Memorandum

U.S. Department
of Transportation

**Federal Highway
Administration**

6300 Georgetown Pike
McLean, Virginia 22101

Subject: **ACTION**: LTPP Directive D-21
LTPP Manual Distress Data Collection Procedures on Portland Cement Concrete Pavements

Date: March 29, 2001

From: Jean Sexton
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) Program Directive D-21, which makes changes to the Distress Identification Manual (DIM) that are to be implemented when conducting distress surveys on PCC pavements. Please make this directive available to all personnel involved in Distress data collection and processing.

If you have any questions concerning this transmittal, please do not hesitate to call me at (202) 493-3153.

Attachment

FHWA:HRDI-13:JSexton:mad:493-3153:3/29/01
File: c:\mdeeney\directives\distress\D-21.wpd
cc:
Gonzalo Rada (TSSC)
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Jack Springer
Monte Symons
Luis Rodriguez
Directive File
Official File
Chron

LONG TERM PAVEMENT PERFORMANCE PROGRAM DIRECTIVE

For the Technical Direction of the LTPP Program

Program Area: Monitoring **Directive Number:** D-21

Date: March 29, 2001 **Supersedes:** NA

Subject: LTPP Manual Distress Data Collection Procedures on Portland Cement Concrete Pavements

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There are inconsistencies in the way patching material on corner breaks, punchouts and spalls are treated in the "Distress Identification Manual for the Long-Term Pavement Performance Project" (DIM). Also, a recent review of faulting data in the NIMS by the LTPP Data Analysis Team (DATS) revealed discrepancies in that data. Effectively immediately the following changes to the DIM are to be implemented when conducting distress surveys on PCC pavements:

1. Change the wording in the DIM on patch material in the high severity criteria for corner breaks (p. 40) to "…or contains patch material"

2. Add the following to the low severity criteria for corner breaks: "...with no loss of material and no patching" (page 40).

3. Add the following to the high severity criteria for punchouts: "...or is broken into two or more pieces or contains patch material" (page 82).

4. Add the following to the first sentence of the low severity criteria for punchouts: "...with no loss of material and no patching" (page 82).

5. Add the following to the high severity criteria for spalling of longitudinal joints: "...or is broken into two or more pieces or contains patch material" (page 49 and 84).

6. Add the following to the high severity criteria for spalling of transverse joints: "...or is broken into two or more pieces or contains patch material" (page 50).

7. Add the following to the 'How to Measure' paragraph for corner breaks (page 40), punchouts (page 82) and spalls (page 49, 50 and 84): "Corner breaks (punchouts, spalls) that have been repaired by completely removing all broken

pieces and replaced with patching material (rigid or flexible) should be rated as a patch. If the boundaries of the original distress (corner break, punchout or spall) are visible, then also rate the original distress as a high severity corner break (punchout, spall)."

8. Add the following to the 'How to Measure' paragraph for the Faulting of Transverse Joints and Cracks definition (page 57):

> Faulting on PCC pavements is to be measured using a FHWA modified Georgia faultmeter. A representative reading from three distinct measurements at each location is to be used and recorded on Sheet 6.
>
> When anomalies such as patching, spalling, and corner breaks are encountered, the faultmeter should be offset to avoid the anomaly. The maximum offset is 0.3 meter. A null value ("N") should be recorded and entered into the database when the surveyor is unable to take a measurement due to an anomaly.
>
> Surveyors must ensure that they have a working faultmeter with fully charged batteries prior to beginning a survey on a JPCC test section. Faulting measurements and the completion of survey Sheet 6 are to be completed at the beginning of the distress survey to ensure that this data is collected.
>
> Point distance measurements entered on Sheet 6 for joints and transverse cracks should be consistent between surveys of the same test section to an accuracy of less than 0.5 m. Newly observed distresses and point distance differences for previously identified distresses of 0.5 m and greater shall be evaluated by use of a metric tape measure. NOTE: The precise start point of surveys must be clearly identified in the field.

Prepared by: FHWA

Approved by:

Aramis López
LTPP Team Leader