

FlareSpection: Safety and Savings for Flare Monitoring

INDUSTRY**Oil & Gas****SOLUTION****FlareSpection™ Infrared Camera System****EQUIPMENT****Temperature Monitoring Systems****CHALLENGE**

In oil and gas and other industrial sectors, environmental regulations require flare stack operators to maintain active pilot flames. This requires continuous monitoring. Traditional thermocouple-based monitoring systems can be unreliable, leading to costly shutdowns, compliance risks, and missed revenue opportunities.

A customer needed a more dependable solution to ensure continuous operation, avoid unnecessary downtime, and optimize maintenance with service contracts.

SOLUTION

Advanced Energy provided the FlareSpection Infrared Camera System for continuous observation of the pilot and flare stack flames. Unlike thermocouples, FlareSpection's high-precision thermal imaging technology provides real-time, reliable data, enabling proactive management of flare system controls and reducing the likelihood of unplanned outages.



RESULTS

- **Improved Monitoring:** Thermal imaging technology allowed operators to simultaneously monitor individual pilot and flare stack flames, and to assess flare size and intensity accurately. This helped ensure compliance and operational safety.
- **Significant Cost Savings:** Proper flame monitoring allows customers to reduce purge gas usage. This customer greatly reduced its purge gas usage, resulting in annual savings of \$2 million.
- **Operational Efficiency:** Continuous, real-time monitoring enables uninterrupted operations and improved resource allocation, with added revenue generated from planned service contracts.
- **Reduced Reliance on Thermocouples:** By minimizing the dependence on traditional thermocouples, operators experience fewer false alarms and interruptions.
- **Environmental Compliance:** Enhanced monitoring aids in meeting EPA and equivalent agency requirements, reducing environmental impact and supporting sustainability goals.

By enabling operators transition from thermocouples to advanced infrared monitoring, FlareSpection helped ensure regulatory compliance while providing meaningful financial benefits. With the installation of the FlareSpection Infrared Camera System, the customer achieved greater reliability and efficiency. They also identified new revenue opportunities and saved millions annually by reducing purge gas consumption.



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