

*title*        **THE STORY OF THE HOOVER DAM**

*author*        various  
                  *Compressed Air Magazine* articles from 1931 – 35

*category*     History / Construction / Engineering

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*who should be interested in this book?*

This book is for readers with an interest in the background, design, and construction of this first-of-its-kind concrete dam. Unique (at the time) engineering solutions to concrete structures were developed during construction. Also, readers with an interest in social history will enjoy the background to this “construction response” to the problems of the “dirty thirties”.

*why read this book?*

Very good detail (perhaps too much for the casual reader) in this collection of 1930’s articles written as the dam was constructed for the trade magazine *Compressed Air*. Excellent drawings and about 200 pictures put the reader right on site giving a feel of how it was in the 1930’s.

*review / outline by* Lance Brown, [vistadelsol@telus.net](mailto:vistadelsol@telus.net)

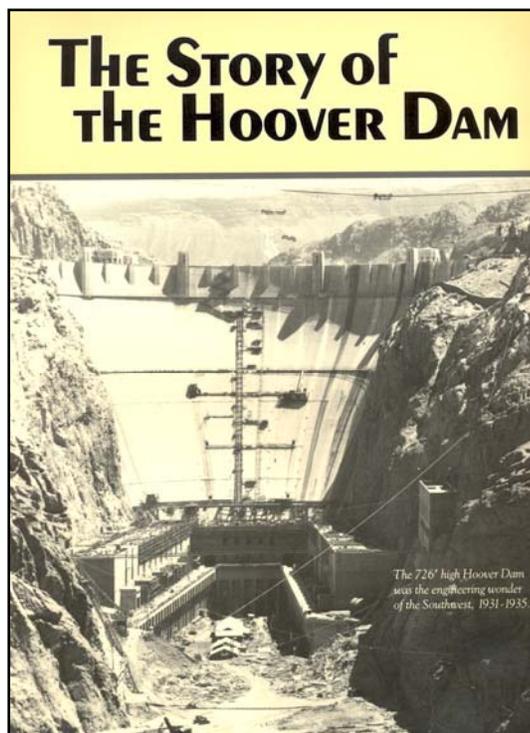
### Overview

A story done in a series of 23 magazine articles written as the dam was constructed in the early 1930’s. They are very detailed, starting with some history of the area. Each article includes pictures and detailed drawings, from great pre-dam site photos, Boulder City development (built to house workers) and construction pictures (all black and white).

Interestingly, the articles were written “live”, during each phase, so some of the information, such as “dam to be completed by 1937” remain as written even though they became incorrect (i.e., the dam was completed in 1935 – two years ahead of schedule). As well, some refer to the dam as Boulder Dam, its name at the time the article was written, prior to being changed to Hoover.

One weak point is there is no overall dam-as-completed article.

Note that the subject covered here of the history of Imperial Valley flooding problems and the filling of the Salton Sink from the failed Colorado River diversion is also covered in “The Salton Sea – Yesterday and Today” by Mildred de Stanley, reviewed elsewhere in this web site.



## Twenty-Three Chapters with Points of Interest

### *Two chapters outlining Colorado River history*

- exploration of the river from “discovery” in 1540
- mans use of the river; aboriginals irrigation from the river; formation of Imperial Valley from river silt; the disastrous attempt to divert water to Imperial valley for irrigation with the river breach that started to fill the Salton Sink; flooding problems

### *Four chapters on the background work prior to starting the dam*

- who gets the water; cost and site; flow, power, silt; what the contractor must do
- the newly formed Six Companies Inc. take the contract; site work, Boulder City

### *Two chapters on construction of diversion tunnels to move the river flow around the dam site*

- then-largest drill carriage starts on the four diversion tunnels (each 56 feet diameter by 400 feet long) – must handle freshet flow of 200,000 cubic feet per second
- the importance of compressed air in drilling; three large compressor plants

### *Seven chapters on preparations for dam construction*

- the railroad system to move diggings and supply aggregate for concrete mixing
- obtaining and preparing aggregates for the 4.4 million cubic yards of concrete needed
- construction of concrete plants; concrete lining of the diversion tunnels
- building the coffer dams to isolate the dam site and divert river into the diversion tunnels
- the aerial tramways to move men, materials and machinery

### *Six chapters on dam construction*

- penstock drilling to the four intake towers
- pouring the concrete; cooling required due to volume of concrete
- refrigeration plant constructed for cooling water to circular in one inch pipes set into the pour on 5ive foot centers – 662 miles of pipe will be set into the dam once completed
- two mix plants - 25 rail cars of cement and 150 of aggregate mixed and poured daily
- details of the pour – first March 1932; continuous dam pour from June 6 1933 - 1935

### *One chapter recognizing the work of government engineers and surveyors*

- starting with 1919 survey and reports on dam possibilities
- detailed work done by government for construction

### *One chapter on the dams' electricity generation*

- description of generation system
- first generators in place in 1936

(for interest, first power generated in Oct 1936, and 17<sup>th</sup> and last generator in place in 1961)