National Standard Construction Specifications Part 642 National Engineering Handbook

Instructions for use Construction Specification 28—Lime Treated Earthfill

1. Applicability

Construction Specification 28 is applicable to the treatment of clayey soils for the construction or repair of earthfills for dams, dikes, and similar engineering works using hydrated lime.

2. Material specifications

Material Specification 593, Lime, complements Construction Specification 28.

3. Included items

Items to be included in the contract specifications and drawings follow:

- a. Work limits of area to be treated and processing area.
- b. Treatment procedures or sequence of operations if different or in addition to those in this basic specification.
- c. Type of lime to be used.
- d. Rate of application of lime. This is expressed as a percentage of dry weight of the soil.
- e. Source of soil to be treated.
- f. Location and thickness of zone to be treated.
- g. Maximum layer thickness before compaction. (Refer to Instruction for use of Construction Specification 23.)
- h. Maximum layer thickness before compaction for earth backfill compacted by manually directed power tampers. (Refer to Instruction for use of Construction Specification 23.)
- i. Compaction class.
- j. Construction Specification 5, Pollution Control, shall address weather for spreading, location of work area, storage of materials, and disposal of waste materials and containers.
- k. Special equipment needed.

- l. Construction Specification 23, Earthfill, needs to be included.
- m. Measurement and payment for lime by the ton as a separate bid item.

4. Methods Section 6, Lime application

Method 1—Intended for dry application of lime.

Method 2—Intended for the application of lime as a water slurry mix.

Section 11, Measurement and payment

Method 1—Intended for cases where pay limits can best be shown on the drawings.

Methods 2 through 5-Self-explanatory.

Methods 6 or 7—Must be used with any or all methods 1 through 5. Method 6 is intended for use when no separate payment is to be made for water. Method 7 is intended for use with Construction Specification 10, Water for construction, when the contractor is to be paid under a separate item for the water.

When specifications are prepared using electronic procedures and all methods but one are deleted from use in the contract specification, delete from the last paragraph *All Methods The following provisions apply to all methods of measurement and payment.* Left justify the remaining text.

5. Items of work and construction details Starting at the top of page 28–5, prepare and outline job specific "Items of Work and Construction Details" (IWCD) in accordance with these instructions. For ease of utilization, the use of recyclable color paper for the IWCD should be considered.