

REGULATORY ASSISTANCE

Leak Detection and Repair (LDAR)



Founded in 1974, Trinity Consultants helps organizations overcome complex, mission-critical challenges in EHS, engineering, and science through expertise in consulting, technology, training, and staffing. We support clients in geographies worldwide and across a broad range of sectors including industrial, energy, manufacturing, mining, life sciences, and commercial/institutional.

Trinity Consultants has a reputation for excellence in providing a broad range of air quality and environmental services for companies across the nation and internationally including Leak Detection and Repair (LDAR) assistance. With each project, our goal is to exceed expectations so that our clients turn confidently to Trinity when faced with additional air quality challenges. Leveraging its service groups focused on Chemicals and Oil and Gas, Trinity is knowledgeable regarding LDAR regulatory requirements and has provided compliance and field support at many facilities nationwide. Trinity also offers professional training, Compliance Management for Fugitive Emissions & LDAR, including a course tailored for the oil and natural gas industry. The course covers LDAR regulations and requirements applicable to the oil and gas, refining, chemical, and petrochemical industries.

Regulatory Compliance

Trinity's LDAR experience includes applicability and compliance support for facilities subject to New Source Performance Standards (NSPS), National Emission Standards for Hazardous Air Pollutants (NESHAP), Maximum Achievable Control Technology (MACT), Resource Conservation and Recovery Act (RCRA), and state specific requirements, specifically:

- ▶ NSPS - 40 CFR 60, Subparts VV, VVa, GGG, GGGa, KKK, and OOOO
- ▶ NESHAP - 40 CFR 61, Subparts F, J, V, and FF
- ▶ MACT - 40 CFR 63, Subparts H, I, S, CC, HH, SS, TT, UU, YY, GGG, MMM, EEEE, FFFF
- ▶ RCRA Subpart BB

Trinity performs gap assessments of facilities' LDAR programs, reviewing their LDAR programs for compliance with applicable requirements. We also facilitate the development and implementation of LDAR programs including the following tasks.

- ▶ Defining LDAR program and training requirements
- ▶ Acquiring equipment and providing the associated training
- ▶ Implementing monitoring equipment capable of logging data for upload to tracking software
- ▶ Assisting in software selection for long-term program compliance documentation
- ▶ Integration with multiple LDAR databases such as LeakDAS and FEMS

Leak Detection Using Infrared

As part of Trinity's compliance management services, we provide leak detection assistance using an infrared imaging camera for visual observation of fugitive equipment leaks. The FLIR® GF320 infrared camera is able to visualize gas leaks, producing a full picture of the scanned area on the camera's viewfinder or LCD screen and allowing the user to see fugitive gas emissions as plumes. The images can be viewed in real-time and recorded for easy archival. This technology is suitable for industrial applications at oil refineries, chemical petrochemical facilities, power generation plants, and oil and natural gas production, storage, transportation, and distribution operations. The camera can detect many gases, and has been laboratory tested against 19 compounds including but not limited to benzene, butane, ethane, hexane, MIBK, and methanol.

Third Party LDAR Audits

Trinity conducts third-party LDAR audits for clients in the chemical and refining industries. Trinity has performed multiple third-party LDAR audits as required by client's Consent Decrees.



Related Services

Trinity provides a wide range of assistance related to LDAR, including the following:

- ▶ Applicability determination
- ▶ Enforcement assistance
- ▶ Response to Section 114 requests
- ▶ Reporting assistance
- ▶ Performing LDAR emission calculations
- ▶ Training (e.g., custom courses)
- ▶ Preparation of written programs

Why Choose Trinity

Trinity built its reputation for excellence on air quality expertise. Our staff of EHS experts is one of the largest in the country and knowledgeable regarding LDAR regulatory requirements. We have provided compliance and field support at many facilities nationwide.

For more information about how we can help your organization, contact Innas Darrat, PE at 713.552.1371 x209 or contact your local Trinity Consultants office by calling 800.229.6655.

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

Professional Training Courses Compliance Management for Fugitive Emissions and LDAR

This 1-day course benefits environmental personnel responsible for ensuring compliance with applicable air quality regulations with respect to fugitive emissions and leak detection and repair (LDAR). The course covers fugitive emissions sources and emissions quantification methods, various regulations requiring control of fugitive emissions and management of LDAR program to comply with the regulatory requirements, and important tips for managing LDAR contractors.

Compliance Management for Fugitive Emissions and LDAR for Oil and Gas

This 1-day course introduces oil and natural gas industry fugitive equipment Leak Detection and Repair (LDAR) regulations, fugitive emissions, emission calculations with LDAR data, and setting up and managing an LDAR program. The course covers federal NSPS and NESHAP LDAR standards and compares the major LDAR regulations that impact natural gas processing plants (NSPS Subparts KKK and OOOO and OOOOa).

Related courses that may be valuable include:

- ▶ Benzene Waste Operations NESHAP
- ▶ Chemical Manufacturing Sector Workshop
- ▶ Clean Air Act Workshop for SOCOMI
- ▶ Clean Air Act Workshop for Oil and Natural Gas
- ▶ Clean Air Act Workshop for Petroleum Refining
- ▶ Introduction to Non-Air Environmental
- ▶ Regulations for Oil and Natural Gas
- ▶ MACT Compliance for Pharmaceuticals
- ▶ NESHAP for the MON

Visit trinityconsultants.com/training for complete course information, schedules, and to register online.