

STORAGE CAVERN DEVELOPMENT ON THE U.S. STRATEGIC PETROLEUM RESERVE

by

Michael J. Schumacher
PB-KBB Inc.

Background

The Energy Policy and Conservation Act was signed into law in 1975. This act authorized the creation of the Strategic Petroleum Reserve (SPR), in order to provide storage of crude oil and petroleum products to lessen national exposure to the effects of disruptions in foreign petroleum supplies.

The current SPR plan calls for developing and filling 750 million barrels (MMBS) of crude oil storage space in Gulf Coast salt domes; of this total about 240 MMBS of previously developed space was acquired from others. This includes a conventional salt mine in the Weeks Island dome and several solution-mined brine caverns. The remaining space is being provided in storage caverns solution-mined under the direction of the Department of Energy (DOE).

At this date 600 MMBS of storage capacity is available; this holds an inventory of 550 MMBS of crude oil. The remaining space, including the replacement for temporary storage that's now in use, is to be completed by September, 1991. The final 15 caverns in the SPR program are now under development at the Big Hill dome in Texas and the Bayou Choctaw dome in Louisiana.