

Addendum

Date: April 15, 2025
Subject: **Vapor Intrusion Assessment Phase II Scope of Work for the Former Houston Wood Preserving Works Site (HWPW Site), Removal Site Evaluation**

INTRODUCTION

This addendum to the Field Sampling Plan – Vapor Intrusion Investigation, Former Houston Wood Preserving Works Site (HWPW Site) was prepared by Geosyntec Consultants, Inc. (Geosyntec) with support from RSJ Consulting, LLC and ToxStrategies LLC at the request of Union Pacific Railroad (UPRR) to describe the scope and methods of additional investigation activities for review and approval by the U.S. Environmental Protection Agency – Region 6 (EPA).

EPA directed UPRR to perform a CERCLA Removal Site Evaluation (RSE) for the HWPW Site. One component of the RSE is an assessment of potential risks to building occupants near the Site via subsurface vapor intrusion (VI) to indoor air for volatile constituents of creosote or other chemicals attributable to past HWPW operations. VI assessment is typically performed in phases. The first phase (Phase I) was designed to map the distribution of site-related volatile chemicals in soil gas, shallow groundwater and underground sewers to identify which buildings (if any) warrant building-specific assessment (Phase II). The Phase I assessment was informed by previous data collected by WSP Golder (Golder, 2020a and 2020b) and included two additional rounds of monitoring: Round 1 in the winter (November 2023 through February 2024) and Round 2 in summer (August 2024 through September 2024) to assess seasonal variability. An Interim VI Assessment Report including Round 1 data was submitted to EPA in September 2024 (Geosyntec, 2024) and a VI Assessment Phase I Report including both Round 1 and Round 2 is in progress to be submitted to U.S. EPA. Meanwhile, Geosyntec prepared a Vapor Intrusion Assessment Phase I Recommendations Memorandum (Geosyntec, 2025) to summarize the Phase I results to date and recommend additional activities. The data was interpreted in the context of the decision framework in the U.S. EPA Office of Solid Waste and Emergency Response (OSWER) Guidance for VI Assessment and Mitigation (EPA, 2015).

SCOPE OF WORK

The proposed scope of work for Phase II of the VI investigation includes:

- Sampling and analysis of soil gas for VOCs and SVOCs via TO-15 PIANO SIM and TO-17 analysis at seven soil gas probes (SG-14, SG-15, SG-20R, SG-21, SG-22, SG-27 and SG-32) where results of prior samples were either internally inconsistent or incomplete;
- Sampling and analysis of ambient air for VOCs and SVOCs via TO-15 PIANO SIM and TO-17 analysis to be performed during soil gas sampling activities to assess the

potential for outdoor air contributions to soil gas for the potential compounds of concern (PCOCs) related to the former HWPW railroad tie preserving activities;

- Sampling and analysis of shallow groundwater for VOCs and SVOCs via EPA methods 8260 and 8270 at one monitoring well location (MW-38BVI) which was sampled only in the first and not the second round of Phase I activities; and
- An inspection of plumbing connections for occupied and accessible structures on the north side of Liberty Road between Solo Street and Cushing Street where PCOCs have been identified in sewer liquid and headspace samples at concentrations above protective screening levels to assess compliance with the 2021 Uniform Plumbing Code with Houston Amendments (IAPMO, 2024) that prevent sewer gases from entering buildings. The inspection will be conducted by a state-licensed plumber and include visual inspection of accessible plumbing fixtures within the building that are or would likely be connected to the sanitary sewer, including water-seal traps beneath sinks and drains and connections to vent stacks. A closed-circuit television (CCTV) inspection of seals and traps will also be completed to confirm components are operating as intended (i.e., liquid within P-traps). The plumbing inspection results will be shared with the owner and U.S. EPA as soon as practicable to determine if further activities may be necessary.

REFERENCES

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- Golder, 2020a, Golder Associates Inc (Golder), 2020d. Soil Vapor Intrusion Assessment Interim Report, Houston Wood Preserving Works, Houston, TX, March 31.
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- IAPMO, 2024. International Association of Plumbing and Mechanical Officials (IAPMO), 2021 Uniform Plumbing Code (with Houston Amendments), January 1, 2024
- U.S. EPA, 2015, OSWER Technical Guide for Assessing and Mitigating the Vapor Intrusion Pathway from Subsurface to Indoor Air. OSWER Publication 9200.2-154. June 2015