

## C Brian Domsic - Comments

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

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### Submitter Information

**Submitter Name:**

Brian Domsic

**Mailing Address:**

1120 N Street

**Mailing Address 2:**

MS #38

**City:**

Sacramento

**Country:**

United States

**State or Province:**

CA

**ZIP/Postal Code:**

94274-0001

### Comment

Some comments on Pavement Condition Measures

International Roughness Index (IRI) has long been part of the HPMS but as a measure of roughness, it should not be the sole pavement performance measure.

In or around 1995 a pavement was rated as poor if the IRI was greater than 220 but this was for the non-interstate routes whereas the threshold for the interstate routes was set at 170. Reference past issues of Highway Statistics to find this metric. Now the proposal is to set the threshold at 170 outside of all urban areas that have less than one million population and then at 220 inside the urban areas that have more than one million population for the non-interstate NHS. A pavement with an IRI between 170 and 220 may be rough but it is not necessarily in need of rehabilitation or maintenance. A PCI rating may be a better indicator of that since it has to do with condition and not only roughness.

According to the statewide Local Streets and Roads needs assessment done in California, about 80-90% of the pavement ratings are done in PCI (Pavement Condition Index) or similar, which is pretty much all the cities and counties that reported to the needs assessment survey.

But how many agencies measure IRI? It is principally the state DOT that has to assume this responsibility.

The burden and time and cost of measuring the IRI on all of the NHS and the samples of minor arterial and collector streets seems to be a greater challenge than collecting PCI from the MPOs. PCI is almost always easier to obtain and less costly than IRI and PCI is standardized under the specification ASTM D 6433 (2007).

As for the HPMS connection, PSR is reported in the HPMS and PCI can be converted to PSR. This is not to say that it isnt as easy to create one more data item and report the PCI.

In 2014 dollars, California has to spend 3-4 million annually to collect the IRI. The faulting, rutting and cracking will be about another 1-2 million annually. Nationally, this could run \$40-50 million every year to comply with the reporting for the IRI, faulting, rutting and cracking along

with the person-hours of contract administration since most of this work is done under contract.

It may be worthwhile to reexamine the business case for using PCI as a pavement performance measure.