

of 1978 (STAA) (sec. 124, Public Law 95-599, 92 Stat. 2689, at 2702) was passed, NBIS requirements were extended to bridges greater than 20 feet on all public roads. The Surface Transportation and Uniform Relocation Assistance Act of 1987 (STURRA) (sec. 125, Public Law 100-17, 101 Stat. 132, at 166) expanded bridge inspection programs to include special inspection procedures for fracture critical members and underwater inspection.

The condition of our nation's bridges is of paramount importance to the FHWA. In proposing revisions to the NBIS regulations, the FHWA will continue to ensure the "proper safety inspection and evaluation of all highway bridges" for the safety of the traveling public.

Accordingly, a seven-member FHWA team was formed to examine and analyze comments to the ANPRM and write the proposed rule. This team has over 92 years of combined experience working with the NBIS regulations and over 140 years of combined experience working with bridges and structures. Six of the team members are licensed professional engineers (PE).

Discussion of Comments Received to the Advance Notice of Proposed Rulemaking (ANPRM)

The FHWA issued an ANPRM on September 26, 2001, at 66 FR 49154, to solicit comments on whether to revise the NBIS to incorporate current, state-of-the-art bridge inspection practices. The FHWA received 51 sets of comments to the docket. Comments to the ANPRM were submitted by representatives from 30 States, 3 Federal agencies, 2 counties, 5 consulting firms, 7 private citizens, 3 trade associations and 1 public interest group. In summary, the majority of the commenters believed the NBIS should be revised.

Application of Standards

Most commenters believed the present definition of bridge should not be modified and has generally been accepted by most public authorities. In general, commenters felt that the existing bridge definition is well understood and recognized within the bridge community. The New York DOT indicated that its State law defines a bridge the same way and therefore, the current definition should not be changed.

The Advocates for Highway and Auto Safety commented that it would be appropriate for the FHWA to revisit the definition and consider expanding the national bridge inventory (NBI) to include all structures that can

reasonably be said to perform bridge functions.

The New Jersey, Delaware, New Hampshire, Florida, and Connecticut DOT's and the American Road and Transportation Builders Association (ARTBA) indicated a preference to maintain the current method of determining bridge length and what minimum length should be used for reporting purposes. The South Dakota DOT and five private citizens indicated that they have concern regarding the definition as it applies to highly skewed, short-span reinforced concrete box culverts. The Minnesota DOT indicated that the State has changed their bridge length definition from 20 to 10 feet. The Maryland DOT recommended an alternative way to measure bridge length from "back of back wall" to "back of back wall" for beam type structures. The Advocates for Highway and Auto Safety (Advocates) commented that there are many bridges that are in all respects similar to bridges that are included in the NBI but are not counted since they are less than 20 feet. Also, the Advocates commented that the FHWA adopted the American Association of State Highway Transportation Officials (AASHTO) bridge definition without serious discussion or debate and without the agency compiling an independent record to support the AASHTO bridge definition.

On the question we posed in the ANPRM regarding the "impact of the possible inclusion of more bridges on public authorities, or on the FHWA that maintains the inventory, or on the highway bridge replacement and rehabilitation program (HBRRP) funds," many commenters felt that doing this would add additional bridges to the inventory, require additional resources to inspect those bridges and place a burden on existing HBRRP funds. The Florida DOT thought the increase in bridges to be inspected would be minimal. The Iowa DOT felt public authorities should use their own expertise and experience in deciding how and when to inspect structures that do not meet the NBIS bridge definition. The Wyoming DOT felt public authorities can elect to inspect structures 20 feet or less in length if they feel it is warranted. The Advocates commented that under an expanded definition there would be improved public safety, the NBI would be an even more comprehensive bridge inventory and it would focus more attention and Federal resources, (*i.e.*, HBRRP funds) on deficient structures.

Inspection Procedures

Most commenters did not want to see the current five-year underwater inspection interval changed. Three private citizens, David Stevens, Mark Bostick and William Hovell commented that they wanted to see the interval reduced to coincide with the two-year biennial above water inspections. The Advocates commented that it felt that the FHWA considers the bridge support above water as separate and distinct from portions of the bridge support below the waterline; it asked the FHWA to include underwater elements of bridge supports in the definition "bridges." The Advocates also commented that until there is a valid basis (*i.e.*, collected information, studies, scientific data) for evaluation of the 5-year cycle, the FHWA should not entertain extending that interval beyond 5 years. The Connecticut DOT indicated that it inspects at a two-year interval. Collins Engineers, Inc. indicated that many agencies schedule underwater inspections to coincide with biennial inspections. The New Jersey DOT and Department of the U.S. Navy recommended a four-year interval to correlate with the regular NBIS inspection. A number of State transportation departments, consulting firms and private citizens wanted the inspection interval tied to materials of the bridge and its environment.

A majority of commenters did not feel that those performing underwater inspections must be qualified licensed professional engineers. Four State transportation departments and the American Road and Transportation Builders Association felt that qualifications should be the same as those performing above water inspections. The California DOT felt that the team leader must be a licensed professional engineer and a qualified diver. The South Dakota DOT, Department of the U.S. Navy, and Collins Engineers, Inc. supported the concept of professional engineer-diver.

Most commenters felt that incorporating the evaluation of scour at bridges criteria within the NBIS regulation would have little impact since most States have scour programs. Regarding incorporation of the scour technical advisory within the NBIS some State transportation departments were in favor and some were not. The North Dakota DOT indicated that local authorities should be performing post storm event inspections and therefore post storm event inspections did not need to be addressed in the regulations. The North Carolina DOT felt that requiring States to have a major storm