EnChem Engineering, Inc.

www.en-chem.com

Advanced Environmental Remediation

WHY SHOULD YOU CARE?

Recently discovered environmental contaminants are a global threat to wildlife and human health and are causing new challenges to our communities. These emerging contaminants do not biodegrade under typical environmental conditions and resist most treatment technologies making them extremely persistent in the environment. Remediation is becoming more complex requiring site specific, cost-effective and scalable treatment approaches.

Health-based advisories for two of these emerging contaminants - perfluoroctane sulfonate (PFOS) and perfluorooctanoic acid (PFOA) have been developed by the United States Environmental Protection Agency and adopted by some state agencies. These perfluorinated chemicals (PFCs) are made-made and are used in a variety of products including firefighting foams, and coating additives. Another emerging contaminant, 1,4-dioxane, is often found as a co-contaminant at solvent release sites such as landfills, solvent recycling facilities, vapor degreasing operations, and fire-training areas. Exposure of these emerging contaminants to humans and wildlife has been widespread and has the potential to cause adverse ecological and human health effects.

WHY ENCHEM ENGINEERING?

EnChem Engineering, Inc. possesses the environmental remediation expertise, transformative technologies, effective processes, and resources to quickly solve the most complex emerging contaminant environmental challenges. We have been a remediation consultant and contractor to the US EPA, the US Air Force, and Fortune 500 companies. **To learn more, call (617) 795-0058 for a free consultation. Ask for our whitepapers on our patented advanced environmental processes.**

XCT® and OxyZone®

Better Technology. Better Results.

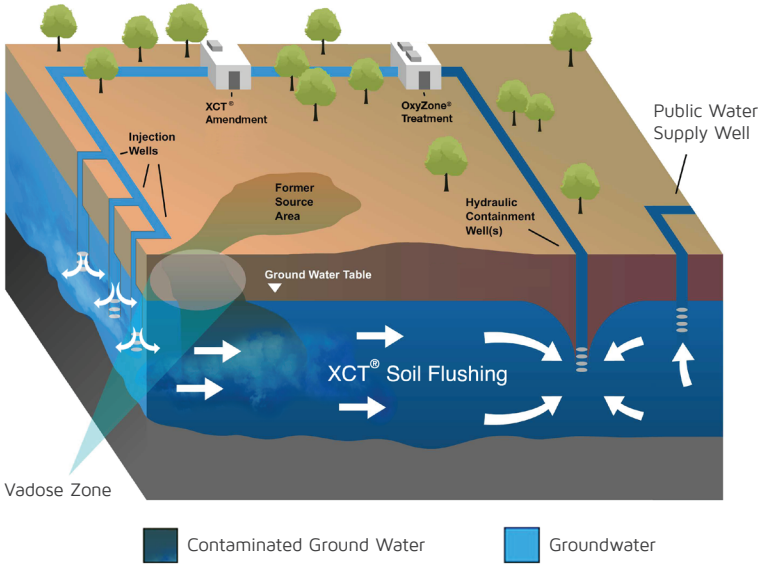
XCT® and OxyZone® are complementary technologies to bring contaminated soil and ground water sites into regulatory compliance and to bring faster closure with lower cost.

The patented XCT® process is an effective in-ground (in-situ) method to flush and extract organic contaminants from the subsurface that can then be destroyed by the OxyZone® process as an above-ground (ex-situ) chemical oxidation (ISCO) process. OxyZone® can also be used as a stand alone in-situ contaminant destruction process.

EnChem Engineering Inc. uses the XCT® and OxyZone® processes to bring complex sites with persistent and recalcitrant contaminants to closure when traditional technologies and methods have failed to meet project goals.

The patented OxyZone® process developed by-EnChem Engineering Inc. uses a high-strength, multi oxidant blend to overcome limitations found in most other environmental remediation treatment methods, resulting in significantly less remediation time and clean-up cost. By-products are benign and comply with regulatory groundwater standards. Enchem Engineering Inc. can customize the OxyZone® process to provide a cost-effective treatment based on the specific groundwater and aquifer matrix conditions.

The combined XCT® and OxyZone® process is scalable to handle large sites and can be complimentary to other treatment methods. In addition to being able to extract and destroy common organic compounds such as gasoline, fuel oils, and chlorinated organic compounds like tetrachloroethene ("PERC") and mixtures thereof, the XCT®/OxyZone® process has been shown to also remove and destroy emerging contaminants such as perfluoroalkyl substances (PFAS) and 1,4-dioxane.



XCT® Combined In-Situ & Ex-Situ Treatment

Benefits of the XCT®, OxyZone® Processes

Complimentary – in-situ flushing plus ex-situ treatment for contaminant destruction

Versatile – a comprehensive suite of radicals and oxidants treats a wide range of organic contaminants in soil and groundwater

Cost Effective – More complete clean-up in less time results in lower total cost

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