**Section 1816.72 Disposal of Excess Spoil: Valley Fills/Head-of-Hollow Fills**

Valley fills and head-of-hollow-fills shall meet all of the requirements of Section 1816.71 and the additional requirements of this Section.

a) The fill shall be designed to attain a long-term static safety factor of 1.5 based upon data obtained from subsurface exploration, geotechnical testing, foundation design, and accepted engineering analyses.

b) Drainage control.

1) The top surface of the completed fill shall be graded such that the final slope after settlement will be toward properly designed drainage channels. Uncontrolled surface drainage may not be directed over the outslope of the fill.

2) Runoff from areas above the fill and runoff from the surface of the fill shall be diverted into stabilized diversion channels designed to meet the requirements of Section 1816.43 and, in addition, to safely pass the runoff from a one hundred (100) year, six (6) hour precipitation event.

c) Rock-core chimney drains. A rock-core chimney drain may be used in a head-of-hollow-fill, instead of the underdrain and surface diversion system normally required, as long as the fill is not located in an area containing intermittent or perennial streams. A rock-core chimney drain may be used in a valley fill if the fill does not exceed two hundred and fifty thousand (250,000) cubic yards of material and upstream drainage is diverted around the fill. The alternative rock-core chimney drain system shall be incorporated into the design and construction of the fill as follows:

1) The fill shall have, along the vertical projection of the main buried stream channel or rill, a vertical core of durable rock at least sixteen (16) feet thick which shall extend from the toe of the fill to the head of the fill, and from the base of the fill to the surface of the fill. A system of lateral rock underdrains shall connect this rock core to each area of potential drainage or seepage in the disposal area. The underdrain system and rock core shall be designed to carry the anticipated seepage of water due to rainfall away from the excess spoil fill and from seeps and springs in the foundation of the disposal area. Rocks used in the rock core and underdrains shall meet the requirements of Section 1816.71(l).

2) A filter system to ensure the proper long-term functioning of the rock core shall be designed and constructed using current, prudent engineering practices.

3) Grading may drain surface water away from the outslope of the fill and toward the rock core. In no case, however, may intermittent or perennial streams be diverted into the rock core. The maximum slope of the top of the fill shall be 33h:1v (three (3) percent). A drainage pocket may be maintained at the head of the fill during and after construction, to intercept surface runoff and discharge the runoff through or over the rock drain, if stability of the fill is not impaired. In no case shall this pocket or sump have a potential capacity for impounding more than ten thousand (10,000) cubic feet of water. Terraces on the fill shall be graded with a three (3) to five (5) percent grade toward the fill and a one (1) percent slope toward the rock core.

(Source: Amended at 11 Ill. Reg. 8131, effective July 1, 1987)