



November 13, 2003
RC-03-0234

Document Control Desk
U. S. Nuclear Regulatory Commission
Washington, DC 20555

Dear Sir / Madam:

Subject: VIRGIL C. SUMMER NUCLEAR STATION (VCSNS)
DOCKET NO. 50/395
OPERATING LICENSE NO. NPF-12
SUBMITTAL OF INFORMATION REQUESTED BY NRC FOR
EVALUATION OF REQUEST TO USE ALTERNATIVES TO ASME
BOILER AND PRESSURE VESSEL CODE, SECTION XI
RR-II-18 (O-C-03-0262)

- References:
1. S. A. Byrne (SCE&G) to Document Control Desk (NRC) letter (RC-03-0223), Response To Request For Additional Information Regarding Request To Use Alternatives To ASME Boiler And Pressure Vessel Code, Section XI, Relief Request RR-II-15, RR-II-17, RR-II-18, dated October 23, 2003.
 2. S. A. Byrne (SCE&G) to Document Control Desk (NRC) letter (RC-03-0142), Request to Use Alternatives to ASME Boiler and Pressure Vessel Code, Section XI, Relief Requests RR-II-15, RR-II-16, RR-II-17, RR-II-18, RR-II-19, RR-II-20, RR-II-21 dated July 11, 2003.
 3. Karen R. Cotton (NRC) to R. G. Sweet (SCE&G) letter, Request For Additional Information For Virgil C. Summer Nuclear Station, Docket No. 50-395, TAC NOS. MB6647 AND MC1080, Questions Pertaining To RR-II-11 and RR-II-12, RR-II-15 Through RR-II-19, dated October 2, 2003.
 4. Frederick J. Hebdon (NRC) to Gary J. Taylor (SCE&G) letter, Evaluation of Relief Requests for First Ten-Year Interval Inservice Inspection, Virgil C. Summer Nuclear Station, Unit 1 (TAC NO. M88264), dated May 16, 1995.

Attachment: NDE Results from VCSNS Reactor Vessel Inspection - Limitations Regarding Weld W5 - Lower Head Circ. Weld

A047

South Carolina Electric & Gas Company (SCE&G) hereby submits the attached post-examination information regarding relief request RR-II-18. The NRC requested this information during a telephone conference held between SCE&G, the VCSNS NRR Project Manager, and NRC Technical Staff on October 30, 2003. This telephone conference was held to discuss the request for additional information (RAI) contained in Reference 3. This letter provides the actual field limitations existing at VCSNS for consideration by the NRC in their evaluation of RR-II-18 submitted by Reference 2 on July 11, 2003, followed by the RAI response of Reference 1 on October 23, 2003.

The NRC approved a relief request for this situation for VCSNS ISI First Inservice Inspection Interval on May 16, 1995 (Reference 4).

Introduction

South Carolina Electric & Gas (SCE&G) performed automated ultrasonic examinations of the vessel flange to upper shell weld, shell circumferential welds, shell longitudinal welds, the lower shell to lower head weld, the lower head welds, and inlet and outlet nozzle to shell welds. These activities were performed as part of the 10 year ASME Code Inservice Inspection (ISI) for VCSNS conducted in refueling outage 14 (RF-14).

All examinations were conducted to the maximum extent practical with the access provided and within the limitation of component geometry.

The lower head circumferential weld (W5) was predicted to have limitations of obtaining the minimum coverage required by the Code. Relief request RR-II-18 was developed to address this limitation and submitted by Reference 2. Based on direction provided during the October 30, 2003 telephone conference, SCE&G is to provide actual field inspection results from RF-14 for consideration of approval to this request.

Results

Weld W5 - Lower Head Circumferential Weld

The lower head circumferential weld is positioned at about the same elevation as the peripheral bottom mounted instrumentation tubes (BMI). Scanning was conducted between obstructing penetrations with the scan boundaries maximized by visually assisted positioning of the exam head so that scan starts and stops were as close to the tubes as tool configuration allowed. Final examination coverage is 88%.

Inspection results are included in the attachment to this letter.

Conclusion

RF-14 examination results demonstrate that previously predicted limitations exist and support NRC approval of relief request RR-II-18.

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Should you have any questions, please call Mr. Ron Clary at (803) 345-4757 at your convenience.

Very truly yours,



Stephen A. Byrne

JT/SAB/dr
Attachment

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V.C. Summer

RPV COVERAGE ESTIMATE BREAKDOWNS

DIRECTION / ORIENTATION

PARALLEL SCANS

PERP. SCANS

CCW / CW

UP / DN

ITEM / AREA

Lower Head Circ. Weld

WELD NO.

W5

BEAM ANGLES

BEAM DIRECTION	45° L Dual		45° L Single		45° Shear					
	WELD	VOLUME	WELD	VOLUME	WELD	VOLUME	WELD	VOLUME	WELD	VOLUME
CCW	96	80	95	82	95	85				
CW	96	80	95	82	95	85				
UP	92	75	90	73	98	90				
DOWN	92	75	90	73	98	90				
Combined Average = 88%										

ANALYST

SASch