

Statement Explaining Why the Applicant Seeks a Variance

The prescriptive mandates of the Rule that are the subject of this variance request are the following:

19.15.17.11 DESIGN AND CONSTRUCTION SPECIFICATIONS:

F(2) A temporary pit shall have a properly constructed foundation and interior slopes consisting of a firm, unyielding base, smooth and free of rocks, debris, sharp edges or irregularities to prevent the liner's rupture or tear. The operator shall construct a temporary pit so that the slopes are no steeper than two horizontal feet to one vertical foot (2H:1V). The appropriate division district office may approve an alternative to the slope requirement if the operator demonstrates that it can construct and operate the temporary pit in a safe manner to prevent contamination of fresh water and protect public health and the environment.

There are two reasons for the alternative slope for the suction side of the double horseshoe pit:

1. The steeper slopes create a slightly smaller surface footprint and
2. As the suction side of the drilling pit holds few solids and mostly fluid, a steeper slope reduces the volume of fluid (water) needed to
 - a. fill the pit for drilling and
 - b. dispose of after drilling

Demonstration That the Variance Will Provide Equal or Better Protection of Fresh Water, Public Health and the Environment

Our recent experience with drilling pits of this geometry show that solids do not accumulate in the suction sides of these pits. The size of the pit allows for solids to settle before reaching the suction side and the higher elevation of the bottom of the suction side also minimizes the amount of solids deposited on the liner. Thus, in this area of the pit, solids do not add additional stress/weight on the liner and liner seams.

While we have observed erosion and stress on the liner at the discharge side of the drilling pit, we have not observed any failures on the suction side. Our observations support a conclusion that slightly steeper slopes will provide equal protection of fresh water, public health and the environment for these defined areas of the drilling pit where solids do not accumulate and where discharge onto the liner does not occur.