

MC-1-34344 (REV 75)

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each rinsing shall be followed by thorough draining. The prepared quartz wool shall be air dried and stored in a closed container.

- (4) Rubber (or plastic) gloves. - Rubber (or plastic) gloves shall be gloves made of a material which does not have chloride containing compounds such as neoprene, saran or metallic chlorides in its formulation. Prior to use, the gloves shall be rinsed, drained, and dried in the same manner as the quartz wool in 4.2.2(c)(3) of this specification.

4.2.3 Test specimens. - Insulation specimens and corrosion coupons after cleaning shall be handled with cleaned rubber or plastic gloves. They shall be prepared as follows:

- (a) Corrosion coupons. - The coupons shall be cut from 16 gage A31 type 304 stainless steel sheet which has been sensitized in argon at 1200°F. for 3 hours. The coupons shall be 1/4 inch wide by 3-1/2 inches long and shall have a 5/32 inch diameter hole centered 7/32 inch from each end. The coupons shall be polished on one side, in the direction parallel to their length, using a dry 60 grit aluminum oxide belt with just sufficient pressure to remove the dull finish and leave the metal bright. The coupons shall be bent to "U" shape to an inside radius approximately 1/64 inch less than the outside radius of the steam pipe, with the polished surfaces on the outside of the bend. After bending the coupons shall be cleaned by the procedures of 4.2.4(a)(1). The coupons shall be examined for cracks under 30X magnification, and any coupon showing evidence of a crack shall be discarded. Stainless steel bolts and nuts No. 6-32 by 1-1/4 inches long shall be used for installation of the coupon.
- (b) Insulation material specimens. - Insulation specimens approximately, but not less than, one inch thick and 2 1/2 inches in axial length, fully representative of the cross section of the material (except metal facings) as required by 4.2.2, shall be prepared in the shape shown in Figure 2 as follows:
- (1) Block or rigid insulation shall be cut into fitted strips with the strip length parallel to the pipe (see Figure 2) and applied so that the insulation will bear evenly on the surface of the corrosion coupon below the attachment of the bolt.
 - (2) Felt lagging, cloths or other soft materials shall be assembled in blanket form.
 - (3) Cements shall be mixed with water to a stiff paste and built up to a pad of suitable thickness on the 40 mesh Ni-Cr-Fe screen shown in Figure 2. The wet cement and screen are then installed as shown on Figure 2.
 - (4) Liquid type adhesives shall be applied evenly to the surface of a pad of prepared quartz wool which contacts the coupons. A minimum of 50 grams of the adhesive, dry basis, shall be applied as determined by weighing the pad before application and after the pad has air dried.

4.2.4 Procedure.

- (a) The water container, corrosion coupons, and corrosion resistant metal overflow containers, shall be cleaned by procedure (1); the outside surface of the steam pipe shall be cleaned by procedure (2), and plastic overflow containers shall be cleaned by procedure (3). Following this cleaning, cleaned rubber gloves shall be worn when working on the test station. The final cleaning procedures are detailed as follows:
- (1) Immerse containers (or coupons) in a water solution containing 50 grams of detergent per liter and hold at 170°F. to 180°F. for 20 to 30 minutes. Remove from the detergent solution, shake well, insert and hold in boiling water for 20 to 30 minutes. Remove from the boiling water and rinse by dipping in a second boiling water solution. Then rinse in cold running water.
 - (2) Scrub the steam pipe with 170°F. to 180°F. detergent solution (50 grams per liter), using a stiff bristle brush. Immediately rinse twice by pouring hot (over 180°F.) water over the pipe.
 - (3) Rinse plastic overflow containers with the following, in turn: water, then acetone, then water, and finally with pure ethyl alcohol.

Note: Items shall be visually clean prior to final cleaning.

- (b) Four corrosion coupons and the insulation material specimens shall be installed as shown in Figure 2. The spacing between the coupons shall be approximately one-fourth inch and the coupons shall contact the lower 180 degrees of the pipe surface evenly. The legs of the

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