



**GBW Railcar Services, LLC**  
**Passivation and FerroxyI Testing of**  
**Stainless Steel Components in Tank Cars**

Form IC-007-3  
 Original Date 10.19.15  
 Revision Level Original  
 Revision Date N/A  
 Revised by N/A  
 Approved by: T. Schaffer  
 Page 1 of 1

Car Number: ACFX 73711 Customer: Union Tank

GBW Shop Location: Neodesha

**Stainless steel components that were effected during the interior abrasive blasting process must be passivated and ferroxyI tested in accordance with the following instructions:**

- Step 1: Remove the protective materials used to protect the stainless steel manway nozzle and other components not to be coated. Remove any overspray on the components by use of an aluminum-oxide flapper wheel or resin fiber sanding disc.
- Step 2: Affix plastic sheeting to the coated surface directly around or under the affected stainless steel component.
- Step 3: Degrease the affected component with a mild soap and water solution. Rinse off the soap solution and dry the surface with a clean cloth.
- Step 4: The team member shall don protective chemical gloves, chemical goggles, and a face shield, and using a slightly dampened sponge, apply the pre-mixed ferroxyI test solution to the affected component. The pre-mixed ferroxyI test solution shall be comprised of: 94% by weight distilled water, 3% by weight nitric acid, and 3% by weight potassium ferricyanide. **DO NOT SATURATE THE SPONGE WITH THE SOLUTION SO THAT IT DOES NOT DRIP ONTO THE NEWLY COATED SURFACE.**
  - o The appearance of a blue stain within 15-seconds is evidence of iron contamination. If blue staining is present, rebuffer the areas in question with an aluminum-oxide flapper wheel or resin fiber sanding disc. Retest with the ferroxyI test solution. Repeat until no blue staining is present.
  - o When the ferroxyI test does not turn blue, indicating the component is no longer contaminated with iron, remove the test solution by rinsing with water or a white vinegar solution while scrubbing with a fiber brush. Dry the component with a clean cloth.
- Step 5: Rinse out the car. Remove and discard the plastic sheeting and re-rinse the car if necessary.

Documented Test Results:  Pass  Fail

Test performed by: Benjamin R. Murphy Benjamin R. Murphy 4-13-16  
 (Printed Name) (Signature) (Date)

**LOG OF REVISIONS**

REVISION LEVEL	REV. DATE	REV. SECTION	CHANGE MADE
Original			