

Cavern/Well Casing Configuration Review Prior to SPR Integrity Test

by

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Introduction:

The integrity test procedures that are written on the Strategic Petroleum Reserve (SPR) program are continually being developed, expanded in an effort to test responsibly, prevent damaging the cavern/well and prevent injury to personal.

Each configuration review in the SPR program determines the pressure limits for each cavern/well. There are 62 caverns in the program and that have 120 wells in these caverns. This includes caverns obtained from private industry in the 1970's, wells drilled into caverns obtained from private industry, caverns drilled and developed by the SPR, caverns with up to 3 wells, and cavern/wells worked-over by the SPR. There is a variety of casing configurations in this group.

The industry had used these caverns for brine production, storage caverns for chemicals, disposal of byproducts and other uses.

The cavern/wells in preparation for an integrity test are checked for collapse limits in tension, yield or burst pressure, unusual or different configuration problems based on the past and current configuration and anticipated pressures during testing the well for leaks using this type of test. Some caverns have additional procedure instructions to prevent getting to close those limits.