



May 4, 2015

U.S. Department of Transportation
Docket Operations
West Building Ground Floor Room W12-140
1200 New Jersey Avenue SE.
Washington, DC 20590

RE: Docket No. FHWA-2013-0053

The Southeast Pavement Preservation Partnership (SEPPP), is pleased to provide feedback on Docket Number FHWA-2013-0053: “National Performance Management Measures; Assessing Pavement Condition for the National Highway Performance Program and Bridge Condition for the National Highway Performance Program.” The SEPPP is comprised of representatives from regional state and local highway agencies, industry, suppliers, consultants, and academia focused on improvements and promotion of pavement preservation principles, concepts, and applications. As such, SEPPP comments on the proposed rule will be limited to those related to pavement issues.

The SEPPP is generally supportive of the focus on performance measures outlined in the MAP-21 legislation and the goal of the proposed rule to provide a method to determine pavement performance in a consistent manner across the country. We also appreciate the difficulty of developing a set of rules that can be applied nationwide.

As a general comment, the SEPPP is concerned that the proposed rule may force states into a “worst-first” mentality for the preservation of pavements due to the short time horizon given to recognize improvement in the pavement network. A pavement preservation program that focuses on long-term performance is the only way to effectively manage the nation’s pavement network given the fiscal constraints with which we are faced. However, such a program does not always produce results in a short timeframe. Consequently, the proposed rule’s focus on improving pavement condition on the National Highway System within two to four years may actually run counter to long-term performance.

Following are more specific comments on the proposed rule. In some cases, clarification is needed to explain how certain aspects of the rule should be interpreted. In others, changes may be required to appropriately address major concerns. Where possible, we have made suggestions as to how the rule might be modified to better meet the needs of the states while still providing a framework for national implementation of pavement performance measures.

Calculation of Cracking Percent

The SEPPP has several comments and questions concerning the calculation of percent cracking.

1. The current HPMS Field Manual states that only fatigue cracking in the wheel paths are to be counted as part of the reported percent of fatigue cracking. Will fatigue cracking anywhere in the lane now be included in "the total area containing visible cracks"? Such a change may lead to a lot of expense to re-train and re-write methods for Pavement Distress Index (PDI), or a lot of expense if the methods are not changed and the MAP 21 evaluation is performed as an additional system evaluation.
2. The cracking percent thresholds may be too severe. We feel that a more appropriate fair range should be 5% to 20%.
3. The severity of cracking should be taken into consideration. AASHTO Standard R55-10 defines severity levels 1, 2, and 3; but the NPRM doesn't indicate how (or if) these severity levels should be used when calculating percent cracking.
4. The calculation of Cracking Percent for jointed concrete may also be too severe. If a slab displays any cracking, then the NPRM requires that the entire slab be counted as cracked. Also, even if a transverse crack has been routed and sealed, states are still required to report the slab as 100% cracked.

Potential Neglect of Non-NHS Routes

Many states don't have sufficient funding to meet all of the infrastructure needs or to improve the condition of the transportation system to a desirable level. The fear is that the Federal funds will have to be spent on the NHS system to meet the performance goals and since most of the state's funds are limited by law to be spent on the Non-Federal Aid (NFA) eligible roads, this may leave very little to no money invested in the non-NHS Federal Aid (FA) roads.

Using South Carolina as an example, which has a very large State-maintained system, SCDOT maintains most of the State's roads from interstates, primary routes, secondary roads, and even some dirt roads. SCDOT has different funding streams that are earmarked for specific types of roads. Federal funds are limited to FA eligible roads (~32.4% of public roads), and much of the State funds are limited to NFA eligible roads (~67.6% of public roads). By MAP 21 limiting the performance measures to interstate and non-interstate NHS routes (~5.7% of public roads), this creates a class of important roads that may be forgotten – the non-NHS FA eligible roads (~26.7% of public roads). Federal funds will have to be spent on 5.7% of the roads that comprise the NHS system in order to meet the performance goals, leaving very little to no money invested in 26.7% of the roads that comprise the non-NHS FA roads. This funding preference may be needed for several years in order to meet the performance goals and a certain portion will need to be dedicated to keeping the NHS roads within performance requirements.

Burden on States to Collect Data

The increased data requirements place an extreme burden on many of the SEPPP states in terms of increased cost, administration, and oversight. There are two specific requirements that are of concern to our member agencies.

- 1) Prohibiting the practice of sampling to collect pavement data is a significant burden on those states that have historically used sampling to populate HPMS data. When done properly, sampling is an effective mechanism for collecting data on large networks in a manner that is both highly accurate and represents an efficient use of resources. While full extent data collection may be preferable, the gains in reporting accuracy may not be offset by the increased cost to collect that data. States that have relied on sampling will have to undertake significant effort to establish and oversee data collection contracts or acquire in-house capabilities to collect the data themselves. The SEPPP recommends the following:
 - i. States should be allowed to continue using sampling methods for the first four-year reporting period before having to transition to full extent data collection. This would allow states time to establish contracts and internal controls to ensure quality.
 - ii. States choosing to use sampling should be required to demonstrate that their method of sampling provides an accurate representation of overall condition.

- 2) The increased data requirements associated with collecting Cracking_Percent, Rutting, and Faulting are not sufficiently offset by the reduction in frequency of reporting for IRI on the non-Interstate NHS from annual reports to biennial reporting. These new data elements require a significant increase in time and effort to collect the data, process the data, and ensure proper quality control. In particular, the Cracking_Percent metric is considerably more time consuming to process than IRI. Simply reducing the non-interstate reporting cycle in half will not offset this increased effort. Furthermore, it is impossible to establish baseline condition for measures that have not previously been collected. To ensure that states are able to establish baseline conditions and accurately report these new data elements, the SEPPP recommends two changes:
 - i. Allow for a similar phased-in approach on the Interstate NHS system for reporting of the new data elements as has been suggested for Non-Interstate NHS pavements.
 - ii. Allow for biennial reporting of the Interstate NHS as well as the non-Interstate NHS.

Questions Regarding Tenth-Mile Section Lengths

In 490.311(c)(1), FHWA proposes all pavement metrics and data inventory elements be reported in uniform 0.1-mile sections. Shorter sections may be used at the beginning of a route, end of a route, or at locations where a section length of 0.1 mile is not achievable. Clarification is needed regarding several questions about the 0.1-mile segment lengths.

- 1) Are bridge approach slabs to be considered part of the pavement or part of the bridge? SEPPP recommends treating bridge approach slabs as part of the bridge rather than the pavement.
- 2) How will junction/disjunctions be addressed? Since these are not technically the “end of a route”, should pavement sections span these discontinuities in the route? SEPPP recommends that pavement sections be allowed to end wherever there is a discontinuity in the route.
- 3) What about breaks at changes in pavement type? Since the data elements to be reported are dependent upon pavement type, it is impossible to combine an asphalt section with a concrete section. However, the proposed rule makes no accommodation for section breaks at changes in pavement type. SEPPP assumes that this is an oversight, but clarification is needed.
- 4) What about extremely short sections? There will frequently be instances where a section will end within a few feet of the end of a route. In some instances, these sections may be too short to calculate the proposed metrics properly. For instance, a concrete section less than 60’ in length may only have a single joint from which to measure faulting. SEPPP recommends that sections less than 100’ in length be ignored or combined with the adjacent 0.1 mile section.

Missing or Invalid Data

FHWA proposes to address incomplete or missing data for pavement and bridge condition by defaulting that section of pavement to a poor condition. Further, it is understood that FHWA is proposing a period of approximately 60 days for Interstate pavement and bridges and 90 days for non-Interstate NHS pavement and bridges after the State DOT submits data to the HPMS and NBI for the State DOT to update the data to address missing or incorrect data.

Currently, the most common reasons for missing data are construction or maintenance of the segment at the time the data is collected or an oversight in the QA/QC process. It would not be uncommon for upwards of 5% of the network to be undergoing some type of maintenance or rehabilitation activity during the testing season. It is unreasonable to categorize these pavement sections as poor if there is data missing because, in reality, the pavement section will likely be in good condition once construction is complete and data is collected.

SEPPP proposes an approach to report the percent of poor pavement based on the data available, with a minimum requirement for the percent of network reported (e.g., 95%). If a state reports less than the threshold amount, they would either need to report the shortfall as poor or provide justification for why the data could not be collected.

One possible alternative would be to default to the previous year's rating unless this incomplete data exists for 2 consecutive years. The time allowance for correcting or updating incorrect and missing data should be one reporting cycle. For states that outsource data collection, this would permit them to verify data and make the correction in the next submittal. States with extensive data gaps may consider even this threshold unachievable.

Extreme Values of Individual Metrics

The proposed methodology for determining whether a pavement section is considered poor requires that at least two of the individual metrics receive a poor rating based on the established thresholds. The SEPPP agrees with this methodology in principle but feels that there may be a need to consider extreme values of individual metrics that may necessitate rating the entire section as poor even if the other two metrics fall into the fair or good categories.

While there is general consensus among SEPPP members that very extreme values of individual metrics may merit a poor rating for a pavement section, no consensus has yet been reached on what those values should be. As such, SEPPP recommends simply that consideration be given in regard to this topic and encourages further conversation between FHWA and the states before establishing any such thresholds.

Faulting Metric Too Severe

The SEPPP feels that the proposed faulting thresholds are too severe. The values may be acceptable for interstate pavements but not for all. Tiered metrics should be considered with higher limits for non-interstate routes. If it is decided that the values are to be applied to all pavements then values for non-interstate routes from the Mechanistic-Empirical Pavement Design Guide (MEPDG) should be considered:

Good <0.125

Fair $0.125 \leq x \leq 0.20$

Poor >0.20

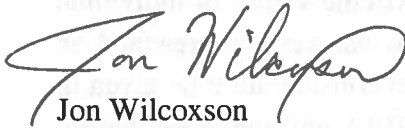
Further, clarification is requested regarding the calculation of average faulting for a segment that may include slabs with 0.0 inch fault values. Will slabs with zero faulting be included in the average faulting or will slabs only be included for faulting greater than zero? SEPPP proposes that the faulting average include all slabs within each segment, including those with a 0.0 inch fault value.

Reporting of One Direction for Non-Interstate Routes

In section 490.309 FHWA proposes for states to report on non-interstate routes in “one direction of travel”. SEPPP requests clarification to determine if the HPMS Field Manual process of allowing states to determine the inventory direction on a statewide basis (i.e., always South to North, East to West, or vice-versa) is the correct way to apply this directive.

The SEPPP appreciates the opportunity to provide this feedback. As previously stated, the goals of the MAP-21 legislation and the proposed rule on performance measures are laudable and are shared by the SEPPP. The proposed rule represents a good first step toward a national program of performance measures for pavements. It is hoped that these comments will assist in improving the proposed rule in a way that will have a long-term positive impact on the pavement network without adding an undue burden to the states. We look forward to the opportunity to work with FHWA in implementing the final rules.

Sincerely,



Jon Wilcoxson

Chair

Southeast Pavement Preservation Partnership