#### **Environmental Consultants & Contractors**

### SCS ENGINEERS

January 27, 2022 File No. 25221209.00

Ms. Cindy Koepke Wisconsin Department of Natural Resources 3911 Fish Hatchery Road Fitchburg, WI 53711

Subject: Contained Out Determination Request

Former Classic Cleaners, 3918 Monona Drive, Madison

BRRTS #02-13-368525

#### Dear Ms. Koepke:

The purpose of this letter is to request a "contained out" determination for tetrachloroethylene (PCE)-contaminated soil that will be displaced during the redevelopment of the former Classic Cleaners site at 3900-3920 Monona Drive in Madison. The PCE in soil is assumed to be a listed waste (F002) under the Resource Conservation and Recovery Act (RCRA) due to a release of spent dry cleaning solvent on the property. SCS Engineers (SCS) is requesting a contained-out determination to allow the excavated soil to be managed off-site in a solid waste landfill based on the as-found PCE (and Trichloroethene [TCE]) concentrations in the soil.

The proposed redevelopment of the property and contaminated soil management approach are described in the Material Management Plan (MMP) and Post-Closure Modification Request that SCS submitted to the Wisconsin Department of Natural Resources (WDNR) on behalf of Threshold Development on November 17, 2021. WDNR approved the MMP and initial post-closure modification in a letter dated December 10, 2021.

The WDNR's publication RR-705, "Guidance for Hazardous Waste Remediation," indicates that industrial direct contact residual contaminant levels (RCLs) are the appropriate health-based levels for soil contained-out determinations. The applicable industrial direct contact RCLs are 145 miligrams per kilogram (mg/kg) for PCE and 8.41 mg/kg for TCE. SCS therefore requests that WDNR issue a "contained-out" determination for all soil at the site with PCE concentrations less than 145 mg/kg and TCE concentrations less than 8.41 mg/kg.

Soil with PCE and TCE concentrations that exceed the RCRA limits of 0.7 and 0.5 milligrams per liter (mg/L), respectively, via the toxicity characteristic leaching procedure (TCLP) is considered hazardous for the purposes of disposal regardless of whether the PCE (or TCE) is considered a "listed" waste. Furthermore, soil with a total concentration of PCE or TCE greater than 60 mg/kg is banned from land disposal under RCRA land disposal restrictions (LDRs).

As shown in the attached **Table 1** summarizing volatile organic compound (VOC) testing results for the former Classic Cleaners site, only one of the soil samples (GB3-S1) contains PCE greater than either the 60 mg/kg LDR or 145 mg/kg "contained-out" limits. Under the 20 times dilution rule for total contaminant concentrations, three soil samples (GB3-S1, GB6-S2, and GB15-S1) are assumed to contain PCE concentrations 0.7 mg/L TCLP limit based on the results of total VOC analyses. None of the soil samples showed TCE concentrations in excess of the TCLP or LDR limits. Sample locations

Ms. Cindy Koepke January 27, 2022 Page 2

are shown on **Figure 1**. The area of soil assumed to be hazardous based on total PCE concentrations is shown on the attached **Figure 2**.

Considering that some of the soil testing results are nearly 20 years old, the developer has requested that SCS resample the most contaminated soil for testing via the TCLP procedure. The sample(s) from the location of GB3 will also be analyzed for total VOCs to identify whether the contamination in this area still exceeds the "contained-out" and LDR limits. The soil will be profiled for disposal based on the updated testing results and soil will be considered hazardous for disposal only if total PCE concentrations exceed the 60 mg/kg LDR or TCLP concentrations exceed 0.7 mg/L.

SCS requests the WDNR provide a written response regarding the "contained-out" determination requested in this letter. Please contact Eric at 608-216-7341 or <a href="mailto:eoelkers@scsengineers.com">eoelkers@scsengineers.com</a> if you have any questions.

Sincerely,

Eric Oelkers, PG

Senior Project Manager

SCS Engineers

Robert Langdon Senior Project Manager

SCS Engineers

EO/AJR/REL

cc: Tyler Krupp, Threshold Development

Encl. \$700 Check for Review Fee

Table 1 - Soil Analytical Results

Figure 1 – Residual Soil Contamination

Figure 2 - Excavation Area Estimates

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# Table 1 Soil Analytical Results

# Table 1 - Soil Analytical Results 3918 Monona Drive, Madison, WI / SCS Engineers Project #25221209

(Results are in µg/kg, except where noted otherwise)

Canada	Data	Depth	FID /DID	Lab	D	Esta dia anno	Talaaaa	Vol	1,2,4-	1,3,5-	MTBE	PCE	Other VOCs**
Sample GB1 S1	9/17/2002	0-2	FID/PID	Notes (1)	Senzene <200	Ethylbenzene <200	Toluene <200	Xylenes <400	TMB <200	TMB <200	<200 CSL	5,910	ND
			1				<25						ND ND
GB1 S3	9/17/2002	4-6		(1)	<25	<25		<50	<25	<25	<25 CSL	<u>50.9</u>	
GB2 S5	9/17/2002	8-10	3	(2)	<25	<25	<25	<50	<25	<25	<25 CSL	<u>166</u>	ND
GB3 \$1	9/17/2002	0-2	400	(3)	<20,000	<20,000	<20,000	<40,000	<20,000	<20,000	<20,000 CSL	<u>605,000</u>	ND
GB4 S2	4/7/2004	4	2	(4)	<25	<25	<25	<50	<25	<25	<25	<25	ND
GB4 S6	4/7/2004	12	0	(4)	<25	<25	<25	<50	<25	<25	<25	<25	ND
GB5 \$2	4/7/2004	4	2	(4)	<25	<25	<25	<50	<25	<25	<25	<u>40.2</u>	ND
GB5 S8	4/7/2004	16	0	(4)	<25	<25	<25	<50	<25	<25	<25	<25	ND
GB6 S2	4/7/2004	4	70	(4)	<25	<25	<25	<50	<25	<25	<25	<u>15,800</u>	ND
GB6 S6	4/7/2004	12	8	(4)	<25	<25	<25	<50	<25	<25	<25	<u>187</u>	ND
GB7 S2	4/7/2004	4	1	(4)	<25	<25	<25	<50	<25	<25	<25	<u>69.5</u>	ND
GB7 S4	4/7/2004	6	2	(4)	<25	<25	<25	<50	<25	<25	<25	<u>186</u>	ND
GB8 S2	4/7/2004	4	1	(5)	<25	<25	<25	<50	<25	<25	<25	<u>43.5</u>	ND
GB8 S6	4/7/2004	12	2	(5)	<25	<25	<25	<50	<25	<25	<25	<u>66</u>	ND
GB9 S2	4/7/2004	4	2	(5)	<25	<25	<25	<50	<25	<25	<25	<25	ND
GB9 S6	4/7/2004	12	3	(5)	<25	<25	<25	<50	<25	<25	<25	<25	ND
GB10 S2	4/7/2004	4	3	(5)	<25	<25	<25	<50	<25	<25	<25	<u>202</u>	ND
GB10 S6	4/7/2004	12	2	(5)	<25	<25	<25	<50	<25	<25	<25	<25	ND
GB11 S2	4/7/2004	4	2	(5)	<25	<25	<25	<50	<25	<25	<25	<25	ND
GB11 S6	4/7/2004	12	3	(5)	<25	<25	<25	<50	<25	<25	<25	<25	ND
GB12 S1	7/27/2004	0-2	4.4*	(6)	<25	<25	98.1	28.5	<25	<25	<25	<u>62.5</u>	ND
GB12 S5	7/27/2004	10-12	11.2*	(6)	<25	<25	130	<25	<25	<25	<25	<25	ND
GB13 S2	7/27/2004	3-5	14.8*	(6)	<25	<25	109	<25	<25	<25	<25	<u>69.8</u>	ND
GB13 S6	7/27/2004	13-15	15.1*	(6)	<25	<25	129	<25	<25	<25	<25	<u>94.1</u>	ND
GB14 S1	3/8/2007	0-2	0*		<27	<27	<27	<91	<27	<27	<27	<27	ND
GB14 S3	3/8/2007	4-6	0*		<30	<30	<30	<100	<30	<30	<30	<30	ND

# Table 1 - Soil Analytical Results 3918 Monona Drive, Madison, WI / SCS Engineers Project #25221209

(Results are in µg/kg, except where noted otherwise)

Sample	Date	Depth (feet)	FID/PID	Lab Notes	Benzene	Ethylbenzene	Toluene	Xylenes	1,2,4- TMB	1,3,5- TMB	MTBE	PCE	Other VOCs**	
GB15 \$1	3/8/2007	0-2	288*	-	<26	<26	<26	<90	<26	<26	<26	54,000	cis-1,2-Dichloroethene	2,000
													Trichloroethene	<u>620</u>
GB15 S5	3/8/2007	8-10	26*		<27	<27	<27	<91	<27	<27	<27	<u>2,700</u>	Chloroform	<u>30</u>
GB16 \$1	3/8/2007	0-2	3.2*		<26	<26	<26	<89	<26	<26	<26	<26	ND	
GB16 S3	3/8/2007	4-6	0*	-	<30	<30	<30	<100	<30	<30	<30	<u>40</u>	ND	
GB17 S1	3/8/2007	0-2	0*		<35	<35	<35	<120	<35	<35	<35	<35	ND	
GB17 S5	3/8/2007	8-10	1.1*		<29	<29	<29	<98	<29	<29	<29	<29	ND	
GB18 \$1	3/8/2007	0-2	4*	(8)	<28	<28	<28	<96	<28	<28	<28	2,500	Trichloroethene	<u>110</u>
GB18 \$5	3/8/2007	8-10	5.9*	(8)	<28	<28	<28	<95	<28	<28	<28	<u>210</u>	ND	
GB19 \$1	3/8/2007	0-2	10.7*	(8)	<28	<28	<28	<95	<28	<28	<28	<u>11,000</u>	Trichloroethene	<u>200</u>
GB19 S5	3/8/2007	8-10	2.6*	(8)	<26	<26	<26	<87	<26	<26	<26	<u>180</u>	ND	
GB20 \$1	3/8/2007	0-2	1.1*	(8)	<32	<32	<32	<110	<32	<32	<32	1,400	ND	
GB20 S3	3/8/2007	4-6	0.7*	(8)	<31	<31	<31	<100	<31	<31	<31	<u>42</u>	ND	
GB21 S1	3/8/2007	0-2	0*	(8)	<33	<33	<33	<110	<33	<33	<33	88	ND	
GB21 S4	3/8/2007	6-8	0*	(8)	<28	<28	<28	<94	<28	<28	<28	<28	ND	
GB22 S2	3/8/2007	2-4	0	(9)	<31	<31	<31	<100	<31	<31	<31	<31	ND	
GB22 \$5	3/8/2007	8-10	0.7*	(10)	<26	<26	<26	<88	<26	<26	<26	<u>34</u>	ND	
MW1 S2	7/27/2004	3-5	1.4*	(6)	<25	<25	92.5	28.8	<25	<25	<25	<u>52</u>	ND	
MW1 S5	7/27/2004	10-12	1.6*	(6)	<25	<25	92.2	<25	<25	<25	<25	<25	ND	

#### Table 1 - Soil Analytical Results

#### 3918 Monona Drive, Madison, WI / SCS Engineers Project #25221209

(Results are in µg/kg, except where noted otherwise)

Sample	Date	Depth (feet)	FID/PID	Lab Notes	Benzene	Ethylbenzene	Toluene	Xylenes	1,2,4- TMB	1,3,5- TMB	MTBE	PCE	Other VOCs**	*
MeOH Blank	9/17/2002			(3)	<25	<25	<25	<50	<25	<25	<25 CSL	<25	ND	
	4/7/2004			(5)	<25	<25	<25	<50	<25	<25	<25	<25	ND	
	7/27/2004			(6) (7)	<25	<25	<25	<25	<25	<25	<25	<25	ND	
	3/8/2007			(11)	<25	<25	<25	<85	<25	<25	<25	<25	ND	
NR 720 Groundwater Pathway RCLs with a Wisconsin-Default Dilution Factor of 2					5.1	1,570	1,107.20	3,960	(0	a)	27	4.5	cis-1,2-Dichloroethene Chloroform Trichloroethene	41.2 3.3 3.6
NR 720 Non-In	idustrial Dire	ct Cont	act RCLs		1,600	8,020	818,000	260,000	219,000	182,000	63,800	33,000	cis-1,2-Dichloroethene Chloroform Trichloroethene	156,000 454 1,300
NR 720 Industrial Direct Contact RCLs					7,070	35,400	818,000	260,000	219,000	182,000	282,000	145,000	cis-1,2-Dichloroethene Chloroform Trichloroethene	2,340,000 1,980 8,410

#### Abbreviations:

µg/kg = micrograms per kilogram or parts per billion (ppb) MTBE = Methyl-tert-butyl ether

ND = Not Detected

VOCs = Volatile Organic Compounds TMB = Trimethylbenzene RCLs = Residual Contaminant Levels FID = Flameionization Detector PID = Photoionization Detector PCE = Tetrachloroethene

#### Notes:

Bold+underlined values exceed an NR 720 RCL, as of December 2018.

(a) NR 720 Groundwater Pathway RCLs for 1,2,4 and 1,3,5 Trimethylbenzene Combined = 1,378.7

Soil samples within the excacvation area are highlighted as follows:

Clean soil within excavation area

Contaminated soil within excavation area

PCE contamination assumed to exceed TCLP or LDR

<sup>\*=</sup>Measured with a photoionization detector.

<sup>\*\*=</sup>Samples analyzed for full VOCs list.

## Table 1 - Soil Analytical Results 3918 Monona Drive, Madison, WI / SCS Engineers Project #25221209.00

#### Laboratory Notes:

CSL = Check standard for this analyte exhibited a low bias. Sample results may also be biased low.

- (1) Chloroethane, chloromethane, dichlorodifluoromethane, 1,1-dichloroethane, 1,2-dichloroethane, naphthalene, and trichlorofluoromethane analyses Check standard for this analyte exhibited a high bias. Sample results may also be biased high. Dichlorodifluoromethane analysis The laboratory control sample for this analyte exhibited a low bias. Sample results may also be biased low. Dichlorodifluoromethane, 1,2,3-trichlorobenzene, and trichlorofluoromethane analyses Results of duplicate analysis in this quality assurance batch exceeds the limits for precision. 1,2-Dichloroethane analysis The laboratory control sample for this analyte exhibited a high bias. Sample results may also be biased high. 2,2-Dichloropropane analysis Check standard for this analyte exhibited a low bias. Sample results may also be biased low.
- (2) Chloroethane, chloromethane, dichloromethane, 1,1-dichloroethane, 1,2-dichloroethane, methylene chloride, naphthalene, and trichlorofluoromethane analyses Check standard for this analyte exhibited a high bias. Sample results may also be biased high. Chloromethane, dichlorofluoromethane, 2,2-dichloropropane, and trichlorofluoromethane analyses Results of duplicate analysis in this quality assurance batch exceeds the limits for precision. Dichlorodifluoromethane and 2,2-dichloropropane analyses The laboratory control sample for this analyte exhibited a low bias. Sample results may also be biased low. 1,2-Dichloroethane and naphthalene analyses The laboratory control sample for this analyte exhibited a high bias. Sample results may also be biased low.
- (3) Chloroethane, chloromethane, 1,2-dichloroethane, 1,1-dichloroethylene, 1,3-dichloropropane, naphthalene, trichlorofluoromethane, and vinyl chloride analyses Check standard for this analyte exhibited a high bias. Sample results may also be biased high. Chloromethane, 2,2-dichloropropane, isopropyl ether, trichlorofluoromethane, and vinyl chloride analyses The laboratory control sample for this analyte exhibited a low bias. Sample results may also be biased low. Chloromethane analysis Results of duplicate analysis in this quality assurance batch exceeds the limits for precision. Isopropyl ether analysis Check standard for this analyte exhibited a low bias. Sample results may also be biased low.
- (4) Chloroethane, chloromethane, and 2,2-dichloropropane analyses Check standard for this analyte exhibited a low bias. Sample results may also be biased low. Chloroethane, chloromethane, dichlorodifluoromethane, 2,2-dichloropropane, trichlorofluoromethane, and vinyl chloride analyses The laboratory control sample for this analyte exhibited a low bias. Sample results may also be biased low. Chloroethane and chloromethane analyses Results of duplicate analysis in this quality assurance batch exceeds the limits for precision.

  1,2-Dibromo-3-chloropropane analysis Check standard for this analyte exhibited a high bias. Sample results may also be biased high. The laboratory control sample for this analyte exhibited a high bias. Sample results may also be biased high.
- (5) Bromodichloromethane, 1,2-dibromo-3-chloropropane analyses Check standard for this analyte exhibited a high bias. Sample results may also be biased high. The laboratory control sample for this analyte exhibited a high bias. Sample results may also be biased high. Chloroethane, chloromethane, and 2,2-dichloropropane analyses Check standard for this analyte exhibited a low bias. Sample results may also be biased low. Chloroethane, dichlorofluoromethane, trichlorofluoromethane, and vinyl chloride analyses The laboratory control sample for this analyte exhibited a low bias. Sample results may also be biased low. Chloroethane analysis Results of duplicate analysis in this quality assurance batch exceeds the limits for precision.
- (6) VOCs analysis The result for one or more quality control measurements associated with this sample did not meet the laboratory and/or source method acceptance criteria. Vinvl chloride analysis The recovery of this analyte in the check standard is below the method specified acceptance criteria.
- (7) Surrogate: Dibromofluoromethane analysis This auglity control measurement is below the laboratory established limit.
- (8) Bromoform, Bromomethane, Chlorethane, Dichlorodifluoromethane Laboratory Control Sample and/or Laboratory Control Sample Duplicate recovery was above acceptance limits. Bromoform, 1,2-Dichloroethane The RPD exceeded the acceptance limit. Chloroethane Calibration Verification recovery was above the method control limit for this analyte. Analyte not detected, data not impacted.
- (9) Carbon Tetrachloride The RPD exceeded the acceptance limit. Chloroethane, Chloromethane, Dichlorodifluoromethane Laboratory Control Sample and/or Laboratory Control Sample Duplicate recovery was above acceptance limits. Surrogate: Toluene Surrogate recovery was below acceptance limits.
- (10) Carbon Tetrachloride The RPD exceeded the acceptance limit. Chloroethane, Chloromethane, Dichlorodifluoromethane Laboratory Control Sample and/or Laboratory Control Sample Duplicate recovery was above acceptance limits.
- (11) 1,2,4-Trichlorobenzene Calibration Verification recovery was outside the method control limits for this analyte. The LCS for this analyte met CCV acceptance criteria, and was used to validate the batch.

 Created by:
 LMH
 Date: 5/10/2004

 Last revision by:
 JSN
 Date: 5/8/2017

 Checked by:
 LMH
 Date: 5/9/2017

 Proj Mgr QA/QC:
 REL
 Date: 9/23/2019

I:\25221209.00\Data and Calculations\Tables\[211111\_Soil Results within excavation.xls]Notes

## Figures

- 1. Residual Soil Contamination
- 2. Excavation Area Estimates



