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NATIONAL HIGHWAY BRIDGE RECONSTRUCTION AND INSPECTION ACT OF 2007

JULY 10, 2008.—Committed to the Committee of the Whole House on the State of the Union and ordered to be printed

Mr. OBERSTAR, from the Committee on Transportation and Infrastructure, submitted the following

R E P O R T

[To accompany H.R. 3999]

[Including cost estimate of the Congressional Budget Office]

The Committee on Transportation and Infrastructure, to whom was referred the bill (H.R. 3999) to amend title 23, United States Code, to improve the safety of Federal-aid highway bridges, to strengthen bridge inspection standards and processes, to increase investment in the reconstruction of structurally deficient bridges on the National Highway System, and for other purposes, having considered the same, report favorably thereon without amendment and recommend that the bill as amended do pass.

PURPOSE OF THE LEGISLATION

H.R. 3999, the "National Highway Bridge Reconstruction and Inspection Act of 2007," amends the Highway Bridge Program and the National Bridge Inspection Program to improve the safety of Federal-aid highway bridges, strengthen bridge inspection standards and processes, and increase investment in the reconstruction of structurally deficient bridges on the National Highway System.

BACKGROUND AND NEED FOR LEGISLATION

I–35W BRIDGE COLLAPSE

On August 1, 2007, at 6:05 p.m., the I–35W Bridge in Minneapolis, Minnesota, collapsed into the Mississippi River, killing 13 people. The eight-lane, steel truss bridge span, which was constructed in 1967, carried approximately 140,000 vehicles daily. The

National Transportation Safety Board ("NTSB") is conducting an investigation into the cause of the collapse. The NTSB's investigation may take up to 18 months to complete.

The I–35W Bridge had been rated as structurally deficient since 1990, and had undergone annual inspections by the Minnesota Department of Transportation ("MnDOT") since 1993. The most recent inspection, completed in June 2006, found cracking and fatigue problems, and gave the bridge a sufficiency rating of 50 percent on a scale of 0 to 100 percent. A rating of 50 percent or lower means the bridge is eligible for replacement under the Federal Highway Bridge Program.

In the aftermath of the collapse, MnDOT and the Minnesota Department of Employment and Economic Development conducted a study of the impact to regional mobility and economic activity due to the loss of this facility. The study estimated that road user costs total $400,000 per day in travel time delays and increased operational expenses costs because of the increased travel time resulting from the loss of the bridge. The report also estimated that the impact of the collapse to Minnesota's economy is $18 million in 2007 and $43 million in 2008.

HIGHWAY BRIDGE CONDITIONS IN THE UNITED STATES

According to the U.S. Department of Transportation ("DOT"), one of every eight bridges in the nation is structurally deficient. Of the 597,340 bridges in the United States, 154,101 bridges are deficient, including 73,784 structurally deficient bridges and 80,317 functionally obsolete bridges.

A bridge is considered structurally deficient if significant load-carrying elements are found to be in poor or worse condition due to deterioration and/or damage. The fact that a bridge is "deficient" does not immediately imply that it is likely to collapse or that it is unsafe. With in-depth inspection, unsafe conditions may be identified and, if the bridge is determined to be unsafe, the structure must be closed. A deficient bridge, when left open to traffic, typically requires significant maintenance and repair to remain in service and eventual rehabilitation or replacement to address deficiencies.

The Department of Transportation's ("DOT") Conditions and Performance Report, entitled the 2006 Status of the Nation's Highways, Bridges, and Transit: Conditions & Performance ("Conditions and Performance Report"), found that more than $65 billion could be invested immediately in a cost-beneficial way, by all levels of government, to replace or otherwise address existing bridge deficiencies.

The high percentage of deficient bridges and the backlog of necessary bridge repairs are, in part, due to the age of the network. One-half of all bridges in the United States were built before 1964. Interstate System bridges, which were primarily constructed in the 1960s, pose a special challenge because a large percentage of these bridges are in the same period of their service lives (e.g., 44 percent of these bridges were constructed in the 1960s). Concrete and steel superstructures on the Interstate Highway System are, on average, 35 to 40 years old.

The Committee is particularly concerned with the condition of bridges on the National Highway System ("NHS"). The NHS is a

162,000-mile highway network that consists of the 46,747–mile Interstate System, the Strategic Highway Network for military mobilizations, and other major highways. While the NHS makes up only 4.1 percent of total U.S. mileage, it carries 45 percent of vehicle miles traveled. NHS bridges carry more than 70 percent of all traffic on bridges. Of the 116,172 bridges on the NHS (including more than 55,000 Interstate System bridges), 6,175 NHS bridges are structurally deficient. Almost one-half of these structurally deficient NHS bridges are bridges on the Interstate Highway System (2,830 structurally deficient Interstate System bridges). The Condition and Performance Report estimates the current NHS bridge investment backlog to be $32.1 billion (including $19.1 billion for the Interstate Highway System bridge backlog).

BRIDGE INSPECTION, MAINTENANCE, RECONSTRUCTION AND REPLACEMENT IN THE U.S.

As is the case with other U.S. surface transportation infrastructure programs, inspection, maintenance, repair, reconstruction and replacement of highway bridges are conducted through a Federal-State partnership. The vast majority of all bridges in the U.S. are owned by States and local governments. The Federal Government establishes bridge inspection policies, guidelines, and requirements. Inspections and management of bridge inventories and repair, reconstruction, and replacement of bridges are carried out by States, subject to Federal oversight. The Federal Government also provides funding for States and local governments to invest in their bridge inventory through the Highway Bridge Program.

Federal law requires States to inspect all bridges more than 20 feet in length within the State, and report the findings of inspections to the Federal Highway Administration ("FHWA"). Federal law does not require States to take additional actions to maintain, repair or reconstruct deficient bridges. That is the responsibility of bridge owners. Bridge engineers in the FHWA Division Offices are responsible for overseeing States' operation and management of their bridge program; however, States choose how and where to invest their bridge program resources.

It should be noted that the Federal Government does own approximately one percent of the nation's bridges, primarily bridges on federally-owned land. In cases where the Federal Government owns the facility, the Federal Government is responsible for inspecting and maintaining the bridges.

FEDERAL BRIDGE INSPECTION STANDARDS

Efforts to create Federal bridge inspection standards began in 1968, as a result of the December 1967 collapse of the Silver Bridge, a bridge between Point Pleasant, West Virginia, and Gallipolis, Ohio. Forty-six people were killed in the collapse. The following year, Congress passed the Federal-Aid Highway Act of 1968, which established the National Bridge Inspection Program ("NBIP"), and directed DOT to work with States to establish national bridge inspection standards designed to locate and evaluate existing bridge deficiencies to ensure the safety of highway bridges. The Act required DOT to establish inspection criteria and procedures, and inspector training and qualification requirements. The

Act also required States to prepare and maintain an inventory of Federal-aid highway system bridges.

In 1971, DOT published the National Bridge Inspection Standards ("NBIS"), which established bridge inspection policies, in the Federal Register. Under the NBIS, States are required to conduct routine safety inspections on each bridge at least once every 24 months to determine physical and functional conditions of the bridge. The inspections are carried out by either State employees or consultants, subject to Federal oversight.

According to the American Association of State Highway and Transportation Officials' ("AASHTO") Manual for Condition Evaluation of Bridges, the minimum Federal requirement of routine inspections consists of "observations and measurements needed to determine the physical and functional condition of the bridge, to identify changes in 'initial' or previously recorded conditions, and to ensure that the structure continues to satisfy present service requirements." Routine inspections are generally visual. However, States do utilize additional technology or mechanical techniques to carry out more in-depth inspections, depending on the condition and nature of the structure. During inspections, three major bridge elements are examined: the bridge deck, superstructure, and substructure.

The AASHTO manual identified the following types of bridge inspections:

Initial—A first inspection of a bridge, which provides a structural inventory and a baseline of structural conditions, including identification and listing of existing problems or locations in the structure that may require special attention.

Routine—A regularly scheduled inspection to determine the physical and functional condition of the bridge.

In-Depth—A close-up, hands-on inspection of one or more bridge components to identify potential deficiencies which are not detectable using routine inspection procedures.

Special—A regular inspection to monitor a specific known or suspected deficiency of a bridge.

Damage—An unscheduled emergency inspection to determine structural damage resulting from accident or other external incident.

Information is collected during inspection documenting the conditions and composition of the bridge structures. The periodic inspections determine the adequacy of the structure to service the current demands for structural and functional purposes. Information and data regarding the condition of the bridges is submitted to the FHWA for inclusion in the National Bridge Inventory (NBI).

The Surface Transportation Assistance Act of 1978 expanded the NBIS to include bridges on all public roads, including bridges not on the Federal-aid highway system. With an expanded inventory of bridges to be inspected, FHWA decided to lengthen the time between inspections. In 1988, FHWA issued regulations extending inspection intervals for certain bridges based on findings and analysis from previous inspections. The inspection interval for these bridges may not exceed once every 48 months. However, States are still required to conduct routine inspections on each bridge once every 24 months unless the State receives approval from FHWA to extend the inspection interval. According to FHWA, 83 percent of

bridges are inspected once every 24 months, 12 percent are inspected at least annually, and 5 percent are inspected at least once every 48 months.

The Surface Transportation and Uniform Relocation Assistance Act of 1987 required additional inspection requirements for components that are critical to the safety of the structure. These components include fracture-critical members and underwater structures. Fracture-critical members are bridge components "whose failure will probably cause a portion of or the entire bridge to collapse." Inspections for underwater structures must occur at least once every 60 months. Pursuant to FHWA's 1988 final rule implementing these provisions, FHWA may extend the inspection interval for certain underwater structures based on findings and analysis from previous inspections. The inspection interval for underwater structures may not exceed once every 72 months.

The Secretary uses funds made available for the DOT's administrative expenses and the Surface Transportation Research Program to implement the NBIS highway bridge inspection program. States use Highway Bridge Program funds to carry bridge inspection activities.

FEDERAL HIGHWAY BRIDGE PROGRAM

The Highway Bridge Program ("HBP") provides funding to enable States to improve the condition of their highway bridges through replacement, rehabilitation, and systematic preventive maintenance. The program is funded by contract authority, and subject to an overall Federal-aid obligation limitation. The apportioned funds are distributed according to a formula based on each State's relative share of the total cost to repair or replace deficient highway bridges.

Federal assistance for the replacement of bridges was originally included in the Federal-Aid Highway Act of 1970, which contained the Special Bridge Replacement Program ("SBRP"). The SBRP required DOT to inventory all bridges located on the Federal-aid system over waterways and other topographical barriers, classify these bridges, and prioritize the bridges by need of replacement. DOT would approve State applications for bridge replacement funds based on this inventory and classification. Subsequent Federal-Aid Highway Acts extended the SBRP.

The Surface Transportation Assistance Act of 1978 renamed the program the Highway Bridge Replacement and Rehabilitation Program, and made bridge repair, rehabilitation, and replacement eligible to receive Federal funding.

The Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users ("SAFETEA–LU"), enacted in 2005, further expanded eligible uses of HBP funds to include systematic maintenance.

Current eligible uses of Highway Bridge Program funds include:

Replacement of a structurally deficient or functionally obsolete highway bridge on any public road with a new facility constructed in the same general traffic corridor.

Rehabilitation to restore the structural integrity of a bridge on any public road, as well as the rehabilitation work necessary to correct major safety (functional) defects.

Replacement of ferryboat operations in existence on January 1, 1984, the replacement of bridges destroyed before 1965, low-water crossings, and bridges made obsolete by U.S. Army Corps of Engineers flood control or channelization projects and not rebuilt with Corps funds.

Bridge painting, seismic retrofitting, systematic preventive maintenance, calcium magnesium acetate applications, sodium acetate/formate, or other environmentally acceptable, minimally corrosive anti-icing and de-icing compositions or installing scour countermeasures.

Systematic maintenance.

HBP funds are apportioned to States according to a formula that is based on each State's relative share of the total cost to repair or replace deficient highway bridges. The Federal share for the Highway Bridge Program is 80 percent, or 90 percent for bridges on the Interstate system. The program includes a set-aside for off-system bridges of not less than 15 percent of the amount apportioned to each State in each of fiscal year 2005 through 2009. These funds are to be used for bridge projects that are not on a Federal-aid highway.

States can use HBP funds for the replacement of a bridge with a sufficiency rating below 50 on a scale of 0–100. Bridges with a sufficiency rating of between 50 and 80 are eligible for repair and rehabilitation. States may not use HBP funds for reconstruction of facilities with a sufficiency rating above 80. Between fiscal year 2002 and fiscal year 2005, States invested Federal highway program funds as follows: 8 percent on new bridge facilities, 60.5 percent on bridge replacement projects, 5 percent on major bridge rehabilitation projects, and 6.5 percent on minor bridge maintenance projects. The percentage of Federal funds being invested in minor bridge repairs has been increasing in recent years.

The Federal-Aid Highway program provides States with considerable funding transferability among most Federal-Aid Highway apportioned programs. Beginning with enactment of the Intermodal Surface Transportation Efficiency Act ("ISTEA") in 1991, States were allowed to transfer up to 40 percent of HBP funds to National Highway System ("NHS") or Surface Transportation Program ("STP") apportionments. In 1998, the Transportation Equity Act for the 21st Century ("TEA 21") increased the percentage of HBP funds that may be transferred to 50 percent. In addition, TEA 21 expanded the programs that may receive HBP transfers to include NHS, STP, Congestion Mitigation and Air Quality Improvement ("CMAQ"), highway safety and recreational trails apportionments. SAFETEA–LU retained this authority. Between 1992 and 2006, States transferred a total of $4.73 billion in Highway Bridge Program funds to NHS and STP programs.

In addition, a State may transfer approximately 50 percent of its NHS, STP, and Interstate Maintenance apportionments to the Highway Bridge Program. A State may also transfer less than 50 percent of its CMAQ apportionment to the Highway Bridge Program. Between fiscal years 2004 and 2007, of the 19 States that transferred funding from the Highway Bridge Program to other Federal-Aid Highway programs, 7 of those States also transferred funding from other Federal-Aid Highway programs to their Highway Bridge Programs. In addition, States often invest funds from

other Federal-Aid Highway programs on bridge projects without transferring the funds to the HBP. For instance, in fiscal year 2004, FHWA apportioned $5.1 billion to the States for the HBP. However, in that year, States actually invested a total of $6.6 billion in Federal-Aid Highway funding on bridge projects.

Similarly, in implementing congressionally-mandated rescissions of unobligated contract authority balances in highway program funds, States have chosen to disproportionately rescind contract authority from a few programs, including the Highway Bridge Program. Although the Highway Bridge Program represents approximately 11 percent of the overall program funding level in SAFETEA–LU, rescissions of contract authority available for this program have totaled approximately one-third of total rescissions.

Finally, some States are very slow to obligate the available Highway Bridge Program contract authority. For instance, in the past five years (FY 2003–FY 2007), Minnesota has obligated barely one-half (51 percent) of the available HPB funds—the lowest obligation-to-apportionment ratio of any State. However, the five-year average ratio for all States is 89 percent. Nineteen States have a five-year average ratio of more than 99 percent. Tennessee has the highest Highway Bridge Program obligation-to-apportionment ratio of any State (141 percent). The following table provides the State-by-State HBP ratios.

Highway Bridge Program ("HBP") Obligation Rates
Ratio of HBP Obligations to HBP Apportionments

STATE	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	5-YEAR AVERAGE RATIO
Alabama	124%	77%	106%	96%	91%	**99%**
Alaska	87%	76%	49%	91%	66%	**74%**
Arizona	43%	44%	70%	32%	64%	**51%**
Arkansas	98%	74%	63%	64%	36%	**67%**
California	108%	56%	56%	70%	116%	**81%**
Colorado	100%	63%	83%	75%	101%	**84%**
Connecticut	63%	94%	87%	93%	94%	**86%**
Delaware	75%	77%	184%	44%	71%	**90%**
Dist. Of Col.	76%	164%	76%	55%	122%	**99%**
Florida	141%	53%	118%	79%	63%	**91%**
Georgia	111%	92%	174%	163%	148%	**138%**
Hawaii	70%	85%	32%	107%	91%	**77%**
Idaho	51%	67%	91%	59%	91%	**72%**
Illinois	107%	110%	74%	107%	119%	**103%**
Indiana	71%	35%	121%	57%	66%	**70%**
Iowa	122%	104%	106%	100%	99%	**106%**
Kansas	127%	79%	69%	82%	68%	**85%**
Kentucky	71%	98%	94%	111%	49%	**85%**
Louisiana	64%	79%	80%	54%	85%	**72%**
Maine	76%	69%	113%	65%	47%	**74%**
Maryland	59%	104%	110%	96%	97%	**93%**
Massachusetts	58%	53%	69%	109%	101%	**78%**
Michigan	95%	82%	103%	84%	103%	**93%**
Minnesota	82%	33%	47%	27%	65%	**51%**
Mississippi	128%	96%	125%	236%	90%	**135%**
Missouri	71%	87%	78%	96%	63%	**79%**
Montana	96%	54%	98%	152%	97%	**99%**
Nebraska	99%	75%	55%	48%	74%	**70%**
Nevada	116%	183%	111%	48%	35%	**99%**
New Hampshire	105%	54%	77%	75%	69%	**76%**
New Jersey	108%	86%	96%	76%	100%	**93%**
New Mexico	119%	77%	135%	111%	84%	**105%**
New York	127%	95%	117%	90%	97%	**105%**
North Carolina	109%	77%	68%	122%	92%	**94%**
North Dakota	109%	155%	142%	67%	71%	**109%**
Ohio	94%	93%	64%	49%	89%	**78%**
Oklahoma	104%	83%	133%	131%	128%	**116%**
Oregon	120%	66%	75%	84%	147%	**98%**
Pennsylvania	57%	54%	61%	52%	66%	**58%**
Rhode Island	97%	82%	50%	63%	65%	**71%**
South Carolina	117%	98%	76%	175%	102%	**114%**
South Dakota	127%	98%	160%	117%	98%	**120%**
Tennessee	116%	124%	157%	190%	119%	**141%**
Texas	86%	67%	83%	113%	180%	**106%**
Utah	69%	95%	248%	176%	78%	**133%**
Vermont	78%	59%	56%	87%	36%	**63%**
Virginia	59%	127%	62%	85%	64%	**79%**
Washington	103%	123%	86%	96%	128%	**107%**
West Virginia	108%	88%	92%	95%	69%	**90%**
Wisconsin	97%	60%	119%	125%	95%	**99%**
Wyoming	81%	55%	88%	80%	160%	**93%**
Total	95%	81%	87%	88%	95%	**89%**

*Source: Federal Highway Administration

Note: Between FY 2003 and FY 2007, States received authority to obligate 85-90 percent of the total amount of highway contract authority apportioned to States. However, an obligation for a given fiscal year may be composed of a combination of obligations of apportionments from the current and past authorizations thus resulting in a ratio greater than 100 percent.

BRIDGE INSPECTOR TRAINING AND QUALIFICATION REQUIREMENTS

Federal regulation currently sets minimum qualifications of the top two levels of personnel responsible for carrying out bridge inspections. Specifically, the regulations set minimum qualifications for a Program Manager and a Team Leader. Underwater bridge inspectors and the individual responsible for determining load ratings for bridges are also required to have a minimum level of training.

Federal regulations do not require front-line bridge inspectors to receive a minimum level of training. However, some States do provide training for all levels of inspectors through the National Highway Institute and/or other State-based organizations offering FHWA-approved comprehensive training and certification programs.

TECHNOLOGY AND RESEARCH AND DEVELOPMENT

Visual observation and other traditional means of observation, such as cleaning and scraping, dragging chains, and using sounding rods and hammers, remain the primary methods of conducting field tests of bridges elements. A study released by the FHWA Destructive Evaluation Center in 2001 raised significant concerns over the reliability of visual inspections. The 2001 report found that trained bridge inspectors rarely detected defects when they conducted visual inspections of bridges with identified fatigue problems. In fact, the study found that only eight percent of the inspectors correctly identified a fatigue crack, and many of the inspectors identified non-existent problems. Similarly, a 2004 study published in the Journal of Bridge Engineering found similar problems with accuracy and reliability of viable inspections and documentation. These findings raise significant concerns, and highlight a serious flaw in the current program. Although visual inspections remain the primary method used in bridge inspections, they can be very unreliable. In addition, Highway Bridge Program funds are distributed based on subjective assessments which may be inaccurate.

To supplement and enhance traditional testing methods, state-of-the-art techniques are increasingly being utilized to augment and advance examination of critical and/or suspect bridge elements. The types of methods being developed and utilized by States include: impact echo, infrared thermography, ground penetrating radar, strain gauges, ultrasonic, eddy current, radiography, acoustic emissions, x-ray technology, and other non-destructive evaluation techniques.

Some States utilize more extensive and sophisticated technologies and techniques to provide real-time, in-service performance information on bridge conditions. The use of real-time technologies and monitoring processes, such as structural health monitoring of critical bridge elements and underwater sonar imaging for inspection of bridge substructures, can provide detailed and continuous data and information regarding the condition and performance of critical bridge members and elements.

FHWA, industry, academia, the Transportation Research Board (“TRB”), and State Departments of Transportation continue to research, investigate, and develop bridge inspection technologies. To assist in this effort, Congress authorized and funded five bridge re-

search program areas: long-term bridge performance, innovative bridge delivery, high performance and innovative materials, nondestructive inspection technology, and seismic research.

BRIDGE MANAGEMENT SYSTEMS

Most States have developed some form of computer-based bridge management programs. These bridge management systems ("BMS") are utilized to assist States in managing bridge programs to improve the bridge inspection process and the quality of data collected and reported to the NBI. These systems also assist States in prioritizing system-wide investment decisions based on the needs of the bridges, and tracking the deterioration rate of bridge elements. BMS include four basic components: data storage, cost and deterioration models, optimization models for analysis, and updating functions. While many States use similar computer platforms for their BMS, the software and systems being utilized vary in complexity and capabilities. This lack of uniform BMS standards has raised questions about the consistency of data submitted to the NBI. The bridge data contained in the system reflects the findings generated during field inspections. Therefore, the quality of the data, and the analysis that the BMS provides, is only as good as the information that is input into the system.

BRIDGE LOAD RATING

The deteriorating conditions of deficient bridges result in facilities being "load rated". The load rating is an estimate of the safe weight-carrying capacity of a bridge and is performed separately from the bridge inspection. Bridge load ratings are based on structural condition of the bridge as identified in the most recent inspection, and take into account bridge design, condition, usage, and potential of failure due to overloads. Properly calculating the load rating of structurally deficient bridges, and, if necessary, posting signs to keep heavier vehicles from crossing them serves to protect structurally deficient bridges from stresses caused by loads that exceed a bridge's capacity. Load ratings are carried out using ratings procedures established by AASHTO. Federal regulations require that load rating calculations be carried out by a licensed professional engineer.

In a 2006 audit, the Department of Transportation Inspector General ("DOT IG") found that States erred in calculating the load rating for structurally deficient bridges on the National Highway System ("NHS"). According to the DOT IG, inaccurate or outdated maximum weight limit calculations and posting entries were recorded in bridge databases of the State Departments of Transportation and the NBI. The DOT IG found that among structurally deficient bridges on the NHS:

One in 10 structurally deficient NHS bridges had load rating calculations that did not accurately reflect the condition of the structure;

Signs were not posted on 7.8 percent of bridges that were required to have maximum safe weight signs posted;

Procedures were not properly followed in the calculation of load ratings for 10 percent of the bridges; and

40.5 percent of State-level load ratings posted on National Highway System bridges do not match the information submitted to the National Bridge Inventory.

The DOT IG also found that FHWA Division Offices spend limited time on oversight, and did not ensure that States' bridge load ratings were properly calculated and corresponding postings were performed. In addition, FHWA does not require its Division Offices to analyze bridge inspection data to better identify and target specific structurally deficient bridges most in need of load limit recalculation and posting. The DOT IG recommended that the FHWA utilize the objective data generated from the computerized management systems, and contained in the NBI and State databases to improve oversight and risk assessments of State bridge programs.

SUMMARY OF THE LEGISLATION

Section 1. Short title

Section 1 denotes the short title of the bill as the "National Highway Bridge Reconstruction and Inspection Act of 2007".

Section 2. Highway Bridge Program

Section 2 injects a new level of accountability into bridge repair and replacement by ensuring that States are investing in upgrading those bridges that are most critical to safety, as well as freight and passenger mobility. This section requires the Secretary of Transportation to develop a system to assign a risk-based priority to repair, rehabilitate, or replace each structurally deficient or functionally obsolete bridge on the Federal-aid highway system. This prioritization will allow States to target inspections and limited HBP resources on those bridges most in need of repair, rehabilitation, and reconstruction. In doing so, the overall safety and reliability of State bridge inventories will be increased.

Subsection (a)(1) of section 2 amends section 144(b) of title 23, United States Code, to direct the Secretary of Transportation, in consultation with the States, to inventory all bridges on Federal-aid highways, identify each bridge inventoried that is either structurally deficient or functionally obsolete, assign a risk-based priority for replacement or rehabilitation of each such bridge after consideration of safety, serviceability, and essentiality for public use, and determine the cost of replacing each such bridge with a comparable facility or of rehabilitating such bridge.

Subsection (a)(2) requires the Secretary to establish a process for assigning risk-based priorities not later than 18 months after the date of enactment of this Act. The Secretary must submit to the Committee on Transportation and Infrastructure of the House of Representatives and the Committee on Environment and Public Works of the Senate a report containing a description of the process for assigning risk-based priorities.

This subsection also requires the National Academy of Sciences to independently review the process for assigning risk-based priorities for repair, reconstruction, or replacement of structurally deficient and functionally obsolete bridges to ensure that investment and resource decisions are based on need.

Subsection (b) defines the term "deficient bridge" as a bridge that is structurally deficient or functionally obsolete.

Subsection (c) establishes the requirements for State participation. States are required to inspect all highway bridges every 24 months. The inspections must be in accordance with bridge inspection standards established under section 151 of title 23, United States Code. After completing bridge inspections, States must provide updated information on these bridges to FHWA for inclusion in the NBI. The Committee intends that these inspections will create a new baseline analysis of bridge conditions, based on the updated inspection and training requirements established pursuant to this Act.

This subsection also requires States to calculate, every 24 months, the load rating for structurally deficient bridges and ensure that the safe load-carrying capacities for such bridges are properly posted. The AASHTO manual encourages States to establish standardized procedures for determining load ratings of bridges, and to review and update as part of every inspection cycle. However, current federal law does not specify timeframes or requirements for load ratings of bridges.

Finally this provision requires States to establish a five-year performance plan for the inspection of highway bridges and the rehabilitation and replacement of any structurally deficient or functionally obsolete bridges. States must submit the performance plan to the Secretary and the Secretary must approve or disapprove each State's performance plan. The performance plans will detail the State's plans for addressing bridge needs, and will ensure greater accountability in the expenditure of HBP funds. Currently, State priorities and plans are incorporated into the broad State transportation plan. Requiring specific bridge performance plans will allow for necessary prioritization and targeting of inspections and HBP resources.

Subsection (d) requires the Secretary to submit to the Committee on Transportation and Infrastructure of the House of Representatives and the Committee on Environment and Public Works of the Senate a report containing a description of the priority assigned, on a national basis and by State, for the replacement and rehabilitation of each structurally deficient or functionally obsolete bridge on a Federal-aid highway. The report also must contain a description of any project or activity carried out by a State that is inconsistent with the priorities assigned by the Secretary.

Subsection (e) authorizes a State to transfer HBP funds to another apportioned program only if the State is able to demonstrate to the satisfaction of the Secretary that the State has no structurally deficient bridges on Federal-aid highways located in the State. Between 1992 and 2006, States transferred a total of $4.73 billion in Highway Bridge Program funds to NHS and STP programs. This provision ensures that in implementing the HBP, States are first utilizing the funds made available to improve the condition and safety of highway bridges.

Subsection (f) defines "functionally obsolete", "structurally deficient", "rehabilitation", and "replacement" for purposes of the Highway Bridge Program.

Subsection (g) makes various technical and clarifying changes to the Highway Bridge Program.

Subsection (h) requires the Secretary to ensure that information in the National Bridge Inventory be more readily available to the

public. This provision ensures that FHWA will provide data regarding each bridge in the inventory in a manner that is accessible and understandable to the general public.

Section 3. National Bridge Inspection Program

Subsection (a) of section 3 provides that the standards established under this Act are to be designed to ensure uniformity among the States in the conduct of inspections and evaluations. Bridges are a key component of the national surface transportation network. As such, it is important that these facilities are inspected in a consistent fashion, and the information generated from the inspection is reliable and accurate.

The 2006 DOT IG's report found significant problems with FHWA's ability to oversee the greatly varied State bridge inspection programs. This subsection requires FHWA and the States to significantly improve their bridge inspection and evaluation processes and develop consistent, uniform processes and standards for the inspection of bridges and inspector training. These improved, uniform standards will ensure that the data collected during inspections and submitted to FHWA is accurate and consistent.

The Committee recognizes that there is not a single solution to this problem. Different States have different levels of need, and different bridges have varying requirements and weaknesses. These differences must be accounted for in the new system. However, it is the Committee's intent to end the piecemeal, patchwork approach to bridge inspection and data collection that currently exists.

Subsection (b) provides that the minimum requirements for inspection standards shall include procedures for conducting annual compliance reviews of State inspections, quality control and quality assurance procedures, load ratings, and weight limit postings of structurally deficient bridges. The inspection standards must also provide standards for State bridge management systems to improve the bridge inspection process and the quality of data collected and submitted to the NBI.

The DOT IG's report found serious concerns with FHWA's oversight of State bridge inspection programs, and the quality and consistency of data being submitted to the NBI. This section is designed to require FHWA to take a more active role in overseeing State bridge programs, and ensuring State bridge inspections conform to the NBIS. The Committee recognizes that tools, such as BMS, are critical to prioritizations and carrying out bridge inspections and the bridge programs. To ensure greater compliance and consistency of data submitted, FHWA must establish uniform standards for these systems.

Subsection (c) requires the Secretary to expand the scope of the bridge inspector training program to ensure that all persons conducting highway bridge inspections receive appropriate training and certification under the program. Federal regulation currently sets minimum qualifications of the top two levels of personnel responsible for carrying out bridge inspections, as well as underwater bridge inspectors and individuals responsible for determining load ratings. Specifically, the regulations establish minimum qualifications for program managers and team leaders. Federal regulations do not require front-line bridge inspectors to receive a minimum

level of training. This provision will make sure that those inspecting bridges have the skills and knowledge to recognize deficiencies and critical findings, and will ensure bridge inspections across the nation are conducted in a consistent fashion.

Subsection (d) requires annual inspections of structurally deficient highway bridges using the best practicable technologies and methods, annual in-depth inspections of fracture critical members, and biennial inspections of highway bridges that have not been determined to be structurally deficient. Upon the request of a State, the Secretary may extend the time between required bridge inspections for non-structurally deficient bridges to a maximum period of 48 months if the Secretary determines that the extension is appropriate based on the age, design, traffic characteristics, and any known deficiency of the bridge, the extension is consistent with the five-year performance plan, and granting the extension will increase the overall safety of the State's bridge inventory.

This subsection requires that States inspect structurally deficient bridges and bridges with fracture critical members are inspected at least annually utilizing the most effective technologies and inspection method. This provision will develop a framework to allow States to target inspections and HBP resources on bridges most in need of monitoring, repair, reconstruction, or replacement. The provision also requires States to utilize the best practicable technologies and inspection methods and techniques in carrying out inspections of structurally deficient bridges.

Subsection (e) requires the Secretary to revise regulations relating to the qualifications of State highway bridge inspection personnel to require that anyone serving as a program manager be a professional engineer licensed under the laws of that State, and that an individual serving as a team leader be a professional engineer licensed under the laws of that State or have at least 10 years of bridge inspection experience. The subsection provides that the requirements in this subsection only apply to an individual selected by a State to serve as a program manager or a team leader after the date of issuance of revised regulations.

Subsection (f) requires the Secretary, within one year after the date of enactment of this Act, to modify national bridge inspection standards and the training program for bridge inspectors in accordance with this section.

Section 4. Surface transportation research

Section 4 expands the activities eligible to receive funding under the highway research program to include research into non-destructive inspection technologies. Many States currently use these types of technologies to supplement traditional bridge inspections. These technologies have demonstrated value in assessing bridge conditions and extending the life of bridges.

Section 5. Authorization of appropriations

Subsection (a) of section 5 authorizes $1 billion to be appropriated in each of FY 2008 and FY 2009 to repair, reconstruct, and replace structurally deficient bridges on the NHS.

Subsection (b) distributes the funds authorized by this legislation by formula pursuant to Federal-aid Highway apportionments for Federal-aid highway bridges under the Highway Bridge Program.

This subsection also provides that funds distributed under this program shall be used for the replacement or rehabilitation of structurally deficient National Highway System bridges. This provision prohibits the transfer of funds provided under this act to other Federal-aid highway programs.

Subsection(c) prohibits any Congressional or Administration earmarks of funding provided under this program. The legislation establishes a process for priority rating for bridge repairs and reconstruction. This provision is designed to remove political considerations from the decision-making process, and ensure that the limited resources available under the bridge program are targeted on those bridges most in need of rehabilitation.

LEGISLATIVE HISTORY AND COMMITTEE CONSIDERATION

On August 2, 2007, Chairman James L. Oberstar introduced H.R. 3311, in response to the August 1, 2007 collapse of the I–35W Bridge in Minneapolis, Minnesota, that killed 13 people. H.R. 3311 authorized $250 million of additional funds for emergency repairs and reconstruction of the I–35W Bridge, waived the $100 million on emergency relief funds for emergency repairs and reconstruction, and provided emergency transit funds. On August 2, the Committee on Transportation and Infrastructure ordered H.R. 3311 reported favorably to the House. On August 3, the House passed the bill by a vote of 421–0. On August 4, the House passed H.R. 3311, as amended by the Senate, by unanimous consent. On August 8, the President signed the bill (P.L. 110–56).

On September 5, 2007, the Committee on Transportation and Infrastructure held a hearing on structurally deficient bridges on the National Highway System.

On October 23, 2007, the Subcommittee on Highways and Transit held a hearing on highway bridge inspections.

On October 30, 2007, Chairman James L. Oberstar introduced H.R. 3999, the "National Highway Bridge Reconstruction and Inspection Act of 2007."

On November 2, 2007, the Committee on Transportation and Infrastructure met in open session to consider H.R. 3999, and ordered the bill reported favorably to the House by voice vote with a quorum present.

RECORD VOTES

Clause 3(b) of rule XIII of the Rules of the House of Representatives requires each committee report to include the total number of votes cast for and against on each record vote on a motion to report and on any amendment offered to the measure or matter, and the names of those members voting for and against. There were no recorded votes taken in connection with consideration of H.R. 3999 or ordering the bill reported. A motion to order H.R. 3999 reported favorably to the House was agreed to by voice vote with a quorum present.

COMMITTEE OVERSIGHT FINDINGS

With respect to the requirements of clause 3(c)(1) of rule XIII of the Rules of the House of Representatives, the Committee's oversight findings and recommendations are reflected in this report.

COST OF LEGISLATION

Clause 3(c)(2) of rule XIII of the Rules of the House of Representatives does not apply where a cost estimate and comparison prepared by the Director of the Congressional Budget Office under section 402 of the Congressional Budget Act of 1974 has been timely submitted prior to the filing of the report and is included in the report. Such a cost estimate is included in this report.

COMPLIANCE WITH HOUSE RULE XIII

1. With respect to the requirement of clause 3(c)(2) of rule XIII of the Rules of the House of Representatives, and section 308(a) of the Congressional Budget Act of 1974, the Committee references the report of the Congressional Budget Office included in the report.

2. With respect to the requirement of clause 3(c)(4) of rule XIII of the Rules of the House of Representatives, the performance goals and objectives of this legislation are to improve the safety of Federal-aid highway bridges, strengthen bridge inspection standards and processes, and increase investment in the reconstruction of structurally deficient bridges on the National Highway System.

3. With respect to the requirement of clause 3(c)(3) of rule XIII of the Rules of the House of Representatives and section 402 of the Congressional Budget Act of 1974, the Committee has received the enclosed cost estimate for H.R. 3999 from the Director of the Congressional Budget Office:

U.S. CONGRESS,
CONGRESSIONAL BUDGET OFFICE,
Washington, DC, December 3, 2007.

Hon. JAMES L. OBERSTAR,
Chairman, Committee on Transportation and Infrastructure, House of Representatives, Washington, DC.

DEAR MR. CHAIRMAN: The Congressional Budget Office has prepared the enclosed cost estimate for H.R. 3999, the National Highway Bridge Reconstruction and Inspection Act of 2007.

If you wish further details on this estimate, we will be pleased to provide them. The CBO staff contact is Sarah Puro.

Sincerely,

PETER H. FONTAINE
(For Peter R. Orszag, Director).

Enclosure.

H.R. 3999—National Highway Bridge Reconstruction and Inspection Act of 2007

Summary: H.R. 3999 would expand the national program to inspect bridges and authorize appropriations for replacing and rehabilitating highway bridges. The bill would also require the Department of Transportation (DOT) to complete several reports on the status of bridges nationwide and to increase training for bridge inspectors. Assuming appropriation of the necessary amounts, CBO estimates that implementing the legislation would cost nearly $1.9 billion over the 2008–2012 period. Enacting H.R. 3999 would not affect revenues or direct spending.

The bill contains no intergovernmental or private-sector mandates as defined in the Unfunded Mandates Reform Act (UMRA).

Estimated cost to the Federal Government: The estimated budgetary impact of H.R. 3999 is shown in the following table. The costs of this legislation fall within budget function 400 (transportation).

	By fiscal year, in millions of dollars—				
	2008	2009	2010	2011	2012
CHANGES IN SPENDING SUBJECT TO APPROPRIATION					
Expansion of the Bridge Program:					
Authorization Level [1]	1,000	1,000	0	0	0
Estimated Outlays	150	550	610	340	170
Increased Requirements on Federal Agencies that Own Bridges:					
Estimated Authorization Level	15	15	0	0	0
Estimated Outlays	2	8	9	5	3
Reports, Assessments, and Guidance:					
Estimated Authorization Level	7	5	5	5	5
Estimated Outlays	3	5	5	5	5
Total Changes:					
Estimated Authorization Level	1,024	1,020	5	5	5
Estimated Outlays	155	564	625	350	178

[1] PubJic Law 109–59 provides contract authority, a mandatory form of budget authority, for the Bridge Program codified in section 144, title 23, U.S. Code, of$4.4 billion in 2008 and $4.5 billion in 2009. Spending of those amounts is controlled by obligation limitations contained in appropriation acts. A full-year 2008 appropriation for DOT has not yet been enacted.

Basis of estimate: For this estimate, CBO assumes that H.R. 3999 will be enacted near the start of calendar year 2008, that the authorized amounts will be appropriated each year, and that outlays will follow the historical rate of spending for similar programs.

H.R. 3999 would add new requirements for inspecting bridges by state inspectors and federal agencies that own bridges, increase oversight of those inspections by DOT, and require DOT to complete several reports on the status of bridges and bridge safety nationwide. In total, the bill would authorize the appropriation of just over $1 billion in each of fiscal years 2008 and 2009 and $5 million per year for 2010 through 2012. CBO estimates that implementing the legislation would cost nearly $1.9 billion over the 2008–2012 period.

Expansion of the bridge program

Under current law, states receive about $4 billion annually in contract authority (a mandatory form of budget authority) for repairing, rehabilitating, and replacing bridges on public roadways. Spending of those amounts, however, is typically controlled by limits on annual obligations set in appropriation acts (known as obligation limitations). H.R. 3999 would authorize the appropriation of an additional $1 billion in each of fiscal years 2008 and 2009 for that program. CBO estimates that implementing those provisions would cost about $1.8 billion over the 2008–2012 period.

The appropriation of additional funds for DOT's bridge program could result in an increase in the contract authority available to states because of DOT's equity bonus program. That program adjusts the amount of contract authority available to a state based on a variety of factors including that state's contributions to the Highway Account of the Highway Trust Fund and the amount it received under the previous authorization for Highway programs. Any additional contract authority due to the equity bonus program would result from a subsequent appropriation act; thus, CBO has

not estimated any increase in contract authority as a result of implementing H.R. 3999.

Increased requirements on Federal agencies that own bridges

H.R. 3999 would increase the frequency of bridge inspections and increase training requirements for inspectors of those bridges. Current regulations require that federal agencies that own and operate bridges on public roads comply with all safety requirements established under the bridge program. There are about 9,000 such bridges nationwide mostly owned by the Departments of Agriculture, Defense, and the Interior. Assuming appropriation of the amounts estimated to be necessary, CBO estimates that implementing this provision would cost $27 million over the 2008–2012 period.

Reports, assessments, and guidance

H.R. 3999 would authorize $2 million in 2008 for the National Academy of Sciences to report on DOT's process for assessing the. risk of bridge failure and how bridge reconstruction and rehabilitation is prioritized. Other provisions of the bill would require DOT to produce several reports on the safety of the nation's bridges, make certain data about bridges more accessible to the public, train more state bridge inspectors, and increase DOT's oversight of state plans to address bridge safety. Based on information from DOT and assuming appropriation of the necessary amounts, CBO estimates that implementing those provisions would cost $23 million over the 2008–2012 period.

Intergovernmental and private-sector impact: H.R. 3999 contains no intergovernmental or private-sector mandates as defined in UMRA. The bill would require recipients of federal highway funds to inspect and manage highway bridges. Any costs to state local, or tribal governments would result from complying with conditions of federal assistance.

Estimate prepared by: Federal Costs: Sarah Puro; Impact on State, Local, and Tribal Governments: Elizabeth Cove; Impact on the Private Sector: Jacob Kuipers.

Estimate approved by: Theresa Gullo, Deputy Assistant Director for Budget Analysis.

COMPLIANCE WITH HOUSE RULE XXI

Pursuant to clause 9 of rule XXI of the Rules of the House of Representatives, H.R. 3999 does not contain any congressional earmarks, limited tax benefits, or limited tariff benefits as defined in clause 9(d), 9(e), or 9(f) of rule XXI of the Rules of the House of Representatives.

CONSTITUTIONAL AUTHORITY STATEMENT

Pursuant to clause 3(d)(1) of rule XIII of the Rules of the House of Representatives, committee reports on a bill or joint resolution of a public character shall include a statement citing the specific powers granted to the Congress in the Constitution to enact the measure. The Committee on Transportation and Infrastructure finds that Congress has the authority to enact this measure pursu-

ant to its powers granted under article I, section 8 of the Constitution.

FEDERAL MANDATES STATEMENT

The Committee adopts as its own the estimate of Federal mandates prepared by the Director of the Congressional Budget Office pursuant to section 423 of the Unfunded Mandates Reform Act (Public Law 104–4).

PREEMPTION CLARIFICATION

Section 423 of the Congressional Budget Act of 1974 requires the report of any Committee on a bill or joint resolution to include a statement on the extent to which the bill or joint resolution is intended to preempt State, local, or tribal law. The Committee states that H.R. 3999 does not preempt any State, local, or tribal law.

ADVISORY COMMITTEE STATEMENT

No advisory committees within the meaning of section 5(b) of the Federal Advisory Committee Act are created by this legislation.

APPLICABILITY TO THE LEGISLATIVE BRANCH

The Committee finds that the legislation does not relate to the terms and conditions of employment or access to public services or accommodations within the meaning of section 102(b)(3) of the Congressional Accountability Act (Public Law 104–1).

CHANGES IN EXISTING LAW MADE BY THE BILL, AS REPORTED

In compliance with clause 3(e) of rule XIII of the Rules of the House of Representatives, changes in existing law made by the bill, as reported, are shown as follows (existing law proposed to be omitted is enclosed in black brackets, new matter is printed in italic, existing law in which no change is proposed is shown in roman):

TITLE 23, UNITED STATES CODE

* * * * * * *

CHAPTER 1—FEDERAL-AID HIGHWAYS

Sec.
101. Definitions and declaration of policy.
* * * * * * *
144. Highway bridge [replacement and rehabilitation] program.
* * * * * * *

§ 104. Apportionment

(a) * * *

* * * * * * *

(f) METROPOLITAN PLANNING.—

(1) SET-ASIDE.—On October 1 of each fiscal year, the Secretary shall set aside 1.25 percent of the funds authorized to be appropriated for the Interstate maintenance, national highway system, surface transportation, congestion mitigation and

air quality improvement, and highway bridge [replacement and rehabilitation] programs authorized under this title to carry out the requirements of section 134.

* * * * * * *

§ 105. Equity bonus program

(a) PROGRAM.—

(1) * * *

(2) SPECIFIC PROGRAMS.—The programs referred to in subsection (a) are—

(A) * * *

* * * * * * *

(C) the highway bridge [replacement and rehabilitation] program under section 144;

* * * * * * *

(b) STATE PERCENTAGE.—

(1) * * *

* * * * * * *

(2) SPECIFIC PROGRAMS.—The programs referred to in paragraph (1)(B)(ii) are (as in effect on the day before the date of enactment of the SAFETEA-LU)—

(A) * * *

* * * * * * *

(C) the highway bridge [replacement and rehabilitation] program under section 144;

* * * * * * *

§ 144. Highway bridge [replacement and rehabilitation] program

(a) * * *

[(b) The Secretary, in consultation with the States, shall (1) inventory all those highway bridges on any Federal-aid system which are bridges over waterways, other topographical barriers, other highways, and railroads; (2) classify them according to serviceability, safety, and essentiality for public use; (3) based on that classification, assign each a priority for replacement or rehabilitation; and (4) determine the cost of replacing each such bridge with a comparable facility or of rehabilitating such bridge.]

(b) BRIDGES ON FEDERAL-AID HIGHWAYS.—The Secretary, in consultation with the States, shall—

(1) inventory all bridges on Federal-aid highways that are bridges over waterways, other topographical barriers, other highways, and railroads;

(2) identify each bridge inventoried under paragraph (1) that is structurally deficient or functionally obsolete;

(3) assign a risk-based priority for replacement or rehabilitation of each such bridge after consideration of safety, serviceability, and essentiality for public use, including the potential impacts to regional and national freight and passenger mobility if the serviceability of the bridge is restricted or diminished; and

(4) determine the cost of replacing each such bridge with a comparable facility or of rehabilitating such bridge.

(c)(1) The Secretary, in consultation with the States, shall (1) inventory all those highway bridges on public roads, other than those on any [Federal-aid system] *Federal-aid highway*, which are bridges over waterways, other topographical barriers, other highways, and railroads, (2) classify them according to serviceability, safety, and essentiality for public use, (3) based on the classification, assign each a priority for replacement or rehabilitation and (4) determine the cost of replacing each such bridge with a comparable facility or of rehabilitating such bridge.

(2) The Secretary may, at the request of a State, inventory bridges, on and off [the Federal-aid system] *Federal-aid highways*, for historic significance.

* * * * * * *

(d) PARTICIPATION.—

(1) * * *

* * * * * * *

(4) SPECIAL RULE FOR *SYSTEMATIC* PREVENTIVE MAINTENANCE.—Notwithstanding any other provision of this subsection, a State may carry out a project under paragraph (2)(B), (2)(C), or (2)(D) for a highway bridge without regard to whether the bridge is eligible for replacement or rehabilitation under this section.

(5) REQUIREMENTS FOR STATE PARTICIPATION.—

(A) IN GENERAL.—As a condition for providing assistance to a State under this section, the Secretary shall require the State—

(i) not later than 2 years after the date of enactment of this paragraph, and at least once every 2 years thereafter (except as otherwise provided by section 151(d)), to inspect all highway bridges described in subsections (b) and (c) that are located in the State in accordance with the standards established under section 151 and provide updated information on such bridges to the Secretary for inclusion in the national bridge inventory;

(ii) not later than 2 years after the date of enactment of this paragraph, and at least once every 2 years thereafter, to calculate the load rating for highway bridges located in the State that have a structural deficiency in a load-carrying member and ensure that the safe load-carrying capacities for such bridges are properly posted;

(iii) to establish, not later than 2 years after the date of enactment of this paragraph, and update annually, a 5-year performance plan for—

(I) the inspection of highway bridges described in subsections (b) and (c) that are located in the State; and

(II) the rehabilitation and replacement of any of such bridges that are structurally deficient or functionally obsolete; and

(iv) to establish and implement a bridge management system that complies with the standards established for such systems under section 151.

(B) APPROVAL OF PERFORMANCE PLANS.—

(i) SUBMISSION TO THE SECRETARY.—A State that establishes a 5-year performance plan under subparagraph (A)(iii) shall submit the plan and each update of the plan to the Secretary for approval.

(ii) APPROVAL AND DISAPPROVAL.—The Secretary shall approve or disapprove each 5-year performance plan and update submitted by a State under this subparagraph. If the Secretary disapproves a plan or update, the Secretary shall inform the State of the reasons for the disapproval and shall require the State to resubmit the plan or update with such modifications as the Secretary determines necessary.

(e) Funds authorized to carry out this section shall be apportioned among the several States on October 1 of the fiscal year for which authorized in accordance with this subsection. Each deficient bridge shall be placed into one of the following categories: (1) ⟦Federal-aid system⟧ *Federal-aid highway* bridges eligible for replacement, (2) ⟦Federal-aid system⟧ *Federal-aid highway* bridges eligible for rehabilitation, (3) ⟦off-system bridges⟧ *bridges not on Federal-aid highways* eligible for replacement, and (4) ⟦off-system bridges⟧ *bridges not on Federal-aid highways* eligible for rehabilitation. The deck area of deficient bridges in each category shall be multiplied by the respective unit price on a State-by-State basis, as determined by the Secretary; and the total cost in each State divided by the total cost of the deficient bridges in all States shall determine the apportionment factors. For purposes of the preceding sentence, if a State transfers funds apportioned to the State under this section in a fiscal year beginning after September 30, 1997, to any other apportionment of funds to such State under this title, the total cost of deficient bridges in such State and in all States to be determined for the succeeding fiscal year shall be reduced by the amount of such transferred funds. No State shall receive more than 10 per centum or less than 0.25 per centum of the total apportionment for any one fiscal year. The Secretary shall make these determinations based upon the latest available data, which shall be updated annually. Funds apportioned under this section shall be available for expenditure for the period specified in section 118(b)(2). Any funds not obligated at the expiration of such period shall be reapportioned by the Secretary to the other States in accordance with this subsection. The use of funds authorized under this section to carry out a project for the seismic retrofit of a bridge shall not affect the apportionment of funds under this section. *In this subsection, the term "deficient bridge" means a bridge that is structurally deficient or functionally obsolete.*

⟦(f) The Federal share payable on account of any project under this section shall be 80 per centum of the cost thereof.⟧

⟦(g)⟧ *(f)* BRIDGE SET-ASIDES.—

(1) DESIGNATED PROJECTS.—

(A) IN GENERAL.—Of the amounts authorized to be appropriated to carry out the bridge program under this section for each of the fiscal years 2006 through 2009, all but

$100,000,000 shall be apportioned as provided in subsection (e). Such $100,000,000 shall be available as follows:

(i) * * *

* * * * * * *

(vi) $4,500,000 per fiscal year for replacement of the Missisquoi Bay Bridge, Vermont*, except that any unobligated funds remaining upon completion of the project under this clause shall be transferred to and used to carry out the project described in clause (vii)*.

* * * * * * *

(2) [OFF-SYSTEM BRIDGES] *BRIDGES NOT ON FEDERAL-AID HIGHWAYS*.—

(A) * * *

* * * * * * *

[(h)] *(g)* Notwithstanding any other provision of law, the General Bridge Act of 1946 (33 U.S.C. 525-533) shall apply to bridges authorized to be replaced, in whole or in part, by this section, except that subsection (b) of section 502 of such Act of 1946 and section 9 of the Act of March 3, 1899 (30 Stat. 1151) shall not apply to any bridge constructed, reconstructed, rehabilitated, or replaced with assistance under this title, if such bridge is over waters (1) which are not used and are not susceptible to use in their natural condition or by reasonable improvement as a means to transport interstate or foreign commerce, and (2) which are (a) not tidal, or (b) if tidal, used only by recreational boating, fishing, and other small vessels less than 21 feet in length.

[(i) INVENTORIES AND REPORTS.—The Secretary shall—

[(1) report to the Committee on Environment and Public Works of the Senate and the Committee on Transportation and Infrastructure of the House of Representatives on projects approved under this section;

[(2) annually revise the current inventories authorized by subsections (b) and (c) of this section;

[(3) report to such committees on such inventories; and

[(4) report to such committees such recommendations as the Secretary may have for improvements of the program authorized by this section.

Such reports shall be submitted to such committees biennially.]

(h) INFORMATION AND REPORTS.—

(1) UPDATES OF INFORMATION.—The Secretary shall annually revise, as necessary, the information required under subsections (b) and (c).

(2) REPORTS TO CONGRESS.—Concurrently with the President's annual budget submission to Congress under section 1105(a) of title 31, the Secretary shall submit to the Committee on Transportation and Infrastructure of the House of Representatives and the Committee on Environment and Public Works of the Senate a report containing—

(A) a description of projects and activities approved under this section;

(B) the information updated under paragraph (1), including a description of the priority assigned, on a national basis and by State, for the replacement or rehabilitation of

each structurally deficient or functionally obsolete bridge on a Federal-aid highway;

(C) a description of any project or activity carried out by a State under this section in the preceding fiscal year that is inconsistent with the priorities assigned by the Secretary under subsection (b)(3); and

(D) such recommendations as the Secretary may have for improvements of the program authorized by this section.

[(j)**]** *(i)* Sums apportioned to a State under this section shall be made available for obligation throughout such State on a fair and equitable basis.

[(k)**]** *(j)* Not later than six months after the date of enactment of this subsection, and periodically thereafter, the Secretary shall review the procedure used in approving or disapproving applications submitted under this section to determine what changes, if any, may be made to expedite such procedure. Any such changes shall be implemented by the Secretary as soon as possible. Not later than nine months after the date of enactment of this subsection, the Secretary shall submit a report to Congress which describes such review and such changes, including any recommendations for legislative changes.

[(l)**]** *(k)* Notwithstanding any other provision of law, any bridge which is owned and operated by an agency (1) which does not have taxing powers, (2) whose functions include operating a federally assisted public transit system subsidized by toll revenues, shall be eligible for assistance under this section but the amount of such assistance shall in no event exceed the cumulative amount which such agency has expended for capital and operating costs to subsidize such transit system. Before authorizing an expenditure of funds under this subsection, the Secretary shall determine that the applicant agency has insufficient reserves, surpluses, and projected revenues (over and above those required for bridge and transit capital and operating costs) to fund the necessary bridge replacement or rehabilitation project. Any non-Federal funds expended for the seismic retrofit of the bridge may be credited toward the non-Federal share required as a condition of receipt of any Federal funds for seismic retrofit of the bridge made available after the date of the expenditure.

[(m)**]** *(l)* REPLACEMENT OF DESTROYED BRIDGES AND FERRYBOAT SERVICE.—

(1) * * *

* * * * * * *

[(n) OFF-SYSTEM BRIDGE PROGRAM.—**]** *(m) PROGRAM FOR BRIDGES NOT ON FEDERAL-AID HIGHWAYS.*—Notwithstanding any other provision of law, with respect to any project not on a Federal-aid highway for the replacement of a bridge or rehabilitation of a bridge which is wholly funded from State and local sources, is eligible for Federal funds under this section, is noncontroversial, is certified by the State to have been carried out in accordance with all standards applicable to such projects under this section, and is determined by the Secretary upon completion to be no longer a deficient bridge, any amount expended after the date of the enactment of this subsection from State and local sources for such project in excess of 20 percent of the cost of construction thereof may be credited to the non-Federal share of the cost of the projects in such

State which are eligible for Federal funds under this section. Such crediting shall be in accordance with such procedures as the Secretary may establish.

[(o)] *(n)* HISTORIC BRIDGE PROGRAM.—

(1) * * *

(2) STATE INVENTORY.—The Secretary shall require each State to complete an inventory of all bridges on and off [the Federal-aid system] *Federal-aid highways* to determine their historic significance.

* * * * * * *

(4) PRESERVATION.—Any State which proposes to demolish a historic bridge for a replacement project with funds made available to carry out this section shall first make the bridge available for donation to a State, locality, or responsible private entity if such State, locality, or responsible entity enters into an agreement to—

(A) * * *

(B) assume all future legal and financial responsibility for the bridge, which may include an agreement to hold the [State highway agency] *State transportation department* harmless in any liability action.

* * * * * * *

[(p)] *(o)* APPLICABILITY OF STATE STANDARDS FOR PROJECTS.—A project not on a Federal-aid highway under this section shall be designed, constructed, operated, and maintained in accordance with State laws, regulations, directives, safety standards, design standards, and construction standards.

[(q)] *(p)* As used in this section the term "rehabilitate" in any of its forms means major work necessary to restore the structural integrity of a bridge as well as work necessary to correct a major safety defect.

[(r)] *(q)* ANNUAL MATERIALS REPORT ON NEW BRIDGE CONSTRUCTION AND BRIDGE REHABILITATION.—Not later than 1 year after the date of enactment of this subsection, and annually thereafter, the Secretary shall publish in the Federal Register a report describing construction materials used in new Federal-aid bridge construction and bridge rehabilitation projects.

[(s)] *(r)* FEDERAL SHARE.—

(1) * * *

* * * * * * *

(s) FLEXIBLE FUNDING.—Notwithstanding section 126 or any other provision of law, a State may transfer funds apportioned to the State under this section for a fiscal year to another apportionment of funds to the State under this title only if the State demonstrates to the satisfaction of the Secretary that the State has no structurally deficient bridges on Federal-aid highways located in the State.

(t) DEFINITIONS.—In this section, the following definitions apply:

(1) FUNCTIONALLY OBSOLETE.—The term "functionally obsolete" as used with respect to a bridge means a bridge that no longer meets current design standards relating to geometrics, including roadway width, shoulder width, and approach alignment, for the traffic demands on the bridge.

(2) STRUCTURALLY DEFICIENT.—The term "structurally deficient" as used with respect to a bridge means a bridge that has—

(A) significant load-carrying elements that are in poor or worse condition due to deterioration or damage, or both; or

(B) a waterway opening that is insufficient to the point of causing significant traffic interruptions.

(3) REHABILITATION.—The term "rehabilitation" means major work necessary to restore the structural integrity of a bridge and work necessary to correct a major safety defect.

(4) REPLACEMENT.—The term "replacement" as used with respect to a structurally deficient or functionally obsolete bridge means a new facility constructed in the same general traffic corridor that meets the geometric, construction, and structural standards, in effect at the time of such construction, required for the types and volume of projected traffic of the facility over its design life.

* * * * * * *

§ 151. National bridge inspection program

(a) NATIONAL BRIDGE INSPECTION STANDARDS.—The Secretary, in consultation with the State transportation departments and interested and knowledgeable private organizations and individuals, shall establish national bridge inspection standards for the proper safety inspection and evaluation of all highway bridges. *The standards established under this subsection shall be designed to ensure uniformity among the States in the conduct of such inspections and evaluations.*

(b) MINIMUM REQUIREMENTS OF INSPECTION STANDARDS.—The standards established under subsection (a) shall, at a minimum—

(1) * * *

(2) establish the maximum time period between inspections *in accordance with subsection (d)*;

* * * * * * *

(4) require each State to maintain and make available to the Secretary upon request—

(A) * * *

(B) current inventory data for all highway bridges reflecting the findings of the most recent highway bridge inspections conducted; **[**and**]**

(5) establish a procedure for national certification of highway bridge inspectors**[**.**]***;*

(6) establish procedures for conducting annual compliance reviews of State inspections, quality control and quality assurance procedures, load ratings, and weight limit postings of structurally deficient highway bridges; and

(7) establish standards for State bridge management systems to improve the bridge inspection process and the quality of data collected and reported by the States to the Secretary for inclusion in the national bridge inventory.

(c) TRAINING PROGRAM FOR BRIDGE INSPECTORS.—The Secretary, in cooperation with the State transportation departments, shall establish a program designed to train appropriate governmental employees to carry out highway bridge inspections. Such training pro-

gram shall be revised from time to time to take into account new and improved techniques. *The Secretary shall expand the scope of the training program to ensure that all persons conducting highway bridge inspections receive appropriate training and certification under the program.*

(d) FREQUENCY OF BRIDGE INSPECTIONS.—

(1) IN GENERAL.—Subject to paragraph (2), the standards established under subsection (a), at a minimum, shall provide for—

(A) annual inspections of structurally deficient highway bridges using the best practicable technologies and methods;

(B) annual hands-on inspections of fracture critical members, as such terms are defined in section 650.305 of title 23, Code of Federal Regulations (as in effect on the date of enactment of this paragraph); and

(C) biennial inspections of highway bridges that have not been determined to be structurally deficient.

(2) EXTENSIONS.—Upon the request of a State, the Secretary may extend, to a maximum period of 4 years, the time between required inspections of a highway bridge that has not been determined to be structurally deficient if the Secretary determines that—

(A) the extension is appropriate based on the age, design, traffic characteristics, and any known deficiency of the bridge;

(B) the extension is consistent with the 5-year performance plan of the State approved under section 144(d)(5)(B); and

(C) granting the extension will increase the overall safety of the State's bridge inventory.

[(d)**]** *(e)* AVAILABILITY OF FUNDS.—To carry out this section, the Secretary may use funds made available pursuant to the provisions of section 104(a), section 502, and section 144 of this title.

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CHAPTER 5—RESEARCH, TECHNOLOGY, AND EDUCATION

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§ 502. Surface transportation research

(a) * * *

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(d) CONTENTS OF RESEARCH PROGRAM.—The Secretary shall include in surface transportation research, technology development, and technology transfer programs carried out under this title coordinated activities in the following areas:

(1) * * *

(2) Methods, materials, and testing to improve the durability of surface transportation infrastructure facilities and extend the life *and enhance the safety* of bridge structures, including—

(A) * * *

(B) tests simulating seismic activity, vibration, and weather*, including nondestructive tests to assess the structural integrity of facilities*; and

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