

# BJ PPS Protects the Environment and Saves Money with its new Shutdown System

BJ PPS has responded to operator demands for a low cost, environmentally friendly gas flare system. BJ's Hi-Lo™ Variable Tip Flare System helps operators burn waste gases with minimal environmental intrusion. The first of its kind, the Hi-Lo system is designed to incinerate - or flare - harmful gases in a clean, efficient manner. The system burns waste gases at a constant level, even while the gas flowrate varies.

## Clean Burn for Chemical Plant in Germany

Recently, BJ successfully used the Hi-Lo Flare System at a chemical plant in Germany to flare waste gases while the plant's permanent waste gas flare system was shutdown for an essential upgrade. PPS teams mobilized quickly to create a temporary flare system which allowed the chemical plant the opportunity to dismantle its existing waste gas flare system without polluting the environment.

BJ PPS configured the flare system to mix three waste gas streams consisting of Butadiene and Styrene which were saturated with a high concentration of

**An important feature of the Hi-Lo flaring system is that it shields the flame, protecting the surrounding area from light emission, heat radiation and fallout pollution.**

inert nitrogen purge gas. Two of the gas streams were then mixed and delivered to the Hi-Lo flare stack under pressure, while another gas stream was recovered using an explosion-proof vacuum pump. BJ then spiked a fuel gas into the gas stream to ensure a clean burn, while maintaining flame and flue temperatures above 1470 degrees F (800 degrees C).

During the eight-day shutdown, BJ PPS incinerated all waste gases within acceptable environmental limits, even though the flowrate and gas concentrations were constantly changing. All emission levels of Nox, CO and Butadiene remained well within regional safety standards. The operation was carried out in a safe, controlled manner, with minimal environmental impact.

## Burning Waste Gas in an Environment-Friendly Way

An important feature of the Hi-Lo flaring system is that it shields the flame, protecting the surrounding area from light emission, heat radiation and fallout pollution. Another benefit of the new system is that it is significantly quieter than the traditional flare stacks currently in operation.

Introduction of BJ PPS's Hi-Lo Flare System is welcome news for the oil, gas and petrochemical industries, as the new mobile system is easily transported, and may be used throughout all phases, from exploration to the refining stage. There are many potential applications for this variable tip flare technology. The new BJ PPS system may be used to destroy waste gases during a plant shutdown, remove gas from land-fill sites or ship tanker storage tanks,

burn waste vapors or flare gases during well testing operations.

"The flaring system translates into considerable benefits to operators. For the first time, harmful waste gases can be incinerated at a constant level, regardless of variable gas flow rates which is significant in terms of safety, minimizing pollution and cost-savings," said Julian Manning, Great Yarmouth and continent manager for BJ PPS. "In addition, this system offers operators an environmentally sound approach to clearing harmful waste gases without exposing the surrounding area to harmful hydrocarbon gases or intrusive noise pollution. The mobility of the system also means we can offer this service in the most sensitive terrain, whether it is in an evergreen forest or an urban area," he added.



*Burning waste gas can often be expensive and harmful to the environment. The BJ Hi-Lo flare system ensures customers save more than time during shutdown or decommissioning.*