Memorandum

U.S. Department
of Transportation

**Federal Highway
Administration**

6300 Georgetown Pike
McLean, Virginia 22101

Subject: **ACTION**: LTPP Directive SM-40
Upgrade of SMPCheck Software to Version 3.2

Date: May 8, 2001

From: Jack Springer
Long Term Pavement Performance Team

Reply to
Attn of: HRDI-13

To: Dr. Frank Meyer, PI - LTPP North Atlantic Regional Contract
Mr. Tom Wilson, PI - LTPP North Central Regional Contract
Mr. Mark Gardner, PI - LTPP Southern Regional Contract
Dr. Sirous Alavi, PI - LTPP Western Regional Contract

Attached is the Long Term Pavement Performance (LTPP) Directive SM-40 formalizing implementation of Version 3.2 of the SMPCheck software. Please note that software was sent to you under separate cover. This directive should be transmitted to all appropriate personnel as soon as possible.

If you have any questions concerning this transmittal, please do not hesitate to call me at (202) 493-3144.

Attachment

FHWA:HRDI-13:JSpringer:mad:493-3144:5/8/01
File: c:\mdeeney\springer\sm_40dir.doc
cc:
LAW PCS
Hank Usher
Brandt Henderson
Mark Potter
Haiming Huang
LTPP Staff
Directive File
Official File (180.20)
Chron

LONG TERM PAVEMENT PERFORMANCE PROGRAM DIRECTIVE

For the Technical Direction of the LTPP Program

Program Area: Monitoring

Directive Number: SM-40

Date: May 8, 2001

Supersedes: SM-38

Subject: Upgrade of SMPCheck Software to Version 3.2

Attached for immediate implementation please find Version 3.2 of the SMPCheck software. This new version of the program contains modifications made in response to feedback from RCOCs. More specifically, the following modifications were made in this program version:

- Revised output module to automatically convert OnsPlus resistivity data with -1 voltage values to null values when creating IMS upload file (see SMPPR W-20).

- Revised output module to automatically convert OnsPlus resistivity data with high voltage values (3000) to 999999 when creating IMS upload file.

- Increased precision of voltages from integer to decimal format when computing resistance for OnsPlus resistivity data (see SMPPR NC-58).

- Added procedure to compute resistance for OnsPlus resistivity data in those cases where either the applied or resistance voltage for the internal reference resistor is missing (i.e., voltage recorded as 6999) (see SMPPR NA-27).

  Note: To correct records with voltage readings of 6999 in the IMS, regions must first remove those records from the database, then run SMPCheck V3.2 to generate a new upload file, and finally load new data back into the IMS.

- Added message to mobile data QC report to flag resistance or applied voltages from the internal reference resistor that are greater than 3 volts (normally 2 volts for applied voltage).

- Added message to mobile data QC report to flag computed resistance values greater than specified in the QC level D check.

- Changed color of line display for daily MRC sensor 8 to a more noticeable one (per e-mail message suggestion from North Central RCOC).

- Modified program to allow for computation of volumetric moisture content for data collected with OnsPlus (see action items from March 20, 2001 SMP coordinators tele-conference).

The above modifications require changes to the documentation; however, the User Guide provided with the SMPCheck v2.5 software will not be changed at this time.

SMPCheck v3.2 should be installed on all computers being used to process SMP data. Installation consists of copying the file INSTALL.EXE off the distribution diskette and into the SMPCheck directory. Once done, run the INSTALL.EXE program and answer "yes" to question "overwrite existing program files?" If this procedure is followed, the SMPCheck program should be able to read and process all data previously entered and processed with Version 3.1 or earlier versions of the SMPCheck program.

If there are any problems, please submit a SMP problem report (SMPPR) form in accordance with LTPP Monitoring Directive SM-6.

Prepared by: TSSC   Approved by:

                                                 Aramis López, Jr.
                                                 LTPP Team Leader