

# LDAR

## Leak Detection and Repair (LDAR) Services



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## Advantages of Team's Emission Control

- + Single point of contact worldwide
- + All encompassing program which includes inventory, assessment, monitoring, repair, data management and auditing
- + Provides verifiable safety, quality and audit programs
- + Offers VOC repair services for process equipment
- + Utilizes advanced monitoring technology and software
- + Enables quick response with access to more than 350 highly trained and fully certified LDAR personnel

Emissions control is essential for all industries to meet environmental regulatory requirements. It is imperative for plants to understand the environmental regulations that apply to their operation and proactively chart an action plan that includes compliance monitoring (inspections), compliance incentives and auditing (self-disclosure policies) and enforcement.

Our certified personnel, programs, experience and equipment guarantee your regulatory compliance right from the start. From fugitive emissions and technical compliance assistance to repair services and data management, Team's LDAR services are all encompassing to ensure your site's mandatory regulations are met.

## Highly Trained, Fully Certified, and Motivated Technicians

Team will help you design and implement a program tailored to your specific requirements. Whether you need skilled labor to supplement an existing program or want to develop a comprehensive LDAR program from scratch, Team is here to meet your every need.

All of Team's technicians are highly trained and certified. Annual safety and technical certification includes:

- + LDAR regulatory policies and procedures
- + Component identification, tagging and record keeping
- + Component specific monitoring procedures
- + First attempt and advanced repairs
- + General plant and process safety programs
- + QA/QC procedures
- + Auditing procedures

We attract and retain the highest quality personnel by providing performance incentives and career paths. Our highly motivated personnel work together to be efficient and fully compliant with all regulatory demands.



### **Regulatory Applicability Assistance**

Team helps customers design LDAR programs that meet all applicable federal, state and local LDAR regulations. Our LDAR professionals will assist you in the development of effective programs to support inspections, reporting and enforcement activities.



# LDAR Capabilities

A lot of work can go into complying with governmental emission standards – equipment inventory, monitoring, repairing, record keeping, and reporting. At Team, we evaluate your emissions control efforts and offer the guidance and services necessary to streamline your LDAR processes and management.



Team provides LDAR services for hundreds of customers and maintains millions of records to document compliance. Team has the experience and expertise needed to handle all your emission compliance requirements. From program set-up and initial assessment to routine compliance assessments, Team will help you develop and maintain a complete compliance program that will cover you every step of the way.

## Stream Applicability Assistance

Different types of process streams require varying component monitoring, repair and reporting schedules. Our LDAR experts will help you determine affected process streams and mandatory monitoring requirements.

## Locate, Flag, Tag and Identify Equipment

Based on EPA statistics, the average-sized plant may have 3,000 to 30,000 individual components that require monitoring. Our LDAR specialists will locate, flag, tag and identify each applicable component. Regulatory compliance tag numbers are assigned and component information recorded.

## Data Collection

Team's hand-held electronic data collection devices store component numbers and ID's, source types, rule applicability and other vital data to help eliminate transcription errors.

## Method 21 Monitoring/Leak Identification

Method 21 is an EPA protocol for monitoring Volatile Organic Compounds (VOC) leaks to ensure that fugitive air emissions are identified and eliminated to control air pollution and protect the public's health. Our certified LDAR personnel use state-of-the-art technology and software to thoroughly test all tagged components in compliance with EPA Method 21.

## MOC Services

Our proven Management of Change service evaluates components added to a facility during maintenance and construction to determine if they are subject to LDAR requirements. If so, our proven process then properly identifies each component to effectively maintain the facility's inventory database.

## First, Second, Advanced Repair Services

When a leak is found, regulations require a prompt response, if not immediate. Team's repair services can assist in maximizing your repair efforts and do so in a timely manner. With branch locations across the globe, we will do so in a timely manner as required per the regulations.

## Data Administration (On and Offsite)

We are equipped to handle your complex data administration requirements either on or offsite. Team technicians use industry leading Leak DAS® Version 4 from Inspection Logic. Data is maintained on our secure server network. Customers access their reports from anywhere using our internet-based web system. Remote access backup servers are utilized to eliminate disaster risks and ensure that customer data is protected. When a client prefers to maintain their own database license on company networks, Team can supply skilled data administrators to ensure your LDAR data is properly managed. Online access for your entire team to analyze and review the frequency of monitoring, data being collected, schedule of repairs and other pertinent information provides tangible resources for good decision making.

### QA/QC Programs

We maintain a strong focus on QA/QC throughout the LDAR process. Formalized quality programs and manuals help ensure compliance every step of the way. Activities, processes and responsibilities matrixes are developed to meet specific customers requirements.

### LDAR Compliance Field Assessments

As part of the LDAR process, we conduct field assessments to ensure that all program processes are compliant. Visual observation, tag audits, data monitoring audits, MOC audits and comparative monitoring of randomly selected components are used to verify that each technician meets the high standards of performance required.

### LDAR Compliance Audits

The EPA Audit Policy provides incentives for self-policing that have been in effect since 1995. Incentives may include reduced penalties for violations, extended time to correct violations and other considerations. Our LDAR personnel can assist you in conducting self-audits to ensure full program compliance.

### Oil and Gas Production Facility

USEPA and several state air agencies have adopted regulations or operating permit provisions affecting the oil and gas production industry that require LDAR programs from the well head through the natural gas transmission system. To assist customers subject these complex requirements, Team offers LDAR services using either Method 21 or Optical Gas Imaging monitoring methods. EPA's Alternative Work Practice for LDAR is used as described in the applicable state regulation or operating permit for optical gas imaging leak detection. All other features of Team's LDAR program as described above are utilized to ensure the highest level of quality and compliance with these regulatory requirements.



### Advantages of Team's LDAR Compliance Services

- + Assists in the development of effective programs to support inspections, reporting and enforcement activities
- + Provides a LDAR program that meets all applicable federal, state and local laws and regulations
- + Identifies affected process streams and monitoring requirements
- + Locate, flag, tag and identify each applicable emissions controlled component
- + Tests all tagged components in compliance with EPA Method 21
- + Repairs equipment within mandated timeframes
- + Records and maintains data on our secure server network. You can access your reports from anywhere using our internet-based web reporting system
- + Maintains a strong focus on QA/QC throughout the LDAR process
- + Conducts field assessments to ensure all program processes are in regulatory compliance
- + Assists in conducting self-audits to ensure full program compliance

# Greenhouse Gas Emission Control Services

The new Greenhouse Gas Reporting Rule for the oil and natural gas industry (Subpart W) brings new compliance demands. The rule requires reporting of greenhouse gas (GHG) data and other relevant information from large sources and suppliers in the United States.



Team offers full compliance programs to comply with the new Subpart W rule. We were one of the first contractors to offer Optical Gas Imaging for leak detection, using the revolutionary FLIR GasFindIR™ camera. As an additional innovation in 2010, Team added the capability to provide direct measurement of methane emissions for leaks from compressor seals and vents using a variety of methods, including Bacharach Hi-Flow® Sampler, VPAC II acoustic leak detector, hot wire anemometer and GASFindIR™ gas leak detector. We also provide emission reports of the testing results in standard cubic feet per hour (scfh) adjusted for annual weather conditions.

## Advantages of Team's Greenhouse Gas Emission Control Services

- + Utilizes the leading leak detection software and hardware to collect inventory and inspection data
- + Strength, stability, and support of a major publicly owned service corporation. Knowledge and experience, Team knows your equipment!
- + Trained and certified technicians and gas camera operators. Team has certified Method 21, GasFindIR™, and Hi-Flow® Sampler operators with the experience to identify the leaks in all weather, light and heat conditions
- + Practices, procedures, equipment, and training to safely meet your needs
- + Over 30 years of experience in equipment leak emission quantification and estimating
- + Operations near your facilities to reduce expensive travel cost

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# EPA Method 21 Emissions Control

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Method 21 is an EPA protocol for monitoring VOC leaks to ensure that fugitive emissions are identified and eliminated to control air pollution and protect the public's health.

## Advantages of Team's EPA Method 21 Emission Control Services

- + Utilizes state-of-the-art technology and software to thoroughly test all tagged components in compliance with EPA Method 21
- + Manages analyzer calibration gases, initial and quarterly certifications and daily calibrations

### *M21 Reporter*

A Team "add-on" program for our industry-leading LeakDAS V4 data management software, M21 Compliance Reporter, is a management tool that examines technician activities for Method 21 compliance. Daily performance reports display mean and median monitor times, average components monitored per hour, total time spent monitoring, variances for minimum time allowances based on component size and location, variances for maximum break times and more. Variances are immediately investigated to maintain full compliance and efficiency.

### *Advanced Technology and Software to Streamline Monitoring and Data Collection*

Based on EPA statistics, the average-sized plant may have 3,000 to 30,000 individual components that require monitoring. With these thousands of components to identify, tag and monitor in any given facility, it is vital that the emission control monitoring and data collection process is efficient and accurate.

Team technicians utilize advanced technology and software to streamline the emissions monitoring and data collection process.

### *Optical Gas Imaging Leak Detection*

Our GasFindIR™ Infrared (IR) imaging camera finds hydrocarbon gas leaks quickly and easily. Capable of rapidly scanning large areas and miles of pipeline, this highly specialized infrared camera delivers real-time thermal images of gas leaks. Fugitive gas emissions appear as black smoke onscreen.

### *Wireless Bluetooth Data Transmitter*

The Wireless Bluetooth Data Transmitter provides a connection that enables the wireless transfer of data from your monitoring analyzer to your data logger.

### *Juniper MESA / Archer 2 PDA*

A safe, high-performance industrial PDA with integrated GPS, WLAN 802.11b wireless capabilities and bar code scanning. This tool verifies monitoring via GPS and bar code scanning. GPS and bar code tracking increases the likelihood that all component monitoring will occur at the correct locations, improving the integrity of the monitoring data.

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# Data Management and Quality Control

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## Data Management

The vast number of process components subject to LDAR regulations combined with varying monitoring schedules and potential repair information must be carefully managed and reported. We can store your LDAR data onsite or on a secure database using Inspection Logic's LeakDAS® V4 MS Sequel Server database. LeakDAS® V4 manages compliance operations on a daily, monthly, quarterly and annual basis. This Windows compatible system manages information and record keeping in a way that is consistent, repeatable and focused on regulatory compliance.

## LDAR Auto Alert System

Every night the mainframe computer queries the data collected during the day searching for any compliance issues. If a problem is found, the team is automatically alerted via e-mail and prompted to review and justify or correct the issue.

## Team is also a provider of the following LDAR Tools Systems:

- + c2™
- + phx21™
- + SpanBox™
- + SpanBox3™
- + LTI Mobile
- + FEScout™
- + IRJupiter™

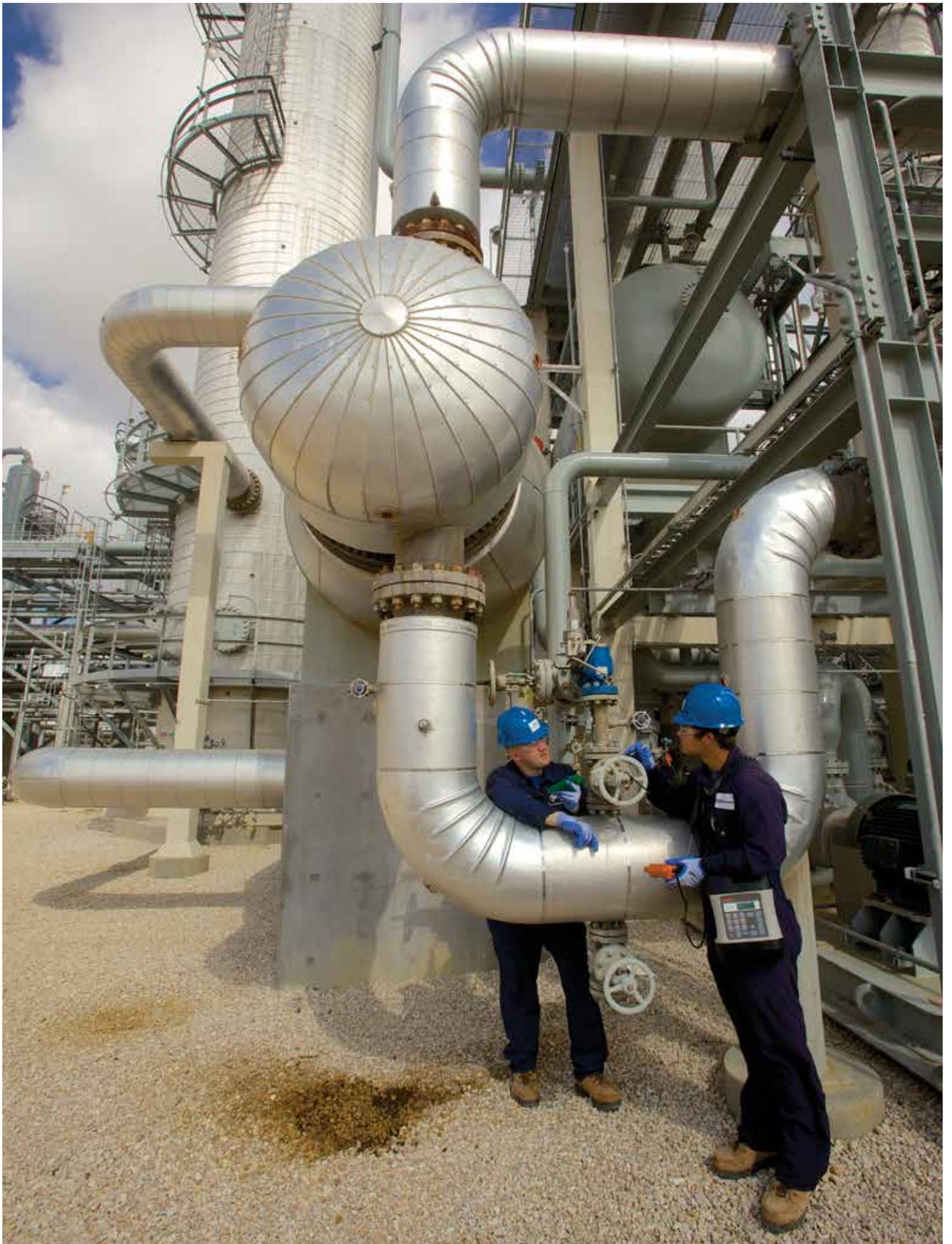
## Emissions QA/QC Protocol

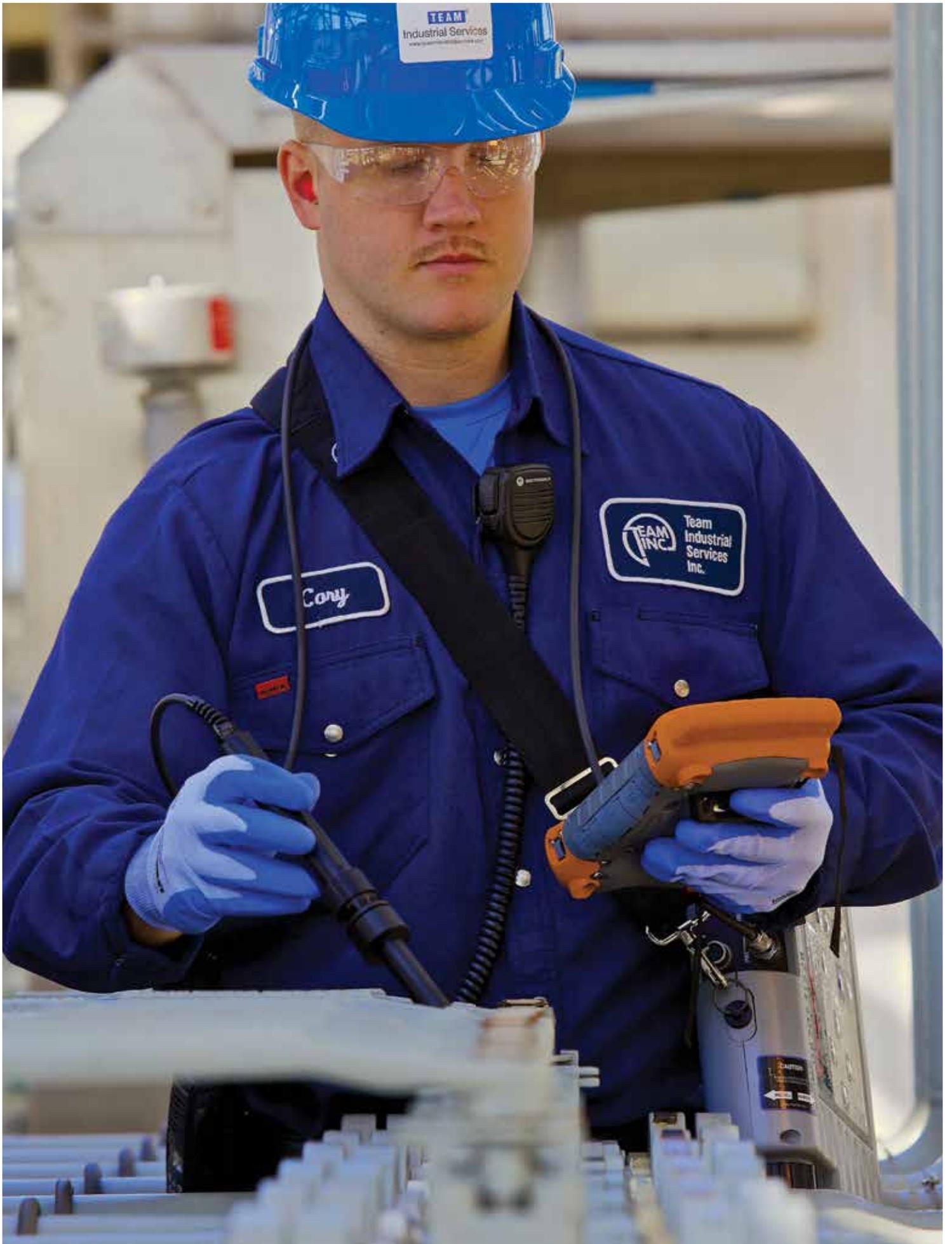
Quality assurance (QA) and quality control (QC) play a major role in emission control.

Your monitoring program should include procedures to ensure QA/QC review of all data generated on a daily basis or at the conclusion of each monitoring episode. However, total LDAR quality cannot be determined from data alone. Our Team QA/QC Protocol provides a verifiable process for ensuring the accuracy of inventory, monitoring and repair that features field assessments and a clear audit trail.

## Advantages of Team's Emission Control QA/QC Protocol

- + Provides accurate component inventory
  - + Analyzer calibration gases
  - + Analyzer certifications
  - + Analyzer calibrations
  - + Method 21 monitoring results
  - + Comparative monitoring
  - + Component tags (ID, leak, SD)
  - + Establishes monitoring schedule
  - + Quality FACT tags
  - + Compliance with initial monitoring requirements
  - + Compliance with follow-up monitoring
  - + Timeliness and effectiveness of repairs
  - + Record keeping and evaluations
  - + Corrective actions and root cause analysis
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## Where You Need Us. When You Need Us.

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With offices in over 40 countries, Team will be there when and where you need us. Our global presence enables us to be fully immersed in local safety, quality and compliance requirements, while backed by a world-class service team. We have the resources to respond promptly with a comprehensive solution in any situation. No matter where you are in the world, whether you are dealing with scheduled inspections or an emergency pipe repair, you can count on us to service your equipment quickly, safely, accurately and at the high level of quality people have come to expect from Team.

### **Team Service Capabilities**

- + NDE / NDT Inspection
- + Heat Treating
- + Leak Repair
- + Emissions Control
- + Hot Taps, Line Stops
- + Field Machining Services
- + Bolting and Torquing
- + Valve Repair
- + Concrete Repair
- + Isolation Test Plug
- + Valve Insertion
- + Mechanical Integrity
- + Manufacturing
- + Specialty Welding

Team experts are available 24 hours a day, 7 days a week, 365 days a year.

Call us today: **1-800-662-8326**

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## Industrial Services

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