Assessing Condition for and Bridge Condition for the Performance Management System

Subpart A—General Information

Subpart D—National Performance Management Measures to Assess Bridge Condition

Regulation Section

Regulation Text

1.106 Data requirements.

(a) General. Unless otherwise noted below, the data requirements in this section apply to the measures identified in paragraphs (c) and (d) of this part. Additional data requirements for specific performance measures are established in 23 CFR sections—

(1) 490.106 for the condition of bridges on the NHS.

(b) Applicable measures. State DOTs and MPOs that include, within their respective geographic boundaries, any portion of the applicable transportation network shall establish performance measures identified in 23 CFR sections—

(1) 490.105(a), (b)(2), and (b)(3) for the condition of bridges on the NHS.

2. Target scope. Targets established by the State DOT and MPO shall, regardless of ownership, represent the transportation network, including bridges that cross State boundaries, that are applicable to the measures specified in paragraphs (a) and (b) of this section.

(a) State DOTs and MPOs shall establish Statewide and metropolitan planning area-wide targets, respectively, that represent the condition/performances of the transportation network that is applicable to the measures specified in 23 CFR sections—

(1) 490.105 for the determination of the Interstate System measures specified in §490.107(x) and (y).

(b) 490.105 for the determination of the National Highway System (NHS) including the Interstate measures specified in §490.107(x), and (y), and (z).

(2) 490.106 for the condition of bridges on the NHS measures specified in §490.107(a) and (b).

(c) For the purpose of target establishment in this section, reporting targets and progress evaluation §490.107 and significant progress determination §490.109; State DOT shall declare and describe the applicable boundaries within the State boundaries in the Baseline Performance Progress Report required §490.107(c). Any changes in assigned area boundaries during performance period will not be assumed for until the following performance period.

3. Performance period. Each target established by the State DOT and MPO shall be established for the performance measures identified in paragraph (a) of this section for a performance period that is calendar year.

(a) Schedule—State DOT shall establish targets one year prior to the effective date for each performance period thereafter, in a manner that allows for the time needed to insert the requirements specified in this section and so that the Final targets are submitted to FHWA by the due date provided in §490.107(b).

(b) Coordination. State DOTs shall coordinate with relevant MPOs on the selection of targets in accordance with 23 U.S.C. 155 and (b)(6) to ensure consistency, to the maximum extent practicable.

(c) Time horizon for targets. State DOTs shall establish targets for a performance period.

(d) The performance period will begin on—

(1) January 1st of the year in which the Baseline Performance Progress Report is due to FHWA and will extend for a duration of 4 years for the measures in paragraphs (a)(1) through (a)(3) of this section; and

(2) [Reserved].

(e) The midpoint of the performance period will occur 2 years after the beginning of the performance period described in paragraph (a)(4) of this section.

(f) State DOT shall establish 4-year targets that reflect the anticipated condition/performances level at the end of each performance period for the measures in paragraphs (a)(1) through (a)(3) of this section.

(g) State DOT shall establish 4-year targets that reflect the anticipated condition/performances level at the end of each performance period for the measures in paragraphs (a)(1) through (a)(3) of this section.

(h) Reporting. State DOT shall report 4-year targets, 4-year targets, the basis for final established targets progress made toward the achievement of targets, and other requirements to FHWA in accordance with §490.107, and the State DOT, shall provide relevant MPOs to FHWA, upon request.

(i) Target adjustment. State DOT may adjust an established 4-year target in the Mid Performance Progress Report, as described in §490.107(f). State DOT shall coordinate with relevant MPOs when adjusting their 4-year targets.

(j) The MPOs shall establish targets for each of the performance measures identified in paragraph (a) of this section for the respective target scope identified in paragraph (a) of this section as follows:

(1) The MPOs shall establish targets no later than 180 days after the respective State DOT establishes their targets, described in paragraph (a)(4) of this section.

(2) The MPOs shall coordinate with relevant DOTs on the selection of targets in accordance with 23 U.S.C. 155(b)(6) to ensure consistency, to the maximum extent practicable.

(k) Target establishment options. For each performance measure identified in paragraph (a) of this section, MPOs shall establish a target by either—

(1) Agreeing to plan and program projects so they contribute toward the accomplishment of the relevant State DOT target for that performance measure; or

(2) Committing to a quantifiable target for that performance measure for their metropolitan planning area.

(2) MPOs serving a metropolitan planning area—For each performance measure identified in paragraph (a)(1) through (a)(3) of this section, MPOs, with metropolitan planning areas extending across multiple State boundaries shall follow these requirements.

(i) For each measure, MPOs may choose different target establishment options, described in paragraph (a) of this section, for each portion of the metropolitan area within each State.

(ii) MPOs may choose to agree to plan and program projects to contribute toward State DOT targets in accordance with paragraph (a)(1) of this section, for a measure, then they shall plan and program projects in support of State DOT targets for each portion of the metropolitan areas within each State.

(iii) [Reserved]

(l) MPOs may choose to agree to plan and program projects to contribute toward State DOT targets in accordance with paragraph (a)(1) of this section, for a measure, then they shall plan and program projects in support of State DOT targets for each portion of the metropolitan areas within each State.

(3) Reporting. Upon request, the MPOs shall report the progress made toward the achievement of their targets as specified in §490.107(d). After the MPOs establish or adjust their targets, the relevant State DOT(s) shall be able to provide these targets to FHWA, upon request.

(4) Target adjustment. If the MPO establishes its target by committing to a quantifiable target, described in paragraph (a)(2) of this section, then the MPOs may adjust its target(s) in a manner that is mutually agreed upon by the State DOT and MPO.

(a) The MPO shall report targets and progress toward the achievement of their targets as specified in §490.107(d). After the MPOs establish or adjust their targets, the relevant State DOT(s) shall be able to provide these targets to FHWA, upon request.

(c) MPOs to establish targets within 180 days of relevant State DOT establishing targets.

(d) Performance measures have 4 year duration starting on January 1 and finishing in December 31.

First Performance Period:

Beginning: January 1, 2018

Ends: December 31, 2021

6. Effective date:

This subpart becomes effective on December 21, 2017.
In general, all MPOs shall prepare the information specified in this section for the targets required in §490.105.

(1) All MPOs and FHWA shall report in accordance with the schedule and content requirements under paragraphs (b)(2) and (b)(3) of this section, respectively.

(2) For the measures identified in §490.213(a), all MPOs and FHWA shall report on performance in accordance with §490.213.

(b) Data collection and processing requirements.

(1) Baseline Performance Period. Baseline State DOTs shall report to FHWA baseline condition/performance of the changing in performance period and progress assessment of both the required and end of the performance period. State DOTs shall report at an ongoing 2-year frequency as specified in paragraphs (b)(1), (b)(2), and (b)(3) of this section.

(2) Baseline Performance Period: Snapshots. State DOTs shall submit a Baseline Performance Period Report to FHWA by October 1 of the first year in a performance period. State DOTs shall submit their first Baseline Performance Period Reports on or before October 1, 2018, and subsequent Baseline Performance Period Reports to FHWA by October 1 every 4 years thereafter.

(a) Content. The State DOT shall report the following information in each Baseline Performance Period Report:

(1) Targets. 2-year and 4-year targets for the performance period, as required in §490.105(e), and a discussion, to the maximum extent practicable, of the basis for each established target.

(2) Baseline condition/performance—Baseline condition/performance derived from the latest data collected through the beginning date of the performance period specified in §490.105(e)(3) for each target, required under paragraph (b)(1)(i) of this section.

(b) Relationship with other performance measures. A discussion, in the maximum extent practicable, of how the established targets in paragraph (b)(1)(i) of this section support transportation documentation in larger regions, such as the State asset management plan for the NHS required under 23 U.S.C. 119(e) and the long-range state transportation plan provided in part 415 of this chapter, and (ii)attained area boundaries and population data for targets—For the purpose of determining target scope in §490.105(e) and establishing additional targets for unnormalized and non-unnormalized areas in §490.105(e)(3). State DOTs shall document the boundary extent for urbanized or non-urbanized areas and the latest Demographic Census population data, based on information in FHWA.

(3) Mid-Performance Period Reports.

(b) Content. The State DOT shall report the following information in each Mid-Performance Period Progress Report:

(i) 2-year condition/performance. The actual condition/performance derived from the latest data collected through the midpoint of the performance period, specified in §490.105(e)(3), for each State DOT reported target required in paragraph (b)(1)(i)(A) of this section.

(ii) 2-year progress in achieving performance targets. A discussion of State DOT's progress toward achieving each established 2-year target in paragraph (b)(1)(i)(A) of this section. The State DOT shall compare the actual progress in achieving performance in paragraph (b)(2)(ii)(A) of this section, with the boundaries and limits documented in paragraphs (b)(1)(i)(A) and (b)(1)(i)(D) of this section, with the respective 2-year targets and document in the discussion any reason for the differences in the actual and target values.

(iii) Investment strategy discussion. A discussion in the effect of the investment strategies developed and documented in the State asset management plan for the NHS required under 23 U.S.C. 119(e).

(iv) Significant or extenuating circumstance(s). When applicable, a State DOT may submit an annual 4-year report to establish an 4-year 2-year target in paragraph (b)(1)(i)(D) of this section. If the State DOT adjusts its target, it shall include a discussion of the basis for the adjustment and how the adjusted target supports documentation in larger regions, such as the State asset management plan for the NHS, and the long-range state transportation plan.

(v) 4-year progress in achieving performance targets. The 4-year progress in achieving performance targets, for both the State DOT (ii)year target, and for the National Highway Performance Program (NHPP) targets—State DOTs shall discuss the progress they have toward the achievement of all 4-year 2-year targets established in paragraphs (b)(2)(ii)(A) through (D). This discussion should document a summary of prior accomplishments and planned activities that will be conducted during the remainder of the Performance Period to make significant progress toward achievement of 4-year 2-year targets for NHPP measures.

(vi) Generating and documenting discussion on NHPP 2-year targets. When applicable, a State DOT may include a discussion on the attaining circumstances, described in §490.105(e)(3), beyond the State DOT's control that prevented the State DOT from making 2-year significant progress toward achieving NHPP targets in paragraph (b)(2)(ii)(D) of this section, and

(vii) NHPP target achievement discussion. If a State DOT has not made significant progress toward the achievement of NHPP targets as a result of NHPP circumstances, the State DOT shall include a description of the actions that she will undertake to better achieve NHPP targets as required under §490.105(d). If FHWA determines under §490.105(d) that the State DOT has made significant progress, then the State DOT does not need to include this description.

(viii) Full Performance Period Progress Report—

(i) Content. The State DOT shall submit a progress report over the full performance period to FHWA by October 1 of the year following the reference performance period. State DOTs shall submit their first full Performance Period Progress Report to FHWA by October 1, 2018, and subsequent Full Performance Period Progress Reports to FHWA by October 1 every 4 years thereafter.

(ii) 4-year condition/performance. The actual condition/performance derived from the latest data collected through the end of the Performance Period, specified in §490.105(e)(3), for each State DOT reported target required in paragraph (b)(1)(i)(D) of this section.

(iii) 4-year progress in achieving performance targets. A discussion of the State DOT's progress toward achieving each 4-year target established in paragraph (b)(1)(i)(D) of this section, with the respective 4-year targets and document in the discussion any reason for the differences in the actual and target values.

(iv) Investment strategy discussion. A discussion in the effect of the investment strategies developed and documented in the State asset management plan for the NHS required under 23 U.S.C. 119(e).

(v) Significant or extenuating circumstance(s). When applicable, a State DOT may submit an annual 4-year report to establish a 4-year target in paragraph (b)(1)(i)(D) of this section. If the State DOT adjusts its target, it shall include a discussion of the basis for the adjustment and how the adjusted target supports documentation in larger regions, such as the State asset management plan for the NHS, and the long-range state transportation plan.

(vi) Performance assessment discussion on NHPP 4-year targets. When applicable, a State DOT may include a discussion on the attaining circumstances, described in §490.105(e)(3), beyond the State DOT's control that prevented the State DOT from making 4-year significant progress toward achieving NHPP targets in paragraph (b)(2)(ii)(D) of this section, and

(vii) NHPP target achievement discussion. If a State DOT has not made significant progress toward the achievement of NHPP targets as a result of NHPP circumstances, the State DOT shall include a description of the actions that she will undertake to better achieve NHPP targets as required under §490.105(d). If FHWA determines under §490.105(d) that the State DOT has made significant progress, then the State DOT does not need to include this description.

(2) Additional reporting.

(i) ProgressReports. The State DOTs shall establish targets in accordance with §490.105 and report targets and progress toward the achievement of targets in a manner that is consistent with the following:

(A) The MPOs shall report their established targets to their respective State DOT in a manner that is documented and mutually agreed upon by both parties.

(B) The MPOs shall report baseline condition/performance and progress toward the achievement of their targets in the system performance report in the metropolitan transportation plan in accordance with Part 415 of this chapter.

(ii) Status Reports. The FHWA will assess states at each of the State DOTs targets separately for the NHPP measures specified in §490.105(e)(3) through (D) to determine the significant progress made toward the achievement of those targets.

(a) Frequency. The FHWA will determine whether a State DOT has or has not made significant progress toward the achievement of NHPP targets as described in paragraph (b)(2)(ii) of this section at the midpoint and the end of each performance period.

(b) Due dates: For Baseline Report—October 1, 2018; Mid Performance Period Report—October 1, 2022; Full Performance Period Report—October 1, 2022.
the information NHPP data in which the significant performance measures identified for targets established for bridge condition measures, as specified in § 490.105(e)(1).

(b) Significant performance measures for individual NHPP targets—

(1) In general: The FHWA will annually assess whether the State DOT has achieved or made significant progress toward each target established by the State DOT for the NHPP measures described in § 490.105(e)(1) through (5). The FHWA will assess the significant performance of each State target separately using the condition performance data/information sources described in paragraph (c) of this section. The FHWA will assess the progress achieved for any additional targets a State DOT may establish under § 490.105(e)(6).

(2) Significant progress toward individual NHPP targets—The FHWA will determine if a State DOT has made significant progress toward the achievement of each 3-year or 4-year NHPP target if:

(i) The actual condition/performance level is better than the baseline condition/performance level; or

(ii) The actual condition/performance level is equal to or better than the established target.

(c) Estimating circumstances—The FHWA will consider estimating circumstances documented by the State DOT in the assessment of progress toward the achievement of the individual 3-year and 4-year NHPP targets specified in the relevant State Bridge Performance Report, provided in § 490.105(c).

(d) The FHWA will consider the assessment of progress toward the achievement of an individual 3-year or 4-year target as "progress not determined" if the State DOT has provided an explanation of the estimating circumstances beyond the control of the State DOT that prevented it from making significant progress toward the achievement of a 3-year or 4-year target and the State DOT has quantified the impacts on the condition/performance that resulted from the circumstances, which are:

(1) Natural or man-made disasters that caused delay in NHPP project delivery, estimating delay in data collection, and/or data anomalies of data systems.

(2) Sudden discontinuation of Federal Government furnished data due to natural and man-made disasters or sudden discontinuation of Federal Government furnished data due to lack of funding, and/or

(3) New law and/or regulations affecting State DOTs to change metric and/or measure calculation.

(3) If the State DOT exploration, described in paragraph (d)(2)(ii) of this section, is accepted by FHWA, FHWA will classify the progress toward achieving the relevant NHPP targets as progress not determined and those targets will be excluded from the requirement in paragraph (g)(2)(ii) of this section.

(4) Performance achievement—If performance achievement in § 490.105(b) is not achieved, the State DOT shall establish a performance target report under sec. 101(b) of the Biennial Performance Report a description of the actions the State DOT will undertake to achieve the targets related to the measure in which significant progress was not achieved.

(5) Significant progress is not made for either target established for the NHPP bridge condition measures; § 490.413(i)(1)(i)(ii), then the State DOT shall document the actions they will take to achieve the bridge condition measures.

(e) The State DOT should, within 4 months of the significant progress determination, amend its biennial Performance Report to document the information specified in this paragraph to ensure actions are being taken to achieve targets.

See full rule.

Certain materials in this section are incorporated by reference into this part with the approval of the Director of the Federal Register under 5 U.S.C. 552(a) and 1 CFR part 5. To obtain any edition other than that incorporated in this section, FHWA will publish a notice of the inclusion in the Federal Register and the material is available to the public.

National Performance Management Measures for Assessing Bridge Condition

§ 490.422 Purpose. The requirement to establish and report on national performance management measures on a regular basis is directed to the improvement of § 490.407(c)(3), which requires the Secretary of Transportation to establish performance measures for the purpose of carrying out the NHPP for State DOTs and MPOs in using to assess the condition of bridges carrying the NHS which includes on and off ramps connected to the NHS.

§ 490.423 Applicability. The conditions only applicable to bridges carrying the NHS, which includes on and off ramps connected to the NHS.

§ 490.424 Definitions. (a) Definitions and excludes as used in § 490.407(c)(3), (c)(4), and (d), and in § 490.501(b) to (d) is a classification given to a bridge which has any component in Poor or worse condition or the substructure of the roadway opening provided by the bridge is determined to be insufficient to the point of carrying traffic with tolerable traffic interruptions. Beginning with calendar year 2018 and thereafter, structurally deficient as used in §§ 490.611 and 490.612 is a classification given to a bridge which has a component in Poor or worse condition.


§ 490.426 Classification of national performance management measures for assessing bridge condition.

(1) In the bridge measures specified in § 490.421, shall be calculated in accordance with the version listed above the State DOT.

(2) The condition of bridges carrying the NHS, which includes on and off ramps connected to the NHS, shall be classified as Good, Fair, or Poor following the criteria specified in this paragraph. The assignment of a classification of Good, Fair, or Poor shall be based on the bridge's condition ratings for NHS traffic, 32-10, 32-12, 34-10, 34-12, 36-10, 36-12, 40-10, and 40-12. For the purposes of national performance measures under the NHPP, the method of assignment to the condition classification of the bridge will be the minimum of condition rating method, if, the condition rating for lowest rating of a Bridge's NHS traffic, 32-10, 32-12, 34-10, 34-12, 36-10, and 36-12. For the purposes of national performance measures under the NHPP, the method of assignment to the condition classification of the bridge will be the minimum of condition rating method, if, the condition rating for lowest rating of a Bridge's NHS traffic, 32-10, 32-12, 34-10, 34-12, 36-10, and 36-12. For the purposes of national performance measures under the NHPP, the method of assignment to the condition classification of the bridge will be the minimum of condition rating method, if, the condition rating for lowest rating of a Bridge's NHS traffic, 32-10, 32-12, 34-10, 34-12, 36-10, and 36-12. For the purposes of national performance measures under the NHPP, the method of assignment to the condition classification of the bridge will be the minimum of condition rating method, if, the condition rating for lowest rating of a Bridge's NHS traffic, 32-10, 32-12, 34-10, 34-12, 36-10, and 36-12. For the purposes of national performance measures under the NHPP, the method of assignment to the condition classification of the bridge will be the minimum of condition rating method, if, the condition rating for lowest rating of a Bridge's NHS traffic, 32-10, 32-12, 34-10, 34-12, 36-10, and 36-12. For the purposes of national performance measures under the NHPP, the method of assignment to the condition classification of the bridge will be the minimum of condition rating method, if, the condition rating for lowest rating of a Bridge's NHS traffic, 32-10, 32-12, 34-10, 34-12, 36-10, and 36-12. For the purposes of national performance measures under the NHPP, the method of assignment to the condition classification of the bridge will be the minimum of condition rating method, if, the condition rating for lowest rating of a Bridge's NHS traffic, 32-10, 32-12, 34-10, 34-12, 36-10, and 36-12. For the purposes of national performance measures under the NHPP, the method of assignment to the condition classification of the bridge will be the minimum of condition rating method, if, the condition rating for lowest rating of a Bridge's NHS traffic, 32-10, 32-12, 34-10, 34-12, 36-10, and 36-12. For the purposes of national performance measures under the NHPP, the method of assignment to the condition classification of the bridge will be the minimum of condition rating method, if, the condition rating for lowest rating of a Bridge's NHS traffic, 32-10, 32-12, 34-10, 34-12, 36-10, and 36-12. For the purposes of national performance measures under the NHPP, the method of assignment to the condition classification of the bridge will be the minimum of condition rating method, if, the condition rating for lowest rating of a Bridge's NHS traffic, 32-10, 32-12, 34-10, 34-12, 36-10, and 36-12. For the purposes of national performance measures under the NHPP, the method of assignment to the condition classification of the bridge will be the minimum of condition rating method, if, the condition rating for lowest rating of a Bridge's NHS traffic, 32-10, 32-12, 34-10, 34-12, 36-10, and 36-12.

(2) Performance measures are calculated by dividing the number of bridges in each category by the total number of bridges within the State and dividing the result by the total number of bridges where the NHLP is greater than zero (i.e., a state-level calculation).
State DOTs will maintain bridges so that the percentage of the deck area of bridges classified as Structurally Deficient does not exceed 6.0 percent. The 

\[ \text{percentage of deck area classified as SD} = \frac{\text{total deck area of bridges classified as SD}}{\text{total deck area of bridges}} \times 100 \]

where SD is Structures Deficient. This percentage calculation is applicable to bridges carrying the NHS, which includes on- and off-ramps connected to the NHS within a State, and bridges carrying the NHS that cross a State border.

For the purposes of carrying out this section and §490.414, a bridge will be classified as Structurally Deficient when one of its NBI items, 490.411, 50—Deck, 51—Superstructure, 60—Substructure, or 62—Cables, is 4 or less, or when one of its NBI items, 47—Structural Evaluation or 71—Waterway Adequacy, is 2 or less. Beginning with calendar year 2018 and thereafter, a bridge will be classified as Structurally Deficient when one of its NBI items, 48—Deck, 50—Superstructure, 60—Substructure, or 62—Cables, is 4 or less.

For all bridges carrying the NHS, which includes on- and off-ramps connected to the NHS and bridges carrying the NHS that cross a State border, FHWA shall calculate a ratio of the total deck area of all bridges classified as Structurally Deficient to the total deck area of all applicable bridges for each State. The percentage of deck area of bridges classified as Structurally Deficient shall be compared by FHWA to the one-tenth of a percent as required. See full version of the rule - section §490.416 for formula.

FHWA will annually determine the percentage of the deck area of NHS bridges classified as Structurally Deficient for each State DOT and identify State DOTs that do not meet the minimum level of condition for NHS bridges based on data cleared in the NBI as of June 15 of each year. The FHWA will notify State DOTs of their compliance with 23 U.S.C. 138(f)(2) prior to October 1 of the year in which the determination was made.

For the purposes of carrying out this section, State DOTs will annually submit their most current NBI data on highway bridges to FHWA no later than March 15 of each year.

The NBI items included in this section are found in the Recording and Coding Guide for the Structure Inventory and Appraisal of the Nation’s Bridges, which is incorporated by reference.

FHWA will maintain bridges so that the percentage of the deck area of bridges classified as Structurally Deficient does not exceed 6.0 percent. The percentage of deck area of bridges classified as Structurally Deficient shall be compared by FHWA to the one-tenth of a percent. Beginning with calendar year 2018 a bridge will be classified as Structurally Deficient when one of its NBI items 49—Deck, 50—Superstructure, 60—Substructure, or 62—Cables, is 4 or less. Items 67 and 71 will no longer be considered for SD calculation.

The following equation for the calculation of % of deck area classified as SD:

\[ \text{Percentage of deck area classified as SD} = \frac{\text{Total deck area of bridges classified as SD}}{\text{Total deck area of all bridges}} \times 100 \]

is used for the determination of the percentage of deck area classified as SD.

If for 3 consecutive years the minimum condition level (60%) is not met, an amount equal to 5.0 percent of the State’s Highway Bridge Program (HBP) apportionment in 23 U.S.C. 139(b)(2) will be set aside from National Highway Performance Program (NHPP) funds to be used only for eligible projects on NHS bridges.

State DOTs will maintain bridges in the State on the NHS located on bridges that have been classified as Structurally Deficient as determined by FHWA.

FHWA will make the first determination by October 1, 2016, and each fiscal year thereafter.

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