LONG TERM PAVEMENT PERFORMANCE PROGRAM DIRECTIVE

For the Technical Direction of the LTPP Program

Program Area: IMS   **Directive Number**:   I-59

Date: October 1, 1998   **Supersedes**:   NA

Subject: Replacement Upload of SMP Rainfall Data

This directive transmits instructions to the Regional Coordination Office Contractors for deletion and re-filtering of Seasonal Monitoring Program (SMP) rainfall data into the Information Management System (IMS). This action is required to replace existing records in IMS tables ***SMP_ATEMP_RAIN_HOUR*** and ***SMP_ATEMP_RAIN_DAY*** which contain rainfall data that do not meet the required precision. Since air temperature data are also contained in these two tables, they need to be reloaded as well.

A new filter program **loadrain.exe**, which only loads record types 1 (daily air temperature and rainfall measurements) and 5 (hourly air temperature and rainfall measurements) data from the upload file generated by SMPCheck into above mentioned IMS tables, and the necessary SQL scripts will be provided to you with the IMS NT version 2.0

The following steps should be performed to correct the existing SMP rainfall data in the IMS. This process is only for replacement of existing rainfall data. Any SMP data which have not been previously loaded into the IMS should not be loaded until after completion of these steps.

1.   Information needed for data tracking purposes, such as Tracker, may be extracted prior to deleting existing rainfall records. This step is optional depending upon RCOC data tracking practice.

2.   Run SQL script **smp_rain.sql** to create the list file **smp_rain.lis**, which contains key fields for all records in the existing ***SMP_ATEMP_RAIN_**** tables.

3.   Rename **smp_rain.lis** to **smp_rain.old**. This file will be used to compare against the similar list file generated at the conclusion of this process to verify that all deleted records have been regenerated.

4.   Run SQL script **trncrain.sql**, which will truncate (delete) all records in the ***SMP_ATEMP_RAIN_**** tables.

5.   A one time filter program **loadrain.exe** was created to filter only SMP_ATEMP_RAIN_*
        data. It will be contained in IMS NT version 2.0. In order to use **loadrain.exe** using the
        current   RIMS   application   it   will   be   necessary   to   rename   the   following:

        Rename \ltpp\bin\smpload.exe \ltpp\smpload.sav
        Rename \ltpp\bin\loadrain.exe \ltpp\smpload.exe

        Using the RIMS application, reload the SMP_ATEMP_RAIN_* data. Because the upload
        file generated by SMPCheck is correct, it is not necessary to re-process rainfall data.
        However, it is recommended that RCOC personnel use the 'View Edited Data' function
        under the 'Onsite Data' menu in SMPCheck to review the rainfall data and to re-generate
        upload file(s) for loading into the IMS, as described in Directive SM-29. Previous SMP
        upload files can be identified using the information contained in the **smp_rain.old** file. **Do
        not load new SMP data until after verification that deleted SMP rainfall data have been
        restored**.

6.   Run SQL script **smp_rain.sql** to generate the **smp_rain.lis** list file, which contains the key
        fields from the new records created in the *SMP_ATEMP_RAIN_** tables for the re-filtered
        data.

7.   Verify correct replacement of deleted SMP air temperature and rainfall data by comparing
        entries in the **smp_rain.old** and **smp_rain.lis** files. (The 'Compare File' function in most
        word processing programs is a convenient method for performing this comparison.) Resolve
        any discrepancies in the IMS records corresponding to mismatches between these files.

8.   Delete **smpload.exe** from your system once successful re-filtering of data into
        *SMP_ATEMP_RAIN_** has been verified.

9.   **Rename** \ltpp\bin\smpload.sav \ltpp\bin\smpload.exe

10.   Run QC programs on the re-loaded SMP air temperature and rainfall data following standard
        IMS practice. Since only two tables in the SMP module are affected by this re-load, it is not
        necessary to reset record status field of other tables in the SMP module to 'A'. This will
        significantly reduce the amount of computer time associated with the data QC checks.

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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