NOTE: This Document is "Inactive"

(INACTIVE)
OHD L-37
METHOD OF TEST FOR
SHALES USED FOR HIGHWAY EMBANKMENTS AND/OR SUBGRADES

I. **SCOPE.** Shales used for highway embankments and/or subgrades should be classified as soil- like, or non-durable, and rock-like or durable. This method is a preliminary shale classification screening test.

II. **DEFINITION.** The jar-slake test is qualitative with six (6) descriptive degrees of slaking determined from visual observation of oven-dried samples soaked in tap water for 24 hours. The six (6) values of the jar-slake index, I_j, are listed below:

A. **I_j** = Descriptive behavior.

B. **1** = Degrades into a pile of flakes or mud.

C. **2** = Breaks rapidly and/or forms many chips.

D. **3** = Breaks rapidly and/or forms several fractures.

E. **4** = Breaks slowly and/or forms several fractures.

F. **5** = Breaks slowly and/or develops few fractures.

G. **6** = No change.

III. **APPARATUS.**

A. 1 pint (500 milliliter) beaker.

B. Drying oven, thermostatically controlled, preferably of the forced draft type, capable of being heated continuously at a temperature of 230° ± 9° F (110° ± 5° C).

C. Stirring rod, glass.

IV. **TEST SAMPLE.** Select a representative sample containing several pieces weighing approximately 20 grams each.

V. **PROCEDURE.**

A. Oven dry sample a minimum of 16 hours.

B. Immerse pieces of oven-dried sample in distilled tap water.

C. Describe the resulting behavior by means of the listed six jar-slake index (I_j) values[1].

VI. **REFERENCES.**

Chapman, D.R., "Shale Classification Tests and Systems: A Comparative Study," Joint Highway Research Project, JHRP-75-11, Purdue University, June 1975.

Federal Highway Administration, "Design and Construction of Compacted Shale Embankments,"

Volume 5, Report Number FHWA-RD-78-141, Washington, D.C., 1978.

[1] Note:

Where reactions are likely to occur, they happen quickly; therefore, careful observations during the first 30 minutes are recommended.