



The EPA Hazardous Organic NESHAP (HON) final rule

Delivering the scope, scale, and support
to meet HON compliance

A global leader in ultrasonic flare flow measurement, Panametrics brings over 50 years of experience to help facilities understand, implement, and support compliance with the EPA's Hazardous Organic National Emission Standards for Hazardous Air Pollutants (HON) final rule.

Issued by the EPA in 2024, the HON final rule strengthens air toxic emission requirements for over 200 HON facilities, 19 P&R I facilities, and 5 P&R II facilities across the U.S.

The new rule aims to protect vulnerable communities from hazardous pollutants related to elevated cancer risks by reducing ethylene oxide (EtO) and chloroprene emissions by 80%. The changes are projected to restrict volatile organic compounds (VOCs) to 23,000 tons per year and reduce community-wide air toxicity risk by an estimated 96% from chemical plants. Key compliance requirements include the need to:

- Maintain a pilot flame at all times when regulated material is routed to the flare
- Operate flares with no visible emissions for more than 5 minutes during any 2-hour consecutive period
- Meet flow measurement accuracy standards of $\pm 20\%$ for flows from 0.1 ft/sec to 1 ft/sec, and $\pm 5\%$ for flows above 1 ft/sec
- Ensure a Net Heating Value of at least 270 BTU/scf in the combustion zone, based on 15-minute time block averages
- Monitor steam or air assist flow rates to measure and report dilution in the combustion zone, keeping it above 22 BTU/ft²
- Demonstrate 96.5% combustion efficiency or 98% destruction efficiency for flares

As a result of the new rule, facilities face an increased urgency to assess and update flare systems to meet these requirements. Panametrics has the technical expertise, field-proven technology, and compliance-focused solutions to help support the transition.



Over 50 years of trusted expertise in flare flow measurement

Panametrics' proven experience makes us much more than just a compliance solution. We provide the meters, sensors, valves, and deep expertise in flare flow metering to help you meet the HON final rule with confidence.



Measure flare flow across wide ranges and difficult conditions

Flares in HON-regulated facilities pose several challenges, including a wide flow range, changing gas composition, low pressures, high temperatures, and hydrogen-rich compositions. Panametrics' wetted ultrasonic flow meters are purpose-built to handle these variables, without creating back pressure, as differential pressure flow meters often do.



Engineered for high-hydrogen environments

Our ultrasonic meters are ideal for high-variability environments, and Panametrics can engineer a solution for almost any flare measurement and control need.



Complete ultrasonic flow metering system

Panametrics' wetted ultrasonic meters offer accurate, reliable data across fluctuating flow conditions and meet the EPA's performance expectations for continuous compliance monitoring. flare.iQ optimizes combustion at the flare tip by providing setpoints for fuel gas, steam, or air assists to ensure 98%+ high-efficiency flare combustion.



Custom solutions for compliance and performance

Panametrics engineers custom solutions that fit your site's specific flare system layout, environmental conditions, and control requirements. Each system is designed for both seamless integration with plant infrastructure and long-term regulatory reliability.

At your service

Panametrics is a market leader in providing flare metering solutions and offering expert support to meet the requirements of the HON final rule.

Flare system site assessment

Working with your local field team, our qualified service engineers evaluate all assets tied to flare monitoring and control. We assess each flare for compliance with the HON final rule, including:

- Flow measurement of flare gas, air, steam, and supplemental/makeup gas
- Line sizing and BTU measurement
- Control valves and sensors

Our customized report identifies potential compliance gaps, suggests upgrade paths, and outlines associated costs, supporting you with proactive planning.

Equipment installation and start-up

After the engineering study, our service team provides equipment installation and commissioning support. We verify flow meter functionality, test for zero-flow conditions, and ensure proper system operation to align with EPA expectations.

Ongoing field site support services

Support and knowledge are critical for long-term flare performance and compliance, and Panametrics provides services that align with EPA requirements for maintaining equipment according to the manufacturer's specifications, including:

- Annual meter verification
- Prioritized service response
- Technical support

Many customers haven't historically performed ongoing manufacturer verifications, but this verification is necessary under process vent provisions and monitoring requirements. Panametrics offers these services to support your compliance.

We also maintain a cloud-based service portal that provides you with easy access to your service records and verification history. At the local level, advanced diagnostics continuously monitor your assets to support high reliability and utilization rates.

Ensure compliance, reduce risk, and optimize flare system performance. Meet the HON final rule requirements with Panametrics' comprehensive, fixed-price service solution. To get started, contact one of our experts at PanametricsContact@bakerhughes.com.

About Panametrics

For over 50 years, Panametrics has been at the forefront of advanced measurement solutions, specializing in high-precision instruments that ensure operational efficiency and regulatory compliance across various industries. As a pioneer in sensor technology, the company designs and manufactures innovative solutions for gas flow, liquid flow, moisture, and oxygen measurement. Our commitment to quality and reliability is evident in our robust product offerings, including the PanaFlow FLI ultrasonic flow meter, which is engineered to meet the demanding needs of the natural gas industry.