

Bridge Element Inspection Manual

PROTECTION SYSTEM NON-LEAD PAINTED STEEL ELEMENTS

10/23/15

These elements include: The protection system of non-lead painted steel substructure and superstructure elements.

<u>Elem #</u>	<u>Description</u>		
8103	Non-Lead Painted Steel Closed Web/Box Girder (SF)	8173	Non-Lead Painted Steel Closed Web/Box Girder Ends
8118	Non-Lead Painted Steel Open Girder (SF)		Including Diaphragms Below Deck Joints (EA)
8119	Non-Lead Painted Steel Stringer (SF)	8176	Non-Lead Painted Steel Open Girder Ends Including
8122	Non-Lead Painted Steel Bottom Chord Through Truss (SF)		Diaphragms Below Deck Joints (EA)
8123	Non-Lead Painted Steel Through Truss Excluding Bottom Chord (SF)	8179	Non-Lead Painted Steel Stringer Ends Including Diaphragms
8124	Non-Lead Painted Steel Deck Truss (SF)		Below Deck Joints (EA)
8128	Non-Lead Painted Steel Arch/Arch Tie (SF)	8182	Non-Lead Painted Steel Deck Truss Below Deck Joints (SF)
8129	Non-Lead Painted Steel Floor Beam (SF)	8192	Non-Lead Painted Steel Floor Beam Below Deck Joints (SF)
8162	Non-Lead Painted Steel Pin and/or Hanger (EA)	8200	Non-Lead Painted Steel Column (SF)
8163	Non-Lead Painted Steel Gusset Plate (EA)	8220	Non-Lead Painted Steel Abutment and Wingwall (SF)
		8236	Non-Lead Painted Steel Pier or Abutment Cap (SF)
		8246	Non-Lead Painted Steel Pile Extension (SF)
		8272	Non-Lead Painted Stl Pier or Abut Cap Bel Deck Joints (SF)

Condition State 1 There is no evidence of active corrosion and the paint system is sound and functioning as intended to protect the metal surface. The top coat may be discolored and/or chalking.

Feasible actions:

- 1) DN
- 2) *Wash

Condition State 2 This condition state includes a wide range of visible paint conditions. It includes conditions from little active corrosion through surface or freckled rust to complete paint system failure. The paint system is no longer effective. There may be exposed metal with very slight rust scaling but little pitting or metal losses have occurred.

Feasible actions:

- 1) DN
- 2) *Wash
- 3) Zone clean and paint entire surface

Condition State 3 The paint system has failed and measurable section loss has occurred with metal loss less than or equal to 1/16".

Feasible actions:

- 1) DN
- 2) *Blast and paint entire surface
- 3) *Replace paint system

Condition State 4 Corrosion has caused section loss and substantial metal loss is evident (greater than 1/16" per face) and some perforation may have occurred. Section loss greater than 1/16" that has been cleaned/painted (no active corrosion), and determined by the section loss policy to not reduce the load rating remains in CS1.

Feasible actions:

- 1) DN
- 2) *Blast and paint entire surface
- 3) *Replace entire unit