EHS Support for the Semiconductor Industry

Trinity Consultants is a leading global environmental consulting firm that brings 50 years of experience providing services and solutions in the EHS Regulatory Compliance, Built Environment, Life Sciences, and Water & Ecology markets. Trinity has the technical expertise, industry depth, and specialized capabilities to help clients achieve their goals across the natural and built environments.

Well known for our in-depth experience in air quality regulations, we have expanded our capabilities to meet our clients' multimedia needs. Although our depth of services has evolved, we have never wavered in our commitment to air quality consulting and to providing accurate, timely, and professional service for our clients.
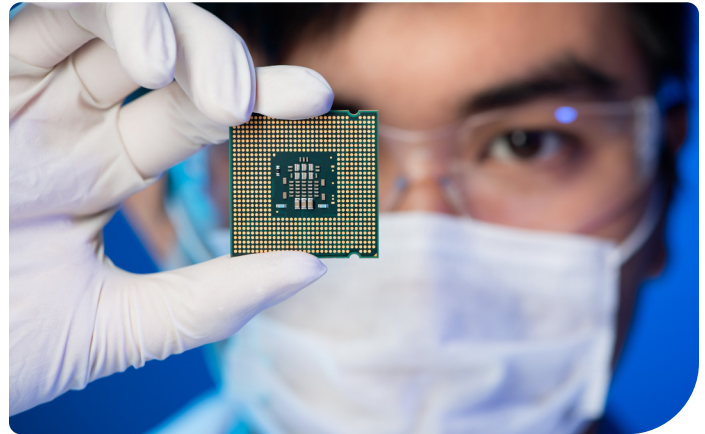
With over 70 offices nationwide, Trinity is strategically positioned to assist with the critical environmental issues affecting all aspects of the semiconductor industry. Trinity takes pride in understanding not only the regulatory issues and challenges affecting semiconductor clients' operations, but also in understanding their industry and the processes involved in semiconductor activities.

Permitting and Compliance

Whether constructing a new facility, expanding an existing facility, or modifying operations, your actions may be subject to air quality permitting and other regulatory requirements. Effective permitting requires extensive practical experience in all aspects of air quality analysis and regulation. Trinity has completed hundreds of projects for semiconductor clients and we bring this expertise to each project.

Our experienced staff have backgrounds in engineering, environmental sciences, and meteorology. This diverse and multi-disciplined group of experienced professionals allows Trinity to deliver the highest quality solutions, efficiently and cost-effectively. Our areas of support include:

- Semiconductor process-specific emission factors
- Point-of-use abatement device specifications, process-specific technology selection, trouble-shooting, and destruction and removal efficiency (DRE) testing oversight
- Centralized (house) VOC control and wet scrubbers specifications, trouble-shooting and DRE testing oversight
- Technical knowledge of semiconductor air testing methods including EPA Methods, ISMI Environmental Characterization Guidelines, and EPA POU abatement greenhouse gas (GHG) DRE test protocol
- Exhaust management strategies for increasing process uptime and reducing wafer costs

- Environmental Management Information System (EMIS) Implementation
- Toxics Release Inventory (TRI) reporting and compliance
- Hazardous waste and universal waste compliance
- Wastewater permits and compliance
- State (Minor) New Source Review (NSR) regulatory analysis and permitting
- Federal NSR regulatory analysis and permitting support for:
  - Prevention of Significant Deterioration (PSD)
  - Nonattainment NSR
- NSPS and NESHAP applicability analyses and compliance plans
- Ambient monitoring
- Air Dispersion modeling
- Compliance audits
- Emissions inventories for:
  - Criteria pollutants
  - Hazardous air pollutants
  - Greenhouse gases (GHG)
- Title V operating permits
- Stakeholder communications with agencies, federal land managers, etc.
- Risk Management Plans (RMP) and Process Safety Management (PSM)

Air Dispersion Modeling

Trinity is recognized nationally and internationally for our skills in conducting air dispersion modeling studies to support permit applications, compliance demonstrations, emergency response planning, and impact and feasibility assessments. Trinity has performed thousands of air dispersion modeling analyses in support of air quality projects using dispersion models sanctioned by EPA

and other regulatory authorities, including AERMOD, CALPUFF, and accidental release models. Our modeling experience allows us to provide state-specific insight for each project and to develop the most beneficial strategies based on client needs.

Greenhouse Gas Reporting and Permitting

Trinity has detailed semiconductor experience with greenhouse gas emissions reporting including EPA 40 CFR Part 98 Subparts A, C and I, California AB32, and Oregon GHG reporting.

Audit Experience

Trinity is known for our skills in evaluating compliance with regulatory requirements and conformance with management system processes and practices. Using extensive permitting experience and in-depth knowledge of local, state and federal environmental regulations, Trinity is ideally suited to conduct effective compliance audits to ensure that all applicable regulations have been properly addressed, determine compliance status, and suggest corrective action where needed. The result is a complete picture of all regulatory requirements to help you attain or maintain compliance. Trinity provides a full range of audit services from audit planning through implementation and closure of corrective action items. Trinity considers minimizing costs as part of the solutions for meeting compliance.

Technology-Based Compliance Solutions

Trinity's Digital Solutions team has experience assisting semiconductor industry clients with technology based compliance solutions to help them operate efficiently and cost-effectively, while improving EHS performance. EHS Digital Solutions partners with leading software providers to identify and implement compliance solutions based on the unique needs of our semiconductor industry clients. Technology solutions for the semiconductor sector include:

- Compliance solutions using Microsoft SharePoint® for streamlined documentation and reporting
- Third-party enterprise software for sharing information across the organization

Why Choose Trinity

Trinity maintains a strong group of consulting professionals with extensive semiconductor experience who collaborate and communicate frequently on issues related to the semiconductor industry to help keep you informed of important regulatory developments. Whatever your challenge, Trinity has the experience and insights to provide intelligent solutions to optimize environmental performance for our semiconductor clients. Our knowledge and experience across a wide range of environmental issues make us an excellent partner for addressing these matters.

ISO 9001:2015 certified at our corporate office in Dallas, Texas

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CONTACT OUR TEAM!

For more information about how we can help your organization, please contact us.

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