



DOE O 437.1A Update

CAIS User Group Meeting / October 22, 2024



DOE O 437.1A

BRIDGE AND TUNNEL MANAGEMENT UPDATE

DOE 437.1A Bridge and Tunnel Management

This order aligns DOE guidance with the updated National Bridge Inspection Standards (**NBIS**) 23 CFR part 650 Subpart C, published in Federal Register on May 6, 2022

Summary:

- Updated on 9/23/2024
- Limited change (aka Minor Change)
- Incorporate changes to reporting for the National Bridge Inventory (NBI) including the Specifications for the National Bridge Inventory (**SNBI**)

PROGRAM REVIEW

BRIDGE AND TUNNEL PROGRAM

270 Operating and Standby assets in DOE's Bridge and Tunnel Program, FY23 Snapshot*:

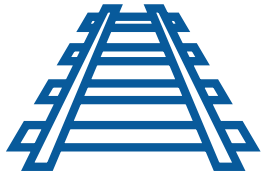


Vehicle Bridges

1768/9

7 Public

68 Controlled



Railroad Bridges

1468/9

0 Public

7 Controlled



Pedestrian Bridges

1168/9

10 Public

72 Controlled



Vehicle Tunnels

1771/2

0 Public

2 Controlled



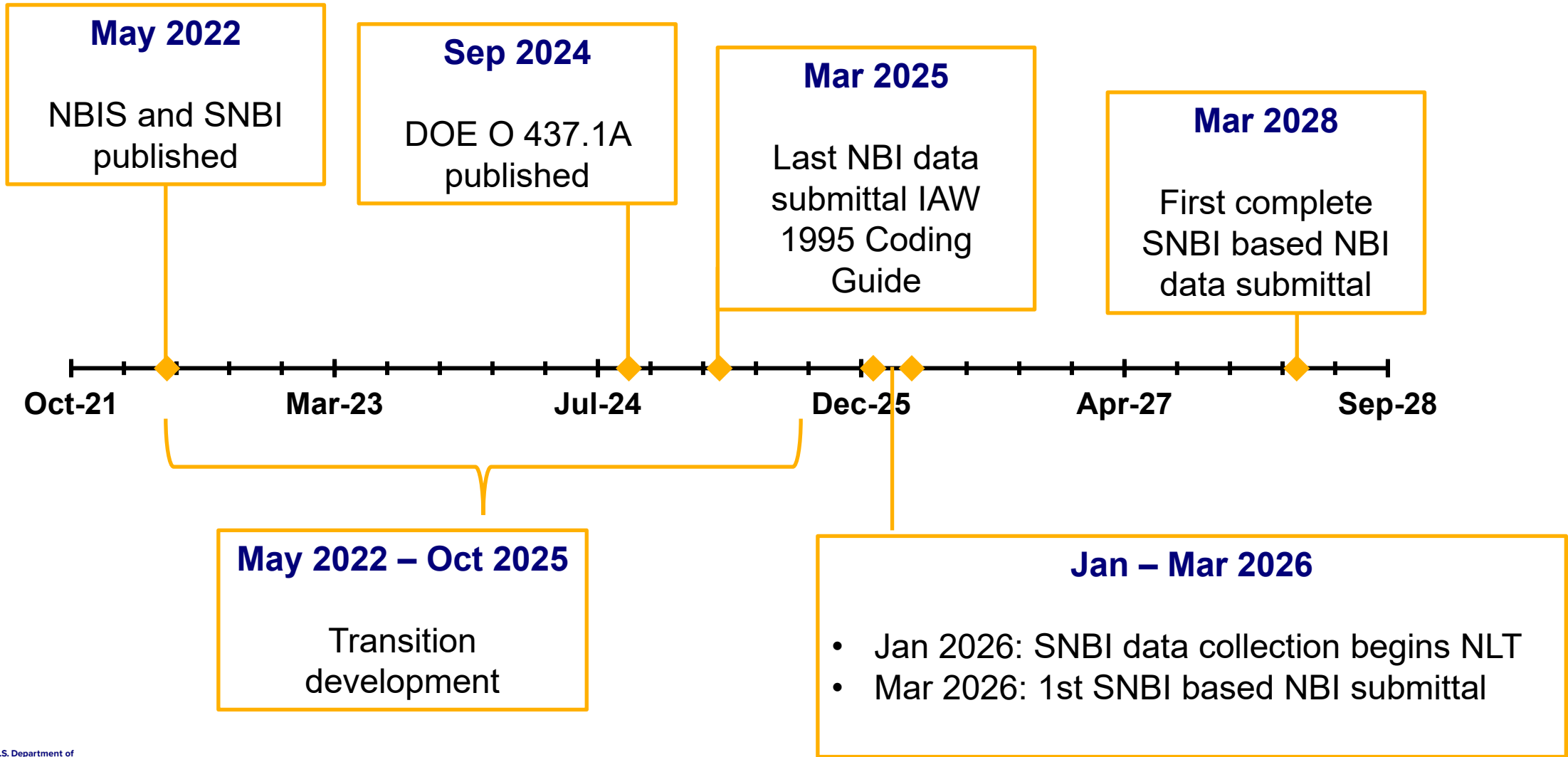
Culverts

2629

104

* BTM DOE O 437.1A, does not include:
1171 Pedestrian Tunnel (12)
1471 Railroad Tunnel (1)

BRIDGE AND TUNNEL MANAGEMENT UPDATE



ORDER OVERVIEW

Organizational structure

Attachment 1, CRD, and Attachment 2, BTM Requirements, establishes baseline requirements and DOE criteria for exercising the risk-based flexibilities found in regulations

Order main areas:

- Attachment 1, Contractor Requirement Document (CRD)
- Attachment 2, Bridge and Tunnel Management Rqmts
- Attachment 3, Definitions



Bridge and Tunnel Management

ORDER OVERVIEW

Nine Topic Areas

- Inspections
- Load Rating and Posting
- Scour Evaluation
- Seismic Vulnerability Evaluation
- Vehicle Traffic Volume Data Collection
- Use of Qualified Personnel
- Quality Management
- Records and Reporting
- Inventory and Asset Management



Nine (9) Topic
Areas

BRIDGE AND TUNNEL MANAGEMENT UPDATE

General Changes

- Changed *Fracture Critical Member (FCM)* to *Nonredundant Steel Tension Member (NSTM)*
- Changed *Scour Evaluation* to *Scour Appraisal*, including definitions and requirements
- Revised language to reflect the “*Specifications for the National Bridge Inventory (SNBI)*”
- Updated footnotes to reflect most recent technical documents

BRIDGE AND TUNNEL MANAGEMENT UPDATE

DOE O 437.1A – Main Order

- Requires the Site and/or Field Office Manager to certify all personnel qualifications satisfy the requirements of the Order and submit the certified personnel qualifications to the DOE Bridge and Tunnel Manager (BTM)
- Clarified wording in paragraph “4. Requirements”, improving alignment with Attachment 2
- Added section for references

BRIDGE AND TUNNEL MANAGEMENT UPDATE

DOE O 437.1A – Attachment 1: Contractor Requirement Documents

- Requires the contractor to “Certify, document and submit individual personnel qualifications including appropriate education, experience, licensure, and certifications, as applicable and current training, using criteria in Attachment 2, to the Site and/or Field Office Manager.”
- Relocated Vehicle Traffic Volume Data Collection details to Attachment 2

BRIDGE AND TUNNEL MANAGEMENT UPDATE

DOE O 437.1A – Attachment 2: Bridge and Tunnel Management

- Revised language for graded approach to only include public- and controlled- access pedestrian bridges including elevated walkways, tunnels and culverts assigned Usage Code 2629 in the Facilities Information Management System (FIMS).
- Deleted the Risk Classification section. The risk classification information is included using the SNBI criteria in the Paragraph 1.b.(2) Inspection Interval Variance section.
- Added language to review existing load rating, scour appraisal, and existing seismic vulnerability evaluation, during each routine inspection.

BRIDGE AND TUNNEL MANAGEMENT UPDATE

DOE O 437.1A – Attachment 2: Bridge and Tunnel Management (Con't)

- Revised language regarding when to perform a new load rating.
- Revised language to clarify posting requirements for pedestrian bridges.
- Revised language for Use of Qualified Personnel as follows: “Submit documentation supporting the satisfaction of all qualifications for Inspection Team Leaders or Railroad Bridge Inspector to the Site and/or Field Office Manager. The Site and/or Field Office Manager shall certify all Inspection Team Leaders or Railroad Bridge Inspectors meet the qualification requirements. The Site and/or Field Office Manager shall forward Inspection Team Leader or Railroad Bridge Inspector supporting documentation, with a certification letter stating the Inspection Team Leader(s) or Railroad Bridge Inspector(s) meet all qualification requirements of DOE 437.1A to the DOE BTM.”

DOE O 437.1A

BRIDGE AND TUNNEL MANAGEMENT UPDATE

DOE O 437.1A – Attachment 3: Definitions

- Revised this section to align with the NBIS, providing updated definitions.
- Minimized references to other documents.

WHAT'S NEXT

BTM UPDATE

Future Updates Include

- Updated FIMS Appendix
- Updated DOE templates for reporting and standard application
- DOE Bridge and Tunnel Management Course
 - Targeted for 3rd quarter FY25
- Bridge and Tunnel Management Working Group
 - 12 December 2024 – 1:30 – 2:30 PM EST



Questions?

