

Oxygen Removal in Natural Gas Systems

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ABSTRACT

The presence of oxygen and water in natural gas pipelines can result in corrosion and may lead to catastrophic leaks. In addition, some pipeline customers use the gas as a chemical feedstock where the presence of oxygen poses problems. Though natural gas oxygen specifications vary from pipeline to pipeline, new contract specifications have trended down in recent years. When these limits are exceeded, the installation of oxygen removal systems may be required.

Various technologies are thought to be applicable for removal of oxygen from natural gas streams. The GPA research project 073 "Oxygen Removal in Natural Gas Systems" investigated and identified commercially available technologies for the removal of oxygen from natural gas streams. This paper presents a review of commercially available oxygen removal technologies as well as reviews technologies that were found to be ineffective in economically removing oxygen from natural gas streams.