BROWN & ROOT, INC. CPSES	PROCEDURE NUMBER	REVISION	EFFECTIVE DATE	PAGE
JOB 35-1195	CP-CPM 10.2	2	7/12/83	1 of 3

TITLE:

CLEANING AND INSULATING STAINLESS STEEL PIPE AND EQUIPMENT

DCN #1

ORIGINATOR: _____ 7-8-83 DATE

REVIEWED BY: _____ 7/8/83 DATE
B&R QA

_____ 7/8/83 DATE
TUGCO QA

APPROVED BY _____ 7-11-83 DATE
CONSTRUCTION PROJECT MANAGER

FOR OFFICE AND ENGINEERING USE ONLY

FOIA-85-59

5/84

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1.2 GENERAL

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1.0 INTRODUCTION

1.1 SCOPE

This procedure provides the criteria for the final surface cleanliness of stainless steel pipe and equipment inside and outside of the Containment Building, and identifies the types of insulation which are acceptable for use on stainless steel. Installation of reflective insulation is not within the scope of this procedure.

1.2 GENERAL

All stainless steel piping and equipment shall be cleaned in accordance with the criteria stated herein.

All stainless steel piping and equipment inside the Containment Building that is to be insulated with reflective insulation shall have a swipe test performed to determine the chloride and fluoride concentrations.

All Westinghouse supplied equipment, regardless of insulation type or loaction, shall also be suject to the swipe test requirement.

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TITLE:			
CLEANING AND INSULATING STAINLESS STEEL PIPE AND EQUIPMENT	ORIGINATOR	** see original cover sheet **	****** Date
	REVIEWED BY:	** see original cover sheet ** B&R QA	****** Date
		** see original cover sheet ** TUGCO QA	****** Date
	APPROVED BY:	** see original cover sheet ** CONSTRUCTION PROJECT MGR	****** Date

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1.0 INTRODUCTION
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1.0 INTRODUCTION

1.1 SCOPE

This procedure provides the criteria for the final surface cleanliness of all class, 1, 2, and 3 stainless steel pipe, non-Q stainless steel pipe whose design temperature exceeds 300°F, and stainless steel equipment, and identifies the types of insulation which are acceptable for use on stainless steel. Installation of reflective insulation is not within the scope of this procedure.

1.2 GENERAL

All stainless steel piping and equipment shall be cleaned in accordance with the criteria stated herein.

All stainless steel piping and equipment inside the Containment Building that is to be insulated with reflective insulation shall have a swipe test performed to determine the chloride and fluoride concentrations.

All Westinghouse supplied equipment, regardless of insulation type or location, shall also be subject to the swipe test requirement.

JOB 35-1195

COMANCHE PEAK STEAM ELECTRIC STATION

Construction Procedure
DOCUMENT CHANGE NOTICE NUMBER 1

Notice applicable to Construction Procedure No. 35-1195- CP-CPM 10.2 Rev. 2.

This change will be incorporated in the next revision of the procedure.

Change the procedure as follows:

Please replace the following page with the attached:

Page 1 of 3

Reviewed by:

7-3-84
Originator Date

7/5/84
Brown & Root Quality Assurance Date

7-10-84
TUGCO Quality Assurance Date

Approved by:

7-11-84
Construction Project Manager Date

07/16/84
Effective Date

All other stainless steel piping and equipment shall meet the acceptance criteria stated in Section 2.0.

Non-Westinghouse supplied equipment is identified by tag numbers prefixed with CP1, CP2, or CPX. Westinghouse supplied equipment is identified with TBX or TCX tag number prefixes.

For stainless steel piping and equipment that will be insulated with reflective insulation, acceptance of cleanliness shall be documented by Brown & Root QC in accordance with QC procedures.

2.0 PROCEDURE

2.1 CLEANING

Stainless steel piping and equipment surfaces within the scope of this procedure shall be cleaned to the extent necessary to ensure the criteria discussed below are obtained. Cleaning may be performed by vacuuming, wiping, or blowdown with compressed air, and flapping/grinding. Welds which have received preservice examination shall not be cleaned by grinding or flapping. When compressed air is used, care shall be taken to prevent contamination of other items in the area. All stainless steel items shall be given a final rinsing with Grade "A" water.

The external surfaces shall meet the following criteria:

1. The surface shall be free of particulate contaminants such as sand, metal chips, weld slag, etc.

2. The surface shall be free of organic film contamination such as oils and preservatives as determined by visual examination. If surfaces fail to meet this criteria, and degreasing is required, use Stoddard solvent, mineral spirits, isopropyl alcohol, ethyl alcohol, acetone, toluene, methyl ethyl ketone, or an approved liquid penetrant cleaner to clean the surface. Degreasing shall be followed by rinsing with Grade "A" water.

3. Paint on stainless steel pipe surfaces shall be treated as follows:

   a. On piping systems with a design temperature of 300°F or less:

      1) All paint on surfaces that is visible and accessible shall be removed.

      2) Surfaces for which visual inspection is not feasible (such as adjacent to pipe supports), pressure spraying with all the following liquids shall be used to clean the pipe:

First, MEK, or approved liquid penetrant cleaner; next, acetone or ethyl alcohol; finally, demineralized water.

b. On piping systems with a design temperature greater than 300°F:

1) All paint on surfaces that is visible and accessible shall be removed.

2) On surfaces for which visible inspection is not feasible, a dark abrasive cloth shall be used to clean the surfaces. If paint shows on the cloth, a new clean cloth shall be used until all paint is removed from the pipe. If it is not possible to satisfactorily remove the paint in this manner, the pipe surface shall be made accessible for paint removal by dismantling pipe supports as necessary.

3) Following any paint removal, pressure spraying with all the following liquids shall be used to clean the pipe:

First, MEK, or approved liquid penetrant cleaner; next, acetone or ethyl alcohol; and finally demineralized water.

2.2 INSTALLATION

Only the following products may be used on stainless steel piping and equipment:

1. Calcium silicate, all types
2. Ryder thermocote cement, all types
3. Temp mat
4. Aluminum lagging with moisture barrier, all types
5. 81-27 foster adhesives
6. fiberglass, KNAJF pipe and block types only.

When installing the insulation, the craftsman shall take care not to contaminate the cleaned surfaces or the insulation. Insulation contaminated with mud, paint, grease, etc. shall not be applied to stainless steel surfaces.