

Bradenhead Pressure Abatement Using Semi-Permanent Catalytic Device for Gas Destruction

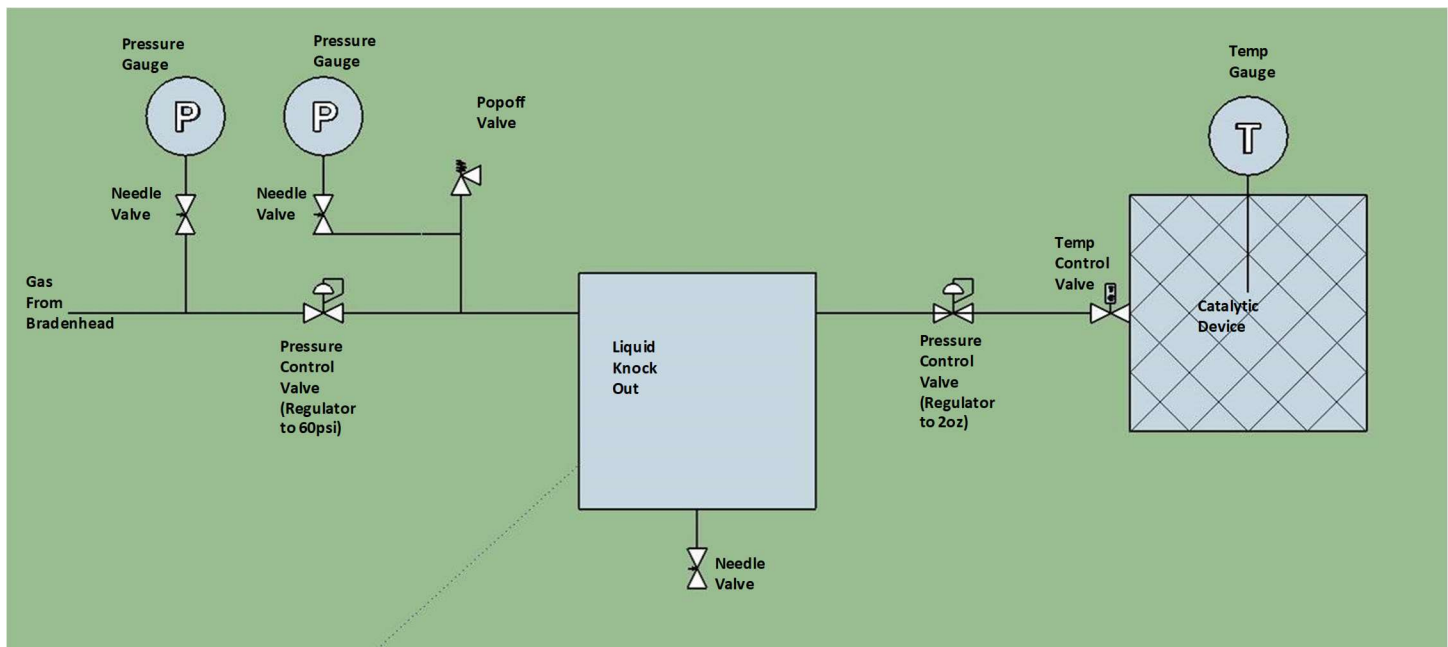
Description:

- The semi-permanent catalytic device will be set 25' from the wellhead to abate Bradenhead gas pressure.

Safety features:

- The catalytic device is Class I, Div 1 compliant for use in flammable hydrocarbon gas environments
- The catalytic device has a temperature-controlled valve that will shut off the gas supply if the operating temperature drops below the gas destruction temperature, closing in the Bradenhead
- Two regulators reduce pressure from Bradenhead pressure to the systems operating pressure of 2 ounces at the catalytic device; a popoff valve will further prevent over pressurization of the system

Process Flow Diagram with Components Labeled



Operation:

- The operator will use an electricity source to warm the catalytic device to gas destruction temperature
- The operator will open the Bradenhead valve allowing gas flow to the catalytic device
- The catalytic device will destruct gas until Bradenhead gas pressure or flow rate falls below the minimum (1 ounce and/or 1.5scfh) required to maintain the destruction reaction
- If or when the destruction reaction has stopped, the catalytic device will cool off and the temperature control valve will shut, closing in the Bradenhead.
- The operator will monitor the unit daily, checking for any liquid in the liquid knock out, and return the unit to abating Bradenhead gas to maintain Bradenhead pressure below proper thresholds