

TALKING POINTS FOR DISCUSSION WITH THE ADMINISTRATOR

January 7, 2008

TOPIC: Bridge Inspection Activities

1. Status of compliance issues:

- In 2006, **Rhode Island** and **Hawaii** Divisions reported NBIS non-compliance due to **inspection frequency** issues.
 - **RI** fell behind on inspection cycles and was taken out of compliance in February 2007. At that time 36% of NBI bridges were beyond the 24 month frequency. As of January 2nd, RIDOT is currently behind by 8 bridges that are past due by two months or less. The Division is continuing to monitor the situation and no funds have been withheld to date.
 - During the spring of 2007, **HI** reported non-compliance for having 22 delinquent routine inspections in Kauai County. The issue was later discovered to be much broader than just one county, amounting to 34 percent of the total inventory. On December 21st, the division accepted a plan of action that should result in all inspections being up-to-date by February 15, 2008.
- In 2007, significant issues were identified and are being addressed in many states including **California, Idaho, Kentucky, Massachusetts, Nebraska, New Hampshire and North Dakota**.
 - **CA**: depth of **fracture critical inspections** being performed on high bridges. The State is addressing (new snoopers, climbing techniques).
 - **ID**: several NHS bridges that need load factor **load ratings** to be performed and some bridges need **posting**. There are **scour evaluations and Plan of Actions** that need to be completed. **Inspection procedures** need to be developed for complex, fracture critical, special, and critical findings.
 - **KY**: multi-year problem with **quality of NBI data**. Action plan developed to correct problems and provide an early 2008 data submittal (January 08). If problems still exist, we will advise the Division to take enforcement action.
 - **MA**: frequency and depth of **fracture critical inspections** on Massport bridges. The Division is addressing this issue as part of their annual review.

- **NE: load rating** review and updating, proper **load posting** (285 bridges needing posting in 2006), and **identification of fracture critical bridges**. Action plan calls for resolution by January 2009.
- **NH: NBI data entry** into their database was about 12 months behind. Up to date as of August 2007.
- **ND:** 22 bridges not receiving **fracture critical inspections** every 24 months. NDDOT has inspected the 22 bridges required to bring the program into full compliance. From this point forward, all bridges with fracture critical members will be inspected on a 24 month cycle.

2. Highlights of completed and ongoing activities:

- 2006 annual Division Office **NBIS review reports** submitted and summarized. The summary spreadsheet along with a noteworthy practices report posted on the internal web site at: <http://intra.fhwa.dot.gov/bridge/nbissummary.htm>
- Review of I-35W inspection records and MN Division Office compliance reviews: conducted by Doug Edwards (RC) and Steve Toillion (KS Div); report under development.
- **Underwater Inspections:** Working with NHI to develop a comprehensive manual on underwater bridge inspection and a course on underwater repair of structures.
- **Fracture Critical Inspection intervals:** Project underway with Purdue University (Dr. Robert Connor) to study and develop a rational method, using engineering judgment, to determine the inspection frequency for fracture critical bridges. Currently, a few states are reviewing one method to see what frequencies would result on actual bridges.
- Completing NCHRP **report on bridge inspection practices**. Compare and contrast with international practices.
- New NCHRP project to develop guidelines for bridge inspection **quality control/quality assurance**. This is an implementation item from the 2007 scan on bridge evaluation quality assurance.
- NCHRP project proposal entitled *Developing Reliability-based Bridge Inspection Policies* top research item from AASHTO. The objective of the proposed research is to develop rationale methodologies for determining the appropriate inspection frequency for highway bridges. These methods will consider the reliability of bridge systems, including design, details, materials, age and functionality of bridges in determining the anticipated performance and deterioration of bridges

and bridge elements. This is also an implementation item from the 2007 scan on bridge evaluation quality assurance.

- Evaluating the comprehensive **bridge inspection training** course offered by NHI to see if development of a blended learning option is achievable. The blended option would retain, or perhaps increase, the total hours of training, but decrease the time required to sit in a classroom by utilizing web-based training options. Consultant study was completed in December.
- Evaluation of **handheld computers to facilitate access to NBI data** during field reviews and other. Currently reviewing proposals and dealing with “508” issues. Lack of adequate funds to address “508” issues may be a problem.
- Developing two additional **standard NBI data reports** for use by our field offices in monitoring compliance and data quality. One report will flag bridges that have been structurally deficient for ten years. The other report will be designed to provide a check to verify that as the condition of a bridge changes the load rating reflects the change. Both reports will be ready for acceptance testing in January 2008.
- **Updating the *Recording and Coding Guide for the Structure Inventory and Appraisal of the Nation’s Bridges***. Effort has been put on hold pending recommendations from NTSB investigation and OIG and GAO audits.
- Several **policy memoranda** under development (not in any order):
 - Scour evaluations and Plans of Action - nearly 35,000 evaluations yet to be completed
 - Unknown foundations
 - NBIS Oversight Expectations and Enforcement Actions – (to be signed by Administrator)
 - Load rating and posting oversight information from the Bridge Program Manual (this should satisfy the IG’s interest in releasing our manual)

3. Deck truss re-evaluations – results and status

- Number of main span, deck truss bridges in the August 1, 2007 NBI = 756
- Actual confirmed number of main span, deck truss highway bridges (to date) = 482
 - Of these 482 bridges, 9 are not made of steel
 - Of these 482 bridges, 7 are currently closed
- Confirmed number of re-evaluations of main span, steel deck truss bridges open to the public (to date) = 465
- Confirmed number of main span, steel deck truss bridges where re-evaluations are not complete (to date) = 1
- Percentage of re-evaluations completed on confirmed main span, steel deck truss bridges open to the public = 99.8% (465/466)

- Number of bridges in NBI awaiting confirmation of bridge type and re-evaluation status = 14 (all U.S. Forest Service Bridges)
 - The U.S. Forest Service reports that they have re-evaluated their steel deck truss bridges; however, we are awaiting information on the actual number of deck truss bridges in their inventory.

4. Responding to State requests

- NBIS program review in Tennessee – Resource Center is coordinating based on request from TDOT.
- Bridge Inspection program exchange –held in Omaha December 12-14, 2007. Resource Center coordinated based on request from MNDOT. IA, NE, MN, SD, KS, and FHWA participated.
- Bridge Inspection program exchange planned for the southeast (NC, TN, FL, GA, SC, AL, PR, KY, MS, AR) in February. \$11,000 needed to support travel by states

5. OIG and GAO audits

- OIG
 - Several meetings held with bridge and finance folks
 - FMIS report on Federal funds used on structurally deficient bridges close to completion.
 - Still focused on response to previous audit on load rating and posting
 - 3 State and Division office reviews completed (Oregon, California, Texas)
 - 7 Divisions identified for telephone interviews (Alabama, Pennsylvania, Iowa, New York, Washington, West Virginia, and Kansas)
- GAO
 - Held 2-day intensive meeting to provide overview of bridge programs
 - Telephone interview with Washington Division Office
 - Expressed interest in visiting the Pennsylvania Division
 - Analyzing the NBI data

6. **NBIS regulation revision** to clarify the definition of “critical findings” and to increase FHWA’s engagement in the process of monitoring such findings.