## Leak Detection and Repair (LDAR)



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.

## **Regulatory Compliance**

Trinity's global 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), Canada requirements and audits, and state specific requirements, specifically:

- NSPS 40 CFR 60, Subparts VV/a/b, GGG/a, KKK, OOOO/a/b/c
- NESHAP 40 CFR 61, Subparts F, J, V, and FF
- MACT 40 CFR 63, Subparts H, I, S, CC, DD, HH, SS, TT, UU, YY, GGG, MMM, EEEE, FFFF, VVVVVV
- RCRA Subparts BB, CC

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 plan, 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

#### **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

## Leak Detection Using Optical Gas Imaging (OGI)

As part of Trinity's compliance management services, our certified thermographers provide leak detection assistance using an infrared imaging camera for visual observation of fugitive equipment leaks. The FLIR® GF320 and Gx320 infrared cameras are 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 nearly 400 gases, and has been laboratory tested against 19 compounds including but not limited to benzene, butane, ethane, hexane, MIBK, and methanol.

## Leak Detection & Repair (LDAR) Compliance

Trinity provides a wide range of the LDAR gap assessments and audits, from a one-day check-up to a U.S. EPA-required third party LDAR Audits. We are extensively involved with development and implementation of LDAR compliance programs. Our Compliance Management for Fugitive Emissions & LDAR course covers several different LDAR regulations including those applicable to the chemical, refining, and oil/gas industries. Our LDAR experience spans wide gamut of regulations including, but not limited to, NSPS VV/a, GGG/a, KKK, OOOO/a, Refinery MACT, Pharmaceutical MACT, MACT UU, TT, OOO, UUUU, HON, MON, Pulp and Paper MACT, alternative work practice standard, and RCRA BB and CC. We've conducted and led site-specific audits including consent decree third-party LDAR audits, assisted with responding to EPA Section 114 Requests, finding of violations (FOV) responses, enforcement assistance, implemented compliance task

management systems, prepared LDAR monitoring plans, applicability analysis, assisted clients with setting up programs, configuration of database products, and site-specific LDAR training. Trinity continues to stay at the forefront of LDAR regulatory developments, which includes attending national conferences and reviewing new regulations.

## Third-Party LDAR Audits

Trinity conducts a variety third-party audits, ranging from desktop reviews to full week on-site reviews. We assist clients in evaluating compliance status, identifying areas for program improvement, and demonstrating adherence to regulatory requirements and agreements between regulatory agencies and facilities (e.g Consent Decrees, Consent Agreement and Final Orders).

## 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 across the US, Canada, and internationally.

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

All trademarks are the property of their respective owners.

## **Professional Training Courses**

#### LDAR - OGI - NSPS XXa/0000a/0000b/0000c

This one (1) day course is intended for personnel in the oil & natural gas industry for compressor stations, well sites, and natural gas processing, and terminals. Day 1 focuses on programs for which US EPA primarily requires optical gas imaging as the method for leak detection and repair requirements. The course provides a summary of fugitive emission sources, practical overviews of NSPS XXa and OOOOa/b/c and Appendix K, the requirements for performing surveys under these rules, and associated recordkeeping and reporting requirements. The course will include practical applications of the rules, and reasoning behind many of the prescriptive requirements.

### Fugitive Emissions & LDAR for Natural Gas Processing Plants

This two (2) day course will provide an overview of various regulations requiring control of fugitive emissions and will focus on managing an LDAR program at Natural Gas Processing Plants to comply with the regulatory requirements as specified in NSPS KKK/OOOO/OOOOa/b/c. The course will cover federal LDAR standards as well as compare major LDAR regulations. The course will cover the

NSPS and MACT standards. To demonstrate compliance with applicable LDAR regulations, facilities are required to implement LDAR programs. Therefore, the course focuses on developing and implementing an LDAR program as well as other facets related to an LDAR program such as emission quantification and managing LDAR contractors.

# Fugitive Emissions & LDAR for Chemical Plants and Refineries

This two (2) day course benefits corporate and facility environmental personnel responsible for ensuring compliance with applicable air quality regulations with respect to fugitive emissions and leak detection and repair (LDAR) at chemical manufacturing facilities and refineries. The course includes a review of fugitive emissions sources and emissions quantification methods. It includes a discussion of various regulations requiring control of fugitive emissions and focuses on managing an LDAR program to comply with the regulatory requirements. It also includes important tips for managing LDAR contractors.

#### Related courses that may be valuable:

- Benzene Waste Operations NESHAP
- Chemical Manufacturing Sector Workshop
- Clean Air Act Workshop for SOCMI
- 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
- LDAR Compliance Management for Kraft Pulp Mills

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

## CONTACT OUR TEAM!

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

**Trinity Dallas Office** 

P 800.229.6655

SCAN THE OR CODE TO LEARN MORE

