



DATE: 7/2/2024
TO: Wisconsin Bridge Inspection Program Dive Team Leaders
FROM: David Bohnsack, P.E.
SUBJECT: Underwater Dive Inspection Procedures

FHWA reviewed WisDOT's inspection program for compliance with Metric #17 Inspection Procedures – Underwater per 23 CFR Part 6540 Subpart C – NBIS, 650.313 (e)(g). The review found a couple of items that must be relayed to Wisconsin underwater dive inspection team leaders.

1. Level of Inspection (I,II) consistent with Marine Growth Present/Cleaned

The dive log documentation for Marine Growth Present/Cleaned must be consistent with the Dive Level Intensity. A routine underwater bridge inspection normally includes a 100% Level I effort and a 10% Level II effort. Level II requires portions of the structure be cleaned of marine or aquatic growth. If marine growth is not present or cleaning was not performed, the level of inspection is Level I effort.

On multiple inspection reports, the dive log documentation indicated the Inspection Level II but marine growth presents and cleaning completed were both marked N (no). See the attached dive log taken from one of the reviewed reports. The red arrows point to the area of the dive log which identifies the level of inspection, and marine growth present/cleaning performed. The dive log indicated a Level II inspection, but marine growth and cleaning was marked N. See [SIM Part 1 Chapter 3](#) or [FHWA Publication FWHA-NHI-10-027 Underwater Bridge Inspection](#) or more information.

2. Document the Dive Team Roles and Responsibilities

Clearly document all dive team members roles and responsibilities in the inspection report and on the forms. HSIS has been updated to enter more specific information about team members and their roles when creating an inspection report, on the Edit tab under Team Personnel.

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SAMPLE DIVE LOG FROM INSPECTION REPORT REVIEWED:

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Structure No.: B- [REDACTED]

Wisconsin Dept. of Transportation
Underwater Bridge Inspection Report/Dive Log
Emxx-01xx Section 84.17 Wis. Statues

This form may be required as a supplement to form
EM30-01xx for Underwater Bridge Inspections.

Structure No: B- [REDACTED]

Inspection Date: [REDACTED] Weather Condition.: Sunny 75 Waterline Elev.(ft): 15.9

Safety Concern: Water Temp.(F): 68

Current (ft/s): 1 Visibility: 6 in to 1ft Total Inspection Hours: 1
Total Inspection Minutes: 0

Elevation Marker Description: Top of steel rail, at pier, East side.

General Site Condition	
Scour at Bridge Site	Minor at the pier
Embankment Erosion / Conditions	Good
Dive Platform: Shore, Boat, Other	Shore
Location of Boat Access	N/A

One of these is incorrect. If Level II, then marine growth must be present and cleaning must be completed. If no marine growth, then inspection is Level I.

Substructure Unit	Non-Cardinal Abutment	Pier 1
Inspected	X	X
Level of Inspection		Level II ←
Abutment/Pier Type	SILL WITH BRGS	PILE BENT ←
Dive Log		
Maximum Water Depth, at Unit (ft)		10.0
Channel Bottom Material, at Unit		Sand
Scour at Unit		Minor
Marine Growth / Cleaning Performed? (Y/N)	N/N	N/N ←
Debris / Clearing Performed? (Y/N)	N/N	N/N
Mode: Wade, Scuba, Surface Supplied Air:		Scuba
Inspection Comments:		1/4 inch thick pack rust from WL down on all 6 piles. Up to 1/8 inch section loss from nodules.