LONG TERM PAVEMENT PERFORMANCE PROGRAM DIRECTIVE

For The Technical Direction Of The LTPP Program

Program Area:	IMS	Directive Number:	1-62
Date:	November 6, 1998	Supersedes:	NA
Subject:	Entry of Overlay Thickness for SMP Sites with Construction Number (CN) Change		

This directive transmits instructions to the Regional Coordination Office Contractors for entry of overlay thickness into the Information Management System (IMS) for Seasonal Monitoring Program (SMP) sites with construction number (CN) change. The CN change caused unmatched records in various SMP data tables to be flagged during QC. The key to resolving this problem is to add new record(s) for associated CN into SMP installation layout tables so that associated data can be properly QC checked. This action will correct QC check errors caused by CN changes on SMP test sections .

The following steps should be performed to enter overlay thickness that is triggered by a CN change. These steps include updating construction number (CN) in various SMP data tables, identifying SMP sites that require an entry of overlay thickness, and entering thickness data through proper IMS data entry screen for creation of new record(s) and adjustment of sensor installation depth in various related IMS tables. This assumes that the regions have entered appropriate data to trigger a CN change in the ***EXPERIMENT_SECTION*** table.

1. Extract information needed for data tracking purposes, such as those used in Tracker, prior to entry of overlay thickness. This step is optional depending upon RCOC data tracking practice.

2. Update construction number (CN) in various SMP data tables. Run SQL script **cn_smp.sql** to update CONSTRUCTION_NO in various SMP data tables.

3. Identify SMP sites that require an entry of overlay thickness. Run SQL script **find_unmatched_cn.sql** to identify SMP sites that require entry of overlay thickness. Review **unmatched_cn.lst** for a list of sections needing entry of overlay thickness.

.4. Obtain overlay thickness for identified SMP test site from various sources, such as IMS ***TST-L05?*** tables, prior to entry of overlay thickness data. If overlay thickness data is not available, then update shall not be performed until such data is available.

Note: Entered overlay thickness is added to various instrument sensor depths to reflect actual depths after placement of overlay **at the instrumentation hole.** Therefore, overlay thickness is defined as difference in pavement surface elevation prior to overlay construction (for CN) and after placement of overlay (for CN + 1), **at the instrumentation hole.**

5. Enter the following information using IMS SMP data entry screen #2 in order to adjust the depths of installed sensors. Activate data entry screen #2 and enter required data elements as described below:

Data Field	Description
STATE CODE	This field is entered by the user.
SHRP_ID	This field is entered by the user. After entry of STATE_CODE and SHRP_ID, the IMS will check existence of record in the ***SMP_LAYOUT_INFO*** table. If no matching record is found, the IMS will not permit further data entry. A message will be displayed to inform the user that no new CN required for this site.
CONSTRUCTION NUMBER	If an SMP site is identified for a higher CN and a matching record is found in the ***SMP_LAYOUT_INFO*** table, then a CN value that is one higher than existing CN value is displayed. The CN can not be edited; this number is determined by the IMS which compares the CN value stored in the ***EXPERIMENT_SECTION*** table with that in the ***SMP_LAYOUT_INFO*** table.
INSTALL DATE	This value is populated by the IMS using date in the CN_ASSIGN_DATE field, for corresponding STATE_CODE and SHRP_ID, of the ***EXPERIMENT_SECTION*** table. This field is non-editable. For AC pavements, the CN-ASSIGN-DATE is stored as INSTALL_DATE in various SMP instrument installation layout tables. For PCC pavements, rules described in Snap Ring Re-Install Date field below are followed.
OVERLAY THICKNESS	This field is entered by the user. The overlay thickness for associated CN is then added to instrument sensor depths in the various SMP instrumentation installation layout tables.

Data Field	Description
Snap Ring Re-Install Date	This field is populated by the IMS only if specified SMP site is PCC and a matching record exist in the ***SMP_JOINT_GAGE_OFFSET*** table. Otherwise, entry is not permitted. After snap ring re-install date for associated CN is entered, the IMS will check it against CN_ASSIGN_DATE; if re-install date is before CN_ASSIGN_DATE, then re-install date is replaced by CN_ASSIGN_DATE. The Snap Ring Re-install Date is stored as INSTALL_DATE in the ***SMP_JOINT_GAGE_OFFSET*** table.
Offset_PE	This field is entered by the user. The value is stored as OFFSET-PE in the ***SMP_JOINT_GAGE_OFFSET*** table.
Offset-ML	This field is entered by the user. The value is stored as OFFSET_ML in the ***SMP_JOINT_GAGE_OFFSET*** table.
Offset-ILE	This field is entered by the user. The value is stored as OFFSET_ILE in the ***SMP_JOINT_GAGE_OFFSET*** table.

Adjustment of sensor installation depth in various SMP tables is performed automatically by the IMS. Records with new CN are created and sensor depths are adjusted by adding overlay thickness to those initially installed depths.

6. Perform SMP QC following standard IMS practice to ensure that data previously flagged because of unmatched CN now pass.

Each step described in this directive should be performed only after successful completion of the previous step. Questions regarding this directive should be submitted on IMS-SPR forms to FHWA Pavement Performance Division with a copy to the LTPP Technical Support Service Contractor.

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