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## **An Asset Integrity Management System for Underground Natural Gas Storage in Solution-Mined Salt Caverns**

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### **Abstract**

This paper describes an Asset Integrity Management System (AIMS), originally developed to manage natural gas storage cavern operations in Europe, which has been modified to address the requirements for compliance with the PHMSA Interim Final Rule, the Interstate Oil and Gas Compact Commission, the Louisiana Department of Conservation, and the State of California. The approach provides a comprehensive, modular, and cost-effective three-step process (Screening, Evaluation, and Mitigation) that could be used to bring a storage facility of any type into compliance with the new regulations. It draws from oil-and-gas and storage industry experience in subsurface containment and risk management to simply and logically collate and maintain key information for regulatory compliance.

**Key words:** underground natural gas storage, salt caverns, asset integrity, risk assessment and mitigation

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