

**FOR FURTHER INFORMATION CONTACT:**

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**SUPPLEMENTARY INFORMATION:** Phoenix Scientific, Inc., 3915 South 48th St. Ter., St. Joseph, MO 64503, filed ANADA 200-382 for veterinary prescription use of Furosemide Syrup 1% in dogs by oral administration for treatment of edema associated with cardiac insufficiency and acute noninflammatory tissue edema. Phoenix Scientific's Furosemide Syrup 1% is approved as a generic copy of Intervet, Inc.'s LASIX (furosemide) Syrup 1%, approved under NADA 102-380. The ANADA is approved as of November 18, 2004, and the regulations are amended in 21 CFR 520.1010 to reflect the approval. The basis of approval is discussed in the freedom of information summary.

In accordance with the freedom of information provisions of 21 CFR part 20 and 21 CFR 514.11(e)(2)(ii), a summary of safety and effectiveness data and information submitted to support approval of this application may be seen in the Division of Dockets Management (HFA-305), Food and Drug Administration, 5630 Fishers Lane, rm. 1061, Rockville, MD 20852, between 9 a.m. and 4 p.m., Monday through Friday.

FDA has determined under 21 CFR 25.33(a)(1) that this action is of a type that does not individually or cumulatively have a significant effect on the human environment. Therefore, neither an environmental assessment nor an environmental impact statement is required.

This rule does not meet the definition of "rule" in 5 U.S.C. 804(3)(A) because it is a rule of "particular applicability." Therefore, it is not subject to the congressional review requirements in 5 U.S.C. 801-808.

**List of Subjects in 21 CFR Part 520**

Animal drugs.

■ Therefore, under the Federal Food, Drug, and Cosmetic Act and under authority delegated to the Commissioner of Food and Drugs and redelegated to the Center for Veterinary Medicine, 21 CFR part 520 is amended as follows:

**PART 520—ORAL DOSAGE FORM NEW ANIMAL DRUGS**

■ 1. The authority citation for 21 CFR part 520 continues to read as follows:

**Authority:** 21 U.S.C. 360b.

■ 2. Section 520.1010 is amended by adding paragraph (b)(4) to read as follows:

**§ 520.1010 Furosemide.**

\* \* \* \* \*

(b) \* \* \*

(4) No. 059130 for use of syrup in paragraph (a)(4) of this section for conditions of use in paragraph (d)(2)(i) and (d)(2)(ii)(A) of this section.

\* \* \* \* \*

Dated: December 6, 2004.

**Stephen F. Sundlof,**

*Director, Center for Veterinary Medicine.*

[FR Doc. 04-27291 Filed 12-13-04; 8:45 am]

**BILLING CODE 4160-01-S**

**DEPARTMENT OF TRANSPORTATION****Federal Highway Administration****23 CFR Part 650**

[FHWA Docket No. FHWA-2001-8954]

RIN 2125-AE86

**National Bridge Inspection Standards**

**AGENCY:** Federal Highway Administration (FHWA), DOT.

**ACTION:** Final rule.

**SUMMARY:** The FHWA is revising its regulation on the National Bridge Inspection Standards (NBIS). This action is necessary to address perceived ambiguities in the NBIS that have been identified since the last update to the regulation in 1988. The changes clarify the NBIS language that is vague or ambiguous; reorganizes the NBIS into a more logical sequence; and makes the regulation easier to read and understand, not only by the inspector in the field, but also by those administering the highway bridge inspection programs at the State or Federal agency level.

**DATES:** This rule is effective January 13, 2005. The incorporation by reference of the publications listed in this rule is approved by the Director of the Federal Register as of January 13, 2005.

**FOR FURTHER INFORMATION CONTACT:** Mr. Wade F. Casey, P.E., Federal Lands Highway, HFPD-9, (202) 366-9486, or Mr. Robert Black, Office of the Chief Counsel, HCC-30, (202) 366-1359, Federal Highway Administration, 400 Seventh Street, SW., Washington, DC 20590-0001. Office hours are from 7:45 a.m. to 4:15 p.m. e.t., Monday through Friday, except Federal holidays.

**SUPPLEMENTARY INFORMATION:****Electronic Access**

An electronic copy of this document may also be downloaded by using a computer, modem and suitable communications software from the

Government Printing Office's Electronic Bulletin Board Service at (202) 512-1661. Internet users may also reach the Office of the Federal Register's home page at: <http://www.archives.gov> and the Government Printing Office's Web page at: <http://www.access.gpo.gov/nara>.

**Background**

The FHWA bridge inspection program regulations were developed as a result of the Federal-Aid Highway Act of 1968 (Pub. L. 90-495, 82 Stat. 815) that required the Secretary of Transportation to establish NBIS to ensure the safety of the traveling public.

The 1968 Federal-Aid Highway Act directed the States to maintain an inventory of Federal-aid highway system bridges. The Federal-Aid Highway Act of 1970 (Pub. L. 91-605, 84 Stat. 1713) limited the NBIS to bridges on the Federal-aid highway system. The Surface Transportation Assistance Act of 1978 (Pub. L. 95-599, 92 Stat. 2689) extended NBIS requirements to bridges greater than 20 feet on all public roads. The Surface Transportation and Uniform Relocation Assistance Act of 1987 (Pub. L. 100-17, 101 Stat. 132) expanded the scope of bridge inspection programs to include special inspection procedures for fracture critical members and underwater inspection.

The FHWA published an advance notice of proposed rulemaking (ANPRM) on September 26, 2001, (66 FR 49154) to solicit comments on whether to revise its regulation on the NBIS. The majority of commenters to the ANPRM recommended that the FHWA revise the NBIS regulation.

**Discussion of Comments Received to the Notice of Proposed Rulemaking (NPRM)**

The FHWA published an NPRM on September 9, 2003, at 68 FR 53063, to solicit public comments on proposed changes to the NBIS. All comments received to the NPRM were carefully considered in the decision to publish a final rule. Commenters included: representatives from 1 Federal agency, 25 States, 44 counties, 9 cities, 1 Indian tribal government, 4 consulting firms, the American Association of State Highway and Transportation Officials (AASHTO), the Association of Diving Contractors International (ADCI), the Illinois Association of County Engineers (IACE), the National Association of County Engineers (NACE) and 3 private citizens.

**Discussion of Rulemaking Text**

The following summarizes the comments submitted to the docket by

the commenters on the NPRM, notes where and why changes have been made to the rule, and why particular recommendations or suggestions have not been incorporated into the following regulations. Paragraph references are as designated in the NPRM, unless otherwise stated.

### Summary of Comments

In general, comments received to the NPRM provided both support for and opposition to the proposed changes. A number of commenters were concerned about the cost of the proposed changes versus the benefit and impact on bridge safety. Other commenters believed that the proposed regulation would help strengthen and improve the nation's bridge inspection program. Some commenters argued that there were still areas of ambiguity. Other commenters noted we had achieved our objective of addressing ambiguities in the current NBIS regulation. Commenters provided a lot of very good suggestions that have been considered in the final rule.

### Section-by-Section Analysis

#### Section 650.301 Purpose

The FHWA did not receive any comments that specifically addressed this section.

#### Section 650.303 Applicability

The Missouri and Massachusetts DOTs agreed that the NBIS apply only to highway bridges.

The Illinois and Oklahoma DOTs as well as the AASHTO asked that definitions of "public road" and "highway bridge" be included to further clarify applicability. The Oregon DOT and the U.S. Navy also wanted to include a definition for "highway bridge."

*FHWA response:* The terms "public road" and "highway" are already defined in 23 U.S.C. 101. We added to the list of definitions in § 650.305 a reference to the existing definitions for "public road" and "highway."

The Iowa DOT pointed out that the AASHTO Manual for Condition Evaluation of Bridges<sup>1</sup> (hereinafter referred to as the AASHTO Manual) includes bridges that carry pedestrians and other non-highway passageways and that the NBIS needs to be very clear

that it does not apply to these structures.

*FHWA response:* As clearly stated in § 650.303, the NBIS apply only to "highway bridges" located on "public roads." The AASHTO Manual may discuss other non-highway passageways; however, these bridges are not covered under the NBIS.

Collins Engineers and the U.S. Navy were concerned regarding the inspection of pedestrian and railroad bridges and potential threat to travelers on public highways. Likewise, Collins Engineers was concerned about privately owned bridges used by the motoring public.

*FHWA response:* Some confusion has existed about the applicability of the NBIS to privately owned highway bridges. While 23 U.S.C. 151 states that the NBIS are for all highway bridges, the FHWA has no legal authority to require private bridge owners to inspect and maintain their bridges. While the FHWA does not have the authority to compel the States to inspect privately owned highway bridges, the FHWA strongly encourages that private bridge owners follow the NBIS as the standard for inspecting privately owned highway bridges. Because of the seamless nature of the transportation infrastructure within many States, the motoring public does not know the difference between a privately owned and publicly owned highway bridge. Therefore, States should encourage private bridge owners to inspect their highway bridges in accordance with the NBIS or reroute any public highways away from such bridges if NBIS inspections are not conducted.

The National Bridge Inventory (NBI) lists roughly 2,200 privately owned highway bridges in some 41 States and Puerto Rico. However, the total number of privately owned highway bridges is unknown because the States are not required to report them to the FHWA. Many privately owned highway bridges can be assumed to carry public roads, some of which could be significant highways. The FHWA does not know if privately owned highway bridges are inspected using the NBIS or other standard and the FHWA does not know the level to which privately owned highway bridges are maintained.

Public authorities must follow the NBIS for all highway bridges located on all public roads. The term "public road" is defined in 23 U.S.C. 101(a)(27) as "any road or street under the jurisdiction of and maintained by a public authority and open to public travel." The NBIS applies to seasonally or periodically opened public roads and to limited access public access roads.

Highway bridges owned by Indian tribes are in a separate category. Indian tribes, as sovereign nations, have a unique government-to-government relationship with the Federal government. There is no explicit requirement in 23 U.S.C. 144 that requires inventory of tribally owned bridges. Likewise, there is no explicit requirement in 23 U.S.C. 151 that requires inspection of tribally owned bridges. Absent such clear language, the FHWA has no legal authority to require federally recognized Indian tribes to inventory tribally owned bridges or to comply with the NBIS. On the other hand, in order for tribally owned bridges to participate in the Indian Reservation Road Bridge Program (IRRBP)<sup>2</sup> and be eligible for Federal funding, a tribally owned bridge has to be inspected and placed in the NBI. Hence, for purposes of this rule, tribally owned bridges mean those bridges designed and constructed to FHWA standards, meeting the NBIS definition of a bridge, and open to the public. Finally, the FHWA strongly encourages that Indian tribes follow the NBIS, as the standard for inspecting tribally owned bridges, particularly those open to public travel (see 23 U.S.C. 151 for the statutory requirement for the National bridge inspection program).

The FHWA recognizes that the NBIS does not apply to federally owned bridges on roads that are used only by employees and not open to the general public. These bridges and administratively used roads support behind-the-scenes operations and are intended for use by employees engaged in official business.

The NBIS does not apply to tunnels, bridges that carry only pedestrians, railroad tracks, pipelines, or other types of non-highway passageways. Public authorities or bridge owners are strongly encouraged to inspect these non-highway carrying bridges and other significant structures. Similarly, the NBIS does not apply to the inspection of sign support structures, high mast lighting, retaining walls, noise barriers structures, and overhead traffic signs. Public authorities have an obligation to the motoring public to periodically inspect and maintain these facilities. Non-public authorities including utility companies, railroads, and private owners who may own these facilities, are strongly encouraged to periodically inspect and maintain their structures for the safety of the motoring public.

<sup>1</sup> The American Association of State Highway and Transportation Officials (AASHTO) Manual for Condition Evaluation of Bridges, 2000, Second Edition may be obtained upon payment in advance by writing to AASHTO, 444 N. Capitol Street, NW., Suite 249, Washington, DC 20001; or it may be ordered on line at the following URL: <http://www.aashto.org/aashto/home.nsf/frontpage>.

<sup>2</sup> The IRRBP was established under the Transportation Equity Act for the 21st Century (see 23 U.S.C. 202(d)(4)(A) and the regulation can be found at 23 CFR 661) for improving deficient Indian reservation road highway bridges.

There are some minimal NBI data items that are collected for highway tunnels and non-highway bridges over certain highways that can be collected without trespassing on private property. These items are described in the "Recording and Coding Guide for the Structure Inventory and Appraisal of the Nation's Bridges."<sup>3</sup>

The Chickasaw Nation commented that it agreed that tribally owned bridges are not subject to 23 U.S.C. 144 explicitly, however; if a tribally owned bridge is planned for replacement with Federal funds such as IRRBP funds,<sup>4</sup> then an inspection must be conducted. It also cautioned against considering tribally owned bridges not subject to the NBIS when many tribes consider all Indian Reservation Road (IRR) routes and bridges that fall within Indian lands to be tribally owned with right of way granted to the Bureau of Indian Affairs. It indicated that all bridges that fall on an IRR to be public regardless of ownership.

*FHWA response:* As stated previously, one of the requirements for participation in the IRRBP and eligibility for Federal funding is for the bridge to be recorded in the NBI maintained by the FHWA (see 23 CFR 661.25). In order for this to occur the bridge has to be inspected regardless of ownership. Therefore we agree that a tribally owned bridge needs to be inspected and placed in the NBI in order to obtain Federal funding via the IRRBP. For purposes of this rule, tribally owned bridges mean those bridges designed and constructed to FHWA standards, meeting the NBIS definition of a bridge, and open to the public. This rule addresses the responsibility for bridge safety inspections. It does not provide or intend to address ownership or jurisdictional issues of bridges on Indian reservations.

#### Section 650.305 Definitions

The Massachusetts, South Dakota and Tennessee DOTs were in favor of including a definition section.

The South Dakota DOT wanted clarification of what is meant by "major flood event," "critical finding," and "predominant bridge inspection experience." The Tennessee DOT wanted to know what "critical finding"

means as used in the proposed § 650.313(l).

*FHWA response:* We added a definition for "critical finding." A definition for "major flood event" is not required since the term has been removed from the regulation. We believe that the definition for "bridge inspection experience," which includes the statement that "the predominate amount" of experience be "bridge inspection," adequately addresses the intent that a preponderance of the experience for qualification should come from other than bridge design, bridge maintenance or bridge construction experience.

The Kansas DOT wanted the NBIS to either define, replace or eliminate the following terms: "public road," "highway bridge," "professional engineer," "predominant and substantial," "80 hours," "damage inspection," and "routine permit inspection."

The Iowa and Kansas DOTs as well as the AASHTO each recommended that the definition for "damage inspection" be changed. The Illinois DOT proposed a definition for "damage inspection."

The Missouri DOT indicated a preference for retaining the current definition for a "bridge." The Iowa DOT recommended a change in the first sentence of the "bridge" definition deleting reference to "other moving loads."

The Kansas DOT and the AASHTO did not like the 80-hour requirement used in the definition for "comprehensive bridge inspection training." The Kansas DOT was also concerned about its impact on local agencies being able to find qualified consultants with this level of training.

The Iowa DOT as well as the AASHTO recommended inclusion of the term "professional engineer" within the NBIS.

The New Jersey DOT wanted to include a definition for "public road."

The Washington DOT wanted the term "public authority" defined in the NBIS.

The Wyoming DOT commented that the NBIS should clearly identify whether it applies to "privately owned bridges," those located on seasonally opened roads, and those with limited access.

*FHWA response:* Definitions have been added for "professional engineer" and "damage inspection." The definition from the AASHTO manual for "damage inspection" that was proposed by the Illinois DOT has been adopted. The terms "80 hours," "substantial," "routine permit inspection," and "public authority" will not be used in

the regulation. The term "predominate" will continue to be used in the definition of bridge inspection experience as explained above. The terms "highway" and "public road" are already defined in 23 U.S.C. 101 (a) (11) and (27), respectively. Since the U. S. Code takes precedence over regulations, we reference 23 U.S.C. for the definitions for highway and public road. These definitions will be cited in § 650.305.

We will continue to use the AASHTO definition for "bridge," an action supported by the majority of commenters. The FHWA adopted the AASHTO definition for "bridge" early in the National Bridge Inspection Program. Title 23, U.S.C., section 151 directed the Secretary to establish national bridge inspection standards in consultation with the State transportation departments and interested and knowledgeable private organizations and individuals.

Consultation with the State transportation departments through the AASHTO Highway Subcommittee on Bridges and Structures, convinced the FHWA to adopt the AASHTO definition of bridge that has been used since the NBIS was first drafted.

The ADCI wanted the NBIS to include Occupational Safety and Health Administration (OSHA) regulation requirements when diving operations are conducted. The ADCI also commented that a definition for OSHA Safety Standards for Commercial Diving Operations be included in the NBIS. The ADCI also recommended that the term "designated diving supervisor" be included with the definitions along with a revised definition for underwater inspection to indicate diving operations shall be completed in accordance with OSHA regulations.

*FHWA response:* The FHWA believes that safe diving practices as prescribed by OSHA regulations should be employed during all bridge inspection diving, but we do not reference them. OSHA regulations pertain to both underwater and above-water inspections, so any omission in this standard does not relieve diving inspectors of the requirement to follow OSHA regulations.

The term "designated diving supervisor" is not used in the regulation and will not be included in the definition section.

The Tennessee DOT provided commentary and questions regarding the use of the terms "action plan" and "inspection plan."

*FHWA response:* The Tennessee DOT points out that these terms are used throughout the regulation and that their

<sup>3</sup> The "Recording and Coding Guide for Structure Inventory and Appraisal of the Nation's Bridges," December 1995, Report No. FHWA-PD-96-001, is available electronically at the following URL: <http://www.fhwa.dot.gov/bridge/mtguide.doc> and may be inspected and copied as prescribed in 49 CFR part 7.

<sup>4</sup> IRRBP funds are provided under the Federal Lands Highway Program see 23 U.S.C. 202(d)(4)(A) and the regulation can be found at 23 CFR 661.

intent should be clear and consistent. Where these terms are used, we have made changes to clarify their meaning, or we have removed them. Refer to the preamble discussion of § 650.313.

The AASHTO and Kansas DOT indicated that the word “and” was missing in the AASHTO title.

*FHWA response:* We agree and have made this change.

The Massachusetts, Minnesota, Kansas, Michigan, Iowa, and Arkansas DOTs along with the AASHTO asked for a more precise definition of the terms used in the definition for “bridge inspection experience.” The IACE discussed the impact of this definition on inspections performed by local agencies.

*FHWA response:* We have reviewed the definition of “bridge inspection experience” and made minor changes to address these comments. We noted that this definition is adequate to convey the minimum requirements for experience to assure that inspectors are qualified.

The New Jersey, Minnesota and Tennessee DOTs wanted clarification of the term “complex bridge.”

*FHWA response:* The definition gives the States latitude to determine which bridges should be placed in this category and receive special attention. Including complex bridges in § 650.313 captures the intent in the AASHTO Manual that some structures deserve special attention. Cable stayed bridges, suspension bridges, and movable bridges require specialized procedures. The bridge inspection program manager, as defined in § 650.305, may determine that other bridge types require special attention.

The Michigan DOT recommended defining the term “fatigue sensitive” to distinguish from the term “fracture critical.”

*FHWA response:* Since the term “fatigue sensitive” refers to steel members or details that may or may not be part of a load-path redundant system, and since this term is not used in the regulation, we have not added a definition to § 650.305.

The Iowa DOT recommended that “fracture critical inspection” be changed to “fracture critical member inspection.” It also provided some commentary on the use of the term “hands on” in this definition and made some suggestions to modify the definition. The Minnesota and Oregon DOT were concerned about the definition for “fracture critical member” and recommended that it be rewritten.

*FHWA response:* The term “fracture critical” is consistent with the AASHTO Manual. The term “fracture critical member inspection” will be used in the

regulation. The intent is to give special attention to member or member components in spans that do not have load path redundancy.

The IACE, Michigan and Iowa DOTs commented that the definition for “hands-on” inspection should be modified using “may be supplemented by nondestructive testing” instead of “are supplemented by nondestructive testing.”

The Iowa DOT recommended that the definition for “in-depth inspection” be modified to note that “hands on inspection may be necessary” but not mandatory.

*FHWA response:* The second sentence of the definition for “hands-on” has been modified by changing “are” to “may be” so that nondestructive testing is not a requirement of hands-on inspection. The definition for “in-depth inspection” has been modified to note that hands-on inspection may be necessary at some locations.

The Michigan DOT provided a discussion and questions regarding initial inspection. Their discussion states that the definition should include the term “routine inspection procedures” and require timelines for ratings. Collins Engineers commenting on § 650.311(a)(1) pointed out that the depth of routine, biennial inspections varies greatly and recommended a change reflecting that routine inspections be performed hands-on.

*FHWA response:* We have adopted the definitions for inspection types including “initial” and “routine” that are consistent with the AASHTO Manual.

The Indiana and Maryland DOTs provided commentary and suggested that the definition and role of the “program manager” needs clarification.

*FHWA response:* The Indiana DOT’s concern is that the definition allows more than one program manager. That is a correct assessment of our intent. We do not want to restrict those States that want to have more than one program manager. However, the FHWA desires one individual with overall responsibility for § 650.307(c)(1) and (2). The Maryland DOT wants the definition changed to “eliminate the need for any small local jurisdiction to require fully trained individuals.” A qualified team leader must be present for each initial, routine, in-depth, fracture critical member and underwater inspection, regardless of the jurisdiction, and a program manager must be available to provide overall direction to team leaders. The program manager definition in § 650.305 has been revised and the role clarified in § 650.307.

The Arkansas DOT wanted the term “responsible capacity” defined in the NBIS.

*FHWA response:* We have removed this term from the regulation.

The Iowa, Kansas and Washington DOTs as well as the AASHTO recommended that the definition for “legal load” be modified.

*FHWA response:* This definition allows the States the flexibility to use their own legal loads, established in State law.

The Illinois, Kansas, and Wisconsin DOTs and the AASHTO recommended changes for the definition “routine permit load.”

*FHWA response:* We have amended the definition in § 650.305 to reflect these recommendations.

The Texas and Oklahoma DOTs recommended that the definition for “scour critical” be modified.

*FHWA response:* We have considered the comments on this topic and have provided a definition for “scour critical bridge.” The NBI item number 113, scour critical bridge, is used to identify the current status of a bridge regarding its vulnerability to scour.

The observed scour condition is one determined during a bridge inspection, or during/after a flood event. A conclusion of instability would typically be attained by comparing the observed scour condition with: (a) The known foundation type and tip elevation, and (b) computed scour critical elevation as determined by an interdisciplinary team.

The evaluated scour condition is one determined by: (1) An assessment of the bridge information available such as foundation type and tip elevation; location of the bridge; review of bridge inspection files; comparison of channel profiles upstream of the bridge, within the bridge opening and downstream of the bridge; soil type; historical data from other bridges on an adjacent stream, and/or (2) a calculation to determine potential scour around the bridge foundation and/or stream instability in the vicinity of the bridge.

The Washington DOT recommended that the NBIS include a definition for “State transportation department.”

*FHWA response:* The term “State transportation department” is already defined in 23 U.S.C. 101(a)(11).

#### *Section 650.307 Bridge Inspection Organization*

##### *Federally Owned Bridges*

The Missouri DOT wanted clarification that in § 650.307(a) States are relieved of responsibility for federally owned bridges. The Kansas

DOT indicated it is having problems obtaining data on federally owned bridges. The AASHTO suggested that supplying Federal bridge data is waived for Federal agencies.

*FHWA response:* States are no longer responsible for reporting inspection data on Federal bridges to the FHWA. Federal bridge owners report inspection data directly to the FHWA. The FHWA supplies Federal bridge inspection data to the States. For security and other purposes, the States should have an up-to-date inventory of Federal bridges located within each State.

#### Bridge Inspection Program Responsibility

The Michigan and Iowa DOTs in response to § 650.307(a) argued that public authorities and/or bridge owners should be responsible for bridge inspections and not the State. The Washington DOT noted that the majority of county and city bridges are inspected by their owners.

*FHWA response:* The present bridge inspection standards regulation requires the States to have a bridge inspection organization capable of performing the bridge inspections (23 CFR 650.303(a)). The part of the regulation that requires the actual inspection of all bridges on public roads (§ 650.305(a)) is written in the passive voice. Consequently, there might be some confusion as to who is responsible for inspecting each highway bridge in a State.

The FHWA believes, however, that the language of 23 U.S.C. 151 is clear that a State is ultimately responsible for the inspection of public highway bridges within the State, except for those that are federally owned or tribally owned. Subsection (a) of section 151 directs the Secretary, "in consultation with the State transportation departments and interested and knowledgeable private organizations," to establish the bridge inspection standards for "all highway bridges." In subsection (b) the Congress mandates that the standards shall, at a minimum, "specify, in detail, the method by which such inspections shall be carried out by the States." The final rule clears up any ambiguity caused by the existing regulation.

The State DOT can delegate to a smaller unit of the State, for example, a city or county, the inspection of bridges owned or controlled by that unit. A State can direct smaller State units to conduct the NBIS inspections on bridges under its control and that would satisfy § 650.307. However, because of the fundamental relationship established in title 23 of the U.S. Code between the FHWA and a State DOT, if

the inspections by a city or county were not done, the FHWA could withhold Federal-aid highway funds from the State.

#### Bridge Inspection Funding

The NACE commented on § 650.307(a) and asked why counties have to complete inspections using their own funds.

*FHWA response:* Federal Bridge Funds (*i.e.*, Highway Bridge Replacement and Rehabilitation Program (HBRRP) funds) can be spent on bridge inspection activities, regardless of the agency performing the inspections. The use and distribution of HBRRP funds within the State is within the State's discretion.

#### Quality Assurance and Quality Control

The Wyoming DOT commented on § 650.307(c)(1) that all references to "quality assurance (QA)" be removed.

*FHWA response:* In the past, the FHWA addressed QA as part of a nonregulatory supplement to the Federal-aid program guide. QA is also addressed in the AASHTO Manual. Many States currently have active QA programs; some do not. The FHWA believes that it is imperative that a statewide or Federal agency wide QA program be in place to assure that bridge inspections are being conducted in accordance with these standards and to assure the quality of inspection data. We have included a definition of quality control (QC) and QA to reflect this in § 650.305.

#### Role of Consultants

The Washington DOT had a question regarding § 650.307(c) for acceptable roles of consultants based on the discussion in the preamble to the NPRM.

*FHWA response:* Consultants may perform § 650.307(c)(1) and/or (2) activities and functions. To ensure that all NBIS requirements are met, the State still needs a program manager, even when paragraph (c)(1) activities are performed by consultants.

The California DOT supports the changes contained in § 650.307(c).

#### OSHA Standards

The ADCI wanted to amend § 650.307(c) to add requirements for bridge inspection organizations to conduct dive operations in a safe manner by establishing dive team member qualifications and training for the conduct of safe diving operations that meet or exceed OSHA standards.

*FHWA response:* This comment was previously addressed in the discussion

of § 650.305 regarding diving operations meeting or exceeding OSHA standards.

#### Delegation of NBIS Functions

The Hillsdale County Road Commission (HCRC) in Michigan, commented that § 650.307(d) may enable the State to perform inspections of county bridges and was concerned about what will be charged and whether control will be lost regarding bridge postings.

*FHWA response:* States have always had the responsibility for inspections under the NBIS. Delegation of the NBIS functions to counties and other local agencies is a State issue.

#### Written Agreements

The Missouri, Illinois, Kansas, and Michigan DOTs as well as the AASHTO commented on § 650.307(d) and the ramifications of entering in agreements with local agencies, stating such agreements should not be part of the NBIS. The Indiana DOT indicated that it would need additional resources (*i.e.*, funding) in order to comply with this section and stated that the intent of clearly defining responsibilities was good, but did not require a regulatory change. The Illinois DOT and the IACE maintain that local agencies and the State have excellent working relationships and need no agreements or State statutes. The New Jersey DOT expressed concern that this section might be interpreted to mean that bridge inspections are discretionary and may limit delegation to public authorities. The Minnesota DOT suggested a rewrite to this section to indicate that delegation does not relieve the State of program oversight or quality assurance. The Alabama DOT commented that the FHWA should "acknowledge that States may delegate NBIS requirements (not responsibilities) in accordance with any laws, regulations or policies that the States may have in effect." The California DOT supported the proposed change. The Marshal and Miami Counties in Kansas indicated that the States should be responsible to assure compliance and delegation should be by written agreement. The Miami County in Kansas further commented that the consequences of not following the NBIS should be strongly stated. Thirty-seven Kansas counties, seven Kansas cities, and one Kansas consultant commented that they did not want written agreements that were proposed in § 650.307(d) and that local agencies currently have a good working relationship with the State.

*FHWA response:* The FHWA has reconsidered its position on written agreements after reviewing the many

comments provided. The proposed requirement that delegation must be according to State law or fully executed written agreements has been removed. However, State transportation departments are encouraged to use formal means in delegating these activities and it is essential that all parties involved have a clear understanding as to what requirements are and are not being delegated. The State is still ultimately responsible for the inspection of public highway bridges within the State, except for those that are federally owned or tribally owned.

#### Program Manager Leadership

The Indiana DOT, in response to § 650.307(e), stated it would need additional resources (*i.e.*, funding) in order to comply with this section and argued that it did not require a regulatory change. The Illinois, Alabama, Kansas, Michigan and Oregon DOTs as well as the AASHTO were concerned regarding proposed language related to the requirement for "program manager."

The Illinois DOT noted that many local agencies use consulting engineers and that the rule change prohibits "program managers" from being consultants. The NACE stated that program manager guidelines are sufficient; however, the expectation that the same experience be required of a town with one bridge is not practical. The Marshal County in Kansas commented that delegated authorities be allowed to hire consultants to act as "project" managers. The Iowa DOT commented that § 650.307(e) qualification standard would place more education, training and experience requirements onto the counties and cities. Thirty-seven Kansas counties, seven Kansas cities, and one Kansas consultant commented that local agencies should continue to have the option to hire a consultant to handle inspections. The Alcona County Road Commission (ACRC) in Michigan commented that program manager requirements applying to towns with only one bridge is cause for serious local agency concern and requires further discussion.

*FHWA response:* The FHWA has reconsidered its position regarding each organizational unit being led by a program manager. The program manager qualification requirement applies to the overall State or Federal agency program level. Each State transportation department or Federal agency is only required to have one statewide or Federal agency wide program manager. Applying the program manager

requirement to organizational sub-units or delegated agencies is at the discretion of the State or Federal agency. However, State transportation departments remain responsible for the application of these standards to all highway bridges, even when inspections or other requirements are delegated. For this reason, State transportation departments should be cautious when delegating inspections or other requirements to local agencies that do not have a qualified bridge inspection program manager. In such cases, as in the example of the small town with one bridge and no qualified program manager, the State will assume a direct program manager role in the delegated inspection program.

Qualified consultants may be hired or contracted by State transportation departments, their delegated agencies, and Federal agencies to perform the activities and functions of these standards. However, to ensure that all of the requirements of these standards are met, the States or Federal agencies still need a program manager, even when consultants perform § 650.307(c)(1) activities and functions.

#### Section 650.309 Qualifications of Personnel

##### Professional Engineer Discipline; Comprehensive and Refresher Training

The Missouri DOT commented relative to § 650.309 (a)(1), that the NBIS should not specify the discipline of the professional engineer and that the States or Federal agencies can elect to adopt even more specific requirements. A private citizen noted that the professional engineer discipline should be specified as structural, and, that too much emphasis was placed on the professional engineer title rather than the amount and extent of experience and training. The New Jersey DOT stated that the program manager should be required to have field experience.

*FHWA response:* Our position remains as stated in the preamble to the NPRM that the laws governing licensure within each State or Federal agency ensure that professional engineers only practice engineering in the fields in which they are qualified and experienced. Furthermore, the State or Federal agency is responsible for ensuring that those individuals involved in the bridge inspection program meet the minimum qualifications defined in the NBIS. Although the regulations do not specify the engineering discipline of the professional engineer, individual States or Federal agencies can adopt requirements that are more stringent than the minimum requirements established by the NBIS.

The FHWA agrees that additional emphasis on training is needed. Recommendations from the June 2001 FHWA study of the "Reliability of Visual Inspection for Highway Bridges"<sup>5</sup> also support the need for further emphasis on training. Accordingly, the regulation includes comprehensive training and refresher training requirements for program managers and team leaders.

#### Program Manager Qualifications

The South Dakota DOT indicated that they have a professional engineer exemption within their State and asked how the FHWA would address this issue.

*FHWA response:* Section 650.309 (a)(1) allows two ways of qualifying as a program manager, one of which is being a professional engineer. In those instances where the State exempts its staff from registration requirements, a program manager would have to either be a professional engineer, despite the exemption for State government employees, or have 10 years of bridge inspection experience.

#### Completion of Comprehensive Bridge Inspection Training

Mr. Todd Hertel commented on § 650.309(a)(2), asking why the program manager is given 12 months to complete training and not the team leader.

*FHWA response:* Ideally, an individual will have completed the comprehensive bridge inspection training prior to becoming a team leader or program manager. Exceptions to this should be rare. In recognition of the fact that some flexibility is needed to accommodate employee turnover and scheduling of the training, we have removed the 12-month time frame from § 650.309(a)(2). As stated above, the expectation is that individuals will complete the comprehensive training prior to becoming program managers or team leaders. When this is not possible, those individuals will aggressively seek to obtain the training as soon as possible, preferably within 12 months of becoming a program manager or team leader. Prior successful completion of the FHWA approved comprehensive bridge inspection training is acceptable for individuals serving as program managers and team leaders at the time this regulation becomes effective.

<sup>5</sup> Reliability of Visual Inspection for Highway Bridges Vols I and II [FHWA-RD-01-020 ; FHWA-RD-01-021] is a publication which documents research done on the accuracy and reliability of the highway bridge inspection process. This report is available through the National Technical Information Service, Springfield, Virginia 22161 or it may be ordered online at the following URL: <http://www.ntis.gov>.

### County Engineer Qualifications

The HCRC in Michigan asked if a county engineer would still be qualified to administer the county program that is performed by a consulting firm and if small consulting firms would be able to adhere to these personnel requirements.

*FHWA response:* The roles and responsibilities of a program manager have been clarified in § 650.307. The qualifications for a program manager or team leader apply regardless of the individual's employer, *i.e.*, State, county, city, consulting firm, etc.

### Comprehensive Bridge Inspection Training Requirement

The Missouri, Illinois, Maryland, Minnesota, Kansas, and Virginia DOTs as well as the AASHTO and the IACE in commenting on § 650.309(a)(2) do not agree with the requirement for "comprehensive bridge inspection training" for program managers particularly those who are professional engineers. The Massachusetts, South Dakota and California DOTs support the requirement for "comprehensive bridge inspection training" for program managers. The Pennsylvania DOT recommended that those currently serving as program managers be exempted from the comprehensive training requirement and that nonprofessional engineers should not be program managers. The IACE and the NACE stated that the "comprehensive bridge inspection training" would be burdensome on local agency resources. Thirty-six Kansas counties, six Kansas cities, and two Kansas consultants commented on the proposed § 650.309(a) that local agencies should continue to have the option to hire consultants to handle inspections, with the professional requirement for the program manager, but not the comprehensive training requirement.

*FHWA response:* The FHWA's position on comprehensive bridge inspection training for program managers has not changed from the previously proposed § 650.309(a)(2). We agree with the majority of commenters to the ANPRM, who were in favor of establishing training and experience requirements for the individual in charge of the bridge inspection program. A program manager needs to be thoroughly familiar with bridge inspection terminology and techniques along with data collection practices and procedures in order to ensure the consistency and reliability of the bridge inspection program. Completion of the same comprehensive training as required for team leaders is one method of addressing the consistency and

reliability issues. These issues apply regardless of the program manager's experience level or professional engineer status.

We have clarified the roles and responsibilities of the program manager in part to address the concerns expressed by several localities regarding the burden imposed by the training requirement.

The current comprehensive training course offered by the National Highway Institute (NHI) is not the only option available. A few States have developed their own comprehensive training and certification programs. In recognition of the need to retain this flexibility, States or Federal agencies are permitted to develop their own "comprehensive inspection training" programs subject to approval by the FHWA. The FHWA will use the "comprehensive bridge inspection training" definition and the "Bridge Inspector's Reference Manual (BIRM)"<sup>6</sup> as criteria to apply when reviewing these programs. In addition, the NHI course material<sup>7</sup> is available for those who wish to deliver the training using their own resources.

Regarding the FHWA approval of comprehensive training proposals, it is anticipated that the local FHWA Division office, in consultation with the FHWA Headquarters Office of Bridge Technology, will review and approve proposals from the States. The FHWA Headquarters Office of Bridge Technology will review and approve submittals from Federal agencies.

### Professional Engineering, Specialty

The South Dakota and Virginia DOTs and Mr. Todd Hertel commented on § 650.309(b)(2)(i) asking what is meant by a bachelor's degree in "professional engineering" and recommended that it should say bachelor's degree in engineering.

*FHWA response:* The FHWA has reconsidered its position and has deleted the word "professional."

The New Jersey and Massachusetts DOTs commented on § 650.309(b)(2)(i) and noted that the engineering specialty is too vague and needs to be specified. The Massachusetts DOT stated that a bachelor's degree in civil, structural or related engineering discipline that

provides a background in structural analysis should be included.

*FHWA response:* The FHWA's position is that at a minimum, an individual with a bachelor's degree in engineering who has successfully completed the National Council of Examiners for Engineering and Surveying Fundamentals of Engineering examination and obtained two years of bridge inspection experience, would qualify as a team leader regardless of the specific discipline of the bachelor's degree. Although the phrase "bachelor's degree in engineering" is not specific to the discipline of engineering, individual States or Federal agencies can adopt requirements that are more stringent than the minimum established by the NBIS.

### Engineers Educated at Foreign Universities

The New Jersey DOT commented on § 650.309(b)(2)(i) and indicated that engineers educated at foreign universities would not comply with the accreditation board requirement.

*FHWA response:* The Accreditation Board for Engineering and Technology (ABET) evaluates institutions outside of the United States. The evaluation is not the same as accreditation; however, an ABET evaluation can result in an assessment of "substantial equivalency." The "substantial equivalency" determination implies reasonable confidence that the foreign institution's program has prepared its graduates to begin professional practice at the entry level. Information on the substantial equivalent programs, including a list of programs that have been assessed by ABET, is available at [http://www.abet.org/international/sub\\_equ\\_prg1.html](http://www.abet.org/international/sub_equ_prg1.html).

Additionally, in 1989, several countries including the United States entered an international agreement known as the "Washington Accord" which recognizes the substantial equivalency of engineering programs accredited by these countries. The accord further recommends that graduates of accredited undergraduate programs in any of the signatory countries be recognized by the other countries as having met the requirements for entry into the practice of engineering. Additional information, including a list of signatory countries, may be obtained at <http://www.washingtonaccord.org>.

In consideration of international engineering education programs, the regulation has been revised to reference the substantial equivalency options available through the ABET.

<sup>6</sup> The Bridge Inspector's Reference Manual (BIRM), 2003, FHWA-NHI-03-001, may be purchased from the U.S. Government Printing Office, Washington, DC and from National Technical Information Service, Springfield, Virginia 22161, and may be viewed online at the following URL: <http://www.fhwa.dot.gov/bridge/bripub.htm>.

<sup>7</sup> Information regarding NHI training course material can be obtained by contacting the FHWA Report Center at the following electronic mail address: [report.center@fhwa.dot.gov](mailto:report.center@fhwa.dot.gov).

### Engineer-in-Training

Mr. Todd Hertel commented on § 650.309(b)(2)(ii) and wanted to know why the engineer-in-training (EIT) is a requirement. The Miami County in Kansas commenter agreed with all provisions of § 650.309 especially the addition of an EIT as a team leader with two years experience. The Wyoming DOT and Mr. Jerry Fowler, private citizen, stated that the proposed qualifications for "team leader" were too stringent. The Illinois and Kansas DOTs, the IACE, and the AASHTO noted that §§ 650.309(b)(1) through 650.309(b)(4) were required for "team leaders"; however a team leader only needs to meet one of the qualifications, not all. The Maryland DOT stated that professional engineer team leaders with five years experience could be "grandfathered" with respect to the comprehensive training requirement. The Iowa DOT commented that the requirements of § 650.309(b) would place more education, training and inspection experience requirements onto counties and cities. The Pennsylvania DOT agreed with the proposed § 650.309(b); however, it argued that States with a rigorous training and certification program for inspectors should be allowed to substitute an acceptable combination of education, experience and training for the requirements in this section.

*FHWA response:* The EIT is not a requirement. It is a component of one of the options available for qualification as a team leader under § 650.309(b). The team leader requirements resulted in confusion among several commenters. Accordingly, the FHWA clarified the wording under § 650.309(b) and re-ordered the subparagraphs.

The FHWA's position on comprehensive bridge inspection training for team leaders has not changed from the previously proposed § 650.309(a)(2). We believe that an individual in a team leader position needs to be thoroughly familiar with bridge inspection terminology and techniques along with data collection practices and procedures regardless of the team leader's experience level or professional engineer status. With respect to "grandfathering" current team leaders who are professional engineers but have never completed comprehensive bridge inspection training, the expectation is that those individuals will aggressively seek to obtain the required training as soon as possible, preferably within 12 months of the effective date of this regulation. Prior successful completion of the FHWA approved comprehensive bridge

inspection training is acceptable for individuals serving as team leaders at the time this regulation becomes effective.

As indicated in a previous response, the current comprehensive training course offered by the National Highway Institute is not the only option available. A few States have developed their own comprehensive training and certification programs. In recognition of the need to retain this flexibility, States and Federal organizations are permitted to develop their own "comprehensive inspection training" programs subject to approval by the FHWA. The FHWA will use the comprehensive bridge inspection training definition and the "Bridge Inspector's Reference Manual (BIRM)" as criteria to apply when reviewing these programs. In addition, the National Highway Institute course material is available for those who wish to deliver the training using their own resources.

The FHWA acknowledges the Pennsylvania DOT comment, that there are acceptable alternative combinations of education, experience and training for the requirements of "team leader." Accordingly, we added § 650.309(b)(5) to provide another option to qualify as a team leader.

### Bridge Inspection Experience

The Iowa DOT and the AASHTO commented on § 650.309(b)(3) as it relates to "bridge inspection experience" and noted that the term "predominant" used in the definition for this phrase be replaced with the word "substantial." Mr. Todd Hertel commented that a "year's experience" is not defined.

*FHWA response:* The FHWA recognizes that there are many factors involved in evaluating an individual's bridge inspection experience level. We believe that the definition for "bridge inspection experience," which includes the statement that "the predominate amount" of experience be "bridge inspection," adequately addresses the intent that a preponderance of the experience for qualification should come from other than bridge design, bridge maintenance or bridge construction experience.

### Experience in the Field of Practice

The New Jersey DOT commented on § 650.309(b)(4) indicating that the regulation should mandate that a team leader with a professional engineer license should have experience in the field in which they are practicing.

*FHWA position:* We believe that the laws governing licensure within each State or Federal agency ensure that

professional engineers only practice engineering in the fields in which they are qualified and experienced. The process for obtaining a professional engineer license involves a requirement for a minimum number of years of engineering experience. It is the State or Federal agency's responsibility to ensure that the experience that qualified the individual for professional engineer status is relevant to bridge inspection activities. In addition, although the regulations do not specify a field inspection experience requirement for a team leader who is a professional engineer, individual States or Federal agencies can adopt requirements that are more stringent than the minimums established by the NBIS.

### Load Rater Qualifications

The Missouri, Illinois, South Dakota, Alabama, and Pennsylvania DOTs agreed with the requirement in the proposed § 650.309(c). The Maryland DOT indicated that the term "determining" should be changed to "certifies" or "reviews and approves." The South Dakota DOT is concerned regarding the impact of the South Dakota exemption for State government professional engineers on this section. The Kansas DOT commented that a "structural engineer" might function in some States as the "professional engineer." The Illinois DOT and the AASHTO provided language addressing the State of Illinois use of "structural engineers" as a "professional engineer" specialty used to perform structural evaluations.

The Virginia DOT did not agree with the proposed language and stated that a professional engineer license should not be required to fill out a computer data input form. The Pennsylvania DOT commented that responsibility for this individual should also include load-posting evaluations.

*FHWA response:* Bridge load rating calculations require engineering judgment in determining the safe load-carrying capacity of a bridge and arriving at posting and permitting decisions. Given the importance of these calculations, the person charged with the overall responsibility for load rating bridges should be a professional engineer. The licensing laws require that the professional engineer only practice engineering in areas where he/she is qualified and experienced. Although the discipline of the professional engineer is not specified in the regulation, States or Federal organizations may opt to require a more specific professional engineer discipline, such as structural engineering.



In some organizational structures, the overall responsibility for load ratings may rest with the program manager. In others, there may be several individuals responsible for determining load ratings, in which case each would have to be a professional engineer. The intent is not to require a professional engineer qualification for individuals who simply enter data into load rating computer programs, but rather require that the person(s) who provides the necessary engineering judgment and reviews and approves the actual load rating result be a professional engineer.

The posting of load restrictions on bridges is based in part on the load rating values provided by a professional engineer. As long as a professional engineer has accepted the load rating calculation, the FHWA does not see a need to require a professional engineer to make the posting decision as well. Again, a State or Federal agency may opt to require that the person responsible for load posting be a professional engineer.

#### Bridge Inspection Refresher Training

The Massachusetts DOT and the U.S. Navy commented that they were in favor of bridge inspection refresher training. The Pennsylvania DOT strongly supports refresher training of inspectors and team leaders every two years with exams; however, they recommended that the "refresher course" should be defined in the NBIS. Mr. Michael Magner, private citizen, indicated that in order to keep his National Institute for Certification in Engineering Technologies (NICET) certification he must document continuing education and experience every four years; therefore, he agrees with not only continuing training but also certification. The Wisconsin DOT does not agree with the proposed § 650.309(d), however; it believes in the concept of refresher training and that it should be left up to the State to determine frequency, content, and duration.

The Missouri DOT does not agree with the proposed § 650.309(d) for program managers and opposes the refresher training requirement for team leaders; however, it recognizes some merit to refresher training if there has been a lapse in conduct of inspections of 2 or more years.

The Indiana DOT agrees that the intent of refresher training is good; however, the costs and logistics involved in executing this requirement would place a strain on State resources. The Wyoming DOT commented that this refresher training should not be a requirement for program managers, but

should be required of team leaders as long as the training can be performed in-house. The Illinois DOT commented that because of the costs associated with refresher training they were reluctant to mandate this requirement especially for professional engineers.

The Minnesota DOT noted that the term "refresher training" is undefined, and as such may be overly burdensome and expensive and recommends that it be advisory and not mandatory. The Kansas DOT commented that training costs are significant and that they have no need for refresher training. The Washington DOT noted that the extent of refresher training needs clarification and that those who work full time in the inspection arena under an FHWA approved quality assurance program be exempted from this requirement.

The IACE indicated that the refresher-training requirement would be a burden on the local agency resources. The NACE thought the refresher training provision to be costly for local governments and proposed a tiered approach based on bridge type and complexity. They also recommended that turning the training development and deployment over to the local technical assistance programs (LTAPs) would be a more economical approach.

The Iowa DOT commented that refresher training would place more requirements on the counties and cities. The ACRC in Michigan supported refresher training, but thought that it should be carefully tailored to local needs, and also be relevant, economical and of short duration. The AASHTO recommended that the NBIS not mandate refresher training every five years for all program managers and team leaders. The Virginia DOT asked that the requirement for refresher training for program managers be removed.

*FHWA response:* The FHWA has reevaluated the refresher training requirement. First, we have determined that refresher training would be more appropriately addressed as part of quality control (QC) and quality assurance (QA) procedures. Accordingly, we have deleted the proposed § 650.309(d) and revised § 650.313 to include refresher training as part of QC and QA. For additional details regarding QC and QA procedures see § 650.313 preamble discussion.

Second, we recognize there are some differences in inspection programs across the nation and the need for flexibility in determining the frequency, duration, and to some extent, the content of refresher training. Accordingly, we have added a definition of "bridge inspection

refresher training" under § 650.305 that allows for the necessary flexibility.

While the NHI Bridge Inspection Refresher 130053 training course<sup>8</sup> would be acceptable, it is not the only option. States or Federal agencies are permitted to develop their own refresher training programs. The details of these programs, such as training content, frequency, and method of delivery, would be defined in the QA and QC procedures that are periodically reviewed by the FHWA under § 650.313(g).

#### Underwater Diver Bridge Inspection Training

The Missouri and Massachusetts DOTs agreed with the proposed § 650.309(e) that requires either the comprehensive bridge inspection training or other FHWA approved training for underwater bridge inspection divers.

The Wyoming DOT disagreed with the proposed § 650.309(e) in regards to the option of having FHWA approved underwater bridge inspection training. The Illinois DOT argued that divers did not need this degree of training if a qualified team leader were on site and in communication with the divers during underwater inspection. The Minnesota, Illinois and Kansas DOT stated that the pool of firms meeting this requirement would be reduced. The Maryland DOT suggested that the training requirement should be waived for those divers certified by a national diving authority, divers who are engineers with 5 years of experience, and divers who are non engineers with 10 years experience with a provision for refresher training every 5 years.

Thirty-four Kansas counties, eleven Kansas cities, and two Kansas consultants commented on the proposed § 650.309(e) that as long as team leaders are on site during underwater inspections, the diver does not need this training; however, two Kansas counties agreed that divers should complete the comprehensive training. The Virginia DOT and the AASHTO were not in favor of the proposed § 650.309(e), particularly since a qualified team leader must be present during the inspection.

Collins Engineers noted that the comprehensive course should be preceded by 40 hour engineering concepts for bridge engineers course for those with little or no practical bridge experience or background in bridge technology.

<sup>8</sup>Information regarding this particular course of NHI training in general can be obtained at the following URL: <http://www.nhi.fhwa.dot.gov>.

*FHWA Response:* We have renumbered this section from the proposed § 650.309(e) to the final § 650.309(d). The FHWA does not concur with the commenters who argued that the presence of a team leader during the inspection negates the need for comprehensive training of the divers. During a typical underwater inspection, the divers are not under direct visual observation by the team leader. Divers need to be capable of conducting thorough inspections, recognizing defects and deterioration, and documenting and describing their observations using common terminology and techniques. For this reason, divers must complete the comprehensive training or alternate underwater diver bridge inspection training. States or Federal agencies are allowed to develop their own underwater diver bridge inspection training course. To provide additional clarification, a definition of "underwater diver bridge inspection training" has been added to § 650.305.

In situations where divers possess little or no experience in bridge inspection, training on basic engineering concepts and inspection techniques should be considered. The FHWA believes that the need for prerequisite training is an issue that must be evaluated on a case-by-case basis rather than specified in the regulation.

Collins Engineers noted that the comprehensive course currently offered by NHI does not address diving operations. The U.S. Navy and the ADCI recommended including reference to the OSHA regulations regarding diving operations within the NBIS.

*FHWA response:* The FHWA believes that safe diving practices as prescribed by the OSHA regulations should be employed during all bridge inspection diving, but we do not reference them. We believe that a reference would unnecessarily complicate this regulation. There are a number of OSHA regulations that pertain not only to underwater inspection but also above-water inspections, and any omission in this standard does not relieve diving inspectors of the requirement to follow OSHA regulations.

#### Training Certification

The Pennsylvania DOT commented on § 650.309 indicating that training needs to be coupled with certification tests. Furthermore, the Pennsylvania DOT stated that inspectors who have demonstrated prior knowledge through engineering degree or Fundamentals of Engineering exam should be provided an opportunity to waive training requirements via certification testing.

*FHWA response:* The regulation requires successful completion of comprehensive bridge inspection training. The FHWA has elected to leave the definition of "successful completion" to the States or Federal agencies. In some States, minimum passing grades on final examinations have been specified and the FHWA supports this concept.

We do not allow certification tests to substitute for comprehensive bridge inspection training. The FHWA believes that successful completion of the comprehensive bridge inspection training is appropriate regardless of an individual's education, experience, or professional engineer status.

#### Section 650.311 Inspection Frequency Routine Inspections

The Massachusetts DOT supported clarification of the inspection frequency. The Kansas, Tennessee, Michigan and Colorado DOTs as well as the AASHTO, the ACRC in Michigan and the NACE recommended that more flexibility should be given to adjust to unexpected weather events, or to permanently move a bridge or group of bridges to a more logical inspection period. The AASHTO recommended that routine inspections be performed "within a calendar year and later or within 2 months later." The NACE argued that a 90-day grace period would allow for efficient scheduling of inspections and personnel. The ACRC in Michigan and Arkansas DOT pointed out that the NPRM preamble discussed the 30-day grace period; however, the proposed regulation did not address this. The Arkansas DOT recommended a 45-day grace period.

*FHWA response:* The FHWA believes that the inspection frequency should not exceed 24 months. We recognize that severe weather, concern for bridge inspector safety, concern for inspection quality, the need to optimize scheduling with other bridges, or other unique situations may be cause to adjust the scheduled inspection date. The adjusted date should not extend more than 30 days beyond the scheduled inspection date, and subsequent inspections should adhere to the previously established interval.

Establishment of a formal inspection frequency grace period may have the unintended consequence of extending the inspection interval beyond twenty-four months. The twenty-four month interval has been used as the standard since the inception of the national bridge inspection program. Concern for safety makes us reluctant to take actions that may make bridges less safe,

therefore we have not established a grace period.

#### Routine Inspections Less Than 24 Months

The Michigan DOT commented on § 650.311(a)(2) that the program manager should put guidelines in place, but the ultimate responsibility for setting intervals less than 24-months should reside with the on-site inspector.

*FHWA response:* The FHWA believes criteria to determine the level and frequency of less than 24 month inspections should be established and implemented according to statewide or Federal agency wide procedures to ensure consistency throughout an entire State or Federal agency program. The term program manager was removed from this section to provide flexibility in how this provision is implemented.

#### Routine Inspections Not To Exceed 48 Months

The HCRC in Michigan in commenting on § 650.311(a)(3) applauded the opportunity for inspecting certain bridge types in up to 48-month intervals. The South Dakota DOT commented that they have been using the 48-month inspection frequency for certain structures and support this concept. The IACE commented that the proposed provision could be interpreted to prohibit local agencies from inspecting at greater than 24-month intervals. The Michigan DOT noted that the program should provide guidelines to let the States know factors being considered during the application process to lengthen the inspection interval otherwise each State might be treated differently depending on the local FHWA Division Office. The NACE and the ACRC in Michigan wanted to know if the 48-month option could be extended to local agency bridges. Thirty-seven Kansas counties, seven Kansas cities, and one Kansas consultant commented to the proposed § 650.311(a)(3) that the local agency should govern when bridges need inspection more than every 24 months.

*FHWA response:* In guidance published on September 16, 1988, the FHWA established consistent criteria for extending an inspection interval to 48 months, but maintains that approval be administered from the FHWA Office of Bridge Technology in order to maintain consistency across States and Federal agencies. Guidance on the 48-month inspection interval criteria can be found in the FHWA Technical Advisory T5140.21.<sup>9</sup> The FHWA acknowledges

<sup>9</sup> This document provides guidance for implementing the changes contained in the 1988

that further study is needed before consideration could be given to automatically allow certain bridges to be placed on a 48-month cycle. County bridges are also eligible; however, the State must support and submit the request for the extended inspection cycle to the FHWA for approval. The FHWA has removed the reference to State or Federal agencies in the proposed § 650.311(a)(3) to avoid confusion.

#### Underwater Inspections Less Than 60 Months

The Michigan DOT commented on § 650.311(b)(2) that the ultimate responsibility for setting interval less than 60 months should reside with the on-site inspector.

*FHWA response:* As with the routine inspection interval discussed earlier, the FHWA believes criteria to determine the level and frequency of less than 60-month inspections should be established and implemented according to statewide or Federal agency wide procedures to ensure consistency throughout an entire State or Federal agency program.

#### Underwater Inspections Not To Exceed 72 Months

The Missouri DOT commented on § 650.311(b)(3) and agreed that they would like to see a 72-month interval. The New Jersey DOT argued that this was excessive and should remain at the 60-month interval. The Indiana DOT agreed with the change, but would like the maximum moved out to 120 months. The IACE commented that the proposed provision could be interpreted to restrict local agencies from inspecting at greater than 60-month intervals and that there is inconsistent treatment of local agencies. The Iowa DOT thought the proposed provisions too restrictive and that flexibility be given to bridge owners in the range of 6 to 10 years for various reasons. The U.S. Navy commented that it was not in favor of extending the underwater inspection interval beyond 60 months and currently inspect on a 48-month interval to coincide with successive biennial inspections.

*FHWA response:* The FHWA believes that underwater inspection intervals for certain bridges can be extended to 72 months, with FHWA approval. The FHWA believes that applying engineering judgment and approval on a case-by-case basis to bridges with little or no change from inspection cycle to cycle in benign environments provides

an adequate margin of safety to the motoring public. Industry standards, such as those provided by the American Society of Civil Engineers (ASCE) in its "Underwater Investigations Standard Practice Manual, 2001,"<sup>10</sup> promote a degree of latitude in the maximum interval between routine underwater inspections up to 6 years. The guidance provided is tied to material, environment, scour and condition rating from previous inspections. While we are including an additional year beyond the current 60-month underwater inspection interval, we are taking into consideration these same factors of material composition (timber, steel, concrete, protected or unprotected steel or timber, composite), environment (benign or aggressive), scour (susceptibility to scour) and previous condition rating (excellent to failed). Based on our assessment, again on a case-by-case basis, the FHWA may approve requests not to exceed 72 months. This authorization can be rescinded at any time owing to structural degradation, adverse change in environment and presence of localized bridge scour.

An example of a situation that may warrant an extended interval may include a highway bridge supported by concrete piles with no degradation over a lined irrigation canal carrying fresh water. An example of a situation that would not warrant approval would be a highway bridge over a high flow saltwater or brackish water environment, with structural piles showing degradation and subject to localized scour. Four-year frequencies may be used, if desired, but retention of the 60-month frequencies allows more flexibility to program managers. The FHWA does not believe there is justification at this time to warrant extended intervals beyond 72 months, but acknowledges that further study in this area is needed. The FHWA has removed the reference to State or Federal agencies in the proposed § 650.311(b)(3) to avoid confusion.

#### Fracture Critical Member Inspections

The Massachusetts DOT in commenting on § 650.311(c) supports clarification of the inspection frequency being proposed, specifically with regard to fracture critical (FC) inspections. The Texas DOT commented on § 650.311(c)(1) and indicated that preliminary estimates of having a "not to exceed 24 months" interval would increase statewide inspection costs by

\$10 million per year, that the program manager should be allowed to set that interval based on sound engineering judgment and FHWA approval and the maximum approved frequency should not exceed 60 months. The Texas DOT also commented that routine and underwater inspection frequency can be extended, and questioned why this does not apply to fracture critical inspection frequency.

The Illinois DOT noted that the proposed § 650.311(c)(1) establishes a 24-month maximum frequency for fracture critical members and recommended a 24-month interval that allows States to have the latitude to establish criteria for inspecting bridges at intervals up to 60 months. The Minnesota DOT recommended that "routine inspection of FCMs shall be at intervals not to exceed 24 months." The Kansas and Oregon DOTs argued that the 24-month interval was excessive and the Kansas, Wyoming, and New Mexico DOTs as well as the AASHTO recommended that States be allowed to establish intervals up to 60 months. The New Mexico DOT also urged that the discretion for an extension be left with the State bridge engineer or designee and not with the program manager.

The California DOT requested clarification regarding whether the proposed language applied to "fracture critical bridges" or to "bridges with fracture critical elements." The Wyoming and Kansas DOTs as well as the AASHTO recommended deletion of the proposed § 650.311(c)(3). The Washington DOT wanted clarification as to the nondestructive evaluation (NDE) methods to be used on FCMs.

*FHWA response:* The inspection frequency for fracture critical bridges was first defined in the "Recording and Coding Guide for the Structure Inventory and Appraisal of the Nation's Bridges."<sup>11</sup> The FHWA continues to believe that all FCMs or member components be given, at a minimum, a hands-on inspection as defined in § 650.305 at intervals not to exceed 24 months. The FHWA recognizes that the interval for use of NDE and other specialized techniques may be greater than 24 months. The FHWA also believes that some FCMs or member components should be inspected at more frequent intervals, and these

<sup>11</sup> The "Recording and Coding Guide for Structure Inventory and Appraisal of the Nation's Bridges," December 1995, Report No. FHWA-PD-96-001, is available electronically at the following URL: <http://www.fhwa.dot.gov/bridge/mtguide.doc> and may be inspected and copied as prescribed in 49 CFR part 7.

revision to the NBIS and is available at the following URL: <http://www.fhwa.dot.gov/legregs/directives/techadvts/t514021.htm>.

<sup>10</sup> This document may be obtained from ASCE, 1801 Alexander Bell Drive, Reston, Virginia 20191-4400.

inspections may require NDE or other specialized techniques.

#### FCM Inspections Less Than 24 Months

The Michigan DOT commented on § 650.311(c)(2) and stated that the ultimate responsibility for setting intervals less than 24 months should reside with the on-site inspector.

*FHWA response:* As with other inspection intervals discussed above, criteria to determine the level and frequency of less than 24 month inspections should be established and implemented according to statewide or Federal agency wide procedures to ensure consistency throughout an entire State or Federal agency program.

#### Damage, In-Depth and Special Inspections

The Missouri and Minnesota DOTs commented on § 650.311(d) and agreed that the program manager should be provided the discretion to determine the level and frequency of damage, in-depth and special inspections. The Michigan DOT argued that § 650.311(d) takes away all responsibility from the inspector in the field and places it in the hands of a person who has not likely to have seen the specific bridge.

*FHWA response:* The FHWA believes that although input from a team leader is an important consideration, the ultimate decision should rest with the program manager in order to ensure consistency throughout an entire State or Federal agency program.

#### National Bridge Inventory Item Numbers

The Indiana DOT noted that proposed § 650.311 does not include any reference to NBI item number 92C,<sup>12</sup> other special detail inspections and asked if it is covered by § 650.311(d) and whether the inspection frequencies are to be determined by the program manager.

*FHWA response:* NBI item number 92C, other special inspection, is addressed in § 650.311 (d) Damage, in-depth and special inspection. Definition for special inspection is covered in § 650.305. The inspection frequency is established by the program manager.

#### Section 650.313 Inspection Procedures

The Oregon DOT stated that the requirements of § 650.313 were very reasonable.

<sup>12</sup> National Bridge Inventory "item number 92" denotes critical features that need special inspections or special emphasis during inspections and the designated inspection interval. Specifically item 92C addresses "other special inspection."

The Michigan DOT stated that § 650.313(a) contains conflicts with the AASHTO Manual that must be resolved.

*FHWA response:* The NBIS take precedence over the AASHTO Manual. The AASHTO Manual has excellent guidance that should be followed whenever it is not in conflict with the requirements of the NBIS.

#### On-Site Team Leader

The Massachusetts and South Dakota DOTs supported the proposed § 650.313(b). The Maryland, Kansas, and Michigan DOTs, as well as the AASHTO, do not support the requirement for having "team leader" on site at all times during inspection. The Tennessee DOT had questions regarding having a designated person act as "team leader" when the team leader is unavailable. Thirty-seven Kansas counties, seven Kansas cities, one Kansas consultant commented on the proposed § 650.313(b) and stated that there are too many structures to require the "team leader" at every inspection and that this requirement will likely increase local agency costs which would deplete funding available for bridge replacement and rehabilitation. The HCRIC in Michigan commented on § 650.313(b) and asked whether this new requirement would mean that two people will have to perform inspections and, if so then there would be a costly increase for counties performing bridge inspections.

*FHWA response:* The requirement to have the team leader on site during the inspection is not new. However, the language requiring this was clarified in this section because the FHWA agrees there has been some misinterpretation of the NBIS in the past. The qualifications for team leader were established to ensure that those conducting the inspections meet specific minimum standards, not to establish qualifications of the supervisor of those who perform the inspection. This requirement does not mandate that two people are required to conduct an inspection. However, if only one person is conducting an inspection, that person must meet the qualifications of a team leader, as defined in the NBIS. Even though there is no requirement to have a minimum of 2 people on an inspection team, the FHWA highly recommends at least 2 people be present to ensure the safety of the inspectors, to improve the quality of the inspection data, and to provide opportunities to train new inspectors.

#### Load Rating and Posting

The Wyoming DOT commented on § 650.313(c) and stated that the new the

AASHTO, Manual for load and resistance factor rating (LRFR) of Highway Bridges<sup>13</sup> could change some of this regulatory language if adopted by the AASHTO.

The Illinois DOT argued that the requirement to post bridges that are unable to carry routine permit loads not be applied to all structures under local agency jurisdiction, only those on local highways that are designated truck route system by the State for routine permit loads.

*FHWA response:* The FHWA agrees that the AASHTO, Manual for Condition Evaluation and LRFR of Highway Bridges uses new terminology. The phrase, "or equivalent rating factor" was included in the requirement to account for the differences. The FHWA also agrees that bridges under local jurisdiction on roads where unrestricted permit loads are not allowed, need not be posted for the permit loads. The FHWA believes the language in the requirement is consistent with that interpretation, since permit loads would be considered to be restricted from using those bridges. The FHWA agrees that bridge owners may post bridges for less than the operating load level, and the FHWA believes this final rule allows for that possibility.

When restricting routine or continuous permit loads from crossing specific bridges, States or Federal agencies may elect to erect posting signs or to issue restrictions to the permit holders to keep them from traveling specific routes with permit loads capacity problems. To account for different methods of controlling access for permit vehicles, the phrase, "Post or restrict" was added to § 650.313(c).

#### Bridge Files

The Wyoming DOT commented on § 650.313(d) and indicated that maintaining inspection records for the life of the bridge, while ideal, may not be realistic or beneficial in all cases and therefore recommended that this requirement be deleted. The Indiana DOT pointed out the problems associated with availability and storage of bridge data and that maintaining such files would be labor intensive. The Michigan DOT indicated that records no longer relevant should be purged from the files and recommended that § 650.311(d) be modified to allow

<sup>13</sup> The AASHTO 2003, Manual for Condition Evaluation and LRFR of Highway Bridges may be obtained upon payment in advance by writing to the American Association of State Highway and Transportation Officials, 444 N. Capitol Street, NW., Suite 249, Washington, DC 20001 or it may be ordered at the following URL: <http://www.aashto.org/aashto/home.nsf/FrontPage>.

agencies to purge files. The Minnesota DOT noted that tracking "any action taken" would be very laborious and recommended that § 650.311(d) be changed to reflect that only "action(s) taken pursuant to the critical findings" be tracked. The Missouri, New Jersey and Michigan DOTs commented that "standard forms" or report documentation is somewhat confusing and can vary from State to State. The New Jersey DOT wants clarification whether electronic as well as paper documents would be included in the "bridge file." The Miami County in Kansas noted that the recording and coding guide format is appropriate for most bridge data reporting.

*FHWA response:* The FHWA agrees with the commenters that maintaining bridge records could be misunderstood to apply to all data, even though it may not be relevant or necessary to properly assess the current condition. The language was revised to state the minimum requirement is to maintain data that is relevant. The determination of relevant data is made by the program manager following guidance contained in the AASHTO Manual. We have revised the wording of § 650.313(d) accordingly. The FHWA agrees that "standard forms" is not specific, but it does indicate that for a given State or Federal agency, the forms should be consistent to facilitate recording and interpretation of the data. The wording of § 650.313(d) has been revised accordingly. The FHWA agrees that records may be maintained in paper or electronic versions, or both. The NBIS does not specify or eliminate either method.

#### Bridge Lists

The Wyoming DOT commented on § 650.313(e) and argued that the agency, not the program manager, should be responsible for identifying and maintaining bridge lists. Wyoming DOT urged that this provision should be deleted. The Massachusetts DOT supports the requirement for maintaining lists and does so with relative ease using a computerized database. The Illinois DOT, the IACE, and the AASHTO stated that the requirement to list bridges "vulnerable to seismic damage" should not be included in the NBIS. The Kansas DOT sees no benefit in keeping bridge lists assuming data is readily available. The Washington DOT seeks clarification as to what qualifies a bridge as "seismically vulnerable." The Michigan DOT viewed the bridge list requirement for multiple written documents and or plans for nearly every bridge in the

inventory as an overwhelming work burden for State DOTs.

*FHWA response:* The FHWA agrees with the commenters that the program manager may not be the designated individual who actually identifies bridges in specific categories. However, the FHWA believes the program manager has overall responsibility to see that such work is done. The language was revised to eliminate any specific reference to the person who identifies the bridges. The FHWA also agrees that maintaining a paper list is not necessarily the only way this requirement can be met. Computerized data base lists or simply an identifier in the State's inventory would satisfy the requirement. However, it is necessary to identify bridges in at least the specific categories listed so their unique inspection requirements and potential needs can be assessed appropriately.

The proposed requirement to identify and evaluate bridges in high seismic risk areas has been removed. We believe that this is an important consideration for bridge safety, best addressed through a comprehensive evaluation of seismic risk through a bridge management program. The FHWA has previously advised States to identify bridges vulnerable to seismic damage, based on a State's site specific assessment.

#### Fracture Critical Bridges

The Missouri, Illinois, Minnesota, Kansas and Wyoming DOTs as well as the AASHTO commented on § 650.313(f) and recommended that it should be deleted. The New Jersey DOT indicated that an electronic record of such bridges would meet this requirement. The Texas DOT commented that generating an "action plan" would not be an efficient use of resources, would not add any benefit and may contain redundant information. The Massachusetts, California and Pennsylvania DOTs supported this section. The Maryland DOT recommended that in lieu of § 650.313(f), we should require States to follow procedures described in the FHWA's "Inspection of Fracture Critical Bridge Members."<sup>14</sup> The Michigan DOT viewed the bridge list requirement for multiple written documents and or plans for nearly every bridge in the inventory as an overwhelming work burden for State DOTs. The Oklahoma DOT recommended adding a waiver to § 650.313(f) for bridges with an average daily traffic (ADT) less than 500. The

<sup>14</sup> Inspection of Fracture Critical Bridge Members, Report No. FHWA-IP-86-26 is available through the National Technical Information Service, Springfield, Virginia 22161 or it may be ordered online at the following URL: <http://www.ntis.gov>.

Pennsylvania DOT recommended the addition of a fracture critical (FC) indicator to the NBI to identify FC bridges.

*FHWA response:* The FHWA did not intend the proposed language for an "inspection plan" to be substantially different than the current rule, which requires identification, description, frequency and procedures to be established for fracture critical members (FCMs). Those items essentially would constitute the "plan." The FCM inspections should be done in accordance with FHWA-IP-86-26, "Inspection of Fracture Critical Bridge Members." Therefore the reference to a plan has been eliminated and language similar to the existing rule has been adopted. The features of the FCM inspections can be shown in a listing, on the inspection records, or in an electronic database. The proposed § 650.313(f) has been redesignated as § 650.313(e)(1).

#### Underwater Inspections

The Missouri, Wyoming, Illinois, Minnesota and Kansas DOTs as well as the AASHTO stated that § 650.313(g) should be deleted. The New Jersey DOT indicated that an electronic record of such bridges would meet this requirement, but stated that it is unclear. The Texas DOT commented that generating an action plan would not be an efficient use of resources, not add any benefit and may contain redundant information. The Massachusetts and California DOTs indicated support for this section. The Maryland DOT recommended that in lieu of § 650.313(g) the FHWA should require States to follow procedures described in the FHWA's Underwater Inspection of Bridges report.<sup>15</sup> The Alabama DOT argued that this requirement would pose a significant burden on those States with a large population of bridges requiring underwater inspections, and be unnecessary, wasteful, and a duplicative effort. The Michigan DOT viewed the bridge list requirement for multiple written documents and or plans for nearly every bridge in the inventory as an overwhelming burden for State DOTs.

*FHWA response:* The FHWA did not intend the proposed language for an "inspection plan" to be substantially different from the current rule, which requires identification, description, frequency and procedures to be

<sup>15</sup> Underwater Inspection of Bridges, November 1989, Report No. FHWA-DP-80-1, provides guidelines for underwater bridge inspection. This document is available through the National Technical Information Service, Springfield, VA 22161.

established for members requiring underwater inspection. Those items essentially would constitute the "plan." Therefore the reference to a plan has been eliminated and language similar to the existing rule has been adopted. Those four features of the underwater inspections can be shown in a listing, on the inspection records, or in an electronic database. The proposed § 650.313(g) has been redesignated as § 650.313(e)(2).

#### Scour Critical Bridges

The Missouri DOT commented on § 650.313(h) and recommended that language regarding inspecting bridges after a "major flood" event should be changed to "consideration should be given to inspecting scour critical bridges after a major flood event." The Missouri and Colorado DOTs also noted that the "major flood event" guidance would be addressed in the "action plan."

The Texas DOT commented that generating an action plan would not be an efficient use of resources and, instead, proposed that generic guidelines be developed outlining appropriate evaluation milestones as well as monitoring criteria. The Indiana DOT indicated that at the State level there are scour plans; however, at the county level additional resources would be needed to develop scour plans. The Indiana, Wyoming, Illinois, Minnesota and Kansas DOTs as well as the AASHTO recommended deleting § 650.313(h). The Massachusetts DOT recommended that the requirement be changed to establishing a list of bridges that are vulnerable to events and developing monitoring and or inspection plans for such structures in the wake of a scour event. The South Dakota DOT asked for clarification of a "major flood event." The Washington DOT indicated that its inspection of bridges after major flood events are performed by maintenance staff and asked if this section required that a team leader perform these inspections. The California DOT indicated support for this section.

The Michigan DOT viewed the bridge list requirement for multiple written documents and or plans for nearly every bridge in the inventory as an overwhelming burden on State DOTs. Thirty-seven Kansas counties, seven Kansas cities, one Kansas consultant commented on the proposed § 650.313(h) and indicated that the requirement to prepare an action plan is not justified, and that the local agency should decide proper actions based on degree of risk. The Virginia DOT understood the need to have lists of scour critical bridges to identify

structures that needed inspection after a flood event; but did not agree that the NBIS covers retrofit guidelines.

*FHWA response:* Scour related deficiencies are the leading cause of serious bridge failures and closings. The requirements for scour evaluation and action plans are consistent with the existing requirement for evaluation of underwater members, with a renewed emphasis. The FHWA does agree with the commenters that the action plans for some bridges may be very similar and that monitoring and assessment after flood events may be done using different levels of effort depending on the degree of risk. The wording of this section was changed to reflect the need for some flexibility in the application of the action plans. Monitoring after flood events is described in the FHWA guidance manuals, "Evaluating Scour at Bridges"<sup>16</sup> and "Bridge Scour and Stream Instability."<sup>17</sup> The proposed § 650.313(h) has been redesignated as § 650.313(e)(3).

#### Seismic Vulnerability

The Missouri, Wyoming, Illinois, Minnesota, Kansas and Pennsylvania DOTs, the IACE and the AASHTO commented on § 650.313(i) and recommended that it should be deleted. The Colorado DOT urged that § 650.313(i) should be either deleted or rewritten to better define criteria for determining "seismic vulnerability" and expectation for the "action plan." The New Jersey DOT commented that it does not believe that "the benefit of such a program in New Jersey would be consistent with the costs to develop it considering the historical lack of damage from seismic events." The Indiana DOT indicated the proposed language is too vague, leaves too much for interpretation, and that additional resources would be needed at the county level.

The Massachusetts DOT recommended establishing a list of bridges that are vulnerable to events and developing monitoring and or inspection plans for such structures in the wake of a seismic event. The Illinois DOT and the IACE argued that this provision was an "unfunded mandate." The Washington DOT wanted

clarification as to what qualifies a bridge as "seismically vulnerable." The California DOT supported this section. The Michigan DOT viewed this requirement for multiple written documents and or plans for nearly every bridge in the inventory as an overwhelming burden for State DOTs. Thirty-seven Kansas counties, seven Kansas cities, one Kansas consultant disagreed with § 650.313(i) because they believe the requirement to prepare an action plan is not justified, and that it should be a local agency decision based on degree of risk. The Virginia DOT understood the need to have lists of seismically vulnerable bridges to identify structures that needed inspection after a significant seismic event; however, it does not agree that the NBIS covers retrofit guidelines. The Pennsylvania DOT noted that the term "seismic vulnerability" was not defined in § 650.305 and that the inspection requirement in § 650.313(i) is an open ended assignment that could be very costly, particularly in States with low seismic event probabilities.

*FHWA response:* The proposed requirement has been eliminated. Although we believe that this is an important consideration for bridge safety, we believe that it is best addressed by a comprehensive evaluation of seismic risk through a bridge management process.

#### Complex Bridges

The Missouri DOT opposed the proposed § 650.313(j) because it believes States have sufficient knowledge to recognize inspection needs for unusual bridges or features. The Wyoming and Minnesota DOTs and the AASHTO recommended that this provision should be deleted. The Texas DOT indicated that generating an "action plan" for "complex" bridges is not an efficient use of resources, would not add benefit and would likely contain redundant information. The Washington DOT commented that it needed further clarification as to "inspection and training requirements." The California DOT is unclear as to the level of effort needed to comply with preparation of the proposed complex bridge "inspection plan."

*FHWA response:* The FHWA agrees that the content of the plan was not clear in the proposed requirement. The language was changed to specify that the minimum requirement is to establish specialized inspection needs, level of effort and additional inspector training and/or experience. These procedures are applied to the unique features of complex bridges that would not normally be covered in a routine

<sup>16</sup> Evaluating Scour at Bridges FHWA-NHI-01-001 (HEC-18) presents the state of knowledge and practice for the design, evaluation and inspection of bridges for scour. This document is available through the National Technical Information Service, Springfield, VA 22161.

<sup>17</sup> Bridge Scour and Stream Instability FHWA-NHI-01-003 (HEC-23) provides guidelines for identifying stream instability problems at highway stream crossings. This document is available through the National Technical Information Service, Springfield, VA 22161.

inspection. We also clarified the definition for complex bridges. The proposed § 650.313(j) has been redesignated as § 650.313(f).

#### Quality Control and Quality Assurance

The Missouri DOT, regarding the proposed § 650.313(k), is opposed to the requirement of a formal QC and QA program. The Missouri DOT believes it would be redundant and not sufficiently enhance public safety compared to efforts expended to provide such a program. The Indiana DOT argued that they would need additional resources to comply with this requirement and also expressed concern over the subjectivity of the required FHWA approval. The Wyoming DOT urged that this provision should be deleted. The Massachusetts, South Dakota, California and Pennsylvania DOTs supported this provision.

The Illinois DOT was concerned about the FHWA having a more active role. The South Dakota DOT supports this concept, but believes that the program should be left up to the States.

The Minnesota DOT recommended rewording this section to say, "submit documentation of the QA program to the FHWA for review and comment." Additionally, the Minnesota DOT suggested that if QC is retained both QA and QC should be defined and the difference between them explained.

The Kansas DOT wanted to improve the consistency of NBI data by having the FHWA improve the "Edit/Update program" and distribute the program for general use. The Washington DOT asked for clarification as to the level of effort intended for submittal of QC and QA program documentation to the FHWA and requested criteria for program expectations.

The Michigan DOT recommended that the FHWA provide guidelines to the States outlining the evaluation factors used to grant approval, and that the FHWA should provide a standard for national uniformity. The Iowa DOT and the AASHTO recommended that the requirement to review load calculations be eliminated.

The ACRC in Michigan noted that in instances where inspection responsibilities are delegated to local agencies, the required QC and QA program should be developed in cooperation with the local agencies. Thirty-seven Kansas counties, seven Kansas cities, one Kansas consultant commented on § 650.313(k) and the majority indicated that they disagreed with the provision because the current limited oversight is working well. They recommended that the FHWA develop and distribute software to collect QA

and QC data to encourage consistency and uniformity nationwide. The Virginia DOT commented that the documentation of findings for the QC and QA program should be available for review and comment by the FHWA but should not be subject to FHWA approval.

*FHWA response:* We have added definitions for QC and QA that are consistent with the AASHTO Manual. An FHWA study, "Reliability of Visual Inspection for Highway Bridges," found wide variations in the condition assessment of typical highway bridges by experienced and trained inspectors from a variety of States. The study concludes that formal quality assurance is needed to obtain better uniformity in assigning condition codes. The FHWA believes that using computer software tools to check data is an important part of obtaining data accuracy and consistency, but is not adequate alone as a QC and QA procedure. The FHWA believes many States have well-developed and effective QC and QA procedures, but others have very minimal programs. This requirement will help States or Federal agencies develop more uniform systems that will lead toward more accurate national data. Example QC and QA procedures from other States are available at URL: <http://www.fhwa.dot.gov/bridge/index.htm> for review and consideration.

The FHWA agrees with commenters that methods of review of reports and computations may vary and the precise method should be done according to normal State or Federal agency procedures. The FHWA agrees that it is not necessary to include in the rule a specific requirement to submit the QC and QA procedure to the FHWA for approval. During NBIS program reviews<sup>18</sup> the FHWA will examine QC and QA procedures. The proposed § 650.313(k) has been redesignated as § 650.313(g).

#### Follow-Up on Critical Findings

The Wyoming, Iowa, Illinois and Pennsylvania DOTs and the AASHTO commented on § 650.313(l) and recommended that this provision be deleted. The Missouri DOT had no objections on this provision, but recommended annual reporting. The Texas and Pennsylvania DOTs sought clarification as to how often this information should be provided and

<sup>18</sup> The NBIS program reviews are routinely done by the FHWA on an annual basis to determine compliance with the NBIS. This program is delineated in a June 22, 2001 memorandum that can be found at the following URL: <http://www.fhwa.dot.gov/bridge/index.htm>.

recommended that the FHWA define the term "critical finding." The Maryland DOT suggested a definition for "critical finding" as "any condition that affects the safe passage of any legal vehicle." The South Dakota DOT supported this provision and also recommended that the States be allowed to set their own definition of "critical finding." The Washington DOT requested more details on how States are to report the information to the FHWA. The IACE did not see a benefit to requiring such information be reported since it would require additional resources to generate the information. The California DOT supported the proposed provision on the basis that its current FHWA reporting procedure be used. The Michigan DOT indicated that "critical findings" is not defined; frequency of reporting is not delineated and workload would double when this provision is applied to local agencies. The Colorado DOT recommended the provision should be deleted and the subject left to the language contained in § 650.313(d).

Thirty-seven Kansas counties, seven Kansas cities, one Kansas consultant commented on the proposed § 650.313(l) and the majority disagreed with the provision because the cost of establishing a statewide procedure to address critical findings is not justified. The Oklahoma DOT suggested revising this section to require the program manager be responsible for determining a procedure to address critical findings and that the FHWA should define the term "program manager."

*FHWA response:* The broad definition for "critical finding" was added to allow flexibility to establish, in cooperation with the FHWA, criteria and reporting procedures specific to a particular State or Federal agency. The FHWA noted that many States already have established procedures that are working well, and the rule was not meant to require significant changes in those procedures. "Notify the FHWA of actions taken to assure public safety" was changed to "Periodically notify the FHWA of the actions taken to resolve or monitor critical findings." The period between notifications is to be agreed upon between the FHWA and the State or Federal agency. The proposed § 650.313(l) has been redesignated as § 650.313(h).

#### Section 650.315 Inventory

##### Prepare and Maintain

The Oregon DOT commented that § 650.315 requirements are very reasonable. The Texas and Oklahoma DOTs suggested that the first sentence of

§ 650.315(a) be rewritten as follows: "Each State and Federal agency must prepare and maintain an inventory of all bridges subject to the NBIS that are inspected according to § 650.307." The Texas DOT asked if the States were required to maintain an inventory of federally owned bridges even though they are not inspected by the States.

The Kansas DOT recommended that the second sentence in § 650.315(a) be rewritten to say, "State and Federal agencies must collect, retain and submit certain \* \* \*".

The AASHTO recommended revising the first two sentences of § 650.315(a) as follows: "Each State must prepare and maintain an inventory of all bridges subject to the NBIS. Each Federal agency must prepare and maintain an inventory of all bridges subject to the NBIS."

*FHWA response:* We have modified § 650.315(a) by removing the word "and" and replacing it with the word "or." We do not require that States collect, report or retain the Federal bridge information. The FHWA annually provides a copy to each State of all the inspection information that was submitted by Federal agencies for each State. This is done so that the States may have a complete inventory and have access to Federal bridge data within the State.

**Data Submittal Deadlines: Initial, Routine, In-Depth, Fracture Critical, Special and Underwater Inspections**

The New Jersey DOT interpreted the proposed § 650.315(b) to apply only to major changes in NBI data rather than all inspection data which may not be available until the inspection report is complete. The Massachusetts DOT support the proposed changes. The Kansas DOT and the AASHTO recommended that inspection data from initial, routine, in-depth, fracture critical, special and underwater inspections be entered into the NBI within 120 days of inspection, rather than 90 days.

*FHWA response:* All inspection data is to be entered into the inventory whether it is new data or changed data. This is not always restricted to NBI item number 58<sup>19</sup>, NBI item number 59<sup>20</sup> and NBI item number 60<sup>21</sup> since other items such as bridge clearances and

safety features, may also change during an inspection cycle. The FHWA believes that the 90 day (3 month) period for entering the data allows a reasonable amount of time for completion of the inspection report and data entry.

The FHWA believes that extending the time required for entering the data after inspection to 180 days (6 months) for States or Federal agencies is too long. The 90-day time period for entering the data is consistent with the current regulation. The FHWA only collects this data once a year and any delay in the data being properly inventoried would not provide the FHWA the most current data available. Up-to-date information is vital to the program oversight, management and stewardship for the State and the FHWA. It is also important that the FHWA have current data because this data is used to: (1) Distribute funds for the HBRRP program (23 U.S.C. 144), (2) provide reports to Congress, and (3) make critical decisions regarding the bridge program. This necessitates adherence to a firm 90-day collection period.

**Data Submittal Deadlines: Bridge Modifications and New Bridges**

The Massachusetts DOT supported the changes proposed to § 650.315(c). The Minnesota DOT recommended extending timelines to provide more flexibility to inspection agencies entering data, "within one year not to exceed 90 days." The Kansas DOT and the AASHTO recommended allowing 120 days rather than 90 days to enter the data. The Washington DOT recommended adding a qualifier, "open to traffic," to appropriately consider bridges built in phased construction where only a portion of the bridge may be open.

*FHWA response:* The FHWA noted that extension of the time required for entering changed data because of bridge modifications or new bridge construction is not justified. The 90 day time frame for entering data is consistent with the current regulation. For the reasons listed in the FHWA response to § 650.315(b), up-to-date information is vital to the bridge program. If any part of a highway bridge is open to traffic it should be inspected and inventoried in accordance with the NBIS.

**Data Submittal Deadlines: Load Restriction or Closure Status**

The Massachusetts DOT supported the changes proposed to § 650.315(d). The Minnesota DOT recommended extending timelines to provide more flexibility to inspection agencies

entering data, "within one year not to exceed 90 days." The Kansas DOT and the AASHTO recommended allowing 120 days rather than 90 days to enter the data. The Minnesota DOT indicated it did not want to see the requirement to develop QA and QC measures to enforce these timelines.

*FHWA response:* The FHWA noted that the time required for entering changed data due to load restriction or closure status being extended to 180 days (6 months) is too long. The 90-day time frame for entering data is consistent with the current regulation. The FHWA only collects this data once a year and any delay in the data being properly inventoried would not provide the FHWA the most current data available. For the reasons listed in the FHWA response to § 650.315(b), up-to-date information is vital to the bridge program. The FHWA is not requiring that a "QA and QC measure" be developed to enforce these timelines.

**Section 650.317 Reference Manuals**

The South Dakota DOT supports § 650.317.

The Kansas DOT and the AASHTO recommended the FHWA combine § 650.317(a) and § 650.317(b). The Michigan DOT does not support the incorporation of the AASHTO Manual in § 650.317(a), reasoning that an overly detailed regulation could incur unnecessary liability for the States due to the difficulty of achieving 100 percent compliance. The AASHTO commented that the availability of a 2003 Interim revision to the AASHTO Manual would necessitate adding it to the reference manuals.

*FHWA response:* The FHWA does not agree with combining § 650.317(a) and § 650.317(b) since they are two distinct documents. The FHWA agrees that the 2003 Interim revision to the AASHTO Manual for Condition Evaluation of Bridges needs to be incorporated by reference and has made that change.

**Related Rulemakings and Notices**

The FHWA is also in the process of reviewing 23 CFR part 650, subpart D, Highway Bridge Replacement and Rehabilitation Program (HBRRP). The FHWA published an advance notice of proposed rulemaking for the HBRRP on September 26, 2001, at 66 FR 49152. The FHWA also recently published a notice of proposed rulemaking for the HBRRP on June 21, 2004, at 69 FR 34314.

<sup>19</sup> National Bridge Inventory "item number 58," Deck, describes the overall condition rating of the deck.

<sup>20</sup> National Bridge Inventory "item number 59," Superstructure, describes the physical condition of all structural members.

<sup>21</sup> National Bridge Inventory "item number 60," Substructure, describes the physical condition of piers, abutments, piles, fenders, footings, or other components.



## Rulemaking Analyses and Notices

### *Executive Order 12866 (Regulatory Planning and Review) and U.S. DOT Regulatory Policies and Procedures*

The FHWA has determined that this action is a significant regulatory action within the meaning of Executive Order 12866 and is significant within the meaning of the U.S. Department of Transportation regulatory policies and procedures. This action is considered significant because of the substantial public interest in the safety of highway bridges. The Office of Management and Budget (OMB) designated this regulation as a significant regulatory action and has reviewed it under E.O. 12866.

We have analyzed the costs associated with this rulemaking. We believe that the costs of the changes in this final rule will be minimal because we believe that most States already adhere to many of the inspection procedures set forth in this rule and, therefore, we believe these changes will add less than \$1 million to the costs associated with a multi-billion dollar program. Additionally, the bridge program is part of the Federal-aid highway program and, thus, the costs associated with this rule are eligible for funding under this program. We believe the changes to the inspection program are minor and will not be costly to the States. Finally, we have carefully analyzed the costs associated with the information collection and we believe the cost associated with the minor increase in burden hours will be \$52,000 or about \$1000 per State (to include the District of Columbia and Puerto Rico); therefore, the total cost of the entire information collection will be approximately \$13,552,000, or an average of \$260,000 per State. These information collection costs also may be reimbursed under the Federal-aid highway program.

This final rule will not adversely affect, in a material way, any sector of the economy. In addition, these changes will not interfere with any action taken or planned by another agency and will not materially alter the budgetary impact of any entitlements, grants, user fees, or loan programs. Consequently, a full regulatory evaluation is not required.

### *Regulatory Flexibility Act*

In compliance with the Regulatory Flexibility Act (Pub. L. 96-354, 5 U.S.C. 601-612) the FHWA has evaluated the effects of this action on small entities and has determined that the action will not have a significant economic impact on a substantial number of small entities. Since the regulatory changes

are primarily directed to the States, which are not considered small entities for the purposes of the Regulatory Flexibility Act, the FHWA is able to certify that this final rule will not have a significant economic impact on a substantial number of small entities.

### *Unfunded Mandates Reform Act of 1995*

This rule does not impose unfunded mandates as defined by the Unfunded Mandates Reform Act of 1995 (Pub. L. 104-4, March 22, 1995, 109 Stat. 48). This rule will not result in the expenditure by State, local, and tribal governments, in the aggregate, or by the private sector, of \$120.7 million or more in any one year (2 U.S.C. 1532). The definition of "Federal mandate" in the Unfunded Mandates Reform Act excludes financial assistance of the type in which State, local or tribal governments have authority to adjust their participation in the program in accordance with changes made in the program by the Federal government. The Federal-aid highway program permits this type of flexibility to the States. Additionally, funding to inventory highway bridges, as well as Indian reservation and park road bridges, is currently provided under 23 U.S.C. 144, Highway Bridge Replacement and Rehabilitation Program (HBRRP). Bridge inspection is an eligible activity under the HBRRP and Federal funding is available to the States under the HBRRP.

### *Executive Order 12988 (Civil Justice Reform)*

This action meets applicable standards in section 3(a) and 3(b)(2) of Executive Order 12988, Civil Justice Reform, to minimize litigation, eliminate ambiguity, and reduce burden.

### *Executive Order 13045 (Protection of Children)*

We have analyzed this action under Executive Order 13045, Protection of Children from Environmental Health Risks and Safety Risks. This final rule is not an economically significant rule and does not concern an environmental risk to health or safety that may disproportionately affect children.

### *Executive Order 12630 (Taking of Private Property)*

This action will not affect a taking of private property or otherwise have taking implications under Executive Order 12630, Governmental Actions and Interference with Constitutionally Protected Property Rights.

### *Executive Order 13132 (Federalism)*

This action has been analyzed in accordance with the principles and criteria contained in Executive Order 13132, and the FHWA has determined that this action will not have sufficient federalism implications to warrant the preparation of a Federalism assessment. The FHWA has also determined that this action does not preempt any State law or State regulation or affect the States' ability to discharge traditional State governmental functions.

### *Executive Order 13175 (Tribal Consultation)*

The FHWA has analyzed this action under Executive Order 13175, dated November 6, 2000. The FHWA believes that this action will not have substantial direct effects on one or more Indian tribes; will not impose substantial direct compliance costs on Indian tribal governments; and will not preempt tribal law. Therefore, a tribal summary impact statement is not required.

### *Executive Order 12372 (Intergovernmental Review)*

Catalog of Federal Domestic Assistance Program Number 20.205, Highway Planning and Construction. The regulations implementing Executive Order 12372 regarding intergovernmental consultation on Federal programs and activities apply to this program.

### *Paperwork Reduction Act*

Under the Paperwork Reduction Act of 1995 (PRA) (44 U.S.C. 3501, *et seq.*), Federal agencies must obtain approval from the Office of Management and Budget (OMB) for each collection of information they conduct, sponsor, or require through regulations. The State reporting requirements related to the National Bridge Inspection Standards are covered by an existing FHWA information collection entitled Structure Inventory and Appraisal (SI&A) Sheet. The OMB control number for this collection is 2125-0501. The current annual burden imposed on the States under this information collection is 540,000 hours.

The SI&A sheets are used by the States and Federal agencies to provide to the FHWA the required information on annual bridge inspections. The FHWA has determined that the new requirements in this final rule will place an additional 2,080 burden hours on the States, which will result in a total annual burden of 542,080 hours. The additional burden is based on a review of the national bridge inspection data coupled with the additional NBIS requirements this rulemaking action

imposes on the States. These requirements include the development of procedures for follow-up on critical findings.

In the NPRM published on September 9, 2003, the FHWA proposed a burden increase of 67,000 hours for the information collection, OMB control number 2125-0501, and invited interested parties to send comments regarding any aspect of these information collection requirements. Such comments could include, but were not limited to: (1) Whether the collection of information will be necessary for the performance of the functions of the FHWA, including whether the information will have practical utility; (2) the accuracy of the estimated burden; (3) ways to enhance the quality, utility, and clarity of the collection of information; and (4) ways to minimize the collection burden without reducing the quality of the information collected. The FHWA did not receive any comments in response to the proposed burden hour increase of 67,000 hours. The revision to the information collection, OMB control number 2125-0501, based on this final rule will increase the burden hours by only 2,080 hours, a much smaller amount than that originally proposed in the NPRM.

#### *National Environmental Policy Act*

The agency has analyzed this action for the purpose of the National Environmental Policy Act of 1969 (42 U.S.C. 4321) and has determined that this action will not have any effect on the quality of the environment.

#### *Executive Order 13211 (Energy Effects)*

We have analyzed this rule under Executive Order 13211, Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use. We have determined that it is not a significant energy action under that order, because although it is a significant regulatory action under Executive Order 12866 it is not likely to have a significant adverse effect on the supply, distribution, or use of energy.

#### *Regulation Identification Number*

A regulation identification number (RIN) is assigned to each regulatory action listed in the Unified Agenda of Federal Regulations. The Regulatory Information Service Center publishes the Unified Agenda in April and October of each year. The RIN contained in the heading of this document can be used to cross-reference this action with the Unified Agenda.

#### **List of Subjects in 23 CFR Part 650**

Bridges, Grant Programs—transportation, Highways and roads, Incorporation by reference, Reporting and record keeping requirements.

Issued on: December 9, 2004.

**Mary E. Peters,**

*Federal Highway Administrator.*

■ In consideration of the foregoing, the FHWA is amending title 23, Code of Federal Regulations, part 650, subpart C, as follows:

#### **PART 650—BRIDGES, STRUCTURES, AND HYDRAULICS**

■ 1. The authority citation for part 650 continues to read as follows:

**Authority:** 23 U.S.C. 109 (a) and (h), 144, 151, 315, and 319; 33 U.S.C. 401, 491 *et seq.*, 511 *et seq.*; 23 CFR 1.32; 49 CFR 1.48(b), E.O. 11988 (3 CFR, 1977 Comp. p. 117); Department of Transportation Order 5650.2 dated April 23, 1979 (44 FR 24678); sec. 161 of Public Law 97-424, 96 Stat. 2097, 3135; sec. 4(b) of Public Law 97-134, 95 Stat. 1699; and sec. 1057 of Public Law 102-240, 105 Stat. 2002; and sec. 1311 of Pub. L. 105-178, as added by Pub. L. 105-206, 112 Stat. 842 (1998).

■ 2. Revise subpart C to read as follows:

#### **Subpart C—National Bridge Inspection Standards**

Sec.

- 650.301 Purpose.
- 650.303 Applicability.
- 650.305 Definitions.
- 650.307 Bridge inspection organization.
- 650.309 Qualifications of personnel.
- 650.311 Inspection frequency.
- 650.313 Inspection procedures.
- 650.315 Inventory.
- 650.317 Reference manuals.

#### **Subpart C—National Bridge Inspection Standards**

##### **§ 650.301 Purpose.**

This subpart sets the national standards for the proper safety inspection and evaluation of all highway bridges in accordance with 23 U.S.C. 151.

##### **§ 650.303 Applicability.**

The National Bridge Inspection Standards (NBIS) in this subpart apply to all structures defined as highway bridges located on all public roads.

##### **§ 650.305 Definitions.**

Terms used in this subpart are defined as follows:

*American Association of State Highway and Transportation Officials (AASHTO) Manual.* “Manual for Condition Evaluation of Bridges,” second edition, published by the American Association of State Highway and Transportation Officials

(incorporated by reference, *see* § 650.317).

*Bridge.* A structure including supports erected over a depression or an obstruction, such as water, highway, or railway, and having a track or passageway for carrying traffic or other moving loads, and having an opening measured along the center of the roadway of more than 20 feet between undercopings of abutments or spring lines of arches, or extreme ends of openings for multiple boxes; it may also include multiple pipes, where the clear distance between openings is less than half of the smaller contiguous opening.

*Bridge inspection experience.* Active participation in bridge inspections in accordance with the NBIS, in either a field inspection, supervisory, or management role. A combination of bridge design, bridge maintenance, bridge construction and bridge inspection experience, with the predominant amount in bridge inspection, is acceptable.

*Bridge inspection refresher training.* The National Highway Institute “Bridge Inspection Refresher Training Course”<sup>1</sup> or other State, local, or federally developed instruction aimed to improve quality of inspections, introduce new techniques, and maintain the consistency of the inspection program.

*Bridge Inspector’s Reference Manual (BIRM).* A comprehensive FHWA manual on programs, procedures and techniques for inspecting and evaluating a variety of in-service highway bridges. This manual may be purchased from the U.S. Government Printing Office, Washington, DC 20402 and from National Technical Information Service, Springfield, Virginia 22161, and is available at the following URL: <http://www.fhwa.dot.gov/bridge/bripub.htm>.

*Complex bridge.* Movable, suspension, cable stayed, and other bridges with unusual characteristics.

*Comprehensive bridge inspection training.* Training that covers all aspects of bridge inspection and enables inspectors to relate conditions observed on a bridge to established criteria (see the Bridge Inspector’s Reference Manual for the recommended material to be covered in a comprehensive training course).

*Critical finding.* A structural or safety related deficiency that requires immediate follow-up inspection or action.

*Damage inspection.* This is an unscheduled inspection to assess structural damage resulting from environmental factors or human actions.

<sup>1</sup> The National Highway Institute training may be found at the following URL: <http://www.nhi.fhwa.dot.gov/>

*Fracture critical member (FCM).* A steel member in tension, or with a tension element, whose failure would probably cause a portion of or the entire bridge to collapse.

*Fracture critical member inspection.* A hands-on inspection of a fracture critical member or member components that may include visual and other nondestructive evaluation.

*Hands-on.* Inspection within arms length of the component. Inspection uses visual techniques that may be supplemented by nondestructive testing.

*Highway.* The term "highway" is defined in 23 U.S.C. 101(a)(11).

*In-depth inspection.* A close-up, inspection of one or more members above or below the water level to identify any deficiencies not readily detectable using routine inspection procedures; hands-on inspection may be necessary at some locations.

*Initial inspection.* The first inspection of a bridge as it becomes a part of the bridge file to provide all Structure Inventory and Appraisal (SI&A) data and other relevant data and to determine baseline structural conditions.

*Legal load.* The maximum legal load for each vehicle configuration permitted by law for the State in which the bridge is located.

*Load rating.* The determination of the live load carrying capacity of a bridge using bridge plans and supplemented by information gathered from a field inspection.

*National Institute for Certification in Engineering Technologies (NICET).* The NICET provides nationally applicable voluntary certification programs covering several broad engineering technology fields and a number of specialized subfields. For information on the NICET program certification contact: National Institute for Certification in Engineering Technologies, 1420 King Street, Alexandria, VA 22314-2794.

*Operating rating.* The maximum permissible live load to which the structure may be subjected for the load configuration used in the rating.

*Professional engineer (PE).* An individual, who has fulfilled education and experience requirements and passed rigorous exams that, under State licensure laws, permits them to offer engineering services directly to the public. Engineering licensure laws vary from State to State, but, in general, to become a PE an individual must be a graduate of an engineering program accredited by the Accreditation Board for Engineering and Technology, pass the Fundamentals of Engineering exam,

gain four years of experience working under a PE, and pass the Principles of Practice of Engineering exam.

*Program Manager.* The individual in charge of the program, that has been assigned or delegated the duties and responsibilities for bridge inspection, reporting, and inventory. The program manager provides overall leadership and is available to inspection team leaders to provide guidance.

*Public road.* The term "public road" is defined in 23 U.S.C. 101(a)(27).

*Quality assurance (QA).* The use of sampling and other measures to assure the adequacy of quality control procedures in order to verify or measure the quality level of the entire bridge inspection and load rating program.

*Quality control (QC).* Procedures that are intended to maintain the quality of a bridge inspection and load rating at or above a specified level.

*Routine inspection.* Regularly scheduled inspection consisting of observations and/or measurements needed to determine the physical and functional condition of the bridge, to identify any changes from initial or previously recorded conditions, and to ensure that the structure continues to satisfy present service requirements.

*Routine permit load.* A live load, which has a gross weight, axle weight or distance between axles not conforming with State statutes for legally configured vehicles, authorized for unlimited trips over an extended period of time to move alongside other heavy vehicles on a regular basis.

*Scour.* Erosion of streambed or bank material due to flowing water; often considered as being localized around piers and abutments of bridges.

*Scour critical bridge.* A bridge with a foundation element that has been determined to be unstable for the observed or evaluated scour condition.

*Special inspection.* An inspection scheduled at the discretion of the bridge owner, used to monitor a particular known or suspected deficiency.

*State transportation department.* The term "State transportation department" is defined in 23 U.S.C. 101(a)(34).

*Team leader.* Individual in charge of an inspection team responsible for planning, preparing, and performing field inspection of the bridge.

*Underwater diver bridge inspection training.* Training that covers all aspects of underwater bridge inspection and enables inspectors to relate the conditions of underwater bridge elements to established criteria (see the Bridge Inspector's Reference Manual section on underwater inspection for the recommended material to be covered in

an underwater diver bridge inspection training course).

*Underwater inspection.* Inspection of the underwater portion of a bridge substructure and the surrounding channel, which cannot be inspected visually at low water by wading or probing, generally requiring diving or other appropriate techniques.

#### **§ 650.307 Bridge inspection organization.**

(a) Each State transportation department must inspect, or cause to be inspected, all highway bridges located on public roads that are fully or partially located within the State's boundaries, except for bridges that are owned by Federal agencies.

(b) Federal agencies must inspect, or cause to be inspected, all highway bridges located on public roads that are fully or partially located within the respective agency responsibility or jurisdiction.

(c) Each State transportation department or Federal agency must include a bridge inspection organization that is responsible for the following:

(1) Statewide or Federal agencywide bridge inspection policies and procedures, quality assurance and quality control, and preparation and maintenance of a bridge inventory.

(2) Bridge inspections, reports, load ratings and other requirements of these standards.

(d) Functions identified in paragraphs (c)(1) and (2) of this section may be delegated, but such delegation does not relieve the State transportation department or Federal agency of any of its responsibilities under this subpart.

(e) The State transportation department or Federal agency bridge inspection organization must have a program manager with the qualifications defined in § 650.309(a), who has been delegated responsibility for paragraphs (c)(1) and (2) of this section.

#### **§ 650.309 Qualifications of personnel.**

(a) A program manager must, at a minimum:

(1) Be a registered professional engineer, or have ten years bridge inspection experience; and

(2) Successfully complete a Federal Highway Administration (FHWA) approved comprehensive bridge inspection training course.

(b) There are five ways to qualify as a team leader. A team leader must, at a minimum:

(1) Have the qualifications specified in paragraph (a) of this section; or

(2) Have five years bridge inspection experience and have successfully completed an FHWA approved comprehensive bridge inspection training course; or

(3) Be certified as a Level III or IV Bridge Safety Inspector under the National Society of Professional Engineer's program for National Certification in Engineering Technologies (NICET) and have successfully completed an FHWA approved comprehensive bridge inspection training course, or

(4) Have all of the following:

(i) A bachelor's degree in engineering from a college or university accredited by or determined as substantially equivalent by the Accreditation Board for Engineering and Technology;

(ii) Successfully passed the National Council of Examiners for Engineering and Surveying Fundamentals of Engineering examination;

(iii) Two years of bridge inspection experience; and

(iv) Successfully completed an FHWA approved comprehensive bridge inspection training course, or

(5) Have all of the following:

(i) An associate's degree in engineering or engineering technology from a college or university accredited by or determined as substantially equivalent by the Accreditation Board for Engineering and Technology;

(ii) Four years of bridge inspection experience; and

(iii) Successfully completed an FHWA approved comprehensive bridge inspection training course.

(c) The individual charged with the overall responsibility for load rating bridges must be a registered professional engineer.

(d) An underwater bridge inspection diver must complete an FHWA approved comprehensive bridge inspection training course or other FHWA approved underwater diver bridge inspection training course.

#### **§ 650.311 Inspection frequency.**

(a) *Routine inspections.* (1) Inspect each bridge at regular intervals not to exceed twenty-four months.

(2) Certain bridges require inspection at less than twenty-four-month intervals. Establish criteria to determine the level and frequency to which these bridges are inspected considering such factors as age, traffic characteristics, and known deficiencies.

(3) Certain bridges may be inspected at greater than twenty-four month intervals, not to exceed forty-eight-months, with written FHWA approval. This may be appropriate when past inspection findings and analysis justifies the increased inspection interval.

(b) *Underwater inspections.* (1) Inspect underwater structural elements at regular intervals not to exceed sixty months.

(2) Certain underwater structural elements require inspection at less than sixty-month intervals. Establish criteria to determine the level and frequency to which these members are inspected considering such factors as construction material, environment, age, scour characteristics, condition rating from past inspections and known deficiencies.

(3) Certain underwater structural elements may be inspected at greater than sixty-month intervals, not to exceed seventy-two months, with written FHWA approval. This may be appropriate when past inspection findings and analysis justifies the increased inspection interval.

(c) *Fracture critical member (FCM) inspections.* (1) Inspect FCMs at intervals not to exceed twenty-four months.

(2) Certain FCMs require inspection at less than twenty-four-month intervals. Establish criteria to determine the level and frequency to which these members are inspected considering such factors as age, traffic characteristics, and known deficiencies.

(d) Damage, in-depth, and special inspections. Establish criteria to determine the level and frequency of these inspections.

#### **§ 650.313 Inspection procedures.**

(a) Inspect each bridge in accordance with the inspection procedures in the AASHTO Manual (incorporated by reference, *see* § 650.317).

(b) Provide at least one team leader, who meets the minimum qualifications stated in § 650.309, at the bridge at all times during each initial, routine, in-depth, fracture critical member and underwater inspection.

(c) Rate each bridge as to its safe load-carrying capacity in accordance with the AASHTO Manual (incorporated by reference, *see* § 650.317). Post or restrict the bridge in accordance with the AASHTO Manual or in accordance with State law, when the maximum unrestricted legal loads or State routine permit loads exceed that allowed under the operating rating or equivalent rating factor.

(d) Prepare bridge files as described in the AASHTO Manual (incorporated by reference, *see* § 650.317). Maintain reports on the results of bridge inspections together with notations of any action taken to address the findings of such inspections. Maintain relevant maintenance and inspection data to allow assessment of current bridge condition. Record the findings and results of bridge inspections on standard State or Federal agency forms.

(e) Identify bridges with FCMs, bridges requiring underwater inspection, and bridges that are scour critical.

(1) Bridges with fracture critical members. In the inspection records, identify the location of FCMs and describe the FCM inspection frequency and procedures. Inspect FCMs according to these procedures.

(2) Bridges requiring underwater inspections. Identify the location of underwater elements and include a description of the underwater elements, the inspection frequency and the procedures in the inspection records for each bridge requiring underwater inspection. Inspect those elements requiring underwater inspections according to these procedures.

(3) Bridges that are scour critical. Prepare a plan of action to monitor known and potential deficiencies and to address critical findings. Monitor bridges that are scour critical in accordance with the plan.

(f) *Complex bridges.* Identify specialized inspection procedures, and additional inspector training and experience required to inspect complex bridges. Inspect complex bridges according to those procedures.

(g) *Quality control and quality assurance.* Assure systematic quality control (QC) and quality assurance (QA) procedures are used to maintain a high degree of accuracy and consistency in the inspection program. Include periodic field review of inspection teams, periodic bridge inspection refresher training for program managers and team leaders, and independent review of inspection reports and computations.

(h) *Follow-up on critical findings.* Establish a statewide or Federal agency wide procedure to assure that critical findings are addressed in a timely manner. Periodically notify the FHWA of the actions taken to resolve or monitor critical findings.

#### **§ 650.315 Inventory.**

(a) Each State or Federal agency must prepare and maintain an inventory of all bridges subject to the NBIS. Certain Structure Inventory and Appraisal (SI&A) data must be collected and retained by the State or Federal agency for collection by the FHWA as requested. A tabulation of this data is contained in the SI&A sheet distributed by the FHWA as part of the "Recording and Coding Guide for the Structure Inventory and Appraisal of the Nation's Bridges," (December 1995) together with subsequent interim changes or the most recent version. Report the data using FHWA established procedures as

outlined in the "Recording and Coding Guide for the Structure Inventory and Appraisal of the Nation's Bridges."

(b) For routine, in-depth, fracture critical member, underwater, damage and special inspections enter the SI&A data into the State or Federal agency inventory within 90 days of the date of inspection for State or Federal agency bridges and within 180 days of the date of inspection for all other bridges.

(c) For existing bridge modifications that alter previously recorded data and for new bridges, enter the SI&A data into the State or Federal agency inventory within 90 days after the completion of the work for State or Federal agency bridges and within 180 days after the completion of the work for all other bridges.

(d) For changes in load restriction or closure status, enter the SI&A data into the State or Federal agency inventory within 90 days after the change in status of the structure for State or Federal agency bridges and within 180 days after the change in status of the structure for all other bridges.

#### **§ 650.317 Reference manuals.**

(a) The materials listed in this subpart are incorporated by reference in the corresponding sections noted. These incorporations by reference were approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. These materials are incorporated as they exist on the date of the approval, and notice of any change in these documents will be published in the **Federal Register**. The materials are available for purchase at the address listed below, and are available for inspection at the National Archives and Records Administration (NARA). These materials may also be reviewed at the Department of Transportation Library, 400 Seventh Street, SW., Washington, DC, in Room 2200. For information on the availability of these materials at NARA call (202) 741-6030, or go to the following URL: [http://www.archives.gov/federal\\_register/code\\_of\\_federal\\_regulations/ibr\\_locations.html](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html). In the event there is a conflict between the standards in this subpart and any of these materials, the standards in this subpart will apply.

(b) The following materials are available for purchase from the American Association of State Highway and Transportation Officials, Suite 249, 444 N. Capitol Street, NW., Washington, DC 20001. The materials may also be ordered via the AASHTO bookstore located at the following URL: <http://www.aashto.org/aashto/home.nsf/FrontPage>.

(1) The Manual for Condition Evaluation of Bridges, 1994, second edition, as amended by the 1995, 1996, 1998, and 2000 interim revisions, AASHTO, incorporation by reference approved for §§ 650.305 and 650.313.

(2) 2001 Interim Revision to the Manual for Condition Evaluation of Bridges, AASHTO, incorporation by reference approved for §§ 650.305 and 650.313.

(3) 2003 Interim Revision to the Manual for Condition Evaluation of Bridges, AASHTO, incorporation by reference approved for §§ 650.305 and 650.313.

[FR Doc. 04-27355 Filed 12-13-04; 8:45 am]

**BILLING CODE 4910-22-P**

## **DEPARTMENT OF THE TREASURY**

### **31 CFR Part 103**

#### **Financial Crimes Enforcement Network; Interpretive Release 2004-1—Anti-Money Laundering Program Requirements for Money Services Businesses With Respect to Foreign Agents or Foreign Counterparties**

**AGENCY:** Financial Crimes Enforcement Network (FinCEN), Treasury.

**ACTION:** Final rule; interpretive release.

**SUMMARY:** This Interpretive Release sets forth an interpretation of the regulation requiring Money Services Businesses that are required to register with FinCEN to establish and maintain anti-money laundering programs. Specifically, this Interpretive Release clarifies that the anti-money laundering program regulation requires such Money Services Businesses to establish adequate and appropriate policies, procedures and controls commensurate with the risk of money laundering and the financing of terrorism posed by their relationship with foreign agents or foreign counterparties of the Money Services Business.

**DATES:** Effective June 13, 2005.

**FOR FURTHER INFORMATION CONTACT:**

Office of Regulatory Policy and Programs Division, 1-800-800-2877, Office of Chief Counsel (703) 905-3590 (not a toll free number).

**SUPPLEMENTARY INFORMATION:** Section 5318(h) of the Bank Secrecy Act, which is codified in subchapter II of chapter 53 of title 31, United States Code, requires every financial institution to establish an anti-money laundering program. The Bank Secrecy Act regulations define financial institution to include money service businesses. On April 29, 2002, FinCEN issued interim final rules-31

CFR 103.125-concerning the application of the anti-money laundering program requirement to money services businesses. 67 FR 21114.

#### **List of Subjects in 31 CFR Part 103**

Authority delegations (government agencies), bank, banking, currency, investigations, reporting and recordkeeping requirements.

#### **Department of the Treasury**

##### *31 CFR Chapter I*

#### **Authority and Issuance**

■ For the reasons set forth in the preamble, part 103 of title 31 of the Code of Federal Regulations is amended as follows:

#### **PART 103—FINANCIAL RECORDKEEPING AND REPORTING OF CURRENCY AND FOREIGN TRANSACTIONS**

■ 1. The authority citation for part 103 continues to read as follows:

**Authority:** 12 U.S.C. 1829b and 1951-1959; 31 U.S.C. 5311-5314 and 5316-5332; title III, secs. 312, 313, 314, 319, 326, 352, Pub. L. 107-56, 115 Stat. 307, 12 U.S.C. 1786(q).

■ 2. Part 103 is amended by adding a new appendix C to read as follows:

#### **APPENDIX C TO PART 103—INTERPRETIVE RULES**

##### **Release No. 2004-01**

This Interpretive Guidance sets forth our interpretation of the regulation requiring Money Services Businesses that are required to register with FinCEN to establish and maintain anti-money laundering programs. See 31 CFR 103.125. Specifically, this Interpretive Guidance clarifies that the anti-money laundering program regulation requires Money Services Businesses to establish adequate and appropriate policies, procedures, and controls commensurate with the risks of money laundering and the financing of terrorism posed by their relationship with foreign agents or foreign counterparties of the Money Services Business.<sup>1</sup>

Under existing Bank Secrecy Act regulations, we have defined Money Services Businesses to include five distinct types of financial services providers and the U.S. Postal Service: (1) Currency dealers or exchangers; (2) check cashers; (3) issuers of traveler's checks, money orders, or stored

<sup>1</sup> This Interpretive Guidance focuses on the need to control risks arising out of the relationship between a Money Service Business and its foreign counterparty or agent. Under existing FinCEN regulations, only Money Service Business principals are required to register with FinCEN, and only Money Service Business principals establish the counterparty or agency relationships. 31 CFR 103.41. Accordingly, this Interpretive Guidance only applies to those Money Service Businesses required to register with FinCEN, that is, only those Money Service Businesses that may have a relationship with a foreign agent or counterparty.