GREEN AND SUSTAINABLE

REMEDIATION



What is "Green and Sustainable" Remediation?

Yesterday's remediation approach often impacts the very environment (soil, groundwater or air) that is undergoing restoration. For example, remediation equipment is typically powered from the grid, or is fueled by diesel generator, both resulting in increased greenhouse gas emissions (GHG). This is even more prevalent with air pollution control equipment using oxidization in that they require energy to destroy energy. Today one must consider the short- and long term effects associated with remedial activities.



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PROVEN ON AFCEE SITES WORLDWIDE



Photo Courtesy of Kirtland Air Force Base Website

"The second soil vapor extraction unit added to the Kirtland Air Force Base, New Mexico, effort at the monitoring point where fuel was discovered first on the water table in 2007.

The new apparatus will operate 24 hours a day, 7 days a week to remove up to 300 gallons of petroleum product daily."

When properly applied on suitable sites, RSI's ProGreen® ICE has the lowest possible GHG emissions of any soil vapor extraction/air abatement system on the market today, less than 2.39 lbs GHG/pound of VOC removed with chiller module installed!



Why are GHG Emissions lower using RSI Internal Combustion Engine (ICE) Technology?

With VOCs greater than 16,529 PPMV (114 MW) and process flow greater than 32 SCFM; minimal alternate fuel is needed to sustain combustion in the engine. And the generated energy is used instead of electricity and fuel from other sources for the remediation process.

A third party investigation of two remediation projects using RSI's ICE found that less than 3.25 lbs of GHG per every pound of VOC extracted were produced during the remediation process using RSI engines. This is reduced further if **ProGreen®** chiller modules were installed because product is recovered instead of oxidized. With the generator module attached, distributed power may be used on or off site; resulting in even further GHG reduction. In all instances, VOC destruction rate efficiency (DRE) of the engine is greater than 99.5% meeting the most stringent air quality restrictions!