



More Effective Groundwater Remediation of 1,4-Dioxane & Other VOCs

CUSTOMER: City Industries, Inc.
LOCATION: Winter Park, Florida

CHALLENGE

A former City Industries Chemical Company site northeast of Orlando operated as a hazardous waste management facility leading to on-site soil and groundwater contamination. After ceasing operations in 1983, the EPA designated it a Superfund Site. At first, an air stripping-based groundwater extraction and treatment system was installed to remove volatile organic compounds (VOCs) from recovered groundwater. However, air stripping could not remediate the 1,4-Dioxane which was added as a constituent of concern in 2015. Looking to switch from surface water discharge to groundwater discharge for the treated effluent, a different remedial option was needed to reduce 1,4-Dioxane concentration to below the FDEP groundwater cleanup target level (GCTL).

SOLUTION

Upon deciding to evaluate other remedial options and completing supplemental site assessments that confirmed VOCs and 1,4-Dioxane were the largest contaminants in the chemical plume, the site PRP contractor, L.S. Sims & Associates, evaluated APT's HiPOx® Advanced Oxidation (AOP) technology to reduce 1,4-Dioxane and other targeted compounds in the Site's groundwater. Early bench testing clearly demonstrated the power and efficiency of HiPOx to destroy these challenging contaminants to below the treatment objectives so APT was awarded the groundwater remediation project to design, fabricate, deliver, and commission a HiPOx system in 2023.

WHY HiPOx?

HiPOx proved to be the first technology to successfully reduce all targeted contaminants at the City Industries Superfund Site to below treatment specifications while also controlling bromate formation.

IMPACT

HiPOx satisfied the groundwater remediation needs of the EPA project and continues to successfully operate and meet all discharge limit requirements.

“APT’s HiPOx treatment technology delivered on all project requirements and provided the contaminant range and bromate control we needed.”

Robert Schatzman, P.G.
Senior Project Manager
L.S. Sims & Associates

