

Nuclear Moisture/Density Field Testing Procedure – Quick Reference Guide

Earthwork Level I certified **NDOR Field personnel** will perform nuclear density and moisture testing of earth materials (embankment, subgrade, foundation course, granular fill, and select granular backfill) in accordance with specifications and the NDOR Material Sampling Guide.

Appropriate Curve Selection:

As set forth in the contract, **Field personnel** shall, prior to the commencement of construction, obtain a representative sample of each soil material type and submit this material to the local **NDOR Branch Laboratory** or **LPA Consultant Laboratory**. Results from the laboratory will identify the maximum dry density and optimum moisture content for each soil type. The resulting information shall be used by **Field personnel** for testing conducted by the Nuclear Density Gauge.

Field Test Performance:

After the **Contractor** has placed and compacted the soil material, **Field personnel** will conduct Nuclear Moisture/Density testing according to AASHTO T 310. Test results will be recorded on the Nuclear Moisture/Density Field sheet and the results verified for compliance with the compaction requirements cited in the plans and specifications. In addition to test results, **Field personnel** will record all required information on the Nuclear Moisture/Density Field sheet according to AASHTO T 310.

SiteManager Data Entry:

In accordance with the material requirements denoted on the SMGR Sampling Checklist, the NDOR Field personnel will create a SMGR sample record.

Material Code, Name, and Description:

200EF – Earth Fill

200GF – Granular Fill

200S – Subgrade

200SGF – Select Granular Fill

Test Templates:

SLF002002 - Nuclear Density Tests for Soil - Field

**Note – All failing moisture and density tests shall be retested until a passing test is obtained or otherwise noted in the comments section of the template.