

## PROTECTION SYSTEM UNPAINTED STEEL ELEMENTS

10/23/15

These elements include: The protection system of unpainted ASTM 588 or AASHTO M222 steel substructure and superstructure elements that were designed to achieve corrosion protection by a uniform collection of corrosion products on the steel surface and elements protected with galvanizing or metalizing. Steel elements that have lost their original paint system will be included with Protection System Non-Lead Painted Steel Elements (p. 17).

<u>Elem #</u>	<u>Description</u>
8101	Unpainted Steel Closed Web/Box Girder (SF)
8106	Unpainted Steel Open Girder (SF)
8112	Unpainted Steel Stringer (SF)
120	Unpainted Steel Bottom Chord Through Truss (SF)
8125	Unpainted Steel Through Truss Excluding Bottom Chord (SF)
8130	Unpainted Steel Deck Truss (SF)
8140	Unpainted Steel Arch/Arch Tie (SF)
8151	Unpainted Steel Floor Beam (SF)
8160	Unpainted Steel Pin and/or Hanger (EA)
8171	Unpainted Steel Closed Web/Box Girder Ends Including Diaphragms Below Deck Joints (EA)
8174	Unpainted Steel Open Girder Ends Including Diaphragms Below Deck Joints (EA)
8177	Unpainted Steel Stringer Ends Including Diaphragms Below Deck Joints (EA)
8180	Unpainted Steel Deck Truss Below Deck Joints (SF)
8190	Unpainted Steel Floor Beam Below Deck Joints (SF)
8201	<b>Unpainted Steel Column (SF)</b>
8222	Unpainted Steel Abutment and Wingwall (SF)
8224	<b>Unpainted Steel Pile Extension (SF)</b>
8230	Unpainted Steel Pier or Abutment Cap (SF)
8270	Unpainted Steel Pier or Abutment Cap Below Deck Joint (SF)

**Condition State 1** The weathering steel has corroded uniformly or the galvanizing or metalizing remains in excellent condition. Surfaces covered by mill scale are included.

Feasible actions:  
1) DN  
2) \*Wash

**Condition State 2** Surface pitting has formed or is forming on the unpainted steel.

Feasible actions:  
1) DN  
2) \*Wash  
3) \*Clean and paint

**Condition State 3** Steel has measurable section loss due to corrosion up to 1/16" per face.

Feasible actions:  
1) DN  
2) \*Wash  
3) \*Clean and paint, minor repair

**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 or metalized (no active corrosion), and determined by the section loss policy to not reduce the load rating remains in CS1.

Feasible actions:  
1) DN  
2) \*Rehabilitate entire unit  
3) \*Replace entire unit