

PROGRAM MANAGER'S UPDATES

Anthony Marino, P.E., INDOT Bridge Inspection Program Manager

Rob Coop, P.E., Bridge Inspection Department Manager

USI Consultants



*ARE YOU SMARTER THAN THE STATE
PROGRAM MANAGER??*

PRESENTATION AGENDA

- FHWA Annual Review Findings – Bridge 23 Metrics
- Metric 12: Quality Inspections
- Metric 16: NSTM Inspections
- Metric 18: Scour
- iTAMS Inspection Report Workflow Changes
- Timely Updating of Inspection Data
- Bridge-Specific Inspection Plans
- Administrative Items





How many FHWA metrics are there for Bridge Inspection?

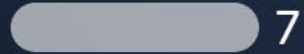
23 ✓



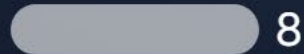
63



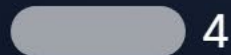
33



103



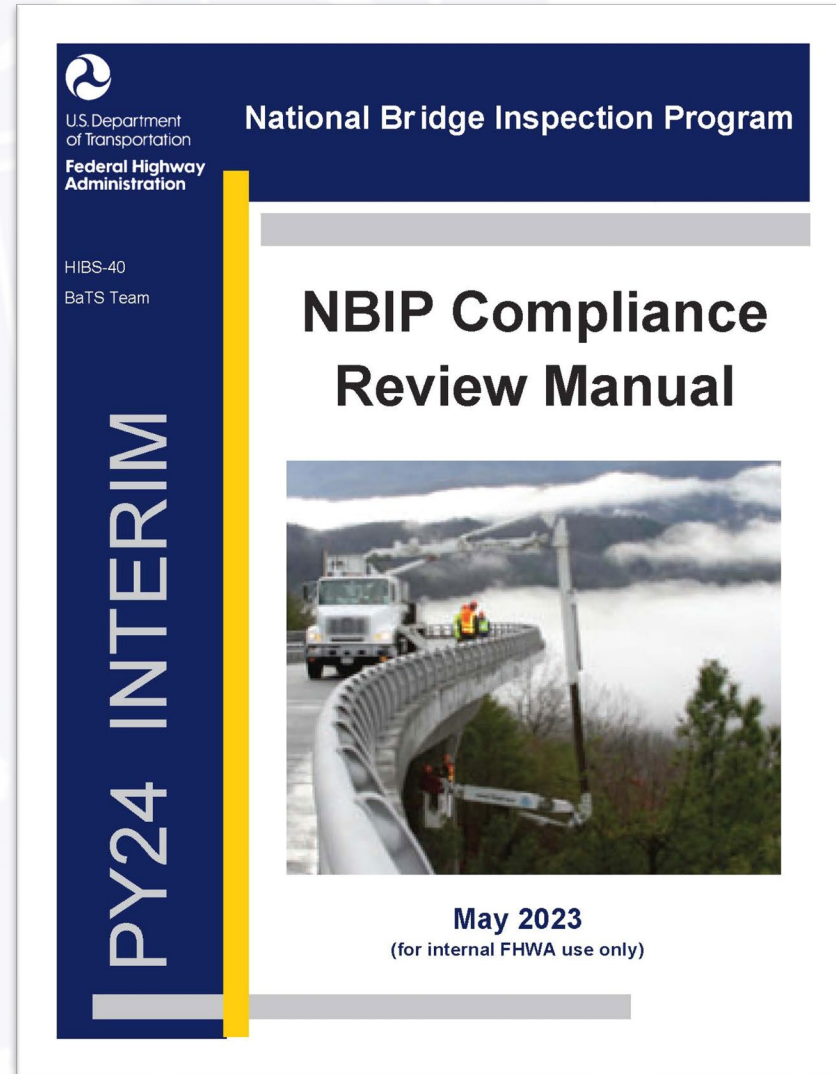
13



Join at
slido.com
#INBridge

FHWA ANNUAL REVIEW FINDINGS

What exactly are the 23 Metrics for Bridge Inspection?





How many compliance levels are there for each metric?



Join at
slido.com
#INBridge

FHWA ANNUAL REVIEW FINDINGS

Metrics defined by federal regulations that are assessed by FHWA and assigned one of four compliance levels based upon specific measures and thresholds.

- **Compliant:** Adhering to NBIS Regulations
- **Substantially Compliant:** Adhering to NBIS Regulations with minor deficiencies and ensuring that corrections are made within 12 months through Improvement Plan.
- **Non-Compliant:** Not adhering to NBIS Regulations
- **Conditionally Compliant:** Taking Corrective Actions according to an approved Plan of Corrective Action (PCA).

FHWA ANNUAL REVIEW FINDINGS

Primary Categories of the 23 Metrics for Bridge Inspection

- Bridge Inspection Organization
- Qualifications of Personnel
- Inspection Interval
- Inspection Procedures
- Inventory



FHWA ANNUAL REVIEW FINDINGS

- Eliminated Metric 4: Qualifications of Personnel – Load Rating Engineer
- Combined Metrics 6 and 7: Routine Inspections, Low and High Risk
- Combined Metrics 8 and 9: Underwater Inspections, Low and High Risk

Added three new metrics

- New1: Qualifications of Personnel – Damage, Special, and Service
- New2: Inspection Interval – Special, In-Depth, and Service
- New3: Inspection Procedures – In-Depth

FHWA ANNUAL REVIEW FINDINGS

ORGANIZATION AND QUALIFICATIONS OF PERSONNEL		
Metric	Description	FHWA Finding
1	Bridge Inspection Organization	Substantially Compliant
2	Program Manager	Compliant
3	Team Leader(s)	Compliant
5	Underwater Bridge Inspection Diver	Compliant
New1	Damage, Special, and Service Inspection Types	Compliant

Metric 1: Few remaining administrative actions required

FHWA ANNUAL REVIEW FINDINGS

INSPECTION INTERVAL		
Metric	Description	FHWA Finding
6 & 7	Routine	Substantially Compliant
8 & 9	Underwater	Compliant *
10	Nonredundant Steel Tension Member (NSTM)	Compliant *
New2	Special, In-Depth, and Service	Compliant
11	Interval Criteria	Compliant *

Metric 6 & 7: Developing IP for Initial Inspections.

* Denotes recently closed PCAs.

FHWA ANNUAL REVIEW FINDINGS

INSPECTION PROCEDURES		
Metric	Description	FHWA Finding
12	Quality Inspections	Conditional Compliant (PCA)
13	Load Rating	Conditional Compliant (PCA)
14	Post or Restrict	Conditional Compliant (PCA)
15	Bridge Files	Compliant
16	Nonredundant Steel Tension Member (NSTM)	Conditional Compliant (PCA)
17	Underwater	Compliant
18	Scour	Conditional Compliant (PCA)
19	Complex Features	Conditional Compliant (PCA)
New3	In-Depth	Compliant
20	Quality Control and Quality Assurance	Compliant
21	Critical Findings	Compliant

Pending Intermediate Review

Deadline extended

FHWA ANNUAL REVIEW FINDINGS

INVENTORY		
Metric	Description	FHWA Finding
22	Bridge Data Quality	Compliant
23	Timely Updating of Data	Substantially Compliant

Metric 23: PCA closed. Final compliant status pending FHWA data submittal.



Within what range is a condition rating compliant with the metrics?

+/- 1.0



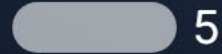
+/- 0.5



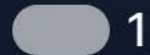
+/- 0.75



+/- 3.14159



+/- 1.5



Join at
slido.com
#INBridge

METRIC 12: QUALITY INSPECTIONS

*ONLY **8 OF 19** BRIDGES SAMPLED BY FHWA WERE COMPLIANT*

- Not all reported condition ratings were within +/- 1 of FHWA assessed ratings (as previously allowed by the NBI Recording and Coding Guide).
- Not all notable deficiencies were identified and/or properly documented in the inspection reports.
- Not all reported condition ratings were supported by report narratives that appropriately justifies and documents the ratings.

TYPE, SIZE, LOCATION, SEVERITY

METRIC 12: QUALITY INSPECTIONS

- Not all inspections followed AASHTO Manual for Bridge Evaluation (MBE) procedural requirements, to include:
 - Demonstrating necessary level of access to members
 - Surfaces with corrosion or unsound materials were properly cleaned for inspection
 - Providing appropriate recommendations to address noted defects
 - Need for structural reviews

DIFFERENCE BETWEEN 5 (FAIR) AND 4 (POOR) DEPENDS ON DEMONSTRATING THAT THE STRENGTH AND/OR PERFORMANCE OF A BRIDGE COMPONENT HAS OR HAS NOT BEEN AFFECTED.

METRIC 12: QUALITY INSPECTIONS

PLANNED INDOT ACTIONS:

- Data collection, procedure review, recommendations for program updates.
- Program revisions to update Part 4 of INDOT Bridge Inspection Manual.
- Additional educational outreach to inspection community.
- Supplemental Quality Assurance reviews throughout 2027 and 2028 to assess effectiveness of program revisions.



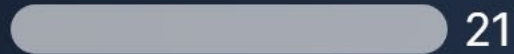
NSTM Inspections require a bridge specific POA?

True ✓



96

False



21

Join at

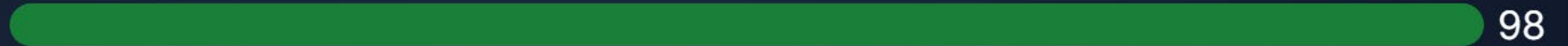
slido.com

#INBridge



NSTM members must be inspected at?

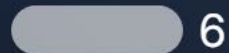
Arms Reach



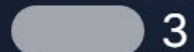
Hands On



Nearest Bank



Twice the distance of the longest panel spacing



Farthest Bank



Join at
slido.com
#INBridge

METRIC 16: NSTM INSPECTIONS

*ONLY **7 OF 18** BRIDGES WITH NSTMs SAMPLED BY FHWA WERE COMPLIANT*

- Most of the bridge-specific inspection plans were not stand-alone documents, but rather work plans developed by inspectors based on the previous reports and included within the current NSTM Inspection Report.
- Seven (7) bridges did not meet criteria requiring hands-on inspection of all NSTMs and/or identifying any necessary specialized techniques.
- Nine (9) bridges did not have reports that demonstrated that the general and/or bridge-specific NSTM inspection procedures were followed.

METRIC 16: NSTM INSPECTIONS

*ONLY **7 OF 18** BRIDGES WITH NSTMs SAMPLED BY FHWA WERE COMPLIANT*

- One bridge file reviewed did not clearly identify who was the lead/responsible team leader.
- One Railroad Flat Car (RRFC) bridge file did not provide evidence that the NSTMs received the required 100% arm's-length inspection.
- Reuse of photographs from past inspection reports without identifying as such.
- Photographs that appeared to have been taken with the zoom function to give the impression that the surfaces were within arm's length.

METRIC 16: NSTM INSPECTIONS

PLANNED INDOT ACTIONS:

- Bridge Inspection Memorandum on requirements for Floor Beams as NSTMs.
- Additional educational outreach to inspection community detailing compliance requirements for NSTM Inspections.
- Program revisions to update Part 5 of INDOT Bridge Inspection Manual.
- Independent QA Audits throughout 2026 and 2027 on NSTM Inspection Plans, NSTM field inspection operations, and NSTM Inspection Reports.

INTENTION OF AUDITS IS TO PROVIDE FEEDBACK.

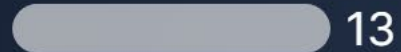


What is the cause of most bridge failures?

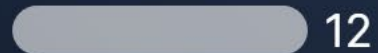
Scour ✓



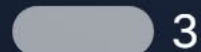
Impact/Crash



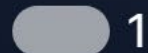
Overload



Aliens



Poor design



Join at
slido.com
#INBridge

METRIC 18: SCOUR

Issuing Instructional Memorandum by end of February.

- Validation of SNBI Items B.AP.03 (Scour Vulnerability) and B.AP.04 (Scour POA) for all LPA-owned/maintained bridges.
- Validation deadline for LPA bridges: August 31, 2026
- Validation for State bridges nearly complete (>99%)
- ACEC Task Group refining Scour Screening/Assessment qualitative procedures.
- Program revisions to update Part 6 of INDOT Bridge Inspection Manual.

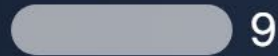


Where do you go to find answers to bridge inspection questions about the updates to the Indiana BIM?

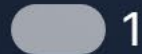
State Bridge Inspection Leadership



Your mom



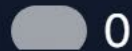
Google



Road Design Department



Jenny from the block



Join at
slido.com
#INBridge

INDOT BRIDGE INSPECTION MANUAL

- Part 1 (Administration) and Part 2 (Types of Inspections) published in 2025 to comply with the current National Bridge Inspection Standards and are effective for all CY 2026 Inspections.
- Other Parts of the IBIM will be published by the end of **2026**.
- Understand that there may be questions; inspectors are encouraged to reach out to INDOT Bridge Inspection leadership.



How does data in SNBI Section 5: Loads, Load Rating, & Posting get into iTAMS?

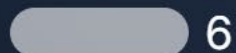
Via BRADIN Updates ✓



Bill Dittrich & Erich Hart correcting data



Unladen European Swallows



Jennifer Hart made it so!



Magic



Join at
slido.com
#INBridge

iTAMS INSPECTION REPORT WORKFLOW CHANGES

IBIM Part 2: § 2-1.01(01) Timely Inspections and Reporting

- iTAMS Inspection Report Workflow will be changing:
 - Scheduled
 - In Progress
 - Submitted for Review
 - Approved
 - Audit (~~Opened for Corrections~~) – Two instances, five (5) calendar days.
 - Audit Approval (~~Approved~~)
- Audit workflow will **only allow** data item changes within SNBI **Sections 1 through 4**.
- Audit workflow **does not allow** any data item changes within SNBI **Sections 6 and 7**.
- Section 5 data is managed through BRADIN and updates iTAMS.
- Anticipate full implementation in February – **Memorandum will be issued**.



How many days shall a report be Submitted for Review after the Inspection Completion Date?



Join at
slido.com
#INBridge

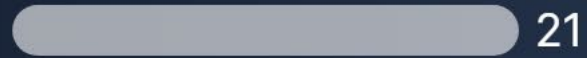


How many days after the Inspection Completion Date shall reports be moved to Approved?

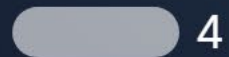
90 ✓



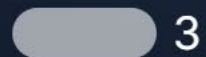
60



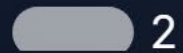
3



75



365



Join at
slido.com
#INBridge

TIMELY UPDATING OF INSPECTION DATA

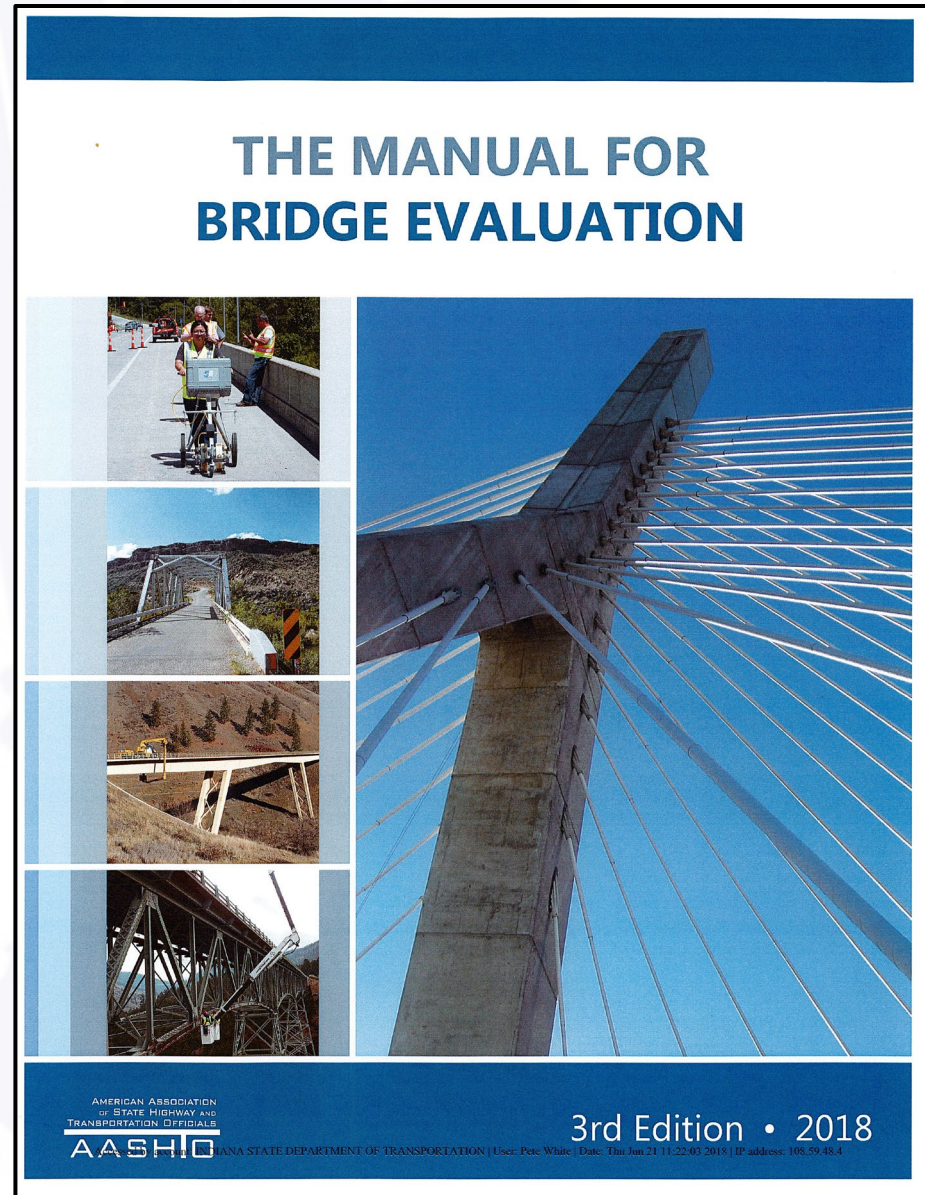
IBIM Part 2: § 2-1.01(01) Timely Inspections and Reporting

Metric 23 (23 CFR §650.315)

- All bridge inspection reports shall be *Submitted for Review* in the iTAMS workflow no later than 75 calendar days following the date reported in SNBI Item B.IE.03 (Inspection Completion Date).
- This is to allow for quality control review and timely approvals.
- All bridge inspection reports shall be *Approved* in the iTAMS workflow no later than 90 calendar days following the date reported in SNBI Item B.IE.03.

INDOT Central Office will be monitoring monthly for compliance and email inspectors in advance of approaching deadline dates.

BRIDGE-SPECIFIC INSPECTION PLANS





What types of inspections require a bridge specific POA?

Underwater ✓



NSTM ✓



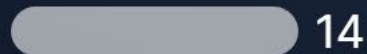
Special ✓



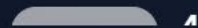
In-Depth ✓



Railroad Under



Above Deep Water



Join at
slido.com
#INBridge

BRIDGE-SPECIFIC INSPECTION PLANS

IBIM Part 2: § 2-1.04 Bridge-Specific Inspection Plan of Action

Plans shall be developed in accordance with the INDOT Bridge Inspection Manual and Section 4.2 of the AASHTO Manual for Bridge Evaluation (MBE).

Required for all:

1. Underwater Inspections
2. NSTM Inspections (including Complex Features as applicable)
3. In-Depth Inspections (including Complex Features as applicable)
4. Special Inspections

BRIDGE-SPECIFIC INSPECTION PLANS

IBIM Part 2: § 2-1.04 Bridge-Specific Inspection Plan of Action

Bridge-specific Inspection Plans of Action are intended to be *comprehensive* plans that detail the bridge-specific inspection requirements and the operational instructions for meeting those requirements.

Bridge-specific Inspection Plans of Action shall be written to be *independent* of any INDOT or consultant work plans, inspection reports, and references to any specific agency and consultant firms/organization and personnel.

BRIDGE-SPECIFIC INSPECTION PLANS

MBE §4.2.5 – Inspection Procedures

MBE §4.2.5.1 - General

“Inspect bridges according to the procedures listed in Article 4.2.5 to meet the requirements of 23 CFR 650 (NBIS). These procedures constitute *general procedures* for each type of inspection.”

“Develop bridge-specific procedures to facilitate the inspection of unique components or conditions not covered here. Include *bridge-specific inspection procedures* in the bridge file.”

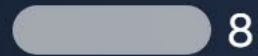


A qualified Team Leader for the type of inspection is not required onsite during the inspection?

False



True



Join at
slido.com
#INBridge

BRIDGE-SPECIFIC INSPECTION PLANS

Important minimum requirements for all inspection plans include:

- A clear statement requiring that a qualified inspection team leader is present on-site during the entire inspection.
- Qualifications for all key bridge inspectors, testing technicians, and other inspection personnel with special skills required (such as riggers).
- Requirements for traffic control, access equipment, and other special inspection equipment (such as NDT Equipment).

BRIDGE-SPECIFIC INSPECTION PLANS

Important minimum requirements for all inspection plans include (continued):

- Clearly identify the specific portions and details of the bridge that are the scope of the bridge-specific inspection plan. Recommend including illustrations (such as design plan details) for clarity.
- NSTM Inspections: each individual NSTM must be identified with marked up illustrations and summary table templates for inspection findings.
- NSTM Inspections: recommend that deployment sketches for specialized inspection vehicles be included to ensure full arm's reach access to all NSTMs.

BRIDGE-SPECIFIC INSPECTION PLANS

Important minimum requirements for all inspection plans include (continued):

- **Strongly encourage** the use of checklists to ensure that nothing is missed during the field inspection operations (field quality control).
- Information concerning bridge site location concerns and limitations that could impact safety, such as limited cell service, unusual weather concerns [fog], active railroad tracks [flagging needs], and nearby emergency services.
- Information regarding inspection access issues, such as boat access ramps and private property limitations.

BRIDGE-SPECIFIC INSPECTION PLANS

- INDOT Bridge Inspection Manual, Appendix A, provides a template for NSTM Inspections that could be used as an aid for writing bridge-specific inspection plans (anticipate to be part of updated Part 5 of the IBIM).
- INDOT anticipates issuing a BIM Memorandum detailing requirements for stand-alone, bridge-specific inspection plans.
- Bridge-specific inspection plan complexity should scale up or down based on the inspection type and inspection scope.

BRIDGE-SPECIFIC INSPECTION PLANS

Intention for how bridge-specific inspection plans are to be used:

1. Reviewed by all inspection team members prior to field inspection operations as a planning document (MBE §4.3.3).
2. Use the plan as a checklist during the field inspection.
3. Review and debrief actual inspection operations against the inspection plan to determine if changes are required. Must document what changes are made.
4. Use post-inspection debriefing to edit bridge-specific inspection plans for next inspection interval.
5. Repeat steps with each inspection.

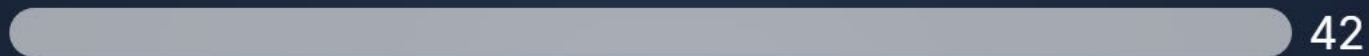


What year is the first for full SNBI data?

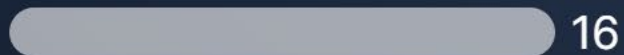
2027 ✓



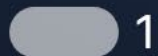
2026



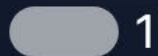
2028



2029



2525



Join at
slido.com
#INBridge

ADMINISTRATIVE ITEMS

FHWA Fed Data Tape Submittal (1st SNBI Hybrid)

- Issued announcement for all open inspection reports (prior to November) to be completed and approved by February 13, 2026 (last Friday).
- INDOT appears to be in excellent shape for this submittal.
- INDOT will announce when Fed Data Tape has been accepted.

***REMINDER: CY 2026 IS THE LAST SNBI HYBRID YEAR
CY2027 WILL BE FULL SNBI***

ADMINISTRATIVE ITEMS

Upcoming Bridge Inspection Memoranda

- Part 2 Updates – clarifications
- QC/QA Updates – Follow up concerning BIM 25-01 issued February 17, 2025
- Railroad Flat Car (RRFC) NSTM requirements
- Requirements for structural reviews to support findings where the “strength and/or performance of a component is affected” when a component rating is lowered to **4 (Poor)**.

ADMINISTRATIVE ITEMS

Upcoming Bridge Inspection Memoranda

- Guidance for coding SNBI B.RH.01 (Bridge Railings), B.RH.02 (Transitions), and B.AP.05 (Seismic Vulnerability)
- Guidance for coding SNBI B.IE.10 (Inspection Data Update Date)
 - Initially will be bulk populated by INDOT to reflect 2026 Fed Data acceptance
 - Then will be changed to reflect the inspection report's Approval Date
- Publish to the Bridge Inspection Website for INDOT and FWHA Quality Assurance and Program Review findings

ADMINISTRATIVE ITEMS

ACEC/INDOT Bridge Inspection Committee

- Committee consisting of INDOT Central Office leadership, along with representatives from inspection consulting firms, county highway engineers, Purdue, and LTAP
- Meet quarterly to discuss bridge inspection topics, concerns and issues
- Meeting minutes are published to INDOT's Bridge Inspection Website

<https://www.in.gov/indot/doing-business-with-indot/consultants/bridges/bridge-inspection/acec-indot-bridge-committee-meeting-minutes/>



How many months can you go between refresher training for routine inspection Team Leader Status?

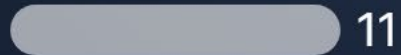
60



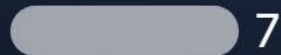
24



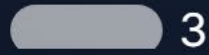
48



120



36



Join at
slido.com
#INBridge

ADMINISTRATIVE ITEMS

Training

- NHI 130053: Bridge Inspection Refresher Training – May 2026
 - INDOT will look to host another course in the Fall 2026
- NHI 130055: Safety Inspection of In-Service Bridges – April 2026
- NHI 130078: NSTM Inspection Course – pausing decision to host for now
 - Same for SBRITE NSTM Course
- NHI 135047: Stream Stability and Scour at Highway Bridges for Bridge Inspectors – April 14, 2026
 - INDOT will look to host another course later this year

QUESTIONS

Arms Length Inspection

Anthony P. Marino, P.E.
INDOT Bridge Inspection
State Program Manager
AMarino@indot.in.gov
(812) 681-1032



Rob Coop, P.E.
USI Bridge Inspection
Department Manager
rcoop@usiconsultants.com
(317) 544-4996

Slido Q&A not in recorded presentation.

<u>Question</u>	<u>Answer</u>
When will inspection summary be available as an INSPECTION attribute?	At this time, there is not a plan to do this in iTAMS.
Can the inspection completion date simply be entered as the last day of the compliance month?	To meet federal regulations, the completion date must be the actual date that the field inspection operations were completed. In most instances, the start and completion dates will be the same.
Do we still have until the end of the compliance month to inspect a bridge ? Eg, we inspect a bridge in early Nov 2024 do we have until the end of Nov 2026?	Yes, if you have a compliance month/year of November 2024, you have the entire month to inspect the bridges within that compliance time. For example, you could have a routine inspection done on 11/9/2024 and do the next one on 11/28/2026 and be compliant.
Closed bridges require a Special inspection now. Do we need a POA for these? Slides imply we do. What would that look like?	Yes, a bridge specific Special POA is required, but can be very simple. Part 2 of the manual allows a local official (such as a county engineer) collect the field information. If that is done, then that would be written into the Special POA. The details are needed so that a individual doing that work knows what is required.
To confirm, the 75-day and 90-day clocks start on the date input for B.IE.03 - Inspection Completion Date?	Yes.
Can we have an example of a good bridge specific inspection plan?	INDOT will be providing additional guidance later. For NSTMs, Appendix A provides a good outline. In-Depth and Special should be scaled as appropriate.
Will old NBI data still be available in 2027 and beyond?	Yes.
What will be the difference in inspections between new construction bridges and existing bridges?	Part 2 of the INDOT Bridge Inspection Manual provides the requirements for Initial Inspections.
What structural review will be done for wearing surface performance issues?	Wearing surface is an agency defined condition rating and does not have the same rating descriptions as Table 20 in SNBI.
How is INDOT adjusting data for fed tape if data cannot be changed after 90 days post-inspection and can only be updated in inspection?	Approved INDOT administrators can make corrections for errors if necessary.
Is there going to be any more guidance on MSE walls and inspection of ones under bridges? We get questions about them from asset engineers occasionally.	Yes, we are waiting for the consolidation of the separated MSE Wall points in iTAMS first.
Do we need to use hybrid for our new contracts starting this year? This seems counterintuitive. This data update is needed for MPO selection criteria updates.	Please contact Shari Street. I don't have enough information to give a better answer.
Is the 135047 scour course that same as the on line one with NHI?	There is one that is either 2 or 3 days for hydraulics engineers, and a one day class for inspectors. There are a couple on line courses that must be taken as a prerequisite for NHI 135047.
Bridge file is ERMS correct? Most documents not moved to ITAMS	The "bridge file" is made up of data in ERMS, iTAMS, and other data management applications INDOT uses.
BRADIN doesn't update the open reports. How do you get the open reports to include new BRADIN data?	Yes, every 15 minutes so long as the inspection report is in open status.
Listening into small culverts..they feel that these assets should be in ITAMS..is this on the horizon and if so how will the program handle so many more assets	This is likely farther out on the horizon.
Answer said x-1 INSPECTION data is available. It is not. Only x-1 ASSET data is available.	I have been informed that this is available.