NATURAL RESOURCES CONSERVATION SERVICE

CONSTRUCTION SPECIFICATIONS

POND SEALING OR LINING
SOIL DISPERSANT TREATMENT

1. Scope

The work shall consist of all construction activities and furnishing all materials as required by the construction plans and specifications for the installation of the soil-dispersant treatment.

2. Location

Location of the pond, water storage, or waste storage structure where the dispersant-treated soil liner should be installed shall be as specified on the construction plans or as staked in the field.

3. Site Preparation

The area to be treated shall be drained and free of standing water. All vegetation, trash, stones, and other objects large enough to interfere with the operation shall be removed. Holes shall be filled with compacted on-site material.

4. Excavation

Topsoil shall be stockpiled for spreading on the fills as needed to help establish vegetation. Excavate below the finished grade to allow for construction of the liner and the cover layer as shown on the construction plans.

5. Application

Soil dispersant shall be spread uniformly at the specified application rate. The soil dispersant may be applied using an agricultural drill, seeder, fertilizer spreader, or other approved equipment. If the soil dispersant is broadcast by hand, the area must be staked or otherwise marked in grids of 100 square feet.

6. Mixing

Soil dispersant shall be thoroughly mixed with a disk, rototiller, or other suitable approved mixing equipment. A second mixing should be perpendicular to the first mixing.

7. Moisture

Water shall be added to the soil (or dried if too wet) as required to reach the recommended moisture content. The moisture shall be as stated in the construction plans or construction details. The minimum moisture content shall be such that, when kneaded in the hand, a ball will form readily.

8. Compaction

The method of compaction shall achieve a minimum of 90 percent of the maximum density as determined by the Standard Proctor Test in American Society for Testing and Materials (ASTM) D698 or a percent of the maximum density as stated in the “Construction Details” section.

An optional method to checking soil density is to compact the 2 nearly equal lifts with at least 4 passes per lift using a tamping roller weighing a minimum of 10,000 pounds. Each pass shall consist of at least 1 passage of the roller drum over the entire surface of the layer. The preceding layer of compacted fill or foundation material shall be moisture-conditioned prior to placement of additional fill to permit suitable bond of the liner layers

The thickness of each lift shall be a maximum of 9 inches loose material to be compacted to a layer approximately 6 inches thick.

A protective cover layer of 6 inches of on-site material shall be applied and properly compacted over the dispersant-treated soil liner to protect it from drying cracks.

9. Safety

Dust mask and goggles shall be worn by personnel on-site during soil-dispersant application and mixing for protection against soil-dispersant dust.

10. Measurement

Unless otherwise specified in the construction details, measurement shall be to the units shown in the construction plans.

11. Construction Details