

WHO WE ARE

“Our experience in diverse industries and collaboration with numerous manufacturers allow for application of **best fit solutions**. This expertise drives our design and engineering to achieve the safest, highest performing, lowest cost of ownership, and most robust analytical system solutions.”

WHAT WE DO

Applied Controls is focused on the total Analyzer System from the sample point to sample return. We can design, engineer, build, start-up, train and service on-line continuous analyzer systems-from wall mounted units to complete shelter houses.

WHAT WE OFFER

- Environmental/Process Analyzer System Integration
- Analyzer System Engineering
- Sample Conditioning Systems
- Enclosure/Shelters
- F.A.T. Live Streaming
- Start-up/Commissioning/Training
- Field Service and Calibration
- Complete Turnkey Systems

VALUE-ADDED

- Technical Support
- Installation and Setup
- Maintenance
- Warranty

For more information on any of our products or services please visit us at: Analyzer-Systems.com



Flare Gas Monitoring System per Refinery Sector Rule (RSR) CFR63.67



Environmental Compliance BTU Measurement in Flare Gas



A flare is an open-flame fuel gas combustion device used for burning off unwanted gas or flammable gas and liquids. The flare includes the foundation, flare tip, structural support, burner, igniter, flare controls including air injection or steam injection systems, flame arrestors, knockout pots, piping and header systems.

Safety is paramount in designing the Flare Gas Monitoring System since sample and calibration standards will contain H₂S/Combustible vapors. The Sample Conditioning System should be mounted in a heated enclosure and affixed to the outside wall of the shelter as all valve switching, filtering, and flow control could create multiple leak paths; isolating them from the inside of the shelter. Calibration Gas Cylinders, including flammable and toxic gases (H₂S), should be mounted external to the shelter and not inside an enclosure or shelter. Ambient air monitors, as a minimum, should be mounted internal to the shelter including O₂ oxygen deficiency, H₂S, LEL. Sample bypass cannot be vented to the atmosphere due to flammable and potentially toxic gases, and therefore should be sent back to the flare line.

While traditional post combustion CEMS methods per 40 CFR 60 will generally apply to the affected areas, the flare will be monitored prior to combustion requiring a more complex analyzer such as Gas Chromatograph, Calorimeters and Mass Spectrometers.

- January 30, 2019 is the compliance deadline for the implementation of the US EPA Refinery Sector Rule (RSR) for existing flares. This requirement includes additional monitoring and gas analysis when regulated material is sent to the flare. Analyzers such as Gas Chromatograph, Mass Spectrometers and Calorimeters are all options to consider for monitoring.
- We will provide at no charge a technical presentation “*Planning for the Btu measurement in flare gas, as required by RSR*”. In this meeting we will discuss the aspects of your requirements such as new installation, retrofit, Analyzer comparisons, sample conditioning, sample probes, safety, performance.
- FEED—There will be many issues that should be addressed and planned for to meet this requirement. With our design experience with flare gas monitoring systems, we can help you plan and execute your RSR compliance project by performing Front End Engineering and Design.
- Flares are required to hold a 95% Hazard Air Pollutant destruction efficiency. The Net Heating Value of the gas has a direct impact on combustion efficiency. This new RSR requirement mandates a NHVCZ ≥ 270 Btu/scf, based on a 15 minute block average, when regulated material is sent to the flare for at least 15 minutes.

ADVANTAGES

- Applied Controls has over 75 years of combined experience in Sample Systems for all types of analytical measurements; including Gas Chromatography, moisture, etc.
- We can utilize any manufacturer’s equipment that proves to be the best fit technology for the application needs.
- Our Engineering Staff are Sample System experts. We design your analytical systems from Sample Point to Return, covering everything in between.
- Our dedicated Service Engineers ensure our customers receive second to none support for all commissioning and on-demand service needs.

 **Applied Controls**
Analytical System Solutions
10325 E 58th St
Tulsa, OK 74146
918.259.0020
sales@ac-acsi.com
Analyzer-Systems.com