

WASTE/MATERIAL PROFILE FORM

A. GENERATOR/CUSTOMER INFORMATION <i>(If foreign generator, complete Waste Import Supplement)</i>			
1. Generator: US Army Corps of Engineers – Buffalo District		<input type="checkbox"/> Invoicing information is the same as generator mailing address	
2. Site Address: 1397 Pletcher Rd		<input type="checkbox"/> P.O. required for payment? If yes, include: <input type="text"/>	
City: Lewiston	Phone: 716-417-5877	8. Invoicing Company: Environmental Chemical Corporation (ECC)	
State: NY	Zip: 14092	Country: USA	
3. Mailing Address: 478 Main St		9. Invoicing Address: 1090 King Georges Post Rd Ste104	
City: Buffalo		City: Edison	
State: NY	Zip: 14202	State: NJ	Zip: 00837
Country: USA		Country: USA	
4. Technical Contact: Jock Thompson		10. Customer Contact: Rick Woodworth III	
5. Phone: 509-539-7406		11. Phone: 215-776-0629	
Email: jock.thompson@perma-fix.com		Email: rwoodworth@ecc.net	
6. Generator Status: <input type="radio"/> SQG <input checked="" type="radio"/> LQG <input type="radio"/> VSQG/CESQG <i>(If yes, complete Certification Supplement)</i> <input type="radio"/> Not Applicable			
7. EPA ID #: NY7890108973		NAICS CODE: <input type="text"/> State ID #: <i>(If applicable)</i> <input type="text"/>	
B. WASTE/MATERIAL STREAM			
1. Common Name: Low-Activity Radioactive Waste (LARW) Soils & Debris contaminated soil and concrete			
<i>(Please provide a site history for Remediation & IDW sites. Use additional form if necessary.)</i>			
2. Generating Process: Remediation LARW Soils & Debris contaminated soil and concrete is from the USACE FUSRAP NFSS. See Att. 1			
3. Source Code: G49 Other remediation (specify in comments)		Form Code: W301 Contaminated soil	
C. SHIPPING/PACKAGING INFORMATION			
1. DOT Hazardous Materials? <input checked="" type="radio"/> Yes <input type="radio"/> No Proper Shipping Name: Radioactive Material, low specific activity (LSA I)			
2. Additional Description: <i>(49 CFR 172.203, e.g. "Lead" or "D008")</i> <input type="text"/>			
3. RQ: <input type="radio"/> Yes <input checked="" type="radio"/> No RQ Reason: <input type="text"/>		RQ Threshold: <input type="text"/> UN/NA #: 2912	
Packing Group: <input type="text"/> ERG #: 162		Hazard Class: 7	
4. DOT Special Permit? <input type="radio"/> Yes <input checked="" type="radio"/> No Permit #: <input type="text"/>		Select #2 <input type="text"/> Select #3 <input type="text"/>	
5. 24-Hour Emergency Phone: 800-535-5053 contract # 98800		6. DOT Inhalation Hazard? <input type="radio"/> Yes <input checked="" type="radio"/> No	
7. Container Type: <input checked="" type="checkbox"/> Bulk <input type="checkbox"/> Totes <input type="checkbox"/> Pallet <input type="checkbox"/> Boxes <input type="checkbox"/> Drums <input type="checkbox"/> Cylinder Container Size: 20 ton			
<input type="checkbox"/> Lab Pack <i>(If 40 CFR 264.316/49CFR 173.12(b) Lab Pack Inventory lists required)</i>			
<input type="checkbox"/> Combination Containers (e.g., inner containers), Describe: <input type="text"/>			
<input type="checkbox"/> Other, Describe: <input type="text"/>			
8. Volume/Frequency: Volume: 2,500		Units: CYD	
Frequency: <input type="radio"/> Year <input type="radio"/> Quarterly <input checked="" type="radio"/> Monthly <input type="radio"/> 1 Time <input type="radio"/> Other, Describe: <input type="text"/>			
D. PHYSICAL PROPERTIES <i>(Use additional form if necessary)</i>			
1. Physical Description <i>(e.g. soil, water, PPE, debris, sorbent, etc. Include 100% of container content. If debris, provide dimensions & weight.)</i>			
Description		Typical (%)	Min (%)
Soil		75	80
DEBRIS		10	0
CONCRETE		15	0
2. Odor: <input checked="" type="radio"/> None <input type="radio"/> Slight <input type="radio"/> Strong		Odor Type: <input type="checkbox"/> Ammonia <input type="checkbox"/> Amines <input type="checkbox"/> Mercaptans <input type="checkbox"/> Sulfur	
		<input type="checkbox"/> Organic Acid <input type="checkbox"/> Other, Describe: <input type="text"/>	
3. Physical State: <i>(at 70°F)</i> <input checked="" type="checkbox"/> Solid <input type="checkbox"/> Dust/Powder <input type="checkbox"/> Debris <input type="checkbox"/> Sludge/Slurry <input type="checkbox"/> Liquid <input type="checkbox"/> Gas/Aerosol <input type="checkbox"/> Varies			
4. Color: VARIES		5. Liquid phases: <input type="radio"/> Single <input type="radio"/> Double Layer <input type="radio"/> Multi-layer <input checked="" type="radio"/> N/A	
6. Is it solid using the paint filter test? <i>(40 CFR Part 264.314(b))</i> <input checked="" type="radio"/> Yes <i>(Solid)</i> <input type="radio"/> No <i>(Not Solid)</i>			
Is there a possibility of incidental liquids from transportation? <input type="radio"/> Yes <input checked="" type="radio"/> No			
7. pH: <i>(If solid, provide estimated pH if mixed 50:50 with water)</i> <input type="checkbox"/> ≤ 2 <input type="checkbox"/> 2.1 - 4.9 <input checked="" type="checkbox"/> 5 - 10 <input type="checkbox"/> 10.1 - 12.4 <input type="checkbox"/> ≥ 12.5			
8. Flash Point: <input type="text"/> °F and/or <input type="checkbox"/> < 90°F <input type="checkbox"/> 90 - 139°F <input type="checkbox"/> 140 - 199°F <input type="checkbox"/> ≥ 200°F <input checked="" type="checkbox"/> Does Not Flash <input type="checkbox"/> Flammable Solid			
BTU /lb. Value: <input type="text"/> and/or <input checked="" type="radio"/> <5000 BTU <input type="radio"/> ≥5000 BTU			
9. Are there any known handling/treatment issues involving this material? <i>(i.e. Describe whether the waste stream has ever been the direct or suspected cause of a fire or other reaction, and whether there are any specific controls you use to prevent any adverse reactions?)</i>			
<input type="radio"/> Yes <input checked="" type="radio"/> No If yes, Describe: <input type="text"/>			

E. CHARACTERIZATION & CHEMICAL COMPOSITION <i>(Use additional form if necessary)</i>									
1. Robstown Facility Customers - Waste/Material Type: <input type="radio"/> Industrial <input type="radio"/> Non-Industrial <input type="radio"/> N/A TX State Code: Pennsylvania Residual Waste: <input type="radio"/> Yes <input type="radio"/> No PA State Code(s): 									
2. State Waste Codes:	<input checked="" type="checkbox"/> None 								
	 								
3. RCRA Waste Codes:	<input checked="" type="checkbox"/> None 								
	 								
	 								
If None, is it exempt from the definition of "Solid Waste" or "Hazardous Waste"? <input type="radio"/> Yes <input checked="" type="radio"/> No <i>If yes, list reference from 40 CFR Part 261.2, 3, or 4:</i> 									
4. If F006-F009, F012, or F019, are Cyanides used in the process? <input type="radio"/> Yes <input checked="" type="radio"/> No <i>(If yes, Total and Amenable CN (9010/9012) analysis required)</i>									
5. Knowledge is from: <input checked="" type="checkbox"/> Lab analysis <i>(requires attachment)</i> <input type="checkbox"/> SDS/MSDS <i>(requires attachment)</i> <input type="checkbox"/> Process/generator knowledge									
6. Chemical Composition <i>(include all applicable UHC's, TRI Section 313 chemicals, OSHA Hazardous Materials, PFAS Constituents, etc.)</i>									
Constituent	Units	TCLP	Totals	Typical	Min	Max	UHC	Exceeds LDR	
See attachment 2	mg/kg	<input type="radio"/>	<input checked="" type="radio"/>				<input type="checkbox"/>	<input type="checkbox"/>	
	mg/kg	<input type="radio"/>	<input checked="" type="radio"/>				<input type="checkbox"/>	<input type="checkbox"/>	
	mg/kg	<input type="radio"/>	<input checked="" type="radio"/>				<input type="checkbox"/>	<input type="checkbox"/>	
	mg/kg	<input type="radio"/>	<input checked="" type="radio"/>				<input type="checkbox"/>	<input type="checkbox"/>	
	mg/kg	<input type="radio"/>	<input checked="" type="radio"/>				<input type="checkbox"/>	<input type="checkbox"/>	
	mg/kg	<input type="radio"/>	<input checked="" type="radio"/>				<input type="checkbox"/>	<input type="checkbox"/>	
	mg/kg	<input type="radio"/>	<input checked="" type="radio"/>				<input type="checkbox"/>	<input type="checkbox"/>	
	mg/kg	<input type="radio"/>	<input checked="" type="radio"/>				<input type="checkbox"/>	<input type="checkbox"/>	
	mg/kg	<input type="radio"/>	<input checked="" type="radio"/>				<input type="checkbox"/>	<input type="checkbox"/>	
F. ADDITIONAL PROPERTIES <input type="checkbox"/> None Apply <i>(Through Question F23)</i>									
1. Explosive:		<input type="radio"/> Yes <input checked="" type="radio"/> No		2. Reactive Sulfides:		 ppm		<input type="radio"/> Yes <input checked="" type="radio"/> No	
3. Shock Sensitive:		<input type="radio"/> Yes <input checked="" type="radio"/> No		4. Reactive Cyanides:		 ppm		<input type="radio"/> Yes <input checked="" type="radio"/> No	
5. Radioactive: <i>(If yes, complete Radioactive Waste Acceptance Supplement)</i>		<input checked="" type="radio"/> Yes <input type="radio"/> No		6. Reactive Other:				<input type="radio"/> Yes <input checked="" type="radio"/> No	
7. Medical/Infectious/Biohazard Waste:		<input type="radio"/> Yes <input checked="" type="radio"/> No		8. Polychlorinated Biphenyls (PCB): <i>(If yes, complete PCB Supplement)</i>				<input type="radio"/> Yes <input checked="" type="radio"/> No	
9. Dioxins and/or Furans:		<input type="radio"/> Yes <input checked="" type="radio"/> No		10. Metal Fines/Powder/Paste: <i>(Including Aluminum)</i>				<input type="radio"/> Yes <input checked="" type="radio"/> No	
11. Pyrophoric:		<input type="radio"/> Yes <input checked="" type="radio"/> No		12. Temperature Controlled: <i>(For Transportation Only)</i>				<input type="radio"/> Yes <input checked="" type="radio"/> No	
13. Thermally Unstable:		<input type="radio"/> Yes <input checked="" type="radio"/> No		14. Biodegradable Sorbents:				<input type="radio"/> Yes <input checked="" type="radio"/> No	
15. Compressed Gas: <i>(If yes, complete Compressed Gas Cylinder Supplement)</i>		<input type="radio"/> Yes <input checked="" type="radio"/> No		16. Used Oil: <i>(per 40 CFR Part 279)</i> <i>(If yes, complete Used Oil Supplement)</i>				<input type="radio"/> Yes <input checked="" type="radio"/> No	
17. Oxidizer: <i>(List in Section E6)</i>		<input type="radio"/> Yes <input checked="" type="radio"/> No		18. Tires: <i>(If yes, must be quartered for landfill)</i>				<input type="radio"/> Yes <input checked="" type="radio"/> No	
19. Organic Peroxide:		<input type="radio"/> Yes <input checked="" type="radio"/> No		20. Beryllium:				<input type="radio"/> Yes <input checked="" type="radio"/> No	
21. Ammonia/Ammonia Compounds:		<input type="radio"/> Yes <input checked="" type="radio"/> No		22. Per-and Polyfluoroalkyl Substances (PFAS):				<input type="radio"/> Yes <input checked="" type="radio"/> No	
23. Asbestos: <input type="radio"/> Yes <input checked="" type="radio"/> No If Yes: <input type="radio"/> Friable <input type="radio"/> Non-Friable <i>(If friable, material must be packaged per 40 CFR Part 61.150)</i>									
24. Hazardous Secondary Material: <i>(Per 40 CFR Part 260.10)</i> <input type="radio"/> Yes <input checked="" type="radio"/> No <i>If yes, <input type="checkbox"/> I certify that this waste/material meets all requirements of legitimate recycling of Hazardous Secondary Materials under 40 CFR Part 260.43 and/or I am complying with the conditions for generators using one verified recycler exclusion.</i>									
25. Are pharmaceutical wastes profiled under this approval subject to a prescription? <input type="radio"/> Yes <input type="radio"/> No <input checked="" type="radio"/> N/A <i>(If yes, complete Pharmaceutical Certification Supplement)</i>									

G. REGULATORY INFORMATION

1. Volatile Organic Concentration: (Per 40 CFR Part 264.1083 & 265.1084) ☒ <500 ppmw ☐ ≥500 ppmw

2. Has the material been treated after the initial point of generation? ☐ Yes ☒ No If yes, Describe:

3. If RCRA Hazardous: ☒ None Apply

☐ Wastewater WW=<1% TSS & TOC; 40 CFR Part 268.2

☐ Non-wastewater TSS/TOC>WW

☐ Alternative Treatment Standards for soil > 50% soil; 40 CFR Part 268.49

☐ Alternative Treatment Standards for debris 40 CFR Part 268.2(g) & (h); >50% of waste is >2.5 inch size

☐ I confirm debris cannot reasonably be separated from non-debris by simple physical or mechanical means.

☐ I confirm debris has not been mixed/diluted with non-debris as prohibited in 40 CFR Part 268.3.

☐ Waste meets LDR Treatment Standards

4. Treatment subcategory: (if applicable)

5. Is the site or waste/material, subject to NESHAP/MACT standard(s)? ☐ Yes ☒ No

If yes, Please choose the applicable Part: ☐ 61 ☐ 62 ☐ 63 Subpart of NESHAP/MACT standards ☐ N/A

6. Is the waste/material RCRA Hazardous containing Benzene and originating at a petroleum refinery (SIC 2911), chemical manufacturing plant (SIC 2800 thru 2899) or Coke by-product recovery plant (SIC 3312)?

☐ Yes ☒ No (If yes, complete the Benzene Waste Operations Supplement and if applicable the Thermal Supplement.)

H. GENERATOR'S CERTIFICATION

1. Is a specific facility or treatment technology requested? ☐ Yes ☒ No

2. Requested Technology:

3. Thermal processing: ☐ Yes ☐ No (If yes, complete Thermal Supplement)

4. Other specific restrictions requested:

5. Requested Facility:

(If Chicago facility, complete Illinois Disposal Supplement)

I certify that all information (including attachments) is complete, factual and is an accurate representation of the known and suspected hazards pertaining to waste/material described herein. I authorize Republic Services' personnel to add supplemental information to the Waste/Material Profile Form, provided I am contacted and grant permission to do so. Republic Services' may require re-submittal of the Waste/Material Profile Form if substantial changes are determined necessary. I authorize Republic Services' personnel to obtain a sample from any waste/material shipment for purposes of verification and confirmation and understand that waste/material that does not conform to specifications described in this Waste/Material Profile Form may be rejected by Republic Services'. I certify that I am familiar with the waste/material described herein through analysis and/or process knowledge and that all information is true, accurate, representative and complete and that this Waste/Material Profile Form was completed in accordance with the instructions provided.

If I am an agent acting on behalf of the generator, I also certify that I have permission to sign any and all waste/material characterization paperwork on the generator's behalf and that I can produce such certification in writing upon request.

Print Name:

Signature:

Title:

Company:

Date:

**WASTE/MATERIAL PROFILE FORM**

Uniform Radioactive Waste Acceptance Supplement

Profile #:

Generator Information					
1. Generator Name: US Army Corps of Engineers – Buffalo District			2. EPA ID #: NY7890108973		
3. Site Address: 1397 Pletcher Rd, Lewiston, NY 14207					
Radioactive Material Description & Site Waste Acceptance Capabilities					
Radionuclides in the Waste Stream (Please check all that apply)	Waste Concentration (pCi/g)	Site Permit Limits (all values in pCi/g unless otherwise specified)			
		Grand View Facility	Belleville Facility	Robstown Facility	Beatty Facility
<input checked="" type="radio"/> Source Material (any Uranium and/or Thorium) Do you know if the source material is: <input checked="" type="radio"/> Natural Uranium / Thorium ^{1,2} <input type="radio"/> Depleted Uranium ³ , or <input type="radio"/> Refined Uranium ⁴	(Enter U & Th concentrations) U-238 - 13 pCi/g Th-228 - 7 pCi/g Th-230 - 45 pCi/g Th-232 - 6 pCi/g	<0.05% by weight (500 ppm) ⁵	<0.05% by weight (500 ppm) ⁵	<0.05% by weight (500 ppm) ⁵	<0.05% by weight (500 ppm) ⁵
<input checked="" type="radio"/> Radium-226 (Ra-226)	43 pCi/g	500/1500 ⁶	50	30 ⁷	5
<input checked="" type="radio"/> Radium-228 (Ra-228)	7 pCi/g	500/1500 ⁶	50	30 ⁷	(Note)
<input type="checkbox"/> Lead-210 (Pb-210)		1500	260	150	N/A ⁸
<input checked="" type="radio"/> Potassium-40 (K-40)	121 pCi/g	818 ⁹	Not Specified	818 ⁹	818 ⁹
<input type="checkbox"/> Exempt Byproduct Material		Per exemption ¹⁰	Per exemption ¹⁰	Per exemption ¹⁰	Per exemption ¹⁰
<input type="checkbox"/> Special Nuclear Material		3,000 ¹¹	N/A	N/A	N/A
<input type="checkbox"/> Accelerator-Produced Material		<10mR/hr ¹²	Per Approval	Per Approval	N/A
<input type="checkbox"/> Specifically Exempted Waste		3,000 ¹¹	N/A	N/A	N/A
<p>1. Natural Uranium and Thorium means all parent and progeny concentrations are as found in nature and considered to be in equilibrium.</p> <p>2. Natural Uranium contains U-234, U-235, and U-238. Natural Thorium contains Th-228, Th-230, and Th-232</p> <p>3. Depleted Uranium contains U-235 at <0.71% by weight.</p> <p>4. Refined Uranium refers to waste forms that have undergone chemical separation where the equilibrium state between the uranium parent and its decay chain has been disrupted.</p> <p>5. Unimportant Quantity of Source Material General Exemption in 10CFR40.13(a) is ≤ 500 ppm U + Th. The pCi/g concentrations provided are the 500 ppm equivalents for U-238 and Th-232. A sum of fractions (SOF) must be performed for U and Th with a result ≤ 1.0.</p> <p>6. Grand View Facility limit is for Ra-226+Ra-228 combined. 500 pCi/g is for bulk loads, up to 1500 pCi/g requires a sealed IP-1 package.</p> <p>7. Robstown Facility limits is for Ra-226 or Ra-228. See TCEQ regulations for other NORM exemptions.</p> <p>8. USEN may not accept Pb-210</p> <p>9. K-40 may not be enriched beyond its natural concentration.</p> <p>10. Please complete Radioactive Waste Supplement Form for Exempted Products, Devices, or Items.</p> <p>11. Grandview Facility only. Sum of all nuclides. Please complete Supplement Form for USEI.</p> <p>12. Grandview Facility only. Please complete Supplement Form for USEI.</p>					
Certification Statement					
I certify that the contents of the package(s) being shipped are not licensed or regulated at the point of generation under the Atomic Energy Act of 1954, as amended, by the US Nuclear Regulatory Commission, an Agreement State, or the US Department of Energy.					
Print Name: <input type="text"/>		Signature: <input type="text"/>			
Title: <input type="text"/>		Company: <input type="text"/>			
Date: <input type="text"/>					

Instructions – This supplement form is provided for any product, device, or item containing radioactive material that has a general licensing exemption provided in either Federal or State regulations. Please list all relevant products, devices, or items in the section below. Links to the lists of exemptions are also provided for your reference.	References for Federal and State Exemptions Grandview Facility: USEI Waste Acceptance Criteria Bellevue Facility: USEM Waste Acceptance Criteria Beatty Facility: USEN Waste Acceptance Guidelines Robstown Facility: USET Waste Acceptance Guidelines
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☐ Check if any additional inventory information is attached in lieu of listing inventory below.

Line	Name or Type of Product, Item, or Device (Fill out new line for EACH different type)	Total Number in Shipment	Radionuclide Contained	Activity Per (μCi)	Disposal Site	Cited Regulatory Exemption
1.	Example: Ionization Smoke Detectors	10	Am-241	1.0	USEI	10 CFR 30.15
2.						
3.						
4.						
5.						
6.						
7.						
8.						
9.						
10.						
11.						
12.						
13.						
14.						
15.						
16.						

Notes:

- The generator must provide an inventory of for all Products, Items, and Devices including activity, by isotope, for each container.

Particle Accelerator Produced Radioactive Material (NARM) (USEI WAC Table C.3)

1. Was the waste generated in a particle accelerator? ☐ Yes ☒ No

Estimated inventory of activity, by isotope, for each container

Radionuclide	Concentration (pCi/g)	Radionuclide	Concentration (pCi/g)	Radionuclide	Concentration (pCi/g)
K-40	120.88	Ra-226	42.42	Ra-228	6.25
Th-228	6.35	Th-230	44.90	Th-232	5.73
U-238	12.86				

Notes:

- Dose rate may not exceed 10 mrem/hr at any point on the package surface.
- Containers must be **at least 90% full**.

Materials Specifically Exempted by the NRC or NRC Agreement State (USEI WAC Tables C.4b or C.4c)

1. Is the material approved for disposal in accordance with 10CFR 20.2008(b) or equivalent Agreement State regulation? (If yes, provide a copy of the exemption) ☐ Yes ☒ No

2. Has the waste been approved by the NRC or an Agreement State for alternative disposal in accordance with 10CFR 20.2002 or an Agreement State equivalent regulation? (If yes, provide a copy of the approval request, NRC exemption, and applicable SER/FONSI) ☐ Yes ☒ No

3. Was the material approved for alternate disposal via a decommissioning plan or license amendment? (If yes, provide a copy of the license or plan.) ☐ Yes ☒ No

4. Is the material acceptable under USEI Table C.4b as not licensed or regulated by the NRC or Agreement State under the Atomic Energy Act? (If yes, provide documentation that the radioactive material is unlicensed) ☐ Yes ☒ No

5. Has the material been "Released from Radiological Control" from a US Department of Energy Site in accordance with a DOE Order 458.1 Authorized Limit? (If yes, provide a copy of the Authorized Limit package and applicable DOE approval letter) ☐ Yes ☒ No

6. Has the material been exempted, released, or otherwise authorized for non-licensed disposal by the US Department of Defense under its AEA Section 91(b) authority? (If yes, provide a copy of the DoD approval letter) ☐ Yes ☒ No

Exempt Material	WAC Limit
Byproduct Material (Exempt per 10CFR30.11, A/S equivalent, US DOE, US DoD)	Sum of all Isotopes <3,000 pCi/g
Source Material (Exempt per 10CFR40.14, A/S equivalent regulation, US DOE, or US DoD) Sum of all isotopes < 3,000 pCi/g. If waste contains <u>both</u> <u>uranium and thorium</u> , a sum of fractions (SOF) must be calculated using the limits provided below: <ul style="list-style-type: none"> Natural Uranium (in equil): U-238 Limit = 214 pCi/g (U-238 * 14 decay progeny < 3,000 pCi/g) Depleted Uranium: U-238 Limit = 877 pCi/g (Only contains U-238, Th-234, Pa-234m, U-235, and U-234) Natural Thorium (in equil): Th-232 Limit = 272 pCi/g (Th-232 * 11 decay progeny < 3,000 pCi/g) 	Use Space Below for U + Th SOF Calculations: $\frac{U238 \text{ Result}}{214 \text{ pCi/g}} + \frac{Th232 \text{ Result}}{272 \text{ pCi/g}} = \frac{13}{214} + \frac{6}{272} = 0.08$
Special Nuclear Material (Exempt per 10CFR 70.17, A/S equivalent regulation, US DOE, or US DoD)	Sum of all Isotopes <3,000 pCi/g

For the Grandview Facility only:

Which of the USEI WAC Tables apply to this profile? (Check all that apply)	Waste Type (check only one)
<input type="checkbox"/> (Table C.1) Unimportant Quantities of Source Material Uniformly Dispersed in Soil or other Media <input type="checkbox"/> (Table C.2) NORM other than Uranium and Thorium Uniformly Dispersed in Soil or Other Media <input type="checkbox"/> (Table C.3) Particle Accelerator Produced Radioactive Material (NARM) <input type="checkbox"/> (Table C.4a) NRC Exempted Products, Devices, or Items <input type="checkbox"/> (Table C.4b) Materials Specifically Exempted by the US NRC or an NRC Agreement State <input type="checkbox"/> (Table C.4c) Materials Released by Other Government Agencies	<input checked="" type="radio"/> FUSRAP <input type="radio"/> RADIOACTIVE NON-FUSRAP <input type="radio"/> RADIOACTIVE EXEMP ACCEL

Attachment 1.

Sec. B.2

Niagara Falls Storage Site waste generation description.

Beginning in 1944 the Niagara Falls Storage Site (NFSS) was used by the Manhattan Engineer District (MED) to store radioactive residues and wastes from uranium ore processing. Radioactive wastes and residues continued to be brought to the site for storage until 1952. In 1982 the U.S. Department of Energy (DOE) began cleanup and consolidation of the radioactive wastes and residues in an earthen containment cell constructed on the property.

Enviro-Fix Solutions, LLC (EFS) has been contracted to conduct remedial activities at the NFSS for the U.S. Army Corps of Engineers (USACE) – Buffalo District under Contract Number W912P423D0010. The NFSS is included in the government's Formerly Utilized Sites Remedial Action Program (FUSRAP). The planned remedial activities include removal and offsite disposal of radiological and/or chemical contaminated materials including soil, road bedding, building foundations, and groundwater. The scope of is specific to the remedial activities planned for the NFSS Balance of Plant (BOP) and Groundwater Operable Units (OUs).

The purpose of the project is to excavate, survey, manage, and dispose of approximately 6,400 cubic yards (yd³) of soil and road bedding, 2,200 yd³ of concrete building foundations/debris, and 3,400 gallons of wastewater from the NFSS BOP site.

Attachment 2

Organic_Analyte Name	Result Minimum ug/kg	Result Average ug/kg	Result Maximum ug/kg
1,1,1,2-Tetrachloroethane	ND	ND	ND
1,1,1-Trichloroethane	0.7800	0.0103	0.8300
1,1,2,2-Tetrachloroethane	ND	ND	ND
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ND	ND
1,1,2-Trichloroethane	ND	ND	ND
1,1-Dichloroethane	ND	ND	ND
1,1-Dichloroethene	0.3840	0.1832	4.9700
1,1-Dichloropropene	ND	ND	ND
1,2,3-Trichlorobenzene	ND	ND	ND
1,2,3-Trichloropropane	ND	ND	ND
1,2,4-Trichlorobenzene	0.6800	0.6800	0.6800
1,2,4-Trimethylbenzene	0.8000	0.0800	0.8000
1,2-Dibromo-3-chloropropane	ND	ND	ND
1,2-Dibromoethane (EDB)	ND	ND	ND
1,2-Dichlorobenzene	0.3800	0.3800	0.3800
1,2-Dichloroethane	ND	ND	ND
1,2-Dichloroethene	ND	ND	ND
1,2-Dichloropropane	ND	ND	ND
1,3,5-Trimethylbenzene	ND	ND	ND
1,3,5-Trinitrobenzene	ND	ND	ND
1,3-Dichlorobenzene	ND	ND	ND
1,3-Dichloropropane	ND	ND	ND
1,3-Dinitrobenzene	ND	ND	ND
1,4-Dichlorobenzene	ND	ND	ND
1,4-Dioxane	ND	ND	ND
2,2'-Dichlorodiisopropyl ether	ND	ND	ND
2,2-Dichloropropane	ND	ND	ND
2,4,5-Trichlorophenol	ND	ND	ND
2,4,6-Trichlorophenol	ND	ND	ND
2,4,6-Trinitrotoluene	ND	ND	ND
2,4-Dichlorophenol	ND	ND	ND
2,4-Dimethylphenol	ND	ND	ND
2,4-Dinitrophenol	ND	ND	ND
2,4-Dinitrotoluene	ND	ND	ND
2,6-Dinitrotoluene	ND	ND	ND
2-Amino-4,6-dinitrotoluene	ND	ND	ND
2-Butanone (MEK)	2.6000	5.1172	307.0000
2-Chloro-1,3-butadiene	ND	ND	ND
2-Chloronaphthalene	ND	ND	ND
2-Chlorophenol	ND	ND	ND
2-Chlorotoluene	ND	ND	ND
2-Hexanone	0.7100	0.7100	0.7100
2-Methylnaphthalene	1.4000	21.2522	2080.0000
2-Methylphenol (o-Cresol)	ND	ND	ND
2-Nitroaniline	ND	ND	ND
2-Nitrophenol	93.1000	93.1000	93.1000

Attachment 2

Organic_Analyte Name	Result Minimum ug/kg	Result Average ug/kg	Result Maximum ug/kg
2-Nitropropane	ND	ND	ND
2-Nitrotoluene	ND	ND	ND
3,3'-Dichlorobenzidine	ND	ND	ND
3-Nitroaniline	ND	ND	ND
3-Nitrotoluene	ND	ND	ND
4,6-Dinitro-2-methylphenol	ND	ND	ND
4-Amino-2,6-dinitrotoluene	ND	ND	ND
4-Bromophenyl phenyl ether	ND	ND	ND
4-Chloro-3-methylphenol	ND	ND	ND
4-Chloroaniline	ND	ND	ND
4-Chlorophenyl phenyl ether	ND	ND	ND
4-Chlorotoluene	ND	ND	ND
4-Methyl-2-pentanone (MIBK)	ND	ND	ND
4-Methylphenol (p-Cresol)	ND	ND	ND
4-Nitroaniline	ND	ND	ND
4-Nitrophenol	ND	ND	ND
4-Nitrotoluene	ND	ND	ND
Acenaphthene	10.9000	0.0854	13.7000
Acenaphthylene	4.2000	2.4656	456.0000
Acetone	2.2000	11.4404	302.0000
Acetophenone	ND	ND	ND
Aldrin	0.2400	0.0016	0.2400
alpha-BHC (alpha-Hexachlorocyclohexane)	ND	ND	ND
alpha-Chlordane	ND	ND	ND
alpha-Endosulfan	ND	ND	ND
Aniline (Phenylamine, Aminobenzene)	ND	ND	ND
Anthracene	3.4000	7.2953	610.0000
Atrazine	ND	ND	ND
Benzaldehyde	ND	ND	ND
Benzene	0.5400	0.1354	4.1000
Benzo(a)anthracene	0.6500	44.9273	5000.0000
Benzo(a)pyrene	1.1000	39.1072	3600.0000
Benzo(b)fluoranthene	0.7400	58.3938	5100.0000
Benzo(g,h,i)perylene	0.9900	23.0036	2100.0000
Benzo(k)fluoranthene	0.6100	14.7902	1900.0000
Benzoic acid	ND	ND	ND
Benzyl alcohol	ND	ND	ND
Benzyl butyl phthalate	ND	ND	ND
beta-BHC (beta-Hexachlorocyclohexane)	ND	ND	ND
beta-Chlordane	ND	ND	ND
beta-Endosulfan	ND	ND	ND
Biphenyl (Diphenyl)	ND	ND	ND
Bis(2-chloroethoxy)methane	ND	ND	ND
Bis(2-chloroethyl) ether (2-Chloroethyl ether)	ND	ND	ND
Bis(2-chloroisopropyl) ether	ND	ND	ND
Bis(2-ethylhexyl)phthalate	42.0000	39.5810	2270.0000

Attachment 2

Organic_Analyte Name	Result Minimum ug/kg	Result Average ug/kg	Result Maximum ug/kg
Bromobenzene	ND	ND	ND
Bromochloromethane	ND	ND	ND
Bromodichloromethane	ND	ND	ND
Bromoform	ND	ND	ND
Bromomethane	ND	ND	ND
Caprolactam	ND	ND	ND
Carbazole	28.7000	9.9250	640.0000
Carbon disulfide	0.6700	0.1180	4.2100
Carbon Tetrachloride	ND	ND	ND
Chlorobenzene	ND	ND	ND
Chloroethane	ND	ND	ND
Chloroform	ND	ND	ND
Chloromethane	ND	ND	ND
cis-1,2-Dichloroethene	ND	ND	ND
cis-1,3-Dichloropropene	ND	ND	ND
Cresols, m- & p-	51.9000	0.2867	51.9000
Cumene	ND	ND	ND
Cyclohexane	0.6500	0.0650	0.6500
Cyclohexanone	ND	ND	ND
delta-BHC (delta-Hexachlorocyclohexane)	0.4800	0.0091	0.8800
Dibenz(a,h)anthracene	1.4300	2.6961	510.0000
Dibenzofuran	42.0000	0.7391	94.0000
Dibromochloromethane	ND	ND	ND
Dibromomethane	ND	ND	ND
Dichlorodifluoromethane	ND	ND	ND
Dieldrin	0.2200	0.0164	0.6220
Diethyl phthalate	ND	ND	ND
Dimethyl ether	16.3000	19.7500	23.2000
Dimethyl phthalate	ND	ND	ND
di-n-Butyl phthalate	ND	ND	ND
di-n-Octyl phthalate	150.0000	0.8152	150.0000
Diphenylamine	ND	ND	ND
Endosulfan sulfate	0.3300	0.0143	0.8180
Endrin	0.5000	0.0074	0.6100
Endrin aldehyde	0.3900	0.0078	0.7700
Endrin ketone	0.3100	0.0085	0.5300
Ethyl methacrylate	ND	ND	ND
Ethylbenzene	0.4000	0.1400	12.2000
Fluorene	3.4000	1.4011	160.0000
gamma-BHC (Lindane)	0.5300	0.0036	0.5300
gamma-Chlordane	ND	ND	ND
Heptachlor	0.3600	2.6485	390.0000
Heptachlor epoxide	.44+	0.0030	0.4400
Heptadecane	318.0000	318.0000	318.0000
Hexachlorobenzene	ND	ND	ND
Hexachlorobutadiene	ND	ND	ND

Attachment 2

Organic_Analyte Name	Result Minimum ug/kg	Result Average ug/kg	Result Maximum ug/kg
Hexachlorocyclopentadiene	ND	ND	ND
Hexachloroethane	ND	ND	ND
Hexadecanoic acid	239.0000	419.2500	575.0000
Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	ND	ND	ND
Indeno(1,2,3-c,d)pyrene	1.2600	24.8381	2400.0000
Isophorone	ND	ND	ND
Methoxychlor	1.8000	0.0423	2.6000
Methyl acetate	ND	ND	ND
Methyl methacrylate	ND	ND	ND
Methyl tert-butyl ether (MTBE)	ND	ND	ND
Methylcyclohexane	ND	ND	ND
Methylene chloride	1.5000	1.7570	220.0000
Naphthalene	0.7300	8.7239	1410.0000
n-Butylbenzene	ND	ND	ND
n-Hexane	0.7200	0.8320	5.4000
Nitrobenzene	ND	ND	ND
N-Nitrosodimethylamine (NDMA)	ND	ND	ND
N-Nitrosodi-n-propylamine	ND	ND	ND
N-Nitrosodiphenylamine	ND	ND	ND
n-Octacosane	300.0000	300.0000	300.0000
n-Propylbenzene	ND	ND	ND
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	ND	ND	ND
Oleic acid	162.0000	312.3333	437.0000
o-Xylene	ND	ND	ND
p,p'-DDD	0.3570	0.0352	2.1800
p,p'-DDE	0.2300	0.3030	5.3300
p,p'-DDT	0.5060	0.5420	12.5000
PCB-1016 (Aroclor 1016)	ND	ND	ND
PCB-1221 (Aroclor 1221)	ND	ND	ND
PCB-1242 (Aroclor 1242)	8.8000	0.0591	8.8000
PCB-1248 (Aroclor 1248)	ND	ND	ND
PCB-1254 (Aroclor 1254)	2.9000	1.4154	124.0000
PCB-1260 (Aroclor 1260)	2.1300	0.8814	25.9000
PCB-1262 (Aroclor 1262)	ND	ND	ND
PCB-1268 (Aroclor 1268)	ND	ND	ND
p-Cymene (p-Isopropyltoluene)	ND	ND	ND
Pentachlorophenol	ND	ND	ND
Phenanthrene	1.6000	36.1683	2300.0000
Phenol	ND	ND	ND
Pyrene	0.1600	69.0220	5800.0000
Pyridine	ND	ND	ND
sec-Butylbenzene	3.9000	0.3900	3.9000
Styrene	ND	ND	ND
Technical Chlordane	ND	ND	ND
tert-Butylbenzene	ND	ND	ND
Tetrachloroethene (PCE)	0.4020	0.0556	2.9000

Attachment 2

Organic_Analyte Name	Result Minimum ug/kg	Result Average ug/kg	Result Maximum ug/kg
Tetrahydrofuran	ND	ND	ND
Tetratetracontane	315.0000	315.0000	315.0000
Tetryl	ND	ND	ND
Toluene	0.3100	0.2844	5.3400
Toxaphene	ND	ND	ND
trans-1,2-Dichloroethene	ND	ND	ND
trans-1,3-Dichloropropene	ND	ND	ND
trans-1,4-Dichloro-2-butene	ND	ND	ND
Trichloroethene (TCE)	0.5600	0.0100	1.0000
Trichlorofluoromethane	ND	ND	ND
Tridecanoic acid	198.0000	198.0000	198.0000
Vinyl acetate	ND	ND	ND
Vinyl chloride	ND	ND	ND
Xylenes, Total	0.3900	0.3293	7.7000

Inorganics

Inorganic_Analyte	Result Minimum mg/kg	Result Average mg/kg	Result Maximum mg/kg
Aluminum	1,600.0000	14,152.5000	147,000.0000
Antimony	0.2700	0.3251	8.4000
Arsenic	1.3800	4.3661	68.0000
Barium	6.4000	137.6131	2,210.0000
Beryllium	0.2000	0.8149	28.0000
Boron	1.4000	21.1775	1,580.0000
Cadmium	0.5100	0.1405	1.0400
Calcium	1,580.0000	39,313.4091	240,000.0000
Chromium	5.1000	19.4109	160.0000
Cobalt	2.3000	10.1740	30.8000
Copper	8.2500	36.0425	1,500.0000
Iron	7,930.0000	27,120.2273	660,000.0000
Lead	2.3600	9.9894	70.2000
Lithium	9.0000	23.6617	46.8000
Magnesium	290.0000	11,099.4545	232,000.0000
Manganese	122.0000	809.6000	5,010.0000
Mercury	0.0030	0.0194	0.1500
Molybdenum	0.2500	0.7559	27.0000
Nickel	7.1000	22.8061	180.0000
Potassium	440.0000	2,013.4364	12,200.0000
Selenium	0.0611	1.1092	5.2500
Silver	0.0350	0.0971	0.8030
Sodium	39.7000	220.1750	6,950.0000
Thallium	0.0200	0.0905	0.3100
Total Organic Carbon	932.0000	13,398.8378	32,700.0000
Vanadium	7.8000	27.1173	93.0000
Zinc	18.7000	59.3812	403.0000