Tim McDonald

This is a Comment on the **Federal Highway Administration** (FHWA) Proposed Rule: **National Performance Management Measures: Assessing Pavement Condition for the National Highway Performance Program and Bridge Condition for the National Highway Performance Program**

For related information, **Open Docket Folder**

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Comment

On behalf of Ohio DOT
Pavements
1. In the discussion of 490.311 (b)(2), it is unclear how the Cracking Percent as a percentage of the total area is calculated. For example, if a 0.1-mile section (as required in 490.311(c)(1)) is rated in accordance with AASHTO Standard R55-10 (2013), and there is a single transverse crack, is the entire 0.1-mile section considered 100% cracked? Please provide detailed examples.
2. By requiring states to maintain no more than 5% of their pavement on the Interstate System in Poor conditions the FHWA seems to be promoting a worst-first philosophy. Is this the intent?
3. Inertial profiles can be collected and IRI values calculated and reported on 0.10 mile intervals on roadway segments in which the collection vehicle can maintain speed. In these cases valid IRI data can be generated for nearly every 0.10 mile traveled. However, there are no commercially available inertial road profilers that can collect valid profiles in stop and go situations. All of these profilers have some lower end threshold speed at which they are no longer able to collect valid profiles. So on roadways with lower posted speeds and numerous traffic control devices such as stop signs or signalized intersections it is impossible to collect valid profiles on the entire roadway. This situation occurs quite frequently on lower functional class urban sections. Collection of valid data is further impaired by higher traffic volumes and congestion. For these lower speed roadways we cannot get valid inertial profiles and thus cannot get valid IRI values for every 0.10 mile interval. It would be better if we would be allowed to report only intervals where we have valid data and not be penalized for intervals where we cannot get valid data. FHWA is proposing that any section missing IRI data will be considered as being in poor condition. This is unfair given the fact that the technology does not currently exist to collect such in a reasonable manner.
4. The proposed rulemaking has different thresholds for IRI ranges of good, fair, and poor based on population. This does not make sense. The IRI thresholds should be the same for an urban or a rural roadway segment with the same travel speed. Ride quality

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Submitter Information

Submitter Name:
Tim McDonald

Mailing Address:
1980 West Broad Street

City:
Columbus

Country:
United States

State or Province:
OH

ZIP/Postal Code:
43223

metrics have everything to do with travel speed and nothing to do with population.

5. The proposed rulemaking states that, proposed thresholds are based on documented research. As an example, the proposed pavement rutting thresholds have been correlated to thresholds that minimize the risk of vehicle hydroplaning. This is likely appropriate when reporting rutting in 0.10 mile segments in which the rutting is rather uniform. This is not so appropriate for 0.10 mile intervals that contain high stress areas. For example, it is common to have higher localized rutting entering a signalized intersection. The rest of the 0.10 mile interval may have little to no rutting so the localized higher value of rutting gets averaged down over the entire interval. This prevents one from identifying shorter high stress areas that have a legitimate higher hydroplaning risk. AASHTO R 69-14 section 7.1 states that the reporting interval for network rutting shall be 33 feet or 10 meters. This is significantly shorter than 0.1 mile. If the goal is to identify areas of greater hydroplaning potential, then the reporting interval should be 33 feet for rutting.

6. The proposed rulemaking has a data metric of Faulting for Jointed Portland Cement Concrete Pavements (JPCCP). The data standard for this to analyze the collected inertial road profiles using AASHTO Standard R 36-13. This standard requires the use of the Automated Faulting Module (AFM) within ProVAL software. This standard requires independent faulting analysis for each JPCCP pavement section within the profile. Each section must be identified and sectioned out of the larger profile then analyzed using AFM to calculate the faulting metric. This is a highly time consuming process to do all of the manual sectioning and analysis. One must know or identify the joint spacing for proper analysis. There is no automation within ProVAL to do all of this. Further there is no batch processing capability within ProVAL to calculate the faulting metric in a reasonable manner for the network. It should be removed as a requirement until such time that a fully automated method exists to calculate faulting appropriately at the network level.

Bridges

1. Its not clear how FHWA will accept the bridge performance measures proposed by the States (% NHS Bridges in Good Condition and % NHS Bridges in Bad Condition). Will FHWA approve the States proposal? If so, what criteria will FHWA use to determine acceptability?

2. The proposed rulemaking is to allow a state to make a change to the proposed performance measures after the first two years. What criteria will FHWA use to accept changes to the bridge performance goals after the first two years?