, B, E, F and G of CMR 40.0335.										
C. į	NFORMATION DESCRIBING THE RELEASE OR THREAT OF REI	EASE (TOR):										
Date Date	and time you obtained knowledge of the Release or TOR. 12/18/9	Time: Specify: AM PM										
- 1	The date you obtained knowledge is always required. The time you ob Conditions.	ained knowledge is not required if reporting only 120 Day										
IF K Date	NOWN, record date and time release or TOR occurred.	Time: Specify: AM PM										
	Check here if you previously provided an Oral Notification to DEP (2 Hour ar	d 72 Hour Reporting Conditions only).										
1	Provide date and time of Oral Notification. Date:	Time: Specify: AM PM										
Che	k all Notification Thresholds that apply to the Release or Threat of Release: (for more information see 310 CMR 40.0310 - 40.0315)											
į	HOUR REPORTING CONDITIONS 72 HOUR REPORTING CONDITIO	NS 120 DAY REPORTING CONDITIONS										
Ė	Sudden Release Subsurface Non-Aqueous Pha	se 👿 Release of Hazardous Material(s) to Soil or										
۾ ا	Liquid (NAPL) Equal to or Great than 1/2 Inch	ter Groundwater Exceeding Reportable Concentration(s)										
<u>ا</u> 4	Oil Sheen on Surface Water Underground Storage Tank (UST) Release	Release of Oil to Soil Exceeding Reportable Concentration(s) and Affecting More than 2 Cubic										
Ţ	Poses Imminent Hazard Threat of UST Release	Yards										
بر ا	Could Pose Imminent Hazard	Release of Oil to Groundwater Exceeding Reportable Concentration(s)										
Í	Release Detected in Private Well Release to Groundwater near Water Supply											
ĺ	Release to Storm Drain Release to Groundwater near School or Residence	Subsurface Non-Aqueous Phase Liquid (NAPL) Equal to or Greater than 1/8 Inch and Less than 1/2 Inch										
ĺ	Sanitary Sewer Release (Imminent Hazard Only)	isen										
List If ne	l pelow the Oils or Hazardous Materials that exceed their Reportable Concent bessary, attach a list of additional Oil and Hazardous Material substances su	ation or Reportable Quantity by the greatest amount. bject to reporting.										
	le and Quantities of Oils (O) and Hazardous Materials (HM)											
I GIG	ased: O or HM Released O HM CAS # (check one) (if known)	Reportable Concentrations Amount or Units Exceeded, if Applicable Concentration (RCS-1, RCS-2, RCGW-1, RCGW-2)										
PAI	s (see Table 1)	RCS-1										
TPI	(see Table 1)	RCS-1										
Lea	d (see Table 1)	RCS-1										
D.	ADDITIONAL INVOLVED PARTIES:											
	Check here if attaching names and addresses of owners of properties affect who is submitting this Release Notification (required).	ed by the Release or Threat of Release, other than an owner										
V	Check here if attaching Licensed Site Professional (LSP) name and address	(optional).										
	You may write in names and addresses on the bo	ttom of the second page of this form.										



Massachusetts De tment of Environmental Protecti Bureau of Waste Site Cleanup

ecti

BWSC-103

Release Tracking
Number
3 - 509
If assigned by DEP

RELEASE NOTIFICATION & NOTIFICATION RETRACTION FORM

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

E. PERSON REQUIRED	TO NOTIFY:									
Name of Bost	on Redevelopment 1	Authority			· · · · · · · · · · · · · · · · · · ·					
Organization: Name of Mr. Ric	chard Mertens		Title: Envi	Officer						
Street: 1 City Hall I	Plaza				d .					
City/Town: Boston			State: MA	ZIP Code: 0220)1-1007					
Telephone: 617-722- 4	3 7 0	Ext.: <u>4283</u>	FAX:	617-742-4464						
F. RELATIONSHIP OF P	ERSON REQUIRED TO NO	TIFY TO RELE	ASE OR THRE	AT OF RELEASE: (ch	eck one)					
RP or PRP Specify	₯ Owner ⊜ Operator ⊜	Generator 🔘	Transporter Oth	er RP or PRP:						
Fiduciary, Secured Lend	ler or Municipality with Exempt	Status (as defined	l by M.G.L. c. 21E	i, s. 2)	·					
Agency or Public Utility	on a Right of Way (as defined	by M.G.L. c. 21E, s	s. 5(j))							
Any Person Otherwise R Relationship:	equired to Notify Specify				1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1					
	PERSON REQUIRED TO N	OTIFY:			n 1					
familiar with the information of inquiry of those individuals im my knowledge and belief, true responsible for this submittal.	orbrien ontained in this submittal, inclumediately responsible for obtate, accurate and complete, and lithe person or entity on who ossible fines and imprisonment	iding any and all de ining the information (iii) that I am fully a se behalf this subm	ocuments accomp on, the material in authorized to mak nittal is made am/i	panying this transmittal forn formation contained in this e this attestation on behalf s aware that there are sign	submittal is, to the best of of the entity legally ificant penalties.					
The Vacan			Title: Dire	ctor	!					
(signature)				1- 6-						
For Boston Redevelo	opment Authority		_ Date:	19/77						
(print name or person or	entity recorded in Section E)		/	,	,					
Enter address of the person p	providing certification, if different	nt from address red	corded in Section	E:	' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' '					
Street:			<u> </u>		• ;					
City/Town:			State:	ZIP Code:	· · · · · · · · · · · · · · · · · · ·					
Telephone:		Ext	FAX:		· · · · · · · · · · · · · · · · · · ·					
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.										
		·			. ‡					
	ensed Site Professi		1=							
	Prasanta K. Bhunia ton & Sampson Engir		1		WISINI					
	entennial Drive	100110, 01101	·		<u> </u>					
Peal	oody, Massachusetts	s 01960	/	n						
L.S.	.P. Number 2999			APR I A	1997					
(508	3) 532 - 1900			ad to						
				DEP/NORTHEA	ST REGION!					
				WOBUPN	MASS.					
	,		٠ <u>-</u>		<i>y</i>					





TABLE 1

SOIL HEADSPACE SCREENING AND SAMPLING RESULTS BRA/EDIC PARCEL P-3 Test Pit and Soil Boring Samples

1 2				/ 00.000 of 1	100100000000000000000000000000000000000					e depth (fe				
F'arameter	Units	Reportable	WS-1	WS-2	WS-3	WS-4	WS-5	WS-6		8-8W	WS-9	WS-10	WS-11	WS-12
		Concs.					000000000000000000000000000000000000000			TP-5	TP4	TP-7		TP-1
		RCS-1	8.5-10.5	10-12	15-17	10-12	10-12	10-12	10-12	17-17.5	18.5-19	17.5-18	20-22	11.5-1
LATILE ORGANIC COMPO	OUNDS*													
Benzene	ug/kg	10,000	ND	ND	ND	ND	ND	ND	ND	ND	87	ND	ND	ND
Isopropylbenzene	ug/kg	1,000,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	330
n-Propylbenzene	ug/kg	100,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	760
(Xylene (total)	ug/kg	500,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	32
tert-Butylbenzene	ug/kg	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	36
sec-Butibenzene	ug/kg	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	270
n-Butylbenzene	ug/kg	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	470
Napthalene	ug/kg	4,000	ND	ND	ND	ND	ND	ND	ND	150	ND	150	ND	160
1,2,4-Trimethylbenzene	ug/kg	1,000,000	ND	ND	ND	ND	ND	ND	ND	ΝD	ND	ND	ND	70
Total BTEX	ug/kg	-	ND	ND	ND	ND	ND	ND	ND	ФИ	87	ND	ND	32
Total VOCs	ug/kg	-	ND	ND	D	ND	ND	ND	ND	150	87	150	ND	2,128
11														
DIAL PETROLEUM HYDRO	CARBON	S**												
Gasoline	mg/kg	<u> </u>	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Kerosene	mg/kg	<u> </u>	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Mineral Spirits	mg/kg		ND	ND	ND	ND	ND	ND	ND	ND	DN	ND	ND	ND
Fuel Oil #2/Diesel	mg/kg	<u> </u>	ND	ND	ND.	ND	ND	ND	ND	ND	ND	150*	ND	8,400
Fuel Oil #4	mg/kg	 -	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fuel Oil #6	mg/kg		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Motor Oil/Hydraulic Oil	mg/kg	 -	ND	ND	ND	ND	ND	ND	ND	500	ND	920	ND	ND
Total TPH	mg/kg	500	ND	ND	ND	ND	ND	ND	ND	500**	ND	1070**	ND	8,40
YNUCLEAR AROMATIC	ug/kg	4.000	NA.	ND	ND	NA.	NA.	NA NA	NA.	8,200	130	NA.	ND	1.000
2-Methylnaphthalene	ug/kg	700	NA NA	ND	ND	NA.	NA	NA	NA.	4,300	60	NA.	ND	23,00
Acenaphthylene	ug/kg	100,000	NA	ND	ND	NA	NA	NA.	NA.	2,000	ND	NA.	ND	800
Acenaphthene	ug/kg	20,000	NA	ND	ND	NA	NA	NA	NA.	12,000	180	NA	ND	3,400
Fluorene	ug/kg	400,000	NA	ND	ND	NA	NA	NA	NA	11,000	200	NA	ND	3,900
Phenanthrene	ug/kg	100,000	NA	ND	ND	NA	NA	NA	NA	93,000	1,500	NA	ND	11,00
Anthracene	ug/kg	1,000,000	NA	ND	ND	NA	NA	NA	NA NA	21,000	440	NA	ND	2,700
Fluoranthene	ug/kg	600,000	NA	ND	ND	NA.	NA	NA	NA	92,000	1,600	NA	ND	4,100
Pyrene	ug/kg	500,000	NA	ND	ND	NA	NA	NA NA	NA	82,000	1,400	NA	ND	4,100
Benzo[a]anthracene	ug/kg	700	NA	ND	ND	NA	NA	NA.	NA	38,000	630	NA	ND	1,500
Chrysene	ug/kg	7,000	NA	ND	ND	NA_	NA	NA	NA	44,000	690	NA	ND	1,700
Benzo[b]fluoranthene	ug/kg	700	NA	ND	ND	NA_	NA	NA	NA	34,000	560	NA	ND	1,200
Benzo[k]fluoranthene	ug/kg	7,000	NA.	ND	ND	NA .	NA	NA.	NA	35,000	550	NA	ND	1,300
Benzo[a]pryene	ug/kg	700	NA.	ND	ND	NA.	NA	NA	NA	39,000	610	NA	ND	1,40
Dibenzo[a,h]anthracene	ug/kg	700	NA	ND	ND	NA.	NA	NA NA	NA NA	4,700	ND	NA	ND	ND
Benzo[g,h,i]perylene	ug/kg	100,000	NA	ND	ND _	NA	NA.	NA.	NA	13,000	190	NA.	ND	ND
indeno[1,2,3-cd]pyrene	ug/kg	700	NA NA	ND	ND	NA NA	NA	NA.	NA_	14,000	200	NA NA	МĐ	ND
{ ETALS														
[Arsenic, Total	mg/kg	30	NA.	7.1	7.5	NA.	NA.	NA.	I NA	7.0	7.0	. NA		
Barium, Total	mg/kg	1,000	NA NA	62	57	NA NA	NA NA	NA NA	NA NA	7.3	7.8 160	NA NA	8.1	4.4
[Cadmium, Total		30	NA NA	<5.5	<4.2	NA NA	· · · · · · · · · · · · · · · · · · · ·					NA NA	53	72
Chromium, Total	mg/kg	1,000	NA NA	<5.5 54	<4.2 84		NA NA	NA NA	NA NA	4.5	<2.7	NA NA	<2.4	<3.3
Lead, Total	mg/kg mg/kg	300	NA NA	13	9.8	NA NA	NA NA	NA NA	NA NA	23 520	14 980	NA	11	27
(Mercury, Total	mg/kg mg/kg	10	NA NA	<0.033	0.059	NA NA	_	NA NA	NA NA			NA	51	120
Selenium, Total	mg/kg mg/kg	300	NA NA	<0.033 <5,5	<4.2	NA NA	NA NA	NA NA	NA NA	3.07	0.204	NA NA	<0.015	<0.0
Silver, Total	1	100	NA NA	<5.2	<4.2	NA NA	NA NA		NA NA	<2.6	<2.7	NA NA	<2.4	<3.
(Jonesi, Total	mg/kg	100	I IVA	₹0.2	~4. 1	, NA	NA.	NA NA	NA.	<2.8	<2.6	NA	<2.4	<3.3

NC = Not detected

NA = Not analyzed

NS = No standard -- =: Not applicable

mg/kg = milligrams per kilogram (parts per million)
ug/kg = micrograms per kilogram (parts per billion)
* = weathered TPH

** PAHs present

Bold/Shaded = Exceeds applicable reportable concentration

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Five Centennial Drive Peabody, Massachusetts 01960-7985 Tel: (508) 532-1900 Fax: (508) 977-0100

Environmental Consultants since 1899

Boston Redevelopment Authority WSE Job Number 96230.G

April 4, 1997

Bureau of Waste Site Cleanup Department of Environmental Protection 10 Commerce Way Woburn, Massachusetts 01801

Re: Release Notification Form

Parcel P-3

Tremont & Whittier Streets

To whom it may concern:

On behalf of our client, the Boston Redevelopment Authority (BRA), Weston & Sampson Engineers, Inc. (WSE) is pleased to submit the Release Notification Form (RNF) for the 120-day notification condition at the above referenced site.

Please note that the Licensed Site Professional will be Dr. Prasanta K. Bhunia, Ph.D., Weston & Sampson Engineers, Inc., 5 Centennial Drive, Peabody, Massachusetts 01960, L.S.P. Number 2999.

If you have any questions please do not hesitate to contact this office at (508) 532-1900.

Very truly yours,

WESTON & SAMPSON ENGINEERS, INC.

راولاه والمحرومة ومحرمي التروا

Po Bhunia

Prasanta K. Bhunia, Ph.D., L.S.P.

Associate

Enclosures

cc: Mr. Paul Osborn, BRA/EDIC

File

PKB/GDN:gdn

H:\WP\CLIENT\BRA-EDIC\C\96230.G\040497-1.GDN

