



South Texas Project Electric Generating Station P.O. Box 289 Wadsworth, Texas 77483

August 18, 2003  
NOC-AE-03001581

U. S. Nuclear Regulatory Commission  
Attention: Document Control Desk  
One White Flint North  
11555 Rockville Pike  
Rockville, MD 20852

South Texas Project  
Unit 1  
Docket No. STN 50-498  
STP Unit 1 Reactor Pressure Vessel Head Inspection Results

References:

1. NRC Order EA-03-009, Interim Inspection Requirements for Reactor Pressure Vessel Heads at Pressurized Water Reactors

In accordance with Paragraph C(3)(a) of Reference 1, STPNOC performed a bare metal visual examination of the STP Unit 1 reactor pressure vessel (RPV) upper head during the unit's Spring 2003 refueling outage.

STPNOC performed the bare metal visual (BMV) of the upper head as described in MRP-75. The inspection was performed with a robot that had a front and back camera with lights, augmented with a borescope. The scope of the inspection was as described in STPNOC's response to Bulletin 2002-01, Item 1.D and is attached for the reviewers' convenience.

STPNOC was able to view all the reactor head penetrations with a combination of the robot and borescope. There were no relevant indications. No cracking, leakage, or wastage was found. All inspections were videotaped.

If you should have any questions regarding this submittal, please contact me at 361-972-7902 or Mr. Michael Lashley at 361-972-7523.

A handwritten signature in black ink, appearing to read "T. J. Jordan".

T. J. Jordan  
Vice President,  
Engineering and Technical Services

awh  
Attachment: Description of Inspection

A101

cc:

(paper copy)

Regional Administrator, Region IV  
U. S. Nuclear Regulatory Commission  
611 Ryan Plaza Drive, Suite 400  
Arlington, Texas 76011-8064

U. S. Nuclear Regulatory Commission  
Attention: Document Control Desk  
One White Flint North  
11555 Rockville Pike  
Rockville, MD 20852

Richard A. Ratliff  
Bureau of Radiation Control  
Texas Department of Health  
1100 West 49th Street  
Austin, TX 78756-3189

Jeffrey Cruz  
U. S. Nuclear Regulatory Commission  
P. O. Box 289, Mail Code: MN116  
Wadsworth, TX 77483

C. M. Canady  
City of Austin  
Electric Utility Department  
721 Barton Springs Road  
Austin, TX 78704

(electronic copy)

A. H. Gutterman, Esquire  
Morgan, Lewis & Bockius LLP

L. D. Blaylock  
City Public Service  
David H. Jaffe  
U. S. Nuclear Regulatory Commission

R. L. Balcom  
Texas Genco, LP

A. Ramirez  
City of Austin

C. A. Johnson  
AEP Texas Central Company

Jon C. Wood  
Matthews & Branscomb

## **Description of Inspection**

### **Inspection Method**

The visual inspections under the insulation will be via video camera delivered either manually or by a remotely controlled crawler. Less accessible areas may be inspected via other video equipment.

### **Personnel Qualifications**

An evaluation team composed of personnel qualified at a minimum as VT-2 Level II and cognizant engineering staff will evaluate the results of the visual inspection.

### **Inspection System Qualification**

The tools and techniques employed for the inspections will meet the standards of the ASME B&PV Code, Section XI, 1989 edition, IWA-2210 for VT-2 examinations with respect to resolution capabilities and lighting.

### **Scope**

The inspections will be performed on a best-effort basis with a goal of 100% coverage of the reactor vessel head under the insulation, but as a minimum sufficient to support an engineering evaluation of the condition of the vessel head outer surface.

### **Acceptance Criteria**

Accumulations of boric acid residue found on the reactor vessel head will be investigated sufficiently to determine their origin. Discolored surfaces or areas with boric acid build-up will be given particular attention to determine, to the extent possible with visual examination equipment, if the surface below the residue is sound. If necessary, supplemental investigation aids such as scrapers, brushes, compressed air and water washing will be applied to suspect areas to assist in the resolution of these areas.

Boric acid residue whose source is determined to originate in the juncture annulus of a head penetration tube and the head will be cause for immediate in-depth investigation to determine the severity of the defect.

Boric acid residue from sources other than a penetration tube juncture will be investigated and corrective measures will be taken regarding the termination of the leak source and the arrest of any corrosive attack on the head.

### **Frequency**

As required by Order EA-03-009.