

New York State Department of Environmental Conservation Comments of the August 2007 Site No. 1-30-003B, Letter Work Plan, Soil Vapor Investigation Site 1, for the Naval Weapons Industrial Reserve Plant (NWIRP) Site, dated October 10, 2007

General Comments:

- 1.0 Comment:** The TTNUS Work Plan needs to reference the New York State Department of Health (NYSDOH) Soil Vapor Intrusion (SVI) Guidance. All data should be measured in micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) and detection limits should be less than or equal to $1.0 \mu\text{g}/\text{m}^3$.

Response: Agreed, the following will be added to the Introduction Section. "This work is being conducted in accordance with New York State Department of Health (NYSDOH) Guidance for Evaluating Soil Vapor Intrusion in the State of New York (NYSDOH 2006). Analytical parameters and anticipated detection limits will be attached to the work plan.

- 2.0 Comment:** If volatile organic compounds (VOCs) are detected at the property line during the SVI investigation, the Navy will need to conduct additional SVI investigations to determine the extent of potential impacts by site-related VOCs.

Response: If site-related VOCs are detected at the fence line at concentrations that could represent a threat to human health, the Navy will discuss the results with New York State Department of Environmental Conservation and determine appropriate actions.

- 3.0 Comment:** All analysis should be performed using the complete TO-15 method, not the abbreviated TO-15A. However, if TO-15A is to be used please justify why this method was chosen over method TO-15.

Response: Agreed. The soil gas samples will be analyzed using TO-15.

- 4.0 Comment:** The volatile organic compound (VOC) analyte list for soil gas and groundwater should be provided in an additional table in the work plan. Also, tentatively identified compounds, or TICs, if present, should be qualified with estimated values.

Response: The TO-15 list of analytes will be attached to the work plan. TICs will be reported as indicated.

5.0 Comment: The generic NYSDEC/NYSDOH community air monitoring should be referenced in the work plan.

Response: As discussed, the existing plans for the site are adequate to meet these needs.

6.0 Comment: The sampling report should detail previous vapor, soil and water samples.

Response: Post-treatment data for Site 1 is discussed in Section 1.2 of the work plan, with data presented in the attachments. Since that time, site contaminants continue to attenuate and are currently expected to be lower.

7.0 Comment: Section 1.2 indicates that Preliminary Remediation Goals (PRGs) were used to screen VOCs in soil boring samples. More detail should be provided regarding the PRGs used in this screening analysis as they are not provided in either Section 1.2 or in Attachment A.

Response: The soil PRGs are presented in the 1995 Soils Record of Decision for the site and consist of trichloroethene at 0.010 mg/kg, tetrachloroethene at 0.027 mg/kg, and 1,1,1-trichloroethane at 0.010 mg/kg. These PRGs were developed to be protective of groundwater and, as such can not be used for evaluation of interactions between soil and soil gas.

8.0 Comment: The sampling report should evaluate the potential extent of soil gas along the border of the NWIRP site and 11th Street. Based on this review, any additional sampling should be expanded as appropriate to encompass the extent of the soil gas plume.

Response: The objective of this study is to determine whether residual VOCs in soil vapors at Site 1 are migrating east beyond the Navy fence line. This study is being conducted because although the Navy successfully remediated site VOCs to be

protective of groundwater, the issue of residual VOCs in soil vapor and potential migration of contaminated soil vapor from Site 1 to the east was not defined. If site-related VOCs are detected at the fence line of Site 1 at concentrations that could represent a threat to human health, the Navy will discuss the results with New York State Department of Environmental Conservation and determine appropriate actions. An additional soil gas point will be installed to the northeast of Site 1 during this round.

Specific Comments

1.0a **Comment:** Page 4, Section 2: Planned soil gas sampling locations are referenced on figure 3. Several sample locations should be added along the fence line with the north end of 11th street to the fence line with the former Grumman Plant 24.

Response: The objective of this study is to determine whether residual VOCs in soil vapors at Site 1 are migrating east beyond the Navy fence line. This study is being conducted because although the Navy successfully remediated site VOCs to be protective of groundwater, the issue of residual VOCs in soil vapor and potential migration of contaminated soil vapor from Site 1 to the east was not defined. One sample point (BPS1-SG1005) is located at the north end of 11th Street. An additional soil gas point will be installed to the northeast of Site 1 during this round. This point will be located approximately half way between the northeast corner of Site 1 and the fence line near Grumman Plant 24.

1.0b. **Comment:** It is not clear how the steel drive rod boring will be sealed. Packing should use hydrated bentonite or other similar material to prevent potential short-circuiting of vapor to the surface.

Response: The boring seal in the field will be evaluated both visually and with a tracer test. If needed, bentonite or other sealant will be applied.

1.0c. **Comment:** Select proposed soil gas sampling locations should be advanced to the water table (approximately 55 ft bls) and a groundwater sample should be collected from the water table for VOC analysis. Comparison of groundwater to soil gas VOC concentrations can assist in the evaluation as to the processes governing soil gas

migration (i.e., vertical off-gassing from VOCs in groundwater and/or lateral diffusion).

Response: This study is being conducted to determine whether residual VOCs in soil vapor and potential migration of contaminated soil vapor from Site 1 to the east is potential concern. As a result no groundwater samples will be collected.

2.0 **Comment:** Page 5, Bullet 2: The post-run tubing (PRT) system is not mentioned in the sample collection section. It is assumed that the PRT system will be employed to ensure that soil gas samples are collected from the annular space created by retracting the drive rods. Please add detail and clarify this section.

Response: An expanded description of the PRT system will be provided as an attachment.

3.0 **Comment:** Page 6, Bullet 8, Methods Section: Sample collection times are not indicated. Collecting a 6-liter SUMMA canister at 200 mL/min will fill the canister in 30 minutes depending on site conditions.

Response: Summa canisters will be filled at an approximate rate of 200 to 300 milliliters per minute. Therefore for a 6-liter canister, the sample will be collected in approximately 30 minutes.

4.0 **Page 7, Second Paragraph:** The number of ambient air samples that will be collected and length of time for which samples will be collected is not discussed. The text of the Work Plan states that samples will be collected over an 8 hour period while Table 1 states that air samples will be collected for 2 hours. Please clarify and revise both sections.

Response: On a daily basis, work area air samples will be collected during the duration of the soil gas collection. Table 1 will be revised to indicate that the work area summa canister will be collected over an estimated 4- to 8-hour period.

5.0 **Table 2:** Ambient air samples are not included in Table 2.

Response: Ambient air samples are included in Table 2. They are identified as field blanks.

6.0 **Comment:** A project schedule table needs to be added to the work plan.

Response: Assuming NYSDEC approval of the work plan by November 16, 2007, the following schedule for conducting the project is anticipated.

Activity	Schedule
Field Activities	12-15-07 to 01-30-08
Draft Results Report	04-30-08

This schedule assumes that adverse weather conditions are not encountered in late December 2007 through January 2008.