

Vesitech's projects include:

Homeland Security

- Army Corps of Engineers

Specialty Treatment and Remediation

- NASA
- U.S. Air Force

Waste Water Treatment/ Analysis

- AIChE/DIPPR
- Environmental Protection Agency
- American Chemistry Council
- Private industrial clients



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Vesitech

Innovative analysis & technologies
for cleaner water



Vesitech, Inc. provides expert analysis and innovative technology solutions for water purification including:

- multi-phase reactor designs
- innovative treatment systems
- evaluating and summarizing data and technologies
- performance assessments of water purification systems

Vesitech's sound scientific understanding, unique lab and pilot test capabilities and strong technical communications provides clients with progressive treatment options, independent quality assurance for implementation projects and improved scientific basis for regulations.

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Multi-phase Reactor Modeling and Design

Over the past 20 years, Vesitech has developed unique expertise in modeling complex reactions in multiphase systems for air and water decontamination. Our comprehensive models incorporate state-of-the-science understanding of:

- Water chemistry
- Mass transport in gas and liquid
- Hydrodynamics in reactor systems
- Rates of reaction (kinetics)

Modeling leads to efficient designs and recommendations to meet the treatment objectives of our public and private sector clients. Enhancements and customization of our models are made quickly and accurately. Our technical experience in multi-phase reactor designs includes advanced oxidation, conventional, absorption and electrochemical systems.

Innovative Treatment Systems

Vesitech's understanding of reaction kinetics and mass transfer characteristics leads to innovative treatment systems from bench to pilot-scale. Projects include developing a Patent Pending reactor system for the U.S. Army Corps of Engineers to protect water from biological and chemical threats. Vesitech is also exploring technologies for innovative small-scale treatment systems with application for drinking water, waste water and process water streams. Vesitech builds and tests proto-type designs in its own state-of-the-art pilot facility.

Evaluating and Summarizing Data and Technologies

Through numerous successful contracts with government agencies, Vesitech has established itself as a leader in regulatory and technical analysis and support. In one example, Vesitech has provided a critical assessment of an environmental database used to regulate air emissions from wastewater under contract to the American Chemistry Council. Vesitech's result was a more accurate determination of emissions control requirements and helped to improve the scientific basis for regulation.

Performance Assessments

Through advanced modeling and pilot studies, Vesitech can analyze and trouble-shoot proposed systems. Vesitech's reactor studies and scientific analysis of the results highlight any potential weaknesses and often provide process recommendations. Process modeling allows for configuration testing and results verification prior to implementation, thereby avoiding the cost and expense of trouble-shooting the full-scale system.

