

Leak Detection and Repair (LDAR) Overview

Montrose Air Quality Services is the nation's largest provider of air compliance and testing services. With 370 consultants, project managers, technicians and engineers in more than 30 offices nationwide, we provide personalized service with regional expertise. We also draw on a nationwide history of successful programs throughout the regulatory, energy, research and industrial communities. Montrose Air Quality Services offers an innovative group of professionals in several air quality disciplines. We continue to provide reliable and timely environmental data, gathered using the highest technical and ethical standards, and with the least interruption to our client's business goals.

The Leak Detection and Repair (LDAR) division of MAQS includes engineers, scientists, analysts and technicians, all with extensive experience in a wide range of leak detection monitoring applications. We have been conducting custom LDAR inspections for over 25 years, in more than 1,000 facilities. We have invested in state of the art technology and developed a custom LDAR reporting software accessible from any Internet connection. Certified LDAR Professionals perform periodic leak inspection of piping components and process units pursuant to Regional and EPA requirements, including SOCFI, HON, NESHAPS, MACT, and NSPS standards, utilizing equipment and procedures conforming to EPA Reference Method 21.

The LDAR Group Can Provide the Following Services

- Leak Detection and Repair per Method 21
- Optical Gas Imaging
- Greenhouse Gas Inspections
- Emissions Inventory
- Online Database Management
- Inspection and Maintenance Plans
- Tank Seal Inspections
- DOT Pipeline Surveys
- Tank Maintenance
- Fugitive Mass Emissions Calculations
- Gas and Wastewater Sampling
- Vapor Recovery Troubleshooting
- HRVOC Sampling
- Visible Emissions Evaluations per Method 9

Training Program

MAQS has high standards for its employees and thus implements an internal training program required for all field employees. The training program was created to bring quality work and consistency to the LDAR industry. The training program consists of 5 levels. At each level the technician must complete a series of modules which may include an in-class PowerPoint, quiz, test and field evaluation. When a technician has completed all the required training to advance to Lead Technician, he/she must sit before a formal Board of Review to be promoted to this elite position of leadership.

Safety Program

MAQS is committed to the safety and protection of our employees, the communities where we live, and the environmental and regulatory compliance of our activities. We base our business decisions and our safety and training program in accordance with these values.

Safety Program (Continued)

MAQS employees receive regularly scheduled Safety training both online and live, based on OSHA compliance requirements, which includes presentations, quizzes, tests and hands on training. Furthermore, employees are required to obtain permits and certifications to comply with all federal, state and local rules and regulations. In addition, MAQS employees must actively participate in the safety and health program by reporting all incidents, unsafe conditions and observing safe practices themselves. Technicians are all provided personal protective equipment based on the task being conducted, including personal H2S monitors. If it is not a safe place to work, then we do not work.

LDAR Program

All LDAR programs are customized as each client has different processes, equipment, personnel and procedures. MAQS will assign a Project Manager to each client to determine what type of LDAR program is required. The Project Manager is responsible for overseeing the compliance of the LDAR Program, which includes applicability, exemptions, regulatory review, budgeting and quality control and assurance. A District Manager will assign a Lead Technician to each location and determine the appropriate staffing and training. The Lead technician is responsible for ensuring Method 21 is conducted on all applicable components, the inventory is maintained, all leaks are reported and documented and communication occurs seamlessly between MAQS and the client.

Inventory Methodology

MAQS provides two types of Inventory, based on our clients' needs, "Line by Line" or "Hybrid." Line by line Component Inventory provides detailed information for each component, including component name, leak paths, size, physical location, service, stream and attributes. This allows the most diverse use of the inventory, which provides component and leak path counts. Each component is assigned a unique ID number with an associated tag. Tags are hung using stainless steel wires or silicone. Hybrid inventory is a simple count, providing totals of each component group (i.e. valves, connectors, etc.) by service and stream. Component level detail is not documented, but may be updated later on a leak by leak basis. This type of inventory is less expensive as it takes less time, but is not detailed and may not satisfy certain regulations that require a unique ID number for each component.

Online Database Management

MAQS provides secure access with basic functionality to its online custom web application, used to manage client LDAR programs. Access to the application will provide the client with the ability to view the facility component inventories and summaries, monitor the LDAR program in real time, view leaks on a daily, weekly or monthly basis, view repair status, and pending repair deadlines, thereby greatly assisting environmental managers with the ability to stay current, more involved and better equipped to make critical decisions regarding the LDAR program.