COMMENTS ON THE NPRM FOR CONDITION OF PAVEMENTS AND BRIDGES

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Establishes Required Performance Measures and Targets for National Highway System

Comment Period through May 8, 2015 (originally April 6)

http://bit.ly/18GMY2s (Dropbox link)

or http://federalregister.gov/a/2014-30085
## PAVEMENT CONDITION MEASURES

<table>
<thead>
<tr>
<th>INTERSTATES</th>
<th>NON-INTERSTATE NHS</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of “Good” Pavements</td>
<td>% of “Good” Pavements</td>
</tr>
<tr>
<td>% of “Poor” Pavements</td>
<td>% of “Poor” Pavements</td>
</tr>
<tr>
<td>Pavement Metric</td>
<td>Good</td>
</tr>
<tr>
<td>-----------------</td>
<td>------</td>
</tr>
<tr>
<td>IRI</td>
<td>&lt;95</td>
</tr>
<tr>
<td>% Cracking</td>
<td>&lt;5%</td>
</tr>
<tr>
<td>Rutting (Asphalt)</td>
<td>&lt;0.20</td>
</tr>
<tr>
<td>Faulting (Concrete)</td>
<td>&lt;0.05</td>
</tr>
</tbody>
</table>

*220 for areas with population greater than 1 million.
## DETERMINING PAVEMENT CONDITION

<table>
<thead>
<tr>
<th>Metric Rating Results</th>
<th>Overall Section Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>All three metrics rated “Good”</td>
<td>Good</td>
</tr>
<tr>
<td>More than 2 metrics rated “Poor”</td>
<td>Poor</td>
</tr>
<tr>
<td>All other combinations</td>
<td>Fair</td>
</tr>
</tbody>
</table>
No more than 5% of Interstate Pavements allowed in Poor Condition

If target is not attained for two consecutive years, state must obligate funds to improve the measure.
THRESHOLD AND PENALTIES

- How long will states have to achieve target?
- Timeframe (4 years) seems ambitious if not already in compliance.
- Will Non-Interstate NHS have same 5% threshold as Interstate System at some point?
Report in 0.1 – mile sections.

Shorter sections are permitted only

- at the beginning of a route,
- end of a route, or
- where a section length of 0.1 mile is not achievable.

Sections shall not exceed 0.1 mile in length.
Pavement sections would be... defined using inventory data items that establish the location, number of lanes, surface type, and whether a bridge exists in the section.
TENTH-MILE SEGMENT LENGTH
This appears to be the proposed method for handling bridges.
TENTH-MILE SEGMENT LENGTH
It does not appear that this is how pavement changes will be handled. (This is a problem.)
How will bridge approach slabs be counted?

How will junction/disjunctions be addressed?

Can any length be ignored or could we have 0.001 mile segments?

What about breaks at pavement changes?

Does not align with how pavements are managed. Perhaps use 0.5 mile segments.
PERCENT CRACKING METRIC

Page 138 (Table 4)
- Manual collection in accordance with AASHTO Standard R55-10 (2013), or
- Automated collection in accordance with AASHTO PP67-14 and PP68-14.

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- May use sampling methods for non-interstate routes until cycle ending December 31, 2019.

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- Shall be computed as % of total area containing visible cracks.
PERCENT CRACKING METRIC

- HPMS Field Manual only uses fatigue cracking for Percent Cracking (Item 52)
- How is transverse cracking counted? HPMS Field Manual uses length.
- Burdensome for states with multi-year data collection contracts.
- Threshold for poor is low. ALDOT recommends 20% (from MEPDG Table 10-8).
- Difficult to establish baseline since current data only includes samples.
- Sealed cracks counted the same as unsealed cracks – discourages preservation.
MISSING OR INVALID DATA

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- Missing or invalid data will be rated as Poor
- In 2012:
  - 12 State DOTs were missing data from at least 50% of Interstate System
  - 3 State DOTs were not able to provide any samples with complete data
  - 27% of the full Interstate System lane mileage had missing data
MISSING OR INVALID DATA

- Does not account for pavement under construction, maintenance, or inaccessible (flooding, landslide, etc.).
- Definition of invalid data can sometimes be questionable.
- Especially burdensome for states with data collection contracts.
- Needs an allowable threshold for missing data.
- Missing data should default to previous rating for 2-3 years.
REPORTING DEADLINES

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- Interstate System – April 15
- Non-Interstate NHS – June 15
Southern states with contract data collection are at a disadvantage since vendors often delay testing until later in the year.
Data collection shall be:

- Full extent;
- In the rightmost travel lane (or one consistent lane if not accessible);
- In 0.1 mile sections;
- In one direction of travel; and
- On at least a biennial frequency.
DATA COLLECTION IN ONE DIRECTION FOR NON-INTERSTATES

- Do states get to choose the direction?
- Can it change from one year to the next?
- Can it change along the length of a route?
- Biennial collection on non-interstates does not offset added cost of new collection requirements and corresponding QA/QC effort.
- Faulting thresholds too severe. Recommend 0.2” to 0.25” for Poor.
- IRI in urban areas can be much higher even if population is less than 1M.
- Many NHS routes maintained by other agencies.
- Definition of poor pavement is too lenient.
NEXT STEPS

- SEPPP Comments?
- One-time Task Force or incorporate into existing?
  - Research
  - Integrating Pavement Preservation into PMS
  - Specifications
- May 8 Deadline