**Section 616.444 Design Requirements**

a) The owner or operator of a surface impoundment must install two or more liners and a leachate collection system between the liners. This requirement to install two or more liners may be satisfied by installing a top liner designed, operated, and constructed of materials to prevent the migration of any constituent into the liner during the period the facility remains in operation (including any post-closure monitoring period), and a lower liner designed, operated, and constructed of materials to prevent the migration of any constituent through the liner during that period. For the preceding sentence, a lower liner satisfies the construction requirement if it is constructed of at least a 5-foot thick layer of recompacted clay or other natural material with a permeability of no more than 1 X 10(-7) centimeter per second.

b) A surface impoundment must be designed, constructed, maintained, and operated to prevent overtopping resulting from normal or abnormal operations; overfilling; wind and wave action; rainfall; run-on; malfunctions of level controllers, alarms, and other equipment; and human error.

c) A surface impoundment must have dikes that are designed, constructed, and maintained with sufficient structural integrity to prevent massive failure of the dikes. In ensuring structural integrity, it must not be presumed that the liner system will function without leakage during the active life of the surface impoundment.

d) The owner or operator must maintain the following items:

1) Records describing the contents of the impoundment; and

2) A map showing the exact location and dimensions of the impoundment, including depth with respect to permanently surveyed benchmarks.

(Source: Amended at 47 Ill. Reg. 7631, effective May 16, 2023)