

Regulatory Citation(s):

78.83. Surface and coal protective casing and cementing procedures.

(a)(2) The operator demonstrates that the pressure in the well is no greater than the pressure permitted under 78.83(c), demonstrates through a pressure test or other method approved by the Department that all gas and fluids will be contained within the well...

Question:

What type of pressure testing is required?

Response:

Various procedures exist for conducting pressure testing to ensure well integrity. Some information regarding testing procedures used by EPA under the UIC Program can be found by selecting the links that follow this response. It is important to note that modifications would be necessary, if utilized, as the procedures applied under the UIC Program pressure up annular spaces, whereas the pressure testing referenced under 78.83(a)(2) would involve applying pressure inside the surface casing string. It is also important to note that the maximum pressures applied must consider several factors that are detailed in the proceeding paragraph.

Surface casing used as production casing must not be exposed to pressures in excess of 80% of the hydrostatic pressure at the casing seat during the operating lifetime of the well. Therefore, that is the minimum pressure that a well would need to be tested to in order to ensure that produced fluids are contained within the well. However, operators must ensure that produced fluids are contained within the well during drilling activities as well, so the pressure test may need to expose the casing to a higher pressure in certain instances. For example, the highest pressure surface casing could potentially be exposed to is likely associated with the pressure imparted by drilling fluid needed to control kicks encountered after drilling out the shoe and extending the wellbore to total depth.

Links to EPA Pressure Testing Technical Guidance (note that these are provided just as one general reference and that modifications would be necessary if used to test the integrity of the surface casing seat under Section 78.83(a)(2)):

[EPA Pressure Testing Technical Guidance \(Reference 1\)](#)

[EPA Pressure Testing Technical Guidance \(Reference 2\)](#)