

7020.2120 POULTRY BARN FLOORS.

Subpart 1. **General.** This part describes the requirements for construction and record keeping for poultry barn floors. Owners of poultry barns at which abandonment of the facility exposes the barn floor shall remove and land apply all manure and manure-contaminated soil according to part 7020.2225.

Subp. 2. **Construction requirements for concrete-lined or asphalt-lined floors.** All new concrete-lined or asphalt-lined poultry barn floors must be constructed and maintained according to the following:

- A. the floor thickness must be a minimum of 3.5 inches for concrete and a minimum of two inches for asphalt;
- B. the floors must be inspected by the owner or operator after each cleaning of the poultry barn floors; and
- C. cracks and joints, which may extend through the concrete-lined or asphalt-lined floor, must be sealed.

Subp. 3. **Construction requirements for soil-lined floors.** All new soil-lined poultry barn floors must be constructed and maintained according to items A to E.

- A. The completed thickness of the constructed soil liner must be:
 - (1) 12 inches or more of compacted soil; or
 - (2) eight inches or more of compacted soil placed over an underlayment that consists of:
 - (a) three inches of sand consisting of at least 80 percent particles passing a number 4 sieve, less than ten percent particles passing a number 200 sieve, and no particles greater than one inch. Particle size analyses must be performed according to ASTM D-422; or
 - (b) a geo-textile fabric that weighs at least 12 ounces per square yard and has a minimum hydraulic conductivity of 0.30 cm/sec.
- B. Soils used for construction of the floor must meet the following requirements:
 - (1) have at least 30 percent particles passing a number 200 sieve, less than 20 percent retained on a number 4 sieve, and no rocks greater than three inches in diameter. Particle size analyses must be performed according to ASTM D-422;
 - (2) have a plasticity index greater than seven percent according to ASTM D-4318;
 - (3) be placed in a minimum of two lifts, each lift being a minimum of four inches of in-place thickness;

(4) be maintained at a moisture content of zero to five percent above optimum as determined by ASTM D-698 or ASTM D-1557 during construction; and

(5) be compacted:

(a) with at least three passes of a sheepsfoot or padfoot-type compaction equipment with feet that extend through the loose lift of soil into the previous lift; or

(b) until achievement of 90 percent of standard proctor density. The density must be verified according to ASTM 2922, at a frequency of one sample per 3,000 square feet.

C. The poultry barn floor must be placed at least three feet above bedrock or the water table.

D. The soil liner must be refurbished with at least a two-inch lift of soils meeting the requirements of item B, prior to the floor thickness being diminished by two inches from the thickness required in item A.

E. Cracks that may extend through the floor must be repaired.

F. The floor must not be saturated at any time during the service life of the floor.

Subp. 4. Construction requirements for polyvinyl chloride (PVC) lined floors.

A. A seamless or factory seamed PVC liner having a thickness of not less than 30 mils must be placed at a depth of at least six inches below the final elevation of the poultry barn floor.

B. The upper six inches of the floor must be constructed of protective material that meets manufacturer's recommendations and provides adequate protection of the PVC liner. This protective layer must not consist of any particles that will inflict damage to the liner.

Subp. 5. Record keeping. The owner shall record and retain on permanent file the results of all testing required in subpart 3 and make these records available to the commissioner or county feedlot pollution control officer upon request.

Subp. 6. Notifications of construction. An owner shall notify the commissioner or county feedlot pollution control officer of intent to construct a minimum of three business days prior to commencement of construction and within three business days following completion of construction. Notification must be completed by letter, telephone, facsimile, or electronic mail and include:

A. the permit number, if applicable;

B. the owner's name, and the name of the facility if different than the owner;

C. the site location by county, township, section, and quarter section; and

D. the name of the contractor responsible for installing the floor.

Statutory Authority: *MS s 115.03; 116.07; 122.23*

History: *25 SR 834; 38 SR 1535*

Published Electronically: *June 6, 2014*