ISOTEC is a full-service environmental firm dedicated to providing the industry's leading designs, operating techniques and value-added remediation services. Since 1995, ISOTEC has revolutionized soil and groundwater remediation through proprietary in-situ chemical oxidation and reduction technologies that destroy contaminants in soil and groundwater. Today, ISOTEC remains a transformative and leading member of the remediation industry and continues to evolve through knowledge and experience.

Who is ISOTEC?

Why Soil Mixing?

- Distribute reagents most effectively
- Homogenize the matrix
- No reagent volume limitations
- Apply reagent in one pass
- Real time sampling
- GPS coordinates for every treatment volume
- Lock viscous contaminants in place (ISS)
- Prevent leaching (ISS)

Contact Us!
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ISOTEC Soil Mixing

The target area is typically divided into 10 x 10 ft treatment cells. Each cell receives a predetermined volume of reagent that is introduced through the mixing tool head attachment (if liquids are utilized) or slowly applied to the treatment cell (if solids are utilized). The mixing tool operator is guided by an on-board GPS system to ensure precise vertical plunges, applying chemical doses that can vary from one treatment cell to the next. Reagent dosages are determined through bench-scale treatability studies prior to field mobilization.

What Does It All Mean?

**In-situ chemical oxidation (ISCO) via soil mixing/blending** involves the application of chemical oxidants. Alone, or in conjunction, these oxidants include: sodium hydroxide activated sodium persulfate, hydrated lime activated sodium persulfate, modified Fenton’s reagent (MFR), MFR activated sodium persulfate, and permanganates. Reagents are directly blended into and/or around areas of known contamination in the subsurface to treat COCs in-situ.

**In-situ solidification (ISS) through soil mixing** involves the application of binding agents, typically Portland cement, and common additives such as fly ash, hydrated lime, bentonite, and Organoclay®. Reagents are hydrated via a road portable additive mixing and grout pumping system and pumped to the head of the mixing tool.

**Metals stabilization** involves the application of metal stabilizers such as phosphates, iron rich clays, magnesium oxides and proprietary reagents for immobilization of heavy metals (e.g. lead, cadmium, chromium, etc.).

Call for a FREE Consultation and Estimate