

The Operation and Maintenance of Solution-Mined Storage Chambers

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ABSTRACT

The principles of automation and maintenance programing may be made all encompassing; but putting them into practice, under certain circumstances, can be quite a task.

When the magnitude and characteristics of operating variables are not known and when the condition of a system cannot be judged by sight, sound, smell, feel, or past history, the experience and reasoning ability of the man in the field is paramount in producing a relatively trouble free operation with reasonable maintenance costs.

The author has had over twelve years of experience in the design construction, operation and maintenance of this type of facility.

Some of the problems encountered during this time, at various installations in different parts of the U. S. will be presented.

The effect construction procedures have on operation and maintenance problem severity and frequency will be discussed. Criterion used in the design of surface and subsurface systems will be correlated with operational and maintenance difficulties.

The primary purpose of this paper is to stimulate discussion concerning actual problems encountered in the operation and maintenance of solution-mined storage chambers. Although there are a certain number of problems which are common to all storage systems of this type, there are many more that are unique to individual installations because of geology, design, and circumstance or chance. The unusual problem, solved in a simple straightforth manner, is of profound interest to an individual who tomorrow may be faced with the same emergency or a variation of it. This paper will have served its purpose if comments from the floor introduce just one perplexing and unique problem, and the answer to it.