

## **US Army Corps of Engineers**





## STANDARD OPERATING PROCEDURE FOR CLOSURE ANCHORAGE RECESSES

## 2 December 2010

Local Sponsors shall be responsible for maintaining the anchorage recesses for movable closures. These are often referred to as "pin boxes". The embedded metals in the boxes are painted structural steel, with the exception of the vertical plates through which the anchorage pins pass; these are fabricated from corrosion resisting stainless steel.

The steel covers should be bolted down to prevent theft of the covers and damage to the structural components within the boxes. If the cover plate is damaged or bent, it should be replaced with a new checkered cover plate matching the original thickness, dimensions and material specification. Any missing bolts should be replaced. If any of the threaded bolt holes in the dust boxes have become stripped, they should be re-tapped for a larger bolt size and the old bolts should be replaced. Each cover plate should have a perimeter gasket; these should be replaced as necessary to minimize entry of dirt and water into the recesses.

The recesses shall be kept free and clear of water and debris. For pin boxes that have drainage holes, the drainage system shall be checked to verify it is operating effectively each year.

The Local Sponsor is responsible to keep a protective coating of paint on the structural steel. The following paint system is recommended:

## **Corps of Engineers Zinc-Rich Impacted Immersion Coating**

Surface Prep: White Metal Blast per SSPC-SP5/NACE 1, 1.5 - 2.5 mil profile

One Coat: Zinc Clad 108 @ up to 2.5 mils dft. in one double spray coat One Coat: V-766e Gray Vinyl @ up to 2 mils dft. in one double spray coat One Coat: V-766e White Vinyl @ up to 2 mils dft. in one double spray coat One Coat: V-766e Gray Vinyl @ up to 2 mils dft. in one double spray coat

For pin boxes that do *not* have drainage holes, an additional measure to protect the steel components is to fill the recess with a mixture of 10W30 motor oil and mill saw dust. The mixture should be predominantly sawdust with enough oil to provide a coating that protects the metal components but not enough to make the mixture take a liquid consistency. Commercially available products such as Qwik-Sorb® or similar may be used instead of sawdust.