




Transportation Performance Management

Overview of Performance Measures:

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Intent of the Legislation (23 USC 150)

- Focus on national goals
- Transparency
- Accountability
- Condition of pavements on the National Highway System (NHS)



...State of Good Repair...







TPM Expectations

States expected to:

- Upgrade planning processes
- Develop and use asset management plans
- Set performance targets
- Report conditions (performance)


[23 USC 119, 134, 135, and 150]






Pavement TPM Regulations

- Detailed in “National Performance Management Measures for Assessing Pavement Condition,” 23 CFR 490 Subpart C
- Establishes measures for State DOTs and MPOs to use to carry out the NHPP
- Includes requirements to assess progress on achieving condition targets for NHS pavements
- Establishes minimum condition requirements for Interstate pavements







Pavement TPM Regulations: Performance Measures (23 CFR 490.307)

Performance Target	Interstate Condition (Lane-miles)	Non-Interstate NHS Condition (Lane-miles)
Two-year	% Good	% Good
	% Poor	% Poor
Four-year	% Good	% Good
	% Poor	% Poor

[23 CFR 490.307(b)(1)]







Pavement TPM Regulations: Calculating Metrics and Measures

- Highway Performance Monitoring System (HPMS) data used by FHWA to calculate good/poor metrics and measures
- Combines consideration of roughness, cracking and rutting/faulting
 - Present Serviceability Rating (PSR) for lower speed roads
- Measures aggregated by lane miles
- HPMS pavement data collection requirements revised to require more comprehensive collection of data for NHS routes

[23 CFR 490.309-313]





Data Needed to Calculate the National Pavement Measures


Condition Data:

- Roughness (IRI) (MRI)
- Rutting (asphalt pavements only)
- Cracking Percent
- Faulting (concrete pavements only)
- Can use PSR only where speed limit < 40 mph

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[23 CFR 490.111, 490.309 & 490.311]

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Pavement TPM Regulations: Required Data Reporting


Roughness,
Cracking,
Rutting,
Faulting

Interstate	Non-Interstate	
April 15	June 15	<i>Due Date</i>
Every Year	2 Years	<i>Frequency</i>
Full Extent 1 Lane 1 Direction	Full Extent 1 Lane 1 Direction	<i>Coverage</i>

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[23 CFR 490.309(b) & CFR 490.311(c)(4)]

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Determining Condition for a Section

- Evaluate each of the metrics for the section to determine whether the section is good, fair or poor with respect to:
 - Asphalt: IRI, rutting, cracking %
 - JCP: IRI, faulting, cracking %
 - CRCP: IRI, cracking %
- Determine overall condition for the section based on the number of metrics that are good, fair and poor
- OR**
- If the posted speed limit < 40 mph:
 - Calculate from PSR: Scale = 0 to 5

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[23 CFR 490.311 and 490.313]

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Pavement Condition Thresholds

	Good	Fair	Poor
IRI (inches/mile)	<95	95-170	>170
Rutting (inches)	<0.20	0.20-0.40	>0.40
Faulting (inches)	<0.10	0.10-0.15	>0.15
Cracking (%)	<5	5-20 (asphalt) 5-15 (JCP) 5-10 (CRCP)	>20 (asphalt) >15 (JCP) >10 (CRCP)
PSR	PSR ≥ 4.0	2.0 ≤ PSR ≤ 4.0	PSR ≤ 2.0

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[23 CFR 490.313]

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Pavement Measures Calculation

Overall Section Condition Rating	Pavement Type		Measures
	Asphalt and Jointed Concrete	Continuous Concrete	
Good	3 metric ratings (IRI, cracking and rutting/faulting)	2 metric ratings (IRI and cracking)	percentage of lane-miles in "Good" condition
Poor	≥ 2 metrics rated "Poor"	Both metrics rated "Poor"	percentage of lane-miles in "Poor" condition
Fair	All other combinations	All other combinations	

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[23 CFR 490.313]

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State Pavement TPM Regulations: Interstate Minimum Condition and Penalty

- A minimum pavement condition for the Interstate System is no more than 5% in Poor condition
- FHWA will assess this minimum condition annually, using data in the HPMS as of June 15
- If the minimum condition threshold is not met, the penalty is that the State must obligate a specified percentage of its NHPP and Surface Transportation Program (STP) funds to address Interstate conditions
- 1st assessment will occur in 2019





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[23 CFR 490.315 & 23 CFR 490.317]

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Pavement Performance Reporting




State Pavement Performance Reporting: What's Required

State Reports:

- **Baseline** Report by Oct. 1 of the first performance year
- **Mid Period** Progress Report by Oct. 1 of the third performance year
- **Full Period** Progress Report by Oct. 1 of the fifth year **following** the performance period




[23 CFR 490.107(b)(1)]




Why Report on Performance?

- Evaluate the impact of Federal-aid funds on the national goal set for infrastructure condition
- Report to the public on pavement conditions, significant progress and target achievement in each State
- Report to Congress on the condition and performance of the Federal-aid highway system



...Tell the story...





Contacts

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Questions?

