DATA SHEET

HALLIBURTON

PIPELINE AND PROCESS SERVICES | PRESERVATION

Nitrogen inerting

Displacement of a hazardous or undesirable atmosphere

APPLICATIONS

- Gas Distribution Systems
- Petrochemical Process Piping
- Oil Refinery Process Piping
- Preparation for start-up / introduction of hydrocarbons
- Prior to and during shut down and maintenance programs

FEATURES

- Inert gases reduce oxygen content, minimizing the potential hazards when hydrocarbons are introduced
- Step by step repeatable procedures and test packs tailored to the asset

BENEFITS

- Enhances the safe and extended operation of process plants and equipment
- Critical path time-saving
- Full visibility and traceability of system history prior to any commissioning activity

Overview

Nitrogen purging is an industry standard technique for the replacement of a hazardous or undesirable atmosphere with an inert dry atmosphere. Nitrogen is dry and non-combustible, and the nitrogen displacement of combustible gases will prevent an unstable and potentially ignitable atmosphere. The use of nitrogen in oil and gas industry equipment effectively displaces moisture and oxygen and creates a more stable climate. The two most common methods of purging are pressurization and dilution.

The geometry of the process system determines which method is used. The total volume of nitrogen depends on the number of pressurizing purges required to reduce the contaminant to an acceptable level.

For simple systems, dilution purging is used where nitrogen partially mixes with the gas to be purged out, and then the mixture exits through an outlet located as far as possible from the inlet.

For more complex systems ‘cycle’ or ‘displacement’ purging is usually more effective in terms of time and cost where the pipe work/vessel is repeatedly pressurized and mixed with nitrogen gas and then the mixture is exhausted.

For more information, contact your local Halliburton representative or visit us on the web at www.halliburton.com

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