

# Policy & Procedure Document

Last Modified: 05/17/2007  
Reviewed for Version: SiteManager 3.7

**SECTION:** 1100 - Materials Management

**ITEM NUMBER:** 1101.2

**ITEM:** SAMPLING AND TESTING REQUIREMENTS

**REVISED:** 05/17/2007

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## **SCOPE:**

To establish the policy and procedure for maintaining the SiteManager sampling and testing requirements information.

## **GENERAL:**

The Sampling and Testing Requirements window is used to identify the materials that make up a bid item and to identify the global default SiteManager testing requirements for those materials. This window is used to identify the customary minimum frequency, responsibilities, sample size, and/or unit for the sampling and testing of a material for a pay item. SiteManager uses this data to create a set of Sampling and Testing requirements when materials are generated for new contracts. There are two folder tabs in Sampling and Testing Requirements: Materials, & Sampling and Testing.

Users should note that changes made here effect all new contracts; any changes needed for specific contracts should be made at the contract level in the Contract Sampling and Testing window. If users identify a need for additional data or modifications to data in this window, users should fill out an electronic SiteManager Support Request Form requesting such data be added or changed. Changes to global default sampling and testing requirements shall be approved by the Materials Engineer.

Authorized users may use the two copy capabilities of this window. The Copy Records option of the Services menu will copy the sampling and testing data for the selected material and bid item to another material and associate it to the same bid item (records cannot be copied to a material already associated to the bid item). The Copy Item Records option of the Services menu will copy all of the materials of an item and their Sampling and Testing data to another item.

| SiteManager Access Assignments |                                |        |         |      |
|--------------------------------|--------------------------------|--------|---------|------|
| Central Office                 |                                |        |         |      |
| Group Code                     | Group Name                     | Update | Inquiry | None |
| CENADMIN                       | Administration                 |        | X       |      |
| FHWA                           | Federal Highway Administration |        | X       |      |
| CENINQRY                       | Inquiry                        |        | X       |      |
| REGSERV                        | Regulatory Services            |        | X       |      |
| SYSADMIN                       | System Administration          | X      |         |      |
| Construction Division          |                                |        |         |      |
| Group Code                     | Group Name                     | Update | Inquiry | None |
| CONSADMN                       | Administration                 |        | X       |      |
| CONEST                         | Records Administration A       |        |         | X    |
| CONSLOAD                       | Records Administration B       |        |         | X    |
| Field Division                 |                                |        |         |      |
| Group Code                     | Group Name                     | Update | Inquiry | None |
| DIVADMIN                       | Administration                 |        | X       |      |
| DIVAUDIT                       | Auditors                       |        | X       |      |
| DIVINQRY                       | Inquiry                        |        | X       |      |
| Materials Division             |                                |        |         |      |
| Group Code                     | Group Name                     | Update | Inquiry | None |
| MATADMIN                       | Administration                 | X      |         |      |
| MATAUTH                        | Branch Managers                |        | X       |      |
| MATIAS                         | Independent Assurance          |        | X       |      |
| MATINQRY                       | Inquiry                        |        | X       |      |
| MATSTA                         | Lab Supervisors                |        | X       |      |
| MATTEST                        | Recording Samples / Tests      |        | X       |      |
| MATTRAIN                       | Training Updates               |        |         | X    |
| Residency                      |                                |        |         |      |
| Group Code                     | Group Name                     | Update | Inquiry | None |
| RESADMIN                       | Administration                 |        | X       |      |
| RESAUDIT                       | Auditors                       |        | X       |      |
| COUNTPRT                       | C.O. Approvals for Contractors |        |         | X    |
| RESINQRY                       | Inquiry                        |        | X       |      |
| RESLABMN                       | Lab Managers                   |        | X       |      |
| RESLABTC                       | Lab Technicians                |        | X       |      |
| RESINSP                        | Project Inspectors             |        | X       |      |
| RESPRMAN                       | Project Managers               |        | X       |      |
| RESSCTRY                       | Secretaries / Clerks           |        | X       |      |

## **Materials Folder Tab**

The Materials folder tab of the Sampling and Testing Requirements window is used to associate materials to pay items, to specify the conversion factor and indicate approved source required for a selected material for a pay item. The Material Detail as defined in 1101.1 may also be viewed from this window by selecting the View Material option from the Services menu. This window contains the following fields:

**Item** - This field is used to select and display the code for the pay item from the Item Master List.

**Spec Year** - This field is used to select and display the specification year for the Item.

**Item System Unit** - This displays the system's unit indicator (E for English or M for Metric) for the Item.

**Item Unit** - This displays the unit of measurement and payment for the Item.

**Desc. 1** - This displays the description of the Item.

**Desc. 2** - This displays an additional optional description of the Item.

**Material Code** - This field is used to select and display the material code. An adjacent field displays the material description.

**Conversion Factor** - This field is used to input and display the Conversion Factor. This is the default factor that converts the Item unit to material testing unit. The Item quantity multiplied by the Conversion Factor equals material quantity.

Example:

Item 509(B) 0321 CLASS A CONCRETE - has an Item Unit of CY

Material aggr057 PC Conc Aggregate No 57, Coarse - has an English unit of TON (as defined in Material Detail Window)

A Conversion Factor of 0.9160 will be used to calculate how many TON of coarse aggregate are in a CY of Class A Concrete.

System Calculation: 800 CY of CLASS A CONCRETE x 0.9160 = 733 TON of coarse aggregate.

**Approved Source Required** - This check box is used to indicate if an approved source must be used. In OkDOT, this indicator will not be used at this time.

**Special Instruction** - This is where special instructions or notes concerning sampling/testing will be documented. For example; SiteManager sample frequencies are based on material quantity units. If a material is typically sampled or tested based on number of tests per day or station, the message in the special instruction window might say; "Conduct two nuclear density tests per day, minimum".

### **Sampling and Testing folder tab**

The Sampling and Testing folder tab is used to enter and modify a material's sampling and testing information for a given pay item. This window contains the following fields.

**Item** - This displays the code for the pay item from the Item Master List.

**Spec Year** - This displays the specification year for the Item.

**Item Unit System** - This displays the system's unit indicator (E for English or M for Metric) for the Item.

**Item Unit** - This displays the unit of measurement and payment for the Item.

**Material** - This displays the material code.

**Material Desc.** - This displays the material description.

**Sample Type** - This field identifies the type of sampling to conduct (DOC Document or MAT Material\*\*).

**Acceptance Method** - This field identifies the area responsible to authorize the test (Construction Residency, Materials Division etc.\*\*).

\*\* For additional information on Sample Type and Acceptance Method reference 1109.1 Sample Information

**Test Method** - This identifies the Material test template used for posting test data.

**Sample Location** - In OkDOT, this field will not be used at this time. A value of "N/A" is commonly input in this field.

**Sample Frequency** - These fields (\_\_\_ Samples per \_\_\_) define the default frequency at which a Sample Information Record should be created and a test performed. The sample frequency fields works in conjunction with the conversion factor to calculate the number of samples needed. The SiteManager sample frequency may differ from frequencies in the printed Sampling & Testing Guide. This may occur when the published sampling frequency is not directly related to pay item or material units. For example, if a frequency is time based ( one sample per day ), or is based on number of lifts, or number of trucks, there is no way to duplicate that in SiteManager.

**Added Comment for Consideration:**

**We need to consider this information received from Missouri (Denis G.):**

**Trying to set global to achieve 1 test minimum for usually smaller quantity items: use 1 per 1,000**

**Trying to set global to achieve 1 test minimum for usually larger quantity items: use 1 per 1,000,000\*\***

**\*\* (we used 9999999 and are having trouble with the system rounding this up to achieve 1 test - this probably fixes that problem)**

**2 potential material components (options)? Associate both, put a valid conversion factor on the one used most and a 0 (zero) for the conversion factor on the other. Instruct users to switch conversion factors as necessary. The zero conversion factor allows the component to be associated with the contract, but requires NO samples or quantity.**

Example:

Item 509(B) 0321 CLASS A CONCRETE - has a Measure Unit of CY

Material aggr057 PC Conc Aggregate No 57, Coarse - has a testing unit of TON

A Conversion Factor of 0.9160

A Sample Frequency of 1 Samples per 500.000

System Calculation:  $800 \text{ CY of CLASS A CONCRETE} \times 0.9160 \times 1/500.000 = 1.47$  (2 samples)

**Sample Units** - This is the typical unit of measure of the sample frequency. The unit shown is written into the sample units field in the Sampling & Testing Tab of contract S&T requirements when materials are generated. Ideally this unit would match the English unit of the material in the material detail window.

**Sample Size** - This field will be used to completely identify the required size of the sample. Example: 110 lbs

**Sample Responsibility** - This identifies the area typically responsible for taking the sample (Contractor, Construction Residency, Materials Division etc.).

**Test Responsibility** - This identifies the area typically responsible for conducting the test (Bridge Division, Construction Residency, Materials Division, Traffic Division etc.).

Summary of Revisions:

5/17/2007: Added last two sentences to the Sample Units description.