

PurgEnomics™ Training Courses



RBWEA

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Fundamentals of Purging for Engineers and Operations Professionals

The 2018 American Gas Association (AGA) Purge Manual is a crucial resource for the natural gas industry, providing guidelines and best practices for removing or introducing typically combustible gases from pipelines and equipment (“purging”). It outlines procedures to safely ensure the integrity and functionality of gas systems safety during purging operations.

This course focuses on the approach taught in the 2018 American Gas Association Purge Manual, including factors influencing purge effectiveness, the chemistry of flammable mixtures, gas detection and measurement, and purge media. We'll also provide a procedural review of uncomplicated purge jobs.

In this course, you will learn:

- What purging is and why it's done.
- The value of pre-purge assessments for risk mitigation.
- How to purge effectively, emphasizing adherence to safety regulations and industry standards.
- How to calculate the required volume of gas for effective purging.
- How to determine the optimal purge rate.
- The importance of monitoring pressure and gas concentrations during the process and before introducing natural gas into the system.
- Why documentation is necessary and how best to do it.

By following the guidelines set forth in the 2018 AGA Purge Manual, natural gas industry professionals can enhance the safety and reliability of gas operations while minimizing the environmental impact and mitigate safety risks.

Who is this course for? This course is primarily designed for operations, construction, gas control and engineering professionals.

Note: This course can be presented in its entirety or as standalone modules on: factors influencing purge effectiveness; chemistry of flammable mixtures; gas detection and measurement; and purge media.

Fundamentals of Purging for Environmental Professionals

In the natural gas industry, purging refers to the process of removing or introducing typically combustible gases from piping or equipment systems. While it is a necessary practice for maintaining the integrity and safety of gas systems, it can pose a significant environmental impact if not managed properly. From social influences to aggressive regulators to methane taxes, there's a lot to pay attention to.

This course focuses on the environmental impact of the purge process from start to finish, including the release of methane against the backdrop of a rapidly changing regulatory environment. Based both on the 2018 AGA Purge Manual's guidance and a real world case study, this course will help attendees develop or work toward an economic approach to emissions reductions.

In this course, you will learn:

- Why it's important to continuously review and improve purging practices.
- How regulatory developments, including new taxes, have changed the way the industry and the public view this historical process.
- How to calculate emissions from pipeline purge projects.
- AGA best practices for controlling and mitigating emissions from methane, volatile organic compounds (VOCs) and other pollutants.
- How new methane mitigation technologies are affecting the industry.

Who is this course for? The course is primarily designed for environmental, sustainability, engineering, public affairs, communication and legal professionals.

Fundamentals of Purging for Safety and Occupational Health Professionals

In the natural gas industry, purging is a critical safety procedure designed to ensure that pipelines, equipment and facilities are free of flammable gases before they are put into service or maintained. According to the 2018 AGA Purge Manual, proper purging minimizes the risk of explosions and fires. However, safety impacts are significantly influenced by factors such as the materials involved, environmental conditions, process control and instrumentation and the certification and training of those assigned to plan and execute the purge. The implementation of proper procedures not only protects workers and the surrounding community but also enhances the overall integrity of the natural gas infrastructure.

This course will walk through the purge process from beginning to end, addressing safety concerns and challenges involved in each step. The course will also cover public and personnel safety evaluations for general purging operations to help attendees develop risk management muscle memory.

In this course, you will learn:

- About the dangers inherent in the purge process.
- How inadequate purging can lead to dangerous situations, including the accumulation of explosive mixtures.
- How adhering to established protocols during purging operations helps mitigate risk.
- Why monitoring and testing are vital during the purging process, and how to perform those activities.
- The role of training in avoiding purge-related incidents and accidents.

Who is this course for? This course is primarily designed for safety and occupational professionals but may also be a good fit for engineering, legal, public affairs and communications personnel.

The Art of Reducing Emissions. How Much is Enough?

The natural gas industry is facing greater pressure than ever to reduce emissions and adopt more sustainable operating practices. Innovative emissions mitigation technologies have emerged, and more are expected, but prevailing sentiment, social pressures and aggressive regulatory policies make keeping up with external influences even more challenging.

This course focuses on the lessons in four defining white papers released in recent years:

- Blowdown Emission Reduction White Paper, AGA, 2020
- Best Purging Practices for Minimizing Methane Emissions, GTI Energy, 2023
- Managing Methane Emissions from Integrity & Maintenance Work on Natural Gas Transmission & Storage Assets, INGAA, 2023
- Pipeline Blowdown Emissions and Mitigation Options, MJB&A, 2016

Attendees will explore the latest technologies and strategies aimed at reducing greenhouse gas emissions associated with natural gas purging operations and will learn how to effectively communicate emissions reduction goals and initiatives to stakeholders.

In this course, you will learn:

- About the activities associated with natural gas purging operations.
- How new technologies are reducing purge-related emissions.
- Why engaging with stakeholders and talking about emissions reductions initiatives is so important.
- Why collaboration and transparency are vital to driving meaningful change within organizations and contribute to a more sustainable energy future.

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Rough Seas: A 5-year Review of Regulatory Developments

Since 2020, five significant regulatory developments have shaped the natural gas industry. This includes new requirements for reporting operational information and for additional environmental stewardship and surveillance, as well as the contentious new pipeline leak detection and repair rule. Compliance challenges have also emerged, primarily at the federal level but also at the state level regarding intrastate pipelines and process systems.

This course will provide an in-depth analysis of those multifaceted pieces of legislation and the effect they have on the industry and attendees' businesses.

Attendees will leave with the tools to effectively manage regulatory compliance while contributing to the sustainable growth of their organizations.

In this course, you will learn:

- About the key legislation and emerging policies affecting the natural gas industry
 - New Source Performance Standard 40 CFR 60 Subpart OOOOb/c
 - Inflation Reduction Act
 - Greenhouse Gas Program updates
 - Pipeline Safety Management Systems rule
 - Gas Pipeline Leak Detection and Repair, Notice of Proposed Rulemaking
- Effective strategies relating to material compliance with these complex and burdensome regulations.

Who is this course for? The curriculum is designed for those who must stay informed about the evolving regulatory landscape affecting natural gas distribution and transmission, including professionals in environment and sustainability, engineering, legal, public affairs and communications.



RBWEA provides off-the-shelf and customized training that fits your schedule, requirements and goals. Available at your location, our training center or online.

- Our industry experts will come to you or can provide training in the focused learning environment of our Tulsa Operations facility.
- For optimal flexibility, we offer online webinars. Convenient and accessible training from anywhere.
- Have a special need? We can tailor our training to your policies, procedures and processes.

**For additional information, contact Emily Perkins,
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