

Performance Measures for MAP-21



NEPPP
2015 Annual Meeting
April 29, 2015



Overview

- Highlights of Notice of Proposed Rule-Making (NPRM) 490 (Pavement Measures)
- Highlights of NPRM 515 (Asset Management)
- NEPPP Draft Comments
- Next Steps



NRPM 490 – Pavement

4 Proposed Measures:

- % Interstates Good
- % Interstates Poor
- % Non-IS NHS Good
- % Non-IS NHS Poor



NRPM 490 – Pavement

Condition – Based on combination of:

- Ride Quality
- Cracking
- Rutting (asphalt) or Faulting (concrete)

These are **Metrics**.

Missing data automatically = Poor.



NRPM 490 – Pavement

Conversion of **Metrics to Measures:**

- Different rules based on
 - Pavement Type
 - IS vs. non-IS
 - Urban vs. Rural
- More metrics required (at least for first 4 years) for IS than for NHS



NRPM 490 – Pavement

Targets:

- States set targets for 3 of 4 measures
- FHWA set 5% max for % Poor IS
- 2- and 4-year targets required for 4-year reporting period
 - 2-year targets can be adjusted at midpoint



NRPM 490 – Pavement

Reporting:

- 3 reports:
 - Baseline
 - 2-year
 - 4-year



NRPM 490 – Pavement

Penalties & Incentives:

- Penalties: Financial if targets not met



- Incentives: ...None.



NRPM 490 – Pavement

of times **Pavement Preservation** is mentioned:

0

(rhymes with hero)



NRPM 515 – Asset Management

States must establish and implement
an **Asset Management plan** for
pavements



NRPM 515 – Asset Management

Key Ingredients:

- Asset Management objectives
- Targets and Measures
 - May include those established by SHAs, in addition to NPRM 490 requirements

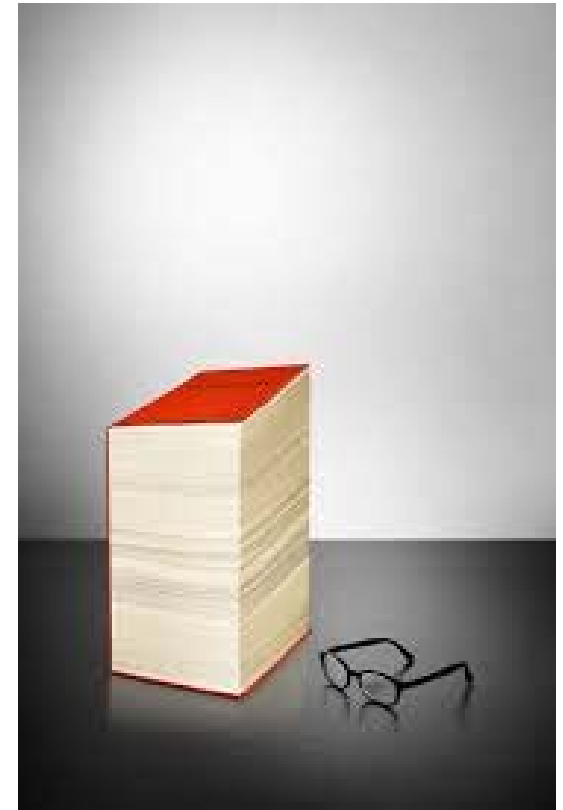
INGREDIENTS: ENRICHED FLOUR (WHEAT FLOUR, NIACIN, REDUCED IRON, THIAMIN MONONITRATE [VITAMIN B₁], RIBOFLAVIN [VITAMIN B₂], FOLIC ACID), CORN SYRUP, SUGAR, SOYBEAN AND PALM OIL (WITH TBHQ FOR FRESHNESS), CORN SYRUP SOLIDS, DEXTROSE, HIGH FRUCTOSE CORN SYRUP, FRUCTOSE, GLYCERIN, CONTAINS 2% OR LESS OF COCOA (PROCESSED WITH ALKALI), POLYDEXTROSE, MODIFIED CORN STARCH, SALT, DRIED CREAM, CALCIUM CARBONATE, CORNSTARCH, LEAVENING (BAKING SODA, SODIUM ACID PYROPHOSPHATE, MONOCALCIUM PHOSPHATE, CALCIUM SULFATE), DISTILLED MONOGLYCERIDES, HYDROGENATED PALM KERNEL OIL, SODIUM STEAROYL LACTYLATE, GELATIN, COLOR ADDED, SOY LECITHIN, DATEM, NATURAL AND ARTIFICIAL FLAVOR, VANILLA EXTRACT, CARNAUBA WAX, XANTHAN GUM, VITAMIN A PALMITATE, YELLOW #5 LAKE, RED #40 LAKE, CARAMEL COLOR, NIACINAMIDE, BLUE #2 LAKE, REDUCED IRON, YELLOW #6 LAKE, PYRIDOXINE HYDROCHLORIDE (VITAMIN B₆), RIBOFLAVIN (VITAMIN B₂), THIAMIN HYDROCHLORIDE (VITAMIN B₁), CITRIC ACID, FOLIC ACID, RED #40, YELLOW #5, YELLOW #6, BLUE #2, BLUE #1.



NRPM 515 – Asset Management

Key Ingredients:

- List of assets and conditions
- Performance gap identification
- LCCA (network-level)
- Risk Management analysis
- Financial Plan
- Investment Strategies



NRPM 515 – Asset Management

Penalties & Incentives:

- Penalties:
 - Financial
 - Projects won't be approved
- Incentives: ...None.



NEPPP Draft Comments – 490

Overarching:

- DOTs must manage to measures to avoid penalties.
 - Can be argued that measures promote worst-first and inhibit pavement preservation
 - What takes precedence if DOT wishes to
 - Manage using different measures?
 - Use additional metrics?
 - These could lead to very different looking paving program



NEPPP Draft Comments – 490

§490.105 – Establishing Performance Targets:

- What is incentive to set additional targets?
- Verify that targets needed only for IS in first performance period (unclear).



NEPPP Draft Comments – 490

§490.313 – Calculation of Pavement Metrics:

- Instead of missing data = poor, instead
 - Allow previous years' data, and/or
 - Allow data from other side of the road
 - There are valid reasons for data to be missing, even with (or because of) a rigorous QA/QC program



NEPPP Draft Comments – 490

FHWA Requests – Implementation of MAP-21 performance requirements:

- #8: *Recognize Fiscal Constraints – provide for an approach that encourages the optimal investment of Federal funds to maximize performance.*
- **Optimal investment is not encouraged**
 - With Poor target, and “bins”, Worst-first is encouraged
 - Allowing RSL would encourage optimal investment and **Pavement Preservation!**



NEPPP Draft Comments – 490

FHWA Requests – Implementation of MAP-21 performance requirements:

- #9: *Provide for Flexibility.*
- Not apparent how flexibility is provided for
- No provision for allowing different measures that may be more cost-effective



NEPPP Draft Comments – 490

“The FHWA is required to establish minimum levels for the condition of pavement”:

- Why interpreted as a need to establish a maximum % Poor?
 - Implicitly encourages **Worst-First**
- Why not a minimum % Good?
- Why not RSL or overall Index?

These could have minimum levels



NEPPP Draft Comments – 515

§515.007 – Process for establishing the asset management plan:

- Clarify “life-cycle benefit-cost analysis”

These have big impact on LCCA requirements (which are not clear)



NEPPP Draft Comments – 515

§515.009 – Plan requirements:

- Plan is to “improve or preserve condition”
 - What if insufficient funding?
 - What if declining targets ?
- States may “include other public roads”
 - What is incentive to do so?



NEPPP Draft Comments – 515

§515.009 – Plan requirements:

- “State DOTs are encouraged...to include other...assets”
 - What is incentive to do so?
- Plan must use NPRM 490 measures and achieve/sustain state of good repair
 - What if NPRM measures conflict with goal of good repair?



Next Steps

- **Discuss 11am April 30 (in place of Research Task Force)**
- **Finalize comments**
- **Submit NPRM 490 Comments by May 8**
- **Submit NPRM 490 Comments by May 29**



Questions?

