Nelson Environmental Remediation

We Don't Bury the Problem, We Eliminate It!

Out of sight is no longer out of mind when it comes to pollution. As industries face mounting pressure to reduce their environmental impact, conventional methods of containing contamination are proving insufficient. Nelson Environmental Remediation is pioneering a more sustainable approach, offering advanced remediation solutions that restore polluted sites and eliminate long-term liability for businesses.

"Unlike traditional methods that haul toxic materials to landfill, where liability lingers indefinitely, we eliminate contamination at its source," says Warren Nelson, owner.

"We Don't Just Bury the Problem—We Eliminate It": The Nelson Guarantee

At the heart of Nelson Environmental Remediation's strategy is a commitment to complete contamination removal—an approach made possible through advanced thermal desorption technology. The company utlizes two primary methods to treat hazardous materials directly at the source.

Direct-Fired Thermal Desorption (DFTD), also known as Low-Temperature Desorption, heats contaminated soil, sludge, or sediment in a specialized thermal desorber, evaporating toxic compounds for safe destruction. In contrast, Indirect Thermal Desorption (ITD) utilizes an inclined rotating metallic cylinder, where heat is transferred through conduction, preventing direct contact between the flame, feed solids, or off-gas.

By remediating soil on-site and verifying results through third-party testing, the company eliminates waste generators' liability while ensuring regulatory compliance and environmental responsibility.

From Soil Remediation to Environmental Powerhouse

Founded 30 years ago as a specialized soil remediation company, Nelson has evolved into a full-scale environmental solutions provider. It now addresses groundwater contamination, high-resolution site delineation, and industrial waste recycling—including tyres and plastics. The company has also developed techniques for tackling emerging contaminants like per- and poly-fluoroalkyl (PFAS) and dioxins.

Warren Nelson, Owner

This evolution has expanded Nelson's reach across multiple industries and regions. In South East Asia the company addresses dioxin contamination, a lasting consequence of wartime activities. In Europe, it partners with the steel industry to extract and recycle steel powder, demonstrating expertise beyond soil remediation. In the United States, Nelson has remediated chlorinated solvent spills in New York City and a gasoline pipeline rupture in Dallas. One of its most significant projects occurred in North Dakota, where it cleaned up 2 million tons of contaminated soil from a pipeline rupture over three years, operating 24/7. Whether in the Arctic at -50°F or tropical regions like Honolulu, Nelson has proven its ability to adapt to diverse conditions and regulatory frameworks.

Meeting the Needs of Global Giants and Local Communities Alike

Nelson Environmental Remediation serves many clients, including major oil and gas companies, government agencies, petrochemical firms, and environmental consulting groups. Among its latest partnerships is the Canadian Department of Defense, reflecting the company's growing role in high-stakes environmental restoration projects.

For industries seeking remediation solutions, safety and liability remain critical concerns. Traditional methods involve excavating contaminated soil and transporting it to landfills—an approach that demands thousands of truckloads, increases accident risks, raises carbon emissions, and extends long-term liability. Nelson eliminates these challenges through its on-site mobile technology, treating contamination directly at the source and ensuring a safer, more sustainable process.

Additionally, with ESG (Environmental, Social, and Governance) standards driving corporate responsibility, investors and regulators demand more sustainable waste management strategies. Nelson's mobile thermal desorption units provide a cost-effective, low-impact solution that aligns with these evolving sustainability mandates.

Global Reach, Proven Results

Nelson's ability to operate in remote and challenging locations sets it apart. One of the company's recent success stories involves a gold mine in Canada facing severe PCB (polychlorinated biphenyl) contamination. Nelson became the first company in Canada to successfully treat 60,000 tons of PCB-contaminated soil using mobile thermal desorption technology. Its ability to remediate in remote locations makes it a preferred partner for industries operating in isolated regions.

Another notable project was in American Samoa, where they remediated a WWII-era tank farm. The equipment was shipped from Oakland, California, via 20 boatloads and operated for three months before being returned. This flexibility and efficiency have cemented Nelson's reputation as a leader in global remediation efforts.

Built by Industry Trailblazers

Nelson's success is primarily attributed to its team of highly skilled professionals. With over three decades of experience in environmental remediation, the company has assembled some of the brightest minds in the industry. Many of its team members have played a pivotal role in pioneering remediation technologies, making it more than just a service provider—it is an innovator shaping the future of environmental cleanup.

The company is also embracing cutting-edge advancements, such as machine learning, automation, and AI-driven data analytics, to enhance efficiency and precision in contamination treatment. These investments in technology ensure that Nelson remains ahead of the curve in the evolving landscape of environmental sustainability.

Smart, Sustainable, Scalable

Nelson is not just cleaning the past - they're shaping the future. As Nelson Environmental Remediation looks to the future, the company is expanding its sustainability efforts by harnessing energy recovery technology. One of its latest initiatives involves capturing excess heat from its remediation stacks and converting it into usable energy. This recovered energy can be fed back into the grid, used to power remote industrial sites, or reinvested in further remediation activities—effectively turning waste into a resource. By integrating energy production with environmental remediation, Nelson emerges as a leader in the circular economy, where waste management and sustainability intersect.

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Beyond technological advancements, Nelson remains steadfast in its core mission: helping clients achieve environmental responsibility through innovative and effective remediation solutions. With a focus on eliminating liability, ensuring safety, and delivering guaranteed results, the company has redefined industry standards for environmental cleanup. Its global reach, cutting-edge technology, and commitment to sustainability make it an indispensable partner for industries seeking long-term, eco-friendly solutions.

As Warren Nelson puts it, "We don't just remediate—we recycle, we repurpose, and we ensure that our clients achieve true environmental sustainability." With this vision, Nelson continues to pave the way for a cleaner, safer, and more responsible world. As environmental challenges grow, its guarantee of complete, mobile, and responsible cleanups sets a gold standard for the industry. EB