

event plan of action would be acceptable. The Advocates commented that the FHWA should affirmatively review the need for separate inspections specifically to determine if scour has occurred following floods, storms, earthquakes, etc. and whether scour inspections on certain bridges should be automatically required within a specified period of time.

Frequency of Inspection

Most commenters were not in favor of increasing the maximum inspection interval beyond the current four-year interval. New Jersey, North Carolina, Oregon, Florida and New Hampshire DOT's indicated that they do not use an extended inspection cycle and see no benefit in extending the inspection interval. Florida and New Hampshire DOT's indicated that State statute required a two-year inspection frequency. The Advocates commented that short inspection intervals should be maintained at two years, and that longer inspection intervals (not (to) exceed four years) are permissible as long as decisions for longer inspections are supported by engineering data.

Qualifications of Personnel

Most commenters indicated that the individual in charge of inspection and reporting, who is a Professional Engineer (PE), should be required to have the same training as a bridge inspector and have additional experience in bridge inspection. Three private citizens, Craig Fink, Mathew Farrar, and Gary Doerr along with the Wyoming, Iowa, Tennessee, Illinois, Minnesota, Maine, California and Utah DOT's indicated that having the same training as bridge inspectors was not necessary. Two private citizens, Craig Fink and Gary Doerr, and the Minnesota, Maine, and California DOT's mentioned that the rules and regulations governing professional registration would ensure that the professional engineer be competent in the area of practice. The Michigan DOT indicated that in addition to initial training the individual in charge should have refresher training. The Advocates commented that those overseeing and conducting bridge inspections have adequate experience and appropriate and relevant education.

Commenters were evenly divided as to the need for certification training in proportion to the complexity of the bridge being inspected. The Wyoming and Wisconsin DOT's and 3 private citizens felt that adequate training is fine; however, it should be combined with relevant and verifiable experience. The New Jersey, California and Florida

DOT's were strongly opposed to the idea of multi-level certifications and the New Jersey DOT thought that it would be difficult to administer. The Washington, Iowa and New York DOTs thought certification should be established by each agency or State. The Advocates commented that the NBIS should require levels of training appropriate for the complexity of the bridge structure to be inspected.

In the current regulation, the discipline of a professional engineer who is in charge of inspection and reporting is not specified. The majority of commenters thought the professional engineering discipline (*i.e.*, civil, structural, etc) should be specified within the regulation. A private citizen, Gary Doerr, along with the Minnesota, Florida and Illinois DOT's thought this unnecessary since it is adequately addressed within each State's rules and regulations governing professional registration. The Advocates commented that the NBIS should require that the person performing inspections and reporting be either a civil or structural professional engineer, with a minimum of five years experience in bridge inspection, and have periodic refresher training in latest inspection techniques and technologies.

Inspection Report

Most commenters believed that oversight of inspection efforts and quality control/quality assurance procedures, necessitated that inspection reports be changed by management when errors were encountered. Most commenters agreed that changes should be allowed, as long as the field inspector has been notified and concurs with the change. The Wisconsin, Delaware and Massachusetts DOTs indicated that only the inspection team leader should be authorized to make changes to an inspection report.

Inventory

Most commenters felt that the NBIS reporting requirements were reasonable and need not be changed. The Florida DOT indicated that the States should be relieved of the requirement to maintain data on Federal agency bridges since that information is supplied directly to the FHWA.

Reorganization of the Regulation

The Delaware DOT thought the regulations ambiguous and should be refined. The Oregon DOT felt that much upgrading and reorganization is needed. One of the questions posed in the ANPRM was whether the current NBIS correctly addresses the requirements of

23 U.S.C. 151 and the comments indicate that it does.

Recommended Improvements

Eleven State transportation departments recommended improvements to bridge inspection procedures. The Virginia DOT wanted to expand the NBIS to promote both safety inspections and maintenance evaluations. The Minnesota DOT wanted the NBIS to address private bridge ownership compliance with NBIS requirements. National certification standards, was mentioned by the Delaware DOT. The Massachusetts DOT wanted clarification of the term "unique or special feature." The South Dakota DOT suggested "less stringent inspector qualifications for more simple type of structures." The Oregon DOT proposed the incorporation of "element level bridge inspection" data. The Washington DOT suggested that the NBIS include any "structural element that can impact safety," *e.g.*, sign structures, mechanical and electrical components on movable structures, tunnels and retaining walls.

Lastly, nine State transportation departments and a private citizen recommended specific procedures to enhance the NBIS which include the following: Handheld computer data entry in the field; flexibility in minimum inspection intervals for newer or historically stable bridges; flexibility for the States to set qualification standards and certify their inspectors; enhance technology and attract engineers to the bridge inspection field; provide a communication element among the States; establish unambiguous definitions; review the NBIS regulations on a more regular basis; establish a quality control/quality assurance program; use element level inspection data; define arms length inspections; and clarify inspector qualifications.

Summary of the Proposed Revisions to the NBIS

The proposed revisions to the NBIS are based in part on comments received to an advance notice of proposed rulemaking (ANPRM) published on September 26, 2001, at 66 FR 49154. The proposed changes address ambiguous language and clarify the following areas: Purpose; applicability; terminology; bridge inspection organization; qualifications; inspection frequency; inspection procedures; and inventory. The FHWA proposes to reformat the NBIS to place referenced definitions in one section instead of being buried throughout the regulation's narrative. The FHWA proposes to