

**SOLUTION MINING
RESEARCH INSTITUTE**

3336 Lone Hill Lane
Encinitas, California 92024, USA

Telephone: 619-759-7532 ♦ Fax: 619-759-7542
www.solutionmining.org ♦ smri@solutionmining.org

Meeting Paper



**Safety Concerns
in
Hydrocarbon Storage**

by

Joe A. Ward

J&K Consultants
Lake Jackson, Texas, USA

in association with
SOFREGAZ US Inc.
Houston, Texas, USA

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Joe A. Ward
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INTRODUCTION

Safe storage of hydrocarbons in underground salt structures has become an item of greater focus for management and regulators in recent years. The inherent dangers of storage and benefits of the same are well understood. Unfortunately, some errors in operation have publicly highlighted the dangers of hydrocarbon storage. Gaseous hydrocarbons mixed with air can generate significant overpressures and heat for considerable distances causing potential facility damage and the possibility of human injury and/or loss of life (slide 1). Every operator understands this risk. Government agencies have made changes to the effective rules and regulations governing storage. In addition, American Petroleum Institute has published Recommended Practices 1115, OPERATIONS OF SOLUTION-MINED UNDERGROUND FACILITIES, and Canadian Standards Association Published Z341-93, STORAGE OF HYDROCARBONS IN UNDERGROUND FORMATIONS(slide 2).

Many of the State Rules such as the Texas Railroad Commission's Rules 95 and 96, and Louisiana Department of Natural Resources, Title 43 have brought more stringent requirements in design, testing and management aspects of storage. All of the improved requirements will benefit industry, citizens, and states. Industry cannot afford the loss, human suffering, and publicity that can go with unsafe operation. Such operation may even impact our ability to utilize this cost effective storage system in the future.

The following is presented in the form of a review and introduction of some ideas and requirements for safe storage of hydrocarbons. It is not intended to be an all-inclusive document or a review of current law, but rather a review of some of the current methods, both physical and managerial, for safe storage.

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