



# Memorandum

Subject: **ACTION:** National Bridge Inspection  
Standards – Scour Evaluations and Plans of  
Action for Scour Critical Bridges  
(Reply Due: February 29, 2008)  
*/s/ Original Signed by*

Date: January 4, 2008

From: King W. Gee  
Associate Administrator for Infrastructure

In Reply Refer To: HIBT-20

To: Associate Administrator for RD&T  
Directors of Field Services  
Resource Center Director  
Division Administrators

The purpose of this memorandum is to request your assistance towards ensuring that State and local agencies (referenced herein as bridge owners) complete the scour evaluation of their bridges over waterways (riverine and tidal). Also, we request your assistance towards ensuring that bridge owners develop and implement a Plan of Action (POA) for each bridge identified as scour critical to meet the requirement set forth in the National Bridge Inspection Standards (NBIS) regulation, [23 CFR 650.313\(e\)\(3\)](#).

## **Status of Bridge Scour Evaluations and POAs for Scour Critical Bridges:**

Bridge owners have been working for several years towards the evaluation of their bridges over waterways to determine foundation vulnerability against stream instability and scour. To date, about 93 percent of these bridges have been evaluated. We must, however, make sure that all bridges over waterways are evaluated for their vulnerability to stream instability and scour. As of August 2007, bridge owners reported on their National Bridge Inventory (NBI) data submission a total of 34,900 bridges over waterways that still remain to be evaluated as for their scour vulnerability. These are bridges that have been coded 6, T, or Null for Item 113 of the NBI. The FHWA established a target date of January 1997 for completing all scour evaluations by memorandum dated July 15, 1991; however, as the NBI data shows, we still have work to do to complete this important component of the NBIS. Table 1 presents the number of bridges over waterways on the National Highway System (NHS) and the non-NHS that still need a scour evaluation. Another 67,039 bridges over waterways identified by bridge owners as having unknown foundations remain to be evaluated for their scour vulnerability as of August 2007. We will address the subject of unknown foundations, including a process developed by the FHWA's Office of Bridge Technology to identify bridge foundations characteristics under a separate memorandum.



Item 113 Code	NHS	Non-NHS	Total
6	3,311	30,589	33,900*
T	339	661	1,000
Total	3,650**	31,250***	34,900

\* Includes 6,606 bridges not coded for Item 113.

\*\* Includes 3,480 State-owned bridges; 162 local-owned bridges; and 8 other-owner bridges.

\*\*\* Includes 10,614 State-owned bridges; 20,546 local-owned bridges; and 90 other-owner bridges.

With regards to POA for scour critical bridges, the NBIS regulation, [23 CFR 650.313\(e\)\(3\)](#), enacted January 13, 2005, requires that bridge owners prepare a POA to monitor both known and potential deficiencies and to address critical findings for bridges identified to be scour critical. The FHWA's Office of Bridge Technology issued a memorandum dated March 29, 2005, which advised FHWA's field offices of the January 13, 2006, target date for implementing the requirements of the NBIS regulation. In a follow-up memorandum dated March 23, 2006, the Office of Bridge Technology requested the FHWA's field offices to report by May 5, 2006, on their corresponding bridge owners' implementation plan, which should have included a schedule for developing a POA. To date, we have received only a few responses.

Table 2 shows that bridge owners reported 2,671 bridges over waterways as scour critical based on the observed scour condition at one or more of the bridge foundations (code 0, 1, or 2 for Item 113). Also, Table 2 shows that bridge owners reported 18,233 bridges over waterways as scour critical based on the assessed or calculated scour depths that, if developed, would make one or more of the bridge foundations unstable (code 3 for Item 113). A State-by-State breakdown for NBI Item 113 by NHS and non-NHS is presented in Attachment A. Please note that Attachment A includes tables titled "NHS Other-Owner Bridges" and "Non-NHS Other-Owner Bridges." The data shown on the latter tables represent owner codes identified as private, railroad, unknown and records with the owner code missing.

Scour Condition	Item 113 Code	NHS	Non-NHS	Total
Observed	0	2	111	113
	1-2	119	2,439	2,558
Total Observed		121	2,550	2,671
Total Assessed or Calculated	3	2,889	15,344	18,233
<b>Total Scour Critical Bridges</b>		3,010*	17,894**	20,904

\* Includes 2,972 State-owned bridges; and 38 local-owned bridges.

\*\* Includes 7,769 State-owned bridges; 10,117 local-owned bridges; and 8 other-owner bridges.

The FHWA's role and responsibility is to ensure that bridge owners complete the scour evaluation of all their remaining bridges over waterways, and that they develop, implement and maintain a POA for each of their bridges over waterways identified as scour critical to comply with the NBIS regulation.

**Actions Requested:**

After consulting with the FHWA Office of Chief Counsel and conducting a thorough review of the NBI database, there are several bridges that appear to not be in compliance with the NBIS regulation regarding scour. Since State departments of transportation (DOT) are responsible for overall NBIS compliance, we solicit your assistance to obtain the following information:

1. Verify with your corresponding bridge owner manager official that they still have bridges that are vulnerable to scour.

If bridge owners confirm that they still have bridges that are vulnerable to scour (code 6, T, or Null), we request that you notify them that their jurisdiction is not in compliance with [23 CFR 650.313\(e\)](#). Noncompliance could lead to suspension of Federal-aid highway funds. Bridge owners that confirm having bridges that are vulnerable to scour must provide the following schedule to avoid possible suspension of Federal-aid highway funds:

- Schedule for completing the evaluation of all remaining scour vulnerable bridges within your State, local and other-owner jurisdiction. We recommend a target date of November 2008 for completing the scour evaluation of these bridges.

2. Verify with your corresponding bridge owner manager official the number of scour critical bridges (code 0, 1, 2, or 3 for Item 113) reported in the NBI database.

If bridge owners confirm that they have scour critical bridges, we will appreciate it if your corresponding staff can make sure that bridge owners have developed and implemented POAs for each of their scour critical bridges. If bridge owners have not developed and implemented a POA for each of their scour critical bridges, we request that you notify them that their jurisdiction is not in compliance with [23 CFR 650.313\(e\)\(3\)](#). As we have already stated, noncompliance could lead to the suspension of Federal-aid highway funds. These bridge owners must provide the following schedules to avoid possible suspension of Federal-aid funds:

- Schedule for completing the development of all POAs for bridges identified as scour critical. We recommend a target date of November 2008 for bridges under State jurisdiction, and November 2009 for bridges under local and other-owner jurisdictions.

- Schedule for completing the implementation of all POAs for bridges identified as scour critical. We recommend a target date of April 2009 for bridges under State jurisdiction, and April 2010 for bridges under local and other-owner jurisdictions.

In addition, we request that bridge owners submit a status report to the FHWA Office of Bridge Technology every April and November on their progress made towards developing and implementing POAs. The status report should also include the following information:

- Percent of scour critical bridges with POAs developed by State, local, and other-owner jurisdiction, and
- Percent of scour critical bridges with POAs implemented by State, local and other-owner jurisdiction.

Bridge owners must continue to submit their status report until all bridges identified as scour critical in their corresponding jurisdiction have POAs developed and implemented.

We ask for your assistance in obtaining the information requested on these action items from all bridge owners through your corresponding State DOT manager official since the ultimate responsibility for complying with the NBIS requirement is at the State level. When a bridge owner code is missing or coded unknown, we ask that you work with the State DOT manager official to assign a proper owner code to the bridge record.

Please report the information requested herein regarding any actions taken by your division office to verify that bridges owners have reviewed their NBI data as for the number of bridges needing a scour evaluation (code 6, T, or Null for Item 113), and for the number of scour critical bridges within their jurisdiction (code 0, 1, 2, or 3 for Item 113). Also, please provide the schedules for completing scour evaluations, and for developing and implementing POAs for scour critical bridges. We request that you submit this information to the FHWA Office of Bridge Technology by February 29, 2008.

We are providing additional guidance to assist you in compiling the information requested herein in the document titled “Guidance for Reporting Schedule for Completing Bridge Scour Evaluations and Plans of Action for Scour Critical Bridges” (see Attachment B).

Also, we request that you report progress on these actions using a Web-based template, which can be accessed online at: <http://staffnet.fhwa.dot.gov/bridge/attachmentc/>. Once all fields are completed on this Web-based template, a summary table similar to that presented in Attachment C will be automatically generated on the Web.

If you have any questions please do not hesitate to contact Mr. Jorge E. Pagán-Ortiz, Principal Bridge Engineer – Hydraulics at (202) 366-4604, ([jorge.pagan@dot.gov](mailto:jorge.pagan@dot.gov)).

3 Attachments

## Attachment A – Item 113 Code For NHS State-Owned Bridges

	0	1	2	3	4	5	6	7	8	9	N	U	T	NULL
AL	0	0	0	64	49	135	8	3	1,606	0	816	67	0	0
AK	0	0	0	26	0	20	7	24	175	4	58	33	16	0
AZ	0	0	0	97	0	15	0	131	1,662	0	684	0	0	2
AR	0	0	0	14	0	693	0	22	776	3	414	7	0	0
CA	0	0	2	49	16	864	30	130	1,658	26	4,529	30	67	4
CO	0	0	0	78	9	319	0	12	830	18	770	10	0	0
CT	0	0	0	30	2	45	10	1	338	2	1,134	0	0	0
DE	0	0	0	2	1	9	0	8	85	0	122	0	0	0
DC	0	0	0	0	0	0	20	2	3	4	79	3	0	0
FL	0	0	2	39	3	610	23	61	1,034	3	2,160	122	17	0
GA	0	0	0	32	0	409	1	0	733	0	900	429	6	3
HI	0	0	2	21	0	1	105	3	154	5	91	0	1	0
ID	0	0	2	88	1	31	5	2	303	15	282	2	0	0
IL	0	0	2	106	9	493	13	67	1,148	27	1,544	0	0	0
IN	0	0	47	13	13	131	0	95	955	4	1,181	0	0	0
IA	0	0	0	0	0	394	4	52	667	0	712	0	0	0
KS	0	0	0	81	0	435	177	2	683	17	986	1	0	0
KY	0	0	6	0	2	22	393	58	272	2	751	0	0	284
LA	0	0	3	155	0	0	86	61	693	1	933	18	0	704
ME	0	0	0	15	2	3	0	4	198	0	202	12	12	0
MD	0	0	0	24	0	17	0	6	471	0	842	8	2	0
MA	0	0	2	141	2	47	20	8	231	1	1,502	27	2	0
MI	1	0	2	215	2	69	72	48	428	3	1,571	53	0	0
MN	0	0	0	27	7	142	3	11	480	0	971	0	0	0
MS	0	0	1	39	38	118	380	0	874	8	691	15	2	0
MO	0	0	0	50	0	43	4	0	1,539	2	1,130	0	0	0
MT	0	0	0	10	212	145	104	15	195	0	578	3	0	0
NE	0	0	3	6	26	40	23	16	817	1	306	1	0	0
NV	0	0	0	41	0	13	5	5	204	3	426	1	0	0
NH	0	0	0	14	1	1	23	1	224	0	385	0	3	0
NJ	0	0	0	106	21	92	44	130	395	3	1,644	8	5	0
NM	0	0	0	19	0	251	4	2	949	0	486	13	0	0
NY	0	0	1	12	74	69	19	20	1,062	6	2,074	1	25	0
NC	0	0	0	19	1	28	5	4	1,254	1	1,257	38	27	0
ND	0	0	0	3	0	5	0	5	352	0	161	0	0	0
OH	0	0	0	1	18	419	36	54	918	25	2,211	6	0	0
OK	0	0	6	14	145	64	21	47	1,407	0	1,018	10	0	0
OR	0	0	2	333	8	161	1	15	283	7	567	75	46	0
PA	0	1	10	258	177	185	276	108	593	35	2,142	11	0	0
RI	0	0	0	7	0	9	2	0	28	11	215	0	0	0
SC	0	0	0	120	2	260	0	3	255	108	524	82	21	0
SD	0	0	0	0	0	0	13	0	491	0	307	0	0	0
TN	0	0	0	121	8	77	58	1	1,396	2	1,375	14	0	0
TX	0	0	3	158	23	478	126	153	7,843	43	5,269	30	16	20
UT	0	0	1	29	11	59	4	8	279	3	707	2	0	0
VT	0	0	0	7	0	0	17	2	153	0	271	1	0	0
VA	0	0	0	3	31	169	0	154	1,073	14	1,563	0	0	0
WA	0	0	18	145	10	227	0	42	396	20	1,213	0	25	8
WV	0	0	0	7	2	28	7	2	597	14	477	0	0	0
WI	0	0	0	6	37	293	4	36	708	3	1,559	18	0	0
WY	0	0	0	0	0	0	4	7	532	0	727	0	0	0
PR	1	0	1	8	2	8	3	82	128	3	338	3	2	0
TOT	2	1	116	2,853	965	8,146	2,160	1,723	40,528	447	52,855	1,154	295	1,025

## Attachment A – Item 113 Code for Non-NHS State-Owned Bridges

	0	1	2	3	4	5	6	7	8	9	N	U	T	NULL
AL	0	0	0	55	54	115	6	11	2,011	0	564	159	1	0
AK	0	0	0	137	0	23	9	20	199	3	25	65	26	0
AZ	0	0	0	134	0	16	0	102	1,373	0	406	0	0	0
AR	0	0	0	37	7	1,426	7	44	2,337	1	437	909	0	0
CA	0	0	5	49	14	479	55	47	979	21	2,920	122	38	9
CO	0	0	0	104	8	277	2	5	678	2	300	24	0	0
CT	0	0	1	116	10	123	13	22	445	1	503	0	0	0
DE	0	0	0	68	3	29	1	56	342	0	100	0	0	0
DC	0	0	0	0	0	2	26	0	3	2	64	3	0	0
FL	0	0	1	56	1	423	10	19	953	8	806	280	11	0
GA	0	0	0	35	0	224	10	0	1,645	0	1,015	1,087	17	1
HI	0	0	0	16	0	1	70	9	136	2	86	0	0	2
ID	0	0	3	45	1	23	4	3	290	10	176	9	0	0
IL	0	0	0	160	37	751	61	101	1,978	30	1,517	1	0	0
IN	0	0	132	13	24	280	0	76	1,831	2	775	9	0	0
IA	0	0	0	0	0	609	5	123	834	0	645	0	0	0
KS	0	1	0	179	9	618	141	8	1,233	17	695	26	0	0
KY	2	0	25	21	87	215	2,316	232	1,871	11	628	1	0	1,643
LA	0	0	5	450	0	1	79	48	1,362	4	277	1,465	0	1,508
ME	0	0	1	179	24	21	6	24	1,078	0	245	41	56	0
MD	0	0	0	142	0	22	6	18	739	0	492	35	0	0
MA	3	0	14	189	2	22	34	15	159	3	976	51	2	0
MI	0	0	0	164	6	45	50	44	274	1	1,304	60	0	0
MN	0	0	0	37	30	201	19	18	873	4	796	6	0	0
MS	1	0	1	156	142	271	938	22	1,349	0	487	102	0	0
MO	0	0	0	247	3	132	7	1	5,854	7	1,180	2	0	0
MT	0	0	0	12	404	103	198	12	226	1	201	7	0	1
NE	0	0	3	14	54	98	109	7	1,695	4	267	28	0	0
NV	0	0	2	39	3	14	9	0	138	0	105	3	0	0
NH	1	0	0	24	0	4	18	7	552	1	176	9	3	0
NJ	0	0	0	60	16	20	22	19	178	0	937	4	2	0
NM	0	0	3	49	0	250	17	1	655	3	149	101	0	0
NY	0	0	1	72	152	123	20	33	2,509	3	2,083	0	18	3
NC	0	0	1	71	9	272	126	35	6,978	2	1,642	4,943	52	0
ND	0	0	0	7	1	17	2	2	381	0	190	5	0	0
OH	0	1	0	12	71	1,097	115	151	2,369	97	1,788	6	0	0
OK	0	0	20	39	321	227	69	179	3,047	3	931	6	0	0
OR	0	0	3	254	7	192	1	8	198	8	375	121	18	0
PA	0	1	186	2,428	1,161	1,253	1,431	738	2,575	27	2,273	30	0	0
RI	0	0	0	72	1	3	4	3	39	39	161	6	0	0
SC	0	0	2	265	2	2,185	13	0	809	245	716	2,615	119	0
SD	0	0	0	0	0	1	16	1	813	1	175	0	0	0
TN	0	0	3	315	23	250	79	8	3,324	8	943	114	0	0
TX	0	0	34	326	76	984	167	237	14,168	23	2,316	253	37	9
UT	0	0	2	42	20	54	1	16	258	5	206	6	0	0
VT	0	0	4	21	0	7	131	12	317	1	111	22	0	0
VA	1	0	8	20	400	1,249	1	1,411	4,670	11	951	0	0	0
WA	0	0	21	129	8	201	1	25	257	24	348	1	6	4
WV	0	0	1	134	75	86	540	80	4,546	8	218	0	0	0
WI	0	0	0	28	39	324	11	27	942	2	814	34	0	0
WY	0	0	0	3	1	2	10	1	550	2	97	8	0	0
PR	1	1	17	32	57	95	13	181	564	8	148	89	29	0
TOT	9	4	499	7,257	3,363	15,460	6,999	4,262	83,584	655	35,740	12,868	435	3,180

## Attachment A – Item 113 Code for NHS Local-Owned Bridges

	0	1	2	3	4	5	6	7	8	9	N	U	T	NULL
AL	0	0	0	0	1	2	10	0	10	0	1	4	0	0
AK	0	0	0	0	0	1	0	0	0	0	0	0	0	0
AZ	0	0	0	0	0	1	24	0	9	0	5	0	0	0
AR	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CA	0	0	0	0	0	1	0	0	5	0	8	0	0	0
CO	0	0	0	0	0	1	0	1	56	0	20	0	0	0
CT	0	0	0	0	0	3	0	0	6	0	0	0	0	0
DE	0	0	0	0	0	0	0	0	2	0	13	0	0	0
DC	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FL	0	0	0	0	0	0	0	0	14	0	9	12	0	0
GA	0	0	0	0	0	1	1	0	4	0	1	4	0	0
HI	0	0	0	0	0	1	8	1	15	1	1	2	2	0
ID	0	0	0	1	0	1	0	0	2	0	1	0	0	0
IL	0	0	0	3	0	2	5	0	75	0	122	0	0	0
IN	0	0	0	0	0	1	0	0	3	0	2	0	0	0
IA	0	0	0	0	0	3	3	0	9	0	4	0	0	0
KS	0	0	0	0	0	3	0	1	7	0	3	0	0	0
KY	0	0	0	0	0	0	2	0	1	0	0	0	0	0
LA	0	0	0	0	0	0	0	0	1	0	4	5	0	4
ME	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MD	0	0	0	8	0	0	2	0	5	0	47	2	0	0
MA	0	0	0	1	1	1	1	1	10	1	13	6	0	0
MI	0	0	0	3	0	14	7	1	33	0	16	2	0	0
MN	0	0	0	0	0	0	2	0	5	0	6	0	0	0
MS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MO	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MT	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NE	0	0	0	0	0	0	0	0	19	0	11	0	0	0
NV	0	0	0	3	0	1	1	4	47	0	34	0	0	0
NH	0	0	0	0	0	0	6	0	23	0	2	1	0	0
NJ	0	0	0	0	1	1	3	4	19	0	14	0	0	0
NM	0	0	0	0	0	5	0	0	37	0	12	4	0	0
NY	0	0	0	8	0	1	2	0	26	0	143	2	34	0
NC	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ND	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OH	0	0	1	0	5	38	15	11	121	4	259	4	0	0
OK	0	0	0	0	0	0	0	0	1	0	0	0	0	0
OR	0	0	0	1	3	3	0	0	3	0	9	2	0	0
PA	0	0	0	0	0	1	0	0	1	0	0	0	0	0
RI	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SC	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SD	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TN	0	0	0	1	0	1	1	1	2	0	12	0	0	0
TX	0	0	0	2	3	18	12	59	545	1	231	258	1	0
UT	0	0	0	0	0	0	1	0	0	0	0	0	0	0
VT	0	0	0	0	0	0	5	0	6	0	0	2	0	0
VA	0	0	0	0	1	22	0	10	120	0	126	0	0	0
WA	0	0	1	4	2	36	5	9	65	11	67	12	5	0
WV	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WI	0	0	0	1	5	12	0	1	33	0	2	2	0	0
WY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PR	0	0	0	0	0	0	0	0	1	0	0	0	0	0
TOT	0	0	2	36	22	175	116	104	1,341	18	1,198	324	42	4

## Attachment A – Item 113 Code for Non-NHS Local-Owned Bridges

	0	1	2	3	4	5	6	7	8	9	N	U	T	NULL
AL	1	0	4	101	164	151	1,363	15	4,588	0	181	3,419	0	0
AK	0	0	1	19	0	13	7	0	27	0	11	45	5	0
AZ	1	0	0	150	6	49	362	19	1,503	9	85	87	0	1
AR	0	0	1	11	5	476	83	7	1,148	1	26	3,478	0	0
CA	1	1	169	209	6	2,177	67	78	6,168	20	787	1,694	41	91
CO	1	0	8	104	191	997	13	101	2,950	23	127	1	0	0
CT	0	0	3	238	15	212	48	10	674	0	25	0	1	0
DE	0	0	0	0	0	1	2	1	3	0	3	0	0	0
DC	0	0	0	0	0	0	0	0	0	0	1	1	0	0
FL	0	0	6	136	13	576	73	32	1,840	6	150	2,018	16	0
GA	4	2	0	5	0	91	12	0	3,526	0	287	3,804	19	1
HI	0	0	1	8	1	6	77	6	217	8	6	5	3	1
ID	0	0	19	74	31	38	64	14	1,551	9	22	480	0	1
IL	0	0	13	203	61	5,345	314	301	10,962	9	355	0	0	0
IN	0	2	376	503	775	5,299	1	518	3,802	11	189	1,350	0	0
IA	11	1	90	290	203	730	397	1,299	14,252	34	143	3,073	0	0
KS	19	3	16	43	966	7,261	861	209	10,131	364	110	13	0	0
KY	1	1	33	6	127	145	1,073	156	1,660	1	78	3	0	1,396
LA	0	0	1	104	0	0	28	0	648	4	64	3,444	0	876
ME	0	0	3	23	1	2	14	3	106	0	3	50	4	0
MD	0	1	5	335	2	83	86	70	1,046	0	188	311	7	0
MA	14	1	37	450	34	42	50	56	511	8	34	271	0	0
MI	9	0	32	144	92	1,135	2,364	102	1,766	11	131	549	10	0
MN	0	0	80	289	108	391	160	20	7,807	11	228	183	0	0
MS	0	0	4	159	20	32	2,421	4	1,874	0	77	6,291	5	0
MO	3	0	2	38	425	3,669	26	397	8,892	19	304	0	0	0
MT	0	0	0	1	74	9	40	1	96	1	16	1,667	0	2
NE	10	2	115	392	294	1,418	167	14	6,125	8	76	3,215	0	0
NV	0	0	2	13	0	14	35	0	375	0	83	35	0	0
NH	0	0	4	9	0	0	31	3	726	0	19	35	0	1
NJ	0	0	4	279	78	194	59	201	1,556	2	90	73	2	0
NM	2	0	1	5	2	22	73	1	220	0	12	296	0	0
NY	1	0	47	572	569	460	50	21	5,907	1	883	34	58	0
NC	0	0	0	0	1	1	30	3	356	2	104	246	0	0
ND	0	0	0	74	13	306	5	288	630	0	13	1,936	0	0
OH	0	2	2	86	507	3,931	3,823	712	7,077	862	729	321	0	0
OK	4	2	79	90	1,097	884	626	610	12,388	4	62	11	1	0
OR	1	1	322	407	33	207	2	79	1,125	7	148	1,635	5	0
PA	4	3	246	1,280	518	532	1,706	332	935	47	387	5	0	0
RI	0	0	0	43	1	4	9	0	32	28	26	1	0	0
SC	0	0	0	0	0	47	2	0	20	0	37	709	3	0
SD	0	0	0	0	0	0	572	1	3,407	0	22	0	0	0
TN	2	0	70	412	34	714	73	26	8,788	4	260	973	0	0
TX	7	3	6	10	23	92	186	295	6,632	27	371	8,468	8	2
UT	1	0	6	81	90	258	86	13	414	9	31	8	0	1
VT	3	2	55	197	3	14	235	60	793	0	15	216	0	1
VA	0	0	2	0	33	131	0	55	565	0	195	0	0	0
WA	0	1	29	420	87	688	41	217	1,623	122	183	203	38	6
WV	0	0	0	3	0	1	36	0	58	0	17	0	0	0
WI	0	0	2	51	152	498	66	364	5,765	11	274	1,546	0	0
WY	0	0	0	0	0	0	16	3	401	0	24	393	0	0
PR	2	2	9	13	14	25	5	77	139	2	15	22	0	0
TOT	102	30	1,905	8,080	6,869	39,371	17,940	6,794	153,805	1,685	7,707	52,618	226	2,380



## Attachment A – Item 113 Code for NHS Other-Owner Bridges

	0	1	2	3	4	5	6	7	8	9	N	U	T	NULL
AL	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AK	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AZ	0	0	0	0	0	0	1	0	0	0	0	0	0	0
AR	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CA	0	0	0	0	0	0	0	0	0	0	3	0	0	0
CO	0	0	0	0	0	0	0	0	38	0	50	0	0	0
CT	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DC	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FL	0	0	0	0	0	0	0	0	0	0	0	0	0	0
GA	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HI	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IL	0	0	0	0	0	2	4	1	1	0	3	0	0	0
IN	0	0	0	0	0	0	0	0	2	0	0	0	0	0
IA	0	0	0	0	0	0	0	0	0	0	0	0	0	0
KS	0	0	0	0	0	0	0	0	0	0	1	0	0	0
KY	0	0	0	0	0	0	1	0	0	0	0	0	0	0
LA	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ME	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MD	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MA	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MI	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MN	0	0	0	0	2	0	0	0	0	0	3	0	0	0
MS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MO	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MT	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NE	0	0	0	0	0	1	0	0	0	0	0	0	0	0
NV	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NH	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NJ	0	0	0	0	0	0	0	0	1	0	10	0	2	0
NM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NY	0	0	0	0	0	0	0	0	0	0	1	0	0	0
NC	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ND	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OH	0	0	0	0	0	0	0	0	2	0	0	0	0	0
OK	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OR	0	0	0	0	0	0	0	0	0	0	1	0	0	0
PA	0	0	0	0	2	0	0	0	1	0	24	0	0	0
RI	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SC	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SD	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TN	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TX	0	0	0	0	0	0	0	0	1	0	1	2	0	0
UT	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VT	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VA	0	0	0	0	0	1	0	0	4	0	3	0	0	0
WA	0	0	0	0	0	0	0	0	0	0	1	0	0	0
WV	0	0	0	0	0	0	0	0	1	0	1	0	0	0
WI	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PR	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOT	0	0	0	0	4	4	6	1	51	0	102	2	2	0

## Attachment A – Item 113 Code for Non-NHS Other-Owner Bridges

	0	1	2	3	4	5	6	7	8	9	N	U	T	NULL
AL	0	0	0	0	0	0	6	0	1	0	25	0	0	0
AK	0	0	0	0	0	1	1	0	2	0	0	0	0	0
AZ	0	0	0	0	0	0	0	0	0	0	2	0	0	0
AR	0	0	0	0	0	0	0	0	2	0	2	0	0	0
CA	0	0	0	0	0	1	0	0	1	0	16	0	0	10
CO	0	0	0	0	0	0	0	0	0	0	5	0	0	0
CT	0	0	0	1	0	1	1	0	1	0	133	0	0	0
DE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DC	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FL	0	0	0	0	0	0	2	0	0	0	4	7	0	0
GA	0	0	0	0	0	0	0	0	0	0	51	0	0	0
HI	0	0	0	0	0	0	2	0	0	0	0	3	0	0
ID	0	0	0	0	0	0	0	0	0	0	0	1	0	0
IL	0	0	0	0	0	11	19	0	13	0	85	0	0	0
IN	0	0	0	0	1	0	0	0	1	0	14	1	0	0
IA	0	0	0	0	0	1	4	3	43	0	80	17	0	0
KS	0	0	0	1	1	3	0	0	1	2	3	0	0	0
KY	0	0	0	0	0	0	4	0	0	0	20	0	0	3
LA	0	0	0	0	0	0	0	0	0	0	1	5	0	0
ME	0	0	0	0	0	0	0	0	1	0	24	1	0	0
MD	0	0	0	1	0	2	0	0	2	0	2	0	0	0
MA	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MI	0	0	0	0	0	0	1	0	0	0	2	0	0	0
MN	0	0	0	0	0	0	1	0	6	1	48	4	0	0
MS	0	0	0	0	0	0	0	0	2	0	25	5	0	0
MO	0	0	0	0	0	0	0	1	6	0	13	0	0	0
MT	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NE	0	0	0	0	1	1	1	0	28	0	14	0	0	0
NV	0	0	0	0	0	0	1	0	4	0	1	4	0	0
NH	0	0	0	0	0	0	0	0	1	0	1	0	0	0
NJ	0	0	0	0	0	1	2	0	4	0	118	0	0	0
NM	0	0	0	0	0	0	0	0	0	0	3	0	0	0
NY	0	0	0	1	0	0	1	0	14	0	92	1	0	0
NC	0	0	0	0	0	0	0	0	0	0	2	0	0	0
ND	0	0	0	0	0	0	1	0	0	0	8	0	0	0
OH	0	0	0	0	0	0	0	0	5	1	56	0	0	0
OK	0	0	0	0	0	0	0	0	0	0	2	0	0	0
OR	0	0	0	0	0	0	1	0	0	0	3	5	0	4
PA	0	0	1	3	3	7	22	2	9	2	233	4	0	0
RI	0	0	0	0	0	0	0	0	0	0	1	0	0	0
SC	0	0	0	0	0	0	0	0	0	0	19	0	0	0
SD	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TN	0	0	0	0	0	0	0	0	0	0	2	0	0	0
TX	0	0	0	0	0	1	0	0	12	1	7	14	0	0
UT	0	0	0	0	0	1	0	0	1	0	0	0	0	0
VT	0	0	0	0	0	0	0	0	1	0	4	0	0	0
VA	0	0	0	0	0	27	0	0	16	0	67	0	0	0
WA	0	0	0	0	0	0	2	0	0	0	2	0	0	0
WV	0	0	0	0	0	1	1	0	2	0	2	0	0	0
WI	0	0	0	0	0	0	0	0	0	0	19	1	0	0
WY	0	0	0	0	0	0	0	0	0	0	1	0	0	0
PR	0	0	0	0	0	0	0	0	1	0	0	0	0	0
TOT	0	0	1	7	6	59	73	6	180	7	1,212	73	0	17

## Attachment B

### **Guidance for Reporting Schedule for Completing Bridge Scour Evaluations and Plans of Action for Scour (POAs) Critical Bridges**

- Schedule for completing the evaluation of all remaining scour vulnerable bridges (code 6, T, or Null for Item 113 of the NBI) within your State, local, and other owner jurisdiction.
  1. This must be a firm target date for completing the scour evaluations.
    - a) A target date of November 28, 2008, is recommended (e.g., The evaluation of all remaining scour vulnerable bridges within the State, local and other-owner jurisdiction will be completed by November 28, 2008).
    - b) Please make sure that bridges with a missing code (null code) on Attachment A are assigned a proper code for Item 113 after a scour evaluation is completed.
  2. Each FHWA division office must review the proposed target date by State, local and other-owner jurisdiction and notify the FHWA Office of Bridge Technology of any action taken such as concurring or nonconcurring with the target date.
    - a) Bridge owners must consult with their corresponding FHWA division office in the event that a previously concurred target date must be changed. The FHWA division office must review any information provided in support of the change and notify the FHWA Office of Bridge Technology of any further action(s) taken.
  3. Please continue to report on the progress made by bridge owners towards completing scour evaluations to the FHWA Office of Bridge Technology after your February 29, 2008, report. Bridge owners with less than 90 percent of their scour evaluations completed must report biannually in Calendar Year 2008 (April 30 and November 28), and owners with more than 90 percent of their scour evaluations completed must report by the November 28, 2008, target date.
- Schedule for completing the development of all POAs for bridges identified as scour critical.
  1. This must be a firm target date for completing the development of all POAs.
    - a) A target date of November 28, 2008, is recommended for bridges under your State jurisdiction, and November 27, 2009, for bridges under local and other-owner jurisdictions (e.g., POAs for State-owned bridges identified as scour critical will be developed by November 28, 2008; POAs for local-owned and other-owner bridges identified as scour critical will be developed by November 27, 2009).
  2. Each FHWA division office must review the proposed target date by their State, local and other-owner jurisdiction and notify the FHWA Office of Bridge Technology of any action taken such as concurring or nonconcurring with the target date.
    - a) Bridge owners must consult with their corresponding FHWA division office in the event that a previously concurred target date must be changed. The FHWA division office must review any information provided in support of the change

and notify the FHWA Office of Bridge Technology of any further action(s) taken.

3. The development of a POA means that bridge owners have held meetings involving the appropriate personnel from internal units within their corresponding agency (design, construction, inspection and maintenance, districts and others as applicable) and with external entities (local authorities such as a commissioner, police department, fire department and others as needed) to identify and document:
    - a) General information about the bridge, responsibility for POA, scour vulnerability, recommended countermeasure(s) or alternatives, NBI coding information, countermeasure selection(s) including priority ranking and cost, bridge closure plan, detour route and any other supportive information.
  4. Guidance for developing POAs for scour critical bridges is presented in the FHWA's POA training seminar, which was distributed on a CD-ROM to our field offices by memorandum dated May 22, 2007, (see copy of this memorandum at <http://www.fhwa.dot.gov/engineering/hydraulics/bridgehyd/20070522.cfm>). Copies of this CD-ROM can be obtained from NHI at the following Web site: [http://www.nhi.fhwa.dot.gov/training/NHIStoreSearchResults.aspx?get=&COURSE\\_NO=135085&KEYWORD=&TITLE=](http://www.nhi.fhwa.dot.gov/training/NHIStoreSearchResults.aspx?get=&COURSE_NO=135085&KEYWORD=&TITLE=). In addition, the POA training seminar is available online at no cost at <http://fhwa.acrobat.com/n135085seminar>.
- Schedule for completing the implementation of all POAs for bridges identified as scour critical.
    1. This must be a firm target date for completing the implementation of all POAs.
      - a) A target date of April 29, 2009, is recommended for bridges under your State jurisdiction, and April 29, 2010, for bridges under local and other-owner jurisdictions (e.g., POAs developed for State-owned bridges identified as scour critical will be implemented by April 29, 2009; POAs developed for local-owned and other-owner bridges identified as scour critical will be implemented by April 29, 2010).
    2. Each FHWA division office must review the proposed target date by State, local and other-owner jurisdiction and notify the FHWA Office of Bridge Technology of any action taken such as concurring or nonconcurring with the date.
      - a) Bridge owners must consult with their corresponding FHWA division office in the event that a previously concurred target date must be changed. The FHWA division office must review any information provided in support of the change and notify the FHWA Office of Bridge Technology of any further action(s) taken.
    3. The implementation of a POA means that bridge owners have completed disseminating POAs to the appropriate personnel within their internal offices/units and external entities and have met with these offices/units and with external entities to communicate:
      - a) General information and instructions contained in each POA (e.g., individuals responsible for the POA implementation, detour routes, when to close/open a bridge, countermeasure selection, and design and installation schedules).
        1. Bridge owners should make sure that responsible parties identified in the POA understand their roles and responsibilities and that they are provided with periodic training on the implementation of selected components of a POA such as bridge closure/opening procedures.

- b) Frequency to conduct periodic reviews and updates of the information presented in a POA.
- Percent of scour critical bridges with POAs developed by State, local and other-owner jurisdiction.
    1. Please report the percent of scour critical bridges that have been developed for Item 113 code 0-2, and for Item 113 code 3.
    2. Please continue to report progress after your February 29, 2008, report on a biannual basis (April and November) to the FHWA Office of Bridge Technology until POAs have been developed for each scour critical bridges.
    3. We encourage bridge owners to prioritize the development of POAs for bridges coded 1 or 2 for Item 113 that are critical to the transportation system of a locality or region such as Interstate bridges and other NHS bridges on arterial and primary routes.
  
  - Percent of scour critical bridges with POAs implemented by State, local and other-owner jurisdiction.
    1. Please report the percent of scour critical bridges that have been implemented for Item 113 code 0-2, and for Item 113 code 3.
    2. Please continue to report progress after your February 29, 2008, report on a biannual basis (April and November) until POAs have been implemented for each scour critical bridge.
    3. We encourage bridge owners to prioritize the implementation of POAs for bridges coded 1 or 2 for Item 113 that are critical for the transportation system of a locality or region such as Interstate bridges and other NHS bridges on arterial and primary routes.

Attachment C: Action Items for Scour Evaluations of Bridges over Waterways and POAs for Scour Critical Bridges								
Agency	System	Schedule for Completing all Bridge Scour Evaluations	Schedule for Completing the Development of All POAs	Schedule for Completing the Implementation of All POAs	Percent of Scour Critical Bridges with POAs Developed		Percent of Scour Critical Bridges with POAs Implemented	
					Codes 0-2	Code 3	Codes 0-2	Code 3
State DOT	NHS							
	Non-NHS							
Local	NHS							
	Non-NHS							
Other Owner	NHS							
	Non-NHS							
Reporting State:	Name and Title of Individual Updating Action Items:			Telephone Number:				Report Date:

