Transportation Performance Management

National Performance Management Measures to Assess System Performance, Freight Movement, and CMAQ Improvement Program

Final Rule Webinar
June 1, 2017
TPM: Putting the Pieces Together

- National Goals
- Measures
- Targets
- Plans
- Reports
- Accountability and Transparency
Agenda

- Introduction
- National Performance Management Measures
- Target Establishment and Reporting
- TPM Resources
Introduction
Why Are We Doing Performance Management?

- Provide the **most efficient investment** of Federal transportation funds
- Refocus on **national transportation goals**
- Increase **accountability and transparency**
- **Improve decision-making** through performance-based planning and programming
# FHWA TPM Rulemaking: Status

<table>
<thead>
<tr>
<th>TPM Related Rules</th>
<th>Final Rule Published</th>
<th>Rule Effective Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Highway Safety Improvement Program</td>
<td>March 15, 2016</td>
<td>April 14, 2016</td>
</tr>
<tr>
<td>Statewide and Non-Metropolitan Planning; Metropolitan Planning</td>
<td>May 27, 2016</td>
<td>June 27, 2016</td>
</tr>
<tr>
<td>Highway Asset Management Plans for NHS</td>
<td>October 24, 2016</td>
<td>October 2, 2017</td>
</tr>
<tr>
<td>Pavement and Bridge Condition Measures</td>
<td>January 18, 2017</td>
<td>May 20, 2017</td>
</tr>
<tr>
<td>Performance of the NHS, Freight, and CMAQ Measures</td>
<td>January 18, 2017</td>
<td>May 20, 2017*</td>
</tr>
</tbody>
</table>

* Except for portions of the rule related to the percent change in CO2 emissions from 2017 (GHG measure). Those portions are delayed and FHWA will be publishing an NPRM in the Federal Register pertaining to this measure.
Summary of New 23 CFR Part 490

National Performance Management Measures

Subpart A: General Information (Target Establishment, Reporting, and NHPP and NHFP Significant Progress Determination)

Subpart B: Measures to Carry Out the Highway Safety Improvement Program (HSIP)

Subpart C: Measures for Assessing Pavement Condition

Subpart D: Measures for Assessing Bridge Condition

Subpart E: Measures to Assess Performance of the National Highway System (NHS)

Subpart F: Measure to Assess Freight Movement on the Interstate System

Subpart G: Measures to Assess the CMAQ Program – Traffic Congestion

Subpart H: Measure to Assess the CMAQ Program – On-Road Mobile Source Emissions
Summary of Comments and Updates

• We received nearly 9,000 comment letters with over 96,000 individual comments

• The final rule, as effective, was updated. It:
  o Revised and streamlined measures by reducing the total from 9 to 6
  o Simplified data processing and calculation processes
  o Integrated measures to address multimodal and person-focused concerns
  o Addressed concerns with use of absolute thresholds
  o Addressed comments regarding applicability
# Final Measures: System Performance and Freight

<table>
<thead>
<tr>
<th>Measure Area</th>
<th>Performance Measures</th>
</tr>
</thead>
</table>
| Performance of the National Highway System (Subpart E) | • **Interstate Travel Time Reliability Measure**: Percent of person-miles traveled on the Interstate that are reliable  
  • **Non-Interstate Travel Time Reliability Measure**: Percent of person-miles traveled on the non-Interstate NHS that are reliable |
| Freight Movement on the Interstate System (Subpart F) | • **Freight Reliability Measure**: Truck Travel Time Reliability (TTTR) Index |

Note: These measures contribute to assessing the National Highway Performance Program (NHPP) and National Highway Freight Program (NHFP)
## Final Measures: CMAQ Program

### Measure Area

<table>
<thead>
<tr>
<th>Measure Area</th>
<th>Performance Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measures to Assess the CMAQ Program – Traffic Congestion (Subpart G)</td>
<td>• Peak Hour Excessive Delay (PHED) Measure: Annual Hours of Peak Hour Excessive Delay (PHED) Per Capita</td>
</tr>
<tr>
<td></td>
<td>• Non-Single Occupancy Vehicle Travel (SOV) Measure: Percent of Non-Single Occupancy Vehicle (SOV) Travel</td>
</tr>
<tr>
<td>Measure to Assess the CMAQ Program – On-Road Mobile Source Emissions (Subpart H)</td>
<td>• Emissions Measure: Total Emissions Reduction</td>
</tr>
</tbody>
</table>
National Performance Management Measures
§ 490.101 Metrics, Thresholds, Measures and Targets

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>METRIC</strong></td>
<td>A quantifiable indicator of performance or condition</td>
</tr>
<tr>
<td><strong>MEASURE</strong></td>
<td>An expression based on a metric, used to establish targets and to assess progress towards achieving said target</td>
</tr>
<tr>
<td><strong>THRESHOLD</strong></td>
<td>As used in the rule, a level applied to metric calculation to determine its inclusion in the measure</td>
</tr>
<tr>
<td><strong>TARGET</strong></td>
<td>Quantifiable level of performance or condition, as a value for the measure, to be achieved within a time period required by FHWA</td>
</tr>
</tbody>
</table>

Applicable to: all measures

States report on progress towards targets
Subpart E

National Performance Management Measures to Assess Performance of the National Highway System
Subpart E Measures

• Interstate Travel Time Reliability Measure: Percent of person-miles traveled on the Interstate that are reliable

• Non-Interstate Travel Time Reliability Measure: Percent of person-miles traveled on the non-Interstate NHS that are reliable
GHG Measure Delayed

• While the rule took effect on May 20, 2017, certain portions of the rule pertaining to the GHG measure (the percent change in CO2 emissions from 2017, generated by on-road mobile sources on the NHS) have been delayed indefinitely.

• FHWA will be publishing a NPRM in the Federal Register pertaining to the GHG measure.
Changes to Travel Time-Based Measures

• Simplified data processing requirements and metric calculation
  o Use of 15 minute travel time intervals instead of 5 minute intervals
  o Consistent time periods for all travel time derived measures
  o Recognition of commercial data sets that could be pre-approved by FHWA
  o Removed requirement to “fill” missing all vehicle data with travel time at posted speed limit (TT@PSL)
  o Use all vehicle travel times to replace missing truck travel times

• Will work with State DOTs and MPOs to use a pooled-fund approach to acquire services and tools that will help process and analyze data
## § 490.507 Travel Time Reliability Measures

### METRICS
- **Level of Travel Time Reliability (LOTTR) for each time period and reporting segment on:**
  - 1. Interstate System
  - 2. Non-Interstate NHS

### THRESHOLD
- LOTTR < 1.50 for the reporting segment = reliable

### Reporting Segment
- Reporting Segment included / not included in measure

### MEASURES
- **Percent of person-miles traveled that are reliable:**
  - 1. Interstate System
  - 2. Non-Interstate NHS

### TARGETS
- **1.% of Interstate System person-miles reliable**
- **2.% of non-Interstate NHS person-miles reliable**

### National Highway System
- States report on progress towards targets
§ 490.509 Data Requirements: Travel Time Reliability

<table>
<thead>
<tr>
<th>Relevant Data</th>
<th>Data Source(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Travel times</td>
<td>• National Performance Management Research Data Set (NPMRDS), <strong>OR</strong></td>
</tr>
<tr>
<td>• NHS travel time segments</td>
<td>• Equivalent data set</td>
</tr>
<tr>
<td>• AADT/volumes</td>
<td>• Highway Performance Monitoring System (HPMS)</td>
</tr>
<tr>
<td>• Annual traffic volume (AADT x 365)</td>
<td></td>
</tr>
<tr>
<td>• Occupancy factors</td>
<td>• Provided by FHWA, likely based on national surveys, <strong>OR</strong></td>
</tr>
<tr>
<td></td>
<td>• Other allowed data sources</td>
</tr>
</tbody>
</table>
§ 490.509 Data Requirements: Applicable Time Periods

Full Year (Jan 1-Dec 31)  
Weekdays (Mon – Fri)  
6 – 10am  
10am – 4pm  
4 – 8pm  
Weekends  
6am – 8pm

Four Total Time Periods
§ 490.511 Level of Travel Time Reliability (LOTTR) Metric (Example)

Longer Travel Time (80th) \[
\text{Normal Travel Time (50th)} = \frac{\text{# seconds}}{\text{# seconds}} \]

= Level of Travel Time Reliability Ratio

<table>
<thead>
<tr>
<th>Level of Travel Time Reliability (LOTTR) (Single Segment, Interstate Highway System)</th>
</tr>
</thead>
</table>
| Monday – Friday | 6am – 10am | LOTTR = \[
44 \text{ sec} \]
\[
35 \text{ sec} \] = 1.26 |
| 10am – 4pm | LOTTR = 1.39 |
| 4pm – 8pm | LOTTR = 1.54 |
| Weekends | 6am – 8pm | LOTTR = 1.31 |

Must exhibit LOTTR below 1.50 during all of the time periods

Segment is not reliable

HPMS Submittal: Starting in 2018, State DOTs report LOTTR metrics and the corresponding 80th and 50th percentile times for each time period and directional AADT for each reporting segment by June 15 of each year, for the previous year’s measures.
§ 490.513 Calculating Travel Time Reliability Measures (Example)

<table>
<thead>
<tr>
<th>Length</th>
<th>1.000 mi.</th>
<th>0.750 mi.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annual Traffic</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Volume</td>
<td>2,000,000</td>
<td>3,500,000</td>
</tr>
<tr>
<td>Occupancy Factor</td>
<td>1.3 persons/vehicle</td>
<td>1.7 persons/vehicle</td>
</tr>
</tbody>
</table>

Segment Total

<table>
<thead>
<tr>
<th>Reliable: 2,600,000 person-miles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unreliable: 4,462,500 person-miles</td>
</tr>
</tbody>
</table>

Measure: % of person-miles reliable, for full extent of the system
Subpart F

National Performance Management Measure for Freight Movement on the Interstate
Subpart F Measure

- **Freight Reliability Measure**: Truck Travel Time Reliability (TTTR) Index
  - The sum of maximum TTTR for each reporting segment, divided by the total Interstate system miles
§ 490.607 Freight Reliability Measure

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>METRIC Truck Travel Time Reliability (TTTR) for each time period and each segment on the Interstate System</td>
<td>Maximum TTTR for each reporting segment</td>
</tr>
<tr>
<td>NO THRESHOLD</td>
<td></td>
</tr>
<tr>
<td>MEASURE TTTR Index: The sum of maximum TTTR for each segment, divided by total Interstate miles</td>
<td>States report on progress towards targets</td>
</tr>
<tr>
<td>TARGET TTTR Index for the Interstate System</td>
<td></td>
</tr>
</tbody>
</table>
§ 490.609 Data Requirements: Freight Reliability

<table>
<thead>
<tr>
<th>Relevant Data</th>
<th>Data Source Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Truck travel times</td>
<td>• NPMRDS, <strong>OR</strong></td>
</tr>
<tr>
<td>• Interstate travel time segments</td>
<td>• Equivalent data set</td>
</tr>
</tbody>
</table>

§ 490.609 & 490.611 Data Requirements: Applicable Time Periods

<table>
<thead>
<tr>
<th>Time Periods</th>
<th>Weekdays (Mon – Fri)</th>
<th>Weekends</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full Year (Jan 1-Dec 31)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 – 10am</td>
<td></td>
<td>6am – 8pm</td>
</tr>
<tr>
<td>10am – 4pm</td>
<td></td>
<td>6am – 8pm</td>
</tr>
<tr>
<td>4 – 8pm</td>
<td></td>
<td>6am – 8pm</td>
</tr>
<tr>
<td>Overnight (all days)</td>
<td></td>
<td>8pm – 6am</td>
</tr>
</tbody>
</table>

Five Total Time Periods
§ 490.611 Freight Reliability **Metric (Example)**

Longer Truck Travel Time (95th) / Normal Truck Travel Time (50th) = \( \frac{\text{# seconds}}{\text{# seconds}} \) = Truck Travel Time Reliability (TTTR) Ratio

<table>
<thead>
<tr>
<th>Time Period</th>
<th>TTTR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monday – Friday</td>
<td></td>
</tr>
<tr>
<td>6am – 10am</td>
<td>( \frac{72 \text{ sec}}{50 \text{ sec}} = 1.44 )</td>
</tr>
<tr>
<td>10am – 4pm</td>
<td>TTTR = 1.39</td>
</tr>
<tr>
<td>4pm – 8pm</td>
<td>TTTR = <strong>1.49</strong></td>
</tr>
<tr>
<td>Weekends</td>
<td></td>
</tr>
<tr>
<td>6am – 8pm</td>
<td>TTTR = 1.31</td>
</tr>
<tr>
<td>Overnight</td>
<td></td>
</tr>
<tr>
<td>8pm – 6am</td>
<td>TTTR = 1.20</td>
</tr>
</tbody>
</table>

Maximum TTTR **1.49**

**HPMS Submittal:** *Starting in 2018, State DOTs report TTTR metrics and the corresponding 95th and 50th percentile times for each time period and each reporting segment by June 15 of each year, for the previous year’s measures*
§ 490.613 Calculating Freight Reliability Measure (Example)

TTTR Index = \( \frac{\sum \text{All segment length weighted TTTR}}{\sum \text{All segment lengths}} \)

<table>
<thead>
<tr>
<th>Segment length (mi.)</th>
<th>0.500</th>
<th>0.500</th>
<th>1.000</th>
<th>1.000</th>
<th>5.000</th>
</tr>
</thead>
<tbody>
<tr>
<td>MaxTTTR</td>
<td>1.49</td>
<td>1.59</td>
<td>1.50</td>
<td>1.41</td>
<td>1.36</td>
</tr>
<tr>
<td>Length-weighted TTTR</td>
<td>0.75</td>
<td>0.80</td>
<td>1.50</td>
<td>1.41</td>
<td>6.80</td>
</tr>
</tbody>
</table>

\[
\text{TTTR Index} = \frac{11.25}{8.000 \text{ mi}} = 1.41
\]

Measure: TTTR Index, full extent of the Interstate system
Subpart G

National Performance Management Measures for Congestion Mitigation and Air Quality Improvement (CMAQ) Program – Traffic Congestion
Subpart G Measures

- **PHED Measure**: Annual Hours of Peak Hour Excessive Delay (PHED) Per Capita

- **Non-SOV Travel Measure**: Percent of Non-Single Occupancy Vehicle (SOV) Travel
§ 490.703 Applicability: PHED and Non-SOV Travel Measures

- Areas with the following criteria:

  **Area Characteristics**
  - Designated urbanized area,
  - Contains NHS mileage, **AND**
  - Population over 200,000*

  **Nonattainment or Maintenance Area**
  - ozone (O₃),
  - carbon monoxide (CO), **OR**
  - particulate matter (PM₁₀ or PM₂.₅)

- **All MPOs and State DOTs** that have NHS mileage that overlaps with an applicable urbanized area must coordinate on a **single, unified target** and report on the measures.

*Phase In: For the first performance period only, the population criteria applies to urbanized areas with populations over 1 million.*
§ 490.707 PHED Measure

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Result</th>
</tr>
</thead>
</table>
| **METRIC**
Total excessive delay (person-hours) for each reporting segment on the NHS | **THRESHOLD**
Travel Time at 20 mph OR at 60% of the posted speed limit (PSL) for each reporting segment, whichever is greater |
| **TARGET**
Annual hours of PHED per capita for each urbanized area | States report on progress towards targets |

**Each Reporting Segment**

**National Highway System**
### § 490.709 Data Requirements: PHED

<table>
<thead>
<tr>
<th>Relevant Data</th>
<th>Data Source Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Urbanized Area Boundary</td>
<td>• US Decennial Census</td>
</tr>
<tr>
<td></td>
<td>• HPMS</td>
</tr>
<tr>
<td>• Reporting Segment Length</td>
<td>• NPMRDS, OR</td>
</tr>
<tr>
<td></td>
<td>• Equivalent data set</td>
</tr>
<tr>
<td>• Travel Time in 15-minute intervals</td>
<td>• NPMRDS, OR</td>
</tr>
<tr>
<td></td>
<td>• Equivalent data set</td>
</tr>
<tr>
<td>• Hourly Traffic Volume</td>
<td>• Hourly continuous traffic volume counts, OR</td>
</tr>
<tr>
<td></td>
<td>• Derived from AADT reported to the HPMS</td>
</tr>
<tr>
<td>• Annual Vehicle Classification for Buses, Trucks, and Cars</td>
<td>• Annual traffic volume counts, OR</td>
</tr>
<tr>
<td></td>
<td>• AADT, AADT single unit, and AADT combination as reported to the HPMS</td>
</tr>
<tr>
<td>• Annual Vehicle Occupancy</td>
<td>• Data provided by FHWA, OR</td>
</tr>
<tr>
<td></td>
<td>• Alternative estimate that is more specific</td>
</tr>
</tbody>
</table>
§ 490.711 PHED Metric (Example)

0.500 Mile Reporting Segment

Average of 105 seconds for a 15-min. segment per vehicle

Travel Time Threshold

105 - 72 = 33 seconds

Travel Time Segment Delay

500,000 people traveling during peak hours (per mode)

For all peak periods in a full calendar year

Total Excessive Delay*

*HPMS Submittal: Starting in 2018, State DOTs report PHED metric for each reporting segment by June 15 of each year, for the previous year’s measures

= 863.025 person-hours
§ 490.713 Calculating PHED Measure (Example)

<table>
<thead>
<tr>
<th>Length (mi.)</th>
<th>Entire Reporting Network</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.500</td>
<td></td>
</tr>
<tr>
<td>0.500</td>
<td></td>
</tr>
<tr>
<td>1.000</td>
<td></td>
</tr>
<tr>
<td>1.000</td>
<td></td>
</tr>
<tr>
<td>5.000</td>
<td></td>
</tr>
</tbody>
</table>

| Excessive Delay (person-hours) | 863.025 | 987.045 | 726.801 | 624.057 | 351.580 |

4.46M person-hours excessive delay
1.05M urbanized area population

= 4.3 hours per capita

Measure: Peak hour excessive delay per capita
§ 490.707 Non-SOV Travel Measure

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not Applicable</td>
<td>Not applicable</td>
</tr>
<tr>
<td>NO METRIC</td>
<td></td>
</tr>
<tr>
<td>NO THRESHOLD</td>
<td></td>
</tr>
</tbody>
</table>

**Urbanized Area**

- **MEASURE**
  - Percent of non-SOV travel for an entire urbanized area
- **TARGET**
  - % of non-SOV travel in each urbanized area

States report on progress towards targets.
## § 490.709 Data Requirements: Non-SOV Travel

<table>
<thead>
<tr>
<th>Option</th>
<th>Relevant Data</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Method A</td>
<td>• 5 Year Estimate for “Commuting to Work” totaled by mode, as of August 15 of year Performance Report is due</td>
<td>• American Community Survey (Table DP03)</td>
</tr>
<tr>
<td>Method B</td>
<td>• Travel mode choices gathered within 2 years of the start of the Performance Period</td>
<td>• Local Survey</td>
</tr>
<tr>
<td>Method C</td>
<td>• Sample or continuous count of travelers using different modes</td>
<td>• Modal Counts</td>
</tr>
</tbody>
</table>
§ 490.707 Non-SOV Travel Measure

• Percent of Non-SOV Travel

Based on one of three methods

  o A: 100% - SOV% travel

  o B: Results of local survey

  o C: \[
    \text{Annual volume of non-SOV} \over \text{Total annual volume}
  \]
Subpart H

National Performance Management Measure to Assess the CMAQ Program – On-Road Mobile Source Emissions
Subpart H Measure

• Measure: Total Emissions Reduction

• Calculation: Cumulative 2-year and 4-year Emissions Reduction (kg/day) for CMAQ funded projects of reduced emissions for:
  o Nitrogen Oxide (NOx),
  o Volatile Organic Compounds (VOCs)
  o Carbon Monoxide (CO), or
  o Particulate Matter (PM10 and PM2.5)
§ 490.803 & 490.809 Applicability: Emissions Reduction

- Ozone \((O_3)\), CO, PM\(_{10}\) and PM\(_{2.5}\) nonattainment and maintenance areas
- Applicability Determination: one year before State DOT Baseline Performance Period Report due to FHWA
- Applicability Re-assessment: one year before State DOT Mid Performance Period Progress Report due to FHWA
§ 490.809 Data Requirements: Emissions Reduction

<table>
<thead>
<tr>
<th>Relevant Data</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Nonattainment or maintenance areas</td>
<td>• Determination based on 40 CFR part 81 or EPA’s Greenbook</td>
</tr>
<tr>
<td>• Applicable States and MPOs</td>
<td>• FHWA will post on website</td>
</tr>
<tr>
<td>• Emissions reduction estimated for each CMAQ funded project by pollutant and precursor</td>
<td>• CMAQ Public Access System*</td>
</tr>
</tbody>
</table>

*Data Submittal: State DOTs shall enter project information into the CMAQ project tracking system for each CMAQ project funded in the previous fiscal year by March 1 of the following fiscal year.*
## § 490.813 Calculating Emissions Measure (Example)

<table>
<thead>
<tr>
<th>Project</th>
<th>Fiscal Year of CMAQ Obligation</th>
<th>NO&lt;sub&gt;x&lt;/sub&gt; Benefit (kg/day)</th>
<th>VOC Benefit (kg/day)</th>
<th>CO Benefit (kg/day)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Ozone area transit</td>
<td>2018</td>
<td>10.500</td>
<td>7.830</td>
<td></td>
</tr>
<tr>
<td>2. Ozone area traffic flow improvement</td>
<td>2019</td>
<td>0.953</td>
<td>0.487</td>
<td></td>
</tr>
<tr>
<td>3. CO area bike/ped</td>
<td>2018</td>
<td></td>
<td></td>
<td>2.127</td>
</tr>
<tr>
<td>4. CO area traffic flow improvement</td>
<td>2019</td>
<td></td>
<td></td>
<td>2.335</td>
</tr>
<tr>
<td>5. CO area transit project</td>
<td>2020</td>
<td></td>
<td></td>
<td>49.900</td>
</tr>
</tbody>
</table>

### Measure Calculation

<table>
<thead>
<tr>
<th></th>
<th>2-Year Total (2018-2019)</th>
<th>4-Year Total (2018-2021)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>NO&lt;sub&gt;x&lt;/sub&gt;</strong></td>
<td>11.453</td>
<td>11.453</td>
</tr>
<tr>
<td><strong>VOC</strong></td>
<td>8.317</td>
<td>8.317</td>
</tr>
<tr>
<td><strong>CO</strong></td>
<td>4.462</td>
<td>54.362</td>
</tr>
</tbody>
</table>
Final Rule: Target Establishment and Reporting
§ 490.105 Establishing Targets – State DOTs

• Establish 2-year and 4-year targets for each performance period
  o First set of targets within 1 year of the effective date of the final rule: May 20, 2018 (23 USC 150(d))
  o Targets must be reported to FHWA by October 1, 2018.
  o For the 1st Performance Period Only - 2-year target is NOT required for non-Interstate NHS Travel Time Reliability measure - phase-in requirements

• Establish a single, unified target (both 2-year and 4-year) for entire urbanized area for PHED and non-SOV Travel measures:
  o For the 1st Performance Period – applicable to State DOTs with NHS in the urbanized area with a population greater than 1 million containing any part of a nonattainment or maintenance area (For the 1st Performance Period Only - 2-year target is NOT required for PHED measure - phase-in requirements)
  o Beginning with the 2nd Performance Period and beyond – applicable to State DOTs with NHS in the urbanized area with a population greater than 200,000 containing any part of a nonattainment or maintenance area

• Adjustment of 4-year target allowed at the mid-point of performance period
§ 490.105 Establishing Targets - MPOs

- Establish 4-year targets by supporting the State DOT target or establishing a quantifiable target for Travel Time Reliability and Freight Reliability measures:
  - Establish targets within 180 days relevant State DOT(s) establish targets
  - A multistate planning area - may choose different target establishment options for the portion of the planning area within each State

- Targets for Emissions Reduction Measure:
  - MPOs serving TMA with a population over 1 million representing a nonattainment or maintenance area – must establish quantifiable 2-year and 4-year targets
  - Other MPOs with a nonattainment or maintenance area within metropolitan planning area – only required to establish 4-year target

- Establish a single, unified target (both 2-year and 4-year) for entire urbanized area for PHED and non-SOV Travel measures:
  - For the 1st Performance Period – applicable to MPOs with NHS in the intersected area of the urbanized area with a population greater than 1 million, metropolitan planning area, and a nonattainment or maintenance area (For the 1st Performance Period Only - 2-year target is NOT required for PHED measure - phase-in requirements)
  - Beginning with the 2nd Performance Period and beyond – applicable to MPOs with NHS in the intersected area of the urbanized area with a population greater than 200,000, metropolitan planning area, and a nonattainment or maintenance area
§ 490.107 Reporting on Performance Targets
– State DOTs

• Baseline Performance Period Report:
  o Baseline condition/performance;
  o 2- and 4-year targets;
  o Congestion at truck freight bottlenecks
  o Data collection method for the Non-SOV Travel measure; etc.

• Mid Performance Period Progress Report:
  o 2-year condition/performance;
  o 2-year progress in achieving performance targets;
  o Adjusted 4-year targets (optional);
  o Congestion at truck freight bottlenecks; etc.

• Full Performance Period Progress Report:
  o 4-year condition/performance;
  o 4-year progress in achieving performance targets;
  o Congestion at truck freight bottlenecks; etc.
§ 490.107 Reporting on Performance Targets - MPOs

Reporting includes:

- Targets to respective State DOT(s) in a manner that is documented and mutually agreed upon by both parties

- Baseline level and progress toward targets in Metropolitan Transportation Plan

- CMAQ Performance Report in State Biennial Performance Reports (for applicable MPOs only)
§ 490.105 & 490.107 Timeline for Performance Periods and State DOT Biennial Reporting

1st Performance Period for Emissions Reduction Measure

Baseline Performance Period Report (due Oct 1, 2018)

Mid Performance Period Progress Report (due Oct 1, 2020)

2nd Performance Period for Emissions Reduction Measure

Full Performance Period Progress Report (due Oct 1, 2022)

1st Performance Period for All Other Measures

Baseline Performance Period Report (due Oct 1, 2018)

Mid Performance Period Progress Report (due Oct 1, 2020)

2nd Performance Period for All Other Measures

Full Performance Period Progress Report (due Oct 1, 2022)

Full Performance Period Progress Report (due Oct 1, 2024)

Full Performance Period Progress Report (due Oct 1, 2026)
§ 490.109 Significant Progress Determination

- Applies to statewide NHPP and NHFP targets only
  - Interstate and non-Interstate NHS Travel Time Reliability measures, and Freight Reliability measure
- FHWA assessment of State DOT target achievement (every 2 years)
  - The actual condition/performance level is better than the baseline, or
  - The actual condition/performance level is equal to or better than the established target
- Consequences of not making significant progress
  - NHPP – State DOT documents the actions it will take to achieve target
  - Freight Reliability measure – additional documentation requirement
- Extenuating circumstances may be considered
§ 490.105, 490.107 & 490.109 First Performance Period: Phase-In Requirements

Applies to first performance period and 2 measures only
• Non-Interstate NHS Travel Time Reliability Measure
• PHED measure

Reporting
• **First Baseline Performance Period Report (due October 1, 2018)**
  o State DOTs establish and report their 4-year targets
  o State DOTs are not required to report baseline condition/performance nor 2-year targets
• **First Mid Performance Period Progress Report (due October 1, 2020)**
  o State DOTs report the 2-year condition/performance as the baseline condition/performance
  o State DOTs may adjust their 4-year targets

Significant Progress Determination
• In 2020, at the midpoint of the first performance period, FHWA will not make a determination of significant progress toward the achievement of 2-year targets for the non-Interstate NHS Travel Time Reliability measure
What’s Next
Roles of State DOTs and MPOs in Implementing Final Rule

- Read the final rule
- Contact your FHWA Division office with questions
- Coordinate with other agencies
- Establish coordinated targets
- Collect and submit data
- Report progress
FHWA’s TPM Website

• Visit [http://www.fhwa.dot.gov/tpm/](http://www.fhwa.dot.gov/tpm/) to find the latest resources:
  o Guidance
  o Training
  o TPM Toolbox
  o TPM Workshop request form
  o Webinar recordings, presentations, fact sheets, noteworthy practices, and more…
**TPM Implementation Workshops**

- AM Plan Implementation
- PM2 and PM3 Rule Implementation
- 4 Regional Workshops based on DFS area
  - Mid-America: Kansas City, MO, June 20-23
  - Southern: Raleigh, NC, July (tentative)
  - TBD: August
  - TBD: September
TPM Guidance

• Technical Advisories
  o Asset Management, Target Establishment for the Long Term, How the TIP helps to achieve the targets in the LRP and How the System Performance Report describes progress toward achieving targets

• Guidebooks
  o TPM Investment Strategy Analysis  ▪ (summer 2017)
  o TPM Target Setting Coordination  ▪ (summer 2017)
  o Analyzing Freight Bottlenecks for TPM  ▪ (Winter 2017)
TPM Toolbox

• Visit http://www.tpmtools.org
  o Assess your agency’s level of TPM maturity
  o Use the practical tools to move your agency to the next level in a range of performance areas
TPM Training through NHI

Available Now:

- Overview of MAP-21 TPM (w/ FAST Act updates)
- TPM for Safety
- Performance-based Planning and Programming
- Steps to Effective Target Setting
- The Role of Data in TPM
Final Rule in the Federal Register & Docket

• Federal Register

• Docket
Questions?
Contacts

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