



Illinois Department of Transportation

2300 South Dirksen Parkway / Springfield, Illinois / 62764

July 5, 2012

CIRCULAR LETTER 2012-13

23 NBIS Metrics Update

County Engineers/Superintendent of Highways
Municipal Engineers/Director of Public Works
Consulting Engineers

The purpose of this Circular Letter is to make bridge owners and bridge inspectors aware of recent changes to the Federal Highway Administration's (FHWA) *23 NBIS Metrics*. The FHWA has evaluated the findings from their 2011 baseline review, discussed in Circular Letter 2012-08 "*23 NBIS Metrics*", and revised the *23 NBIS Metrics* for their 2012 review.

The revised metrics may be found at <http://www.dot.il.gov/bridges/20120402-23NBISMetrics.pdf>.

There have been no changes to the requirements of National Bridge Inspection Standards (NBIS). The *23 NBIS Metrics* are only a tool for the FHWA to measure compliance of the departments of transportation across the nation with the NBIS.

The most significant changes in the *23 NBIS Metrics* are associated with the inspection frequency metrics, Metrics 6-11. These metrics were revised to use a more risk-based approach, and the thresholds for determining the level of compliance were modified. Metrics 12, 17 and 22 were also modified to address the quality of NBIS inspections and procedures, as well as the accuracy of the inventory data. Some key aspects of the modifications are outlined below:

1. Previous Metric #6 – Routine Inspection and Metric #7 – Routine Extended are now combined into Metric #6 – Routine Inspection - Lower Risk and Metric #7 – Routine Inspection - Higher Risk. All structures with a 48 month inspection interval are in "lower risk category".
2. The inspection frequency metrics allow an extra one month from the inspection due date for extenuating circumstances, provided there is a "documented reason for the extra month". The documentation is critical to remaining in compliance.

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3. In general, the thresholds to remain in Compliance or Substantial Compliance have been lowered – i.e. metric criteria are not as harsh.
4. Example: for Metric #6 – lower risk bridges; the threshold was previously 98% of inspections completed within the specified inspection interval for Substantial Compliance. The threshold for Substantial Compliance is now 90% of inspections completed within the specified interval plus one month, when documented, and requires 100% inspected at “required interval plus 4 months”.
5. Example: for Metric #7 – higher risk bridges; those that are structurally deficient (SD) or posted, the previous threshold allowed zero tolerance for delinquencies for Substantial Compliance. The threshold for Substantial Compliance is now 95% of inspections completed within the specified interval plus one month, when documented, and requires 100% inspected at “required interval plus 4 months”.
6. Metric #10 – Fracture Critical Member (FCM) Frequency. The threshold for Substantial Compliance was previously 100% of all SD bridges inspected within the established interval, and 99% for other FCM structures. The threshold has been lowered to 95% for all structures for Substantial Compliance, and requires 100% inspected at “required interval plus 4 months”.
7. Metric #11 – was Inspection Frequency – Damage, In-depth, or Special - now changed to Inspection Frequency. This metric no longer checks for delinquent special feature inspections, but now verifies criteria has been established and is followed “to determine level of inspection and frequency” for special feature inspections
8. Metric #12 – Inspection Procedure – Team Leader is now Inspection Procedures – Quality Inspections. This metric has been revised to assess the quality of the inspections. It will assess the accuracy of the condition ratings and the level of documentation provided to justify the condition ratings, not just whether a qualified team leader was in the field during the inspection. For Substantial Compliance, 80% of inspection reports require condition ratings within acceptable tolerances and documentation justifying the rating as applicable. In general, condition ratings of “6” or lower should have documentation supporting the condition rating with the level of documentation increasing as the condition rating lowers.
9. Metric #22 – Inventory – Prepare and Maintain – this metric has been revised to measure the accuracy of the inventory data. Substantial Compliance requires 90% of the assessed inventory data be coded correctly. The inventory data items assessed will vary from year to year.
10. State structures will be reviewed and evaluated by the FHWA separately from the local agency structures. However, the final compliance determination reported at the national level will be based on State and local reviews combined.

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If you have any questions, please contact Mr. Jack Elston at 217/785-8748.

Sincerely,



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