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

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File No.: G25
10 CFR 50.55a

U. S. Nuclear Regulatory Commission
Attention: Document Control Desk
One White Flint North
11555 Rockville Pike
Rockville, MD 20852-2746

South Texas Project
Units 1 and 2
Docket Nos. STN 50-498, STN 50-499
Request for Relief from ASME Section XI Code Requirements for
Weld Examinations (Relief Request RR-ENG-2-55)

Pursuant to 10 CFR 50.55a(g)(5)(iii), STP Nuclear Operating Company (STPNOC) requests relief from ASME Section XI requirements for weld examination on the basis of impracticality. ASME Section XI Tables IWB-2500-1 and IWC-2500-1 require inservice inspection of Class 1 and Class 2 component welds by nondestructive examination. 100% examination coverage of these welds during the second ten-year inspection interval was impractical because of component configuration and geometry, and because of the limitations of the examination equipment and techniques used to perform these examinations.

The attached discussion includes a list of the affected welds for which relief is requested, the amount of coverage obtained, and the basis and justification for their acceptability. STPNOC requests NRC review and approval of this request by January 31, 2011.

There are no commitments included with this request.

If there are any questions, please contact either Mr. P. L. Walker at (361) 972-8392 or me at (361) 972-7904.

Marco Ruvalcaba
Manager,
Testing and Programs Engineering

PLW
Attachment: Request for Relief from ASME Section XI Code Requirements for Weld Examinations (Relief Request RR-ENG-2-55)

STI: 32705073

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NRR

cc:
(paper copy)

Regional Administrator, Region IV
U. S. Nuclear Regulatory Commission
612 East Lamar Blvd., Suite 400
Arlington, Texas 76011-8064

Mohan C. Thadani
Senior Project Manager
U.S. Nuclear Regulatory Commission
One White Flint North (MS 8 B1A)
11555 Rockville Pike
Rockville, MD 20852

Senior Resident Inspector
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)

John Ragan
Catherine Callaway
Jim von Suskil
NRG South Texas LP

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

Mohan C. Thadani
U. S. Nuclear Regulatory Commission

Kevin Pollo
Richard Pena
E. Alarcon
City Public Service

C. Mele
City of Austin

Jon C. Wood
Cox Smith Matthews

Richard A. Ratliff
Texas Department of State Health Services

Alice Rogers
Texas Department of State Health Services

SOUTH TEXAS PROJECT
UNITS 1 AND 2
REQUEST FOR RELIEF FROM ASME SECTION XI CODE
REQUIREMENTS FOR WELD EXAMINATIONS
(RELIEF REQUEST RR-ENG-2-55)

Reference Code: ASME Boiler and Pressure Vessel Code, Section XI
1989 Edition No Addenda

A. Components for Which Exemption is Requested

(a) Name and Identification Number: Component welds as listed in the attached tables.

(b) Function: Various (Refer to applicable sections of the South Texas Project Updated Final Safety Analysis Report for specifics)

(c) Class: ASME Code Class 1 or Class 2 as specified in the attached tables

B. Code Requirement from Which Relief is Requested

ASME Section XI Code Table IWB-2500-1 and Table IWC-2500-1 specify the examination method and extent of coverage for nondestructive examination of welds. Relief from full volumetric or surface examination coverage requirements of the Section XI Code is to be requested when the obtained coverage is 90% or less. The welds for which relief is requested are listed in the attached tables.

Welds with volumetric or surface examination coverage reduced less than 10% are considered to have essentially 100% coverage in accordance with ASME Section XI Code Case N-460.

C. Basis for Relief from Code Requirements

Obtaining required examination coverage of welds listed in the attached tables was found to be impractical due to various factors, including:

- Component configuration,
- Geometry, and
- Examination equipment and techniques utilized for the examinations.

STPNOC requests relief from full examination coverage requirements for the welds listed based on the impracticality of achieving required coverage.

D. Alternate Examination

No alternate examinations are proposed for the welds for which relief is requested.

E. Justification for Granting Relief

100% examination coverage of these welds is impractical because of component configuration and geometry, and because of the limitations of the examination equipment and techniques used to perform these examinations. However, volumetric and surface examinations of accessible locations will continue as required.

F. Implementation Schedule

STPNOC requests that the Nuclear Regulatory Commission grant relief from the referenced nondestructive examination requirements pursuant to 10 CFR 50.55a(g)(6)(i). Approval of this application is requested by January 31, 2011.

WELD EXAMINATION COVERAGE – UNIT 1

ASME Category	ASME Item No.	ASME Class	System	Component Description	Weld ID	Component Description	Coverage	Limitation	Exam Schedule
B-A(D)	B1.21	1	RC	RPV - CIRCUMFERENTIAL VESSEL WELDS	RPV1-102-151	BOTTOM HEAD TORUS TO BOTTOM HEAD DOME	68%VOL	BMI PENETRATION LOCATION	1RE15
BEZ	CIRC	2	MS	PIPING - 6-MS-1001-GA2(E)	1	EXTRUSION TO FLANGE	75%VOL	PIPING CONFIGURATION - PDI	1RE15
BEZ	CIRC	2	MS	PIPING - 6-MS-1002-GA2(E)	1	EXTRUSION TO FLANGE	75%VOL	PIPING CONFIGURATION - PDI	1RE15
B-H	B8.20	1	RC	PRESSURIZER - INTEGRAL ATTACHMENTS	PRZ-1-1A,1B	SUPPORT BRACKET	70%SUR	PROXIMITY OF SUPPORT FRAME	1RE11
B-H	B8.20	1	RC	PRESSURIZER - INTEGRAL ATTACHMENTS	PRZ-1-2	SEISMIC LUG	75%SUR	LUG CONFIGURATION	1RE14
B-H	B8.20	1	RC	PRESSURIZER - INTEGRAL ATTACHMENTS	PRZ-1-3	SEISMIC LUG	75%SUR	LUG CONFIGURATION	1RE14
B-H	B8.20	1	RC	PRESSURIZER - INTEGRAL ATTACHMENTS	PRZ-1-4	SEISMIC LUG	75%SUR	LUG CONFIGURATION	1RE14
C-A	C1.10	2	RH	HEAT EXCHANGER - CIRCUMFERENTIAL WELDS	RHAHRS-1A-S2	SHELL TO FLANGE	85%VOL	FLANGE WELD CONFIGURATION	1RE11
C-B	C2.21	2	RH	HEAT EXCHANGER - NOZZLE TO SHELL WELDS	RHAHRS-1A-NA	NOZZLE TO SHELL	64%VOL	NOZZLE WELD CONFIGURATION	1RE11
C-C	C3.20	2	FW	PIPING - 18-FW-1029-AA2	1PL1-LPL8	PIPE LUGS	60%SUR	LUG CONFIGURATION	1RE11
C-C	C3.20	2	FW	PIPING - 18-FW-1032-AA2	1PL1-LPL8	PIPE LUGS	60%SUR	LUG CONFIGURATION	1RE11

WELD EXAMINATION COVERAGE – UNIT 1

ASME Category	ASME Item No.	ASME Class	System	Component Description	Weld ID	Component Description	Coverage	Limitation	Exam Schedule
C-C	C3.20	2	MS	PIPING - 30-MS-1001-GA2	27PL1-27PL8	PIPE LUGS	55%SUR	LUG CONFIGURATION	1RE13
C-C	C3.20	2	MS	PIPING – 30-MS-1002-GA2	25PL1-25PL8	PIPE LUGS	55%SUR	LUG CONFIGURATION	1RE13
C-C	C3.20	2	FW	PIPING – 18-FW-1031-AA2	1PL1-1PL8	PIPE LUGS	50%SUR	LUG CONFIGURATION	1RE15
C-C	C3.20	2	MS	PIPING – 30-MS-1003-GA2	26PL1-26PL8	PIPE LUGS	50%SUR	LUG CONFIGURATION	1RE15
C-C	C3.20	2	MS	PIPING – 30-MS-1004-GA2	26PL1-26PL8	PIPE LUGS	50%SUR	LUG CONFIGURATION	1RE15
C-C	C3.30	2	RH	PUMP 1A	RHARHS-1A-IWA1	INTEGRALLY WELDED ATTACHMENT	75%SUR	PROXIMITY OF PUMP SUPPORT STANCHION.	1RE12
C-C	C3.30	2	RH	PUMP 1A	RHARHS-1A-IWA2	INTEGRALLY WELDED ATTACHMENT	75%SUR	PROXIMITY OF PUMP SUPPORT STANCHION.	1RE12
C-C	C3.30	2	RH	PUMP 1A	RHARHS-1A-IWA3	INTEGRALLY WELDED ATTACHMENT	72%SUR	WELDED ATTACHMENT CONFIGURATION	1RE14
C-G	C6.10	2	SI	PUMP 1A	SIAPLH-1A-PCW1	FLANGE TO UPPER CASE	56%SUR	FLOOR OBSTRUCTIONS.	1RE12
N-722	B15.80	1	RC	BOTTOM MOUNTED INSTRUMENTATION (BMI)	No. 41	BMI PENETRATION	48%VOL	PROXIMITY OF BMI PENETRATION 48	1RE15
R-A-1	1R1.11.1	1	RC	PIPING – 8-RC-1214-BB1	1	VALVE TO PIPE	50%VOL	VALVE CONFIGURATION - PDI EXAM	1RE13
R-A-1	1R1.11.2	1	RC	PIPING – 6-RC-1012-NSS	11	PIPE TO FLANGE	86%VOL	FLANGE CONFIGURATION-PDI	1RE11

WELD EXAMINATION COVERAGE – UNIT 1

ASME Category	ASME Item No.	ASME Class	System	Component Description	Weld ID	Component Description	Coverage	Limitation	Exam Schedule
R-A-1	1R1.11.3	1	RC	PIPING – 12-RC-1322-BB1	1	VALVE TO PIPE	79%VOL	COVERAGE LIMITATION DUE TO SINGLE-SIDED EXAM - PDI	1RE15
R-A-1	1R1.15	1	RC	PIPING – 29-RC-1101-NSS - LOOP 1	RSG-1A-IN-SE	SAFE END TO RSG INLET NOZZLE	75% VOL	DUE TO NOZZLE CONFIGURATION (TAPER) CIRC SCAN LIMITATION-PDI	1RE14
R-A-1	1R1.15	1	RC	PIPING - 29-RC-1401-NSS - LOOP 4	RSG-1D-IN-SE	SAFE END TO RSG INLET NOZZLE	50%VOL	DUE TO NOZZLE CONFIGURATION - PDI EXAM	1RE14
R-A-1	1R2.11.3	1	RC	PIPING - 2-RC-1003-BB1	2	PIPE TO REDUCER	50%VOL	VALVE-TO-PIPE CONFIGURATION - PDI EXAM	1RE14
R-A-1	1R2.11.5	1	SI	PIPING - 12-SI-1315-BB1	10	PIPE TO VALVE	50%VOL	VALVE CONFIGURATION - PDI EXAM	1RE13
R-A-1	1R2.20	1	RC	PIPING - 31-RC-1102-NSS - LOOP 1	9	ELBOW TO REACTOR COOLANT PUMP 1A	40%VOL	CAST SS WELD CONFIGURATION AND SEARCH UNIT SIZE	1RE11
R-A-1	1R2.20	1	RC	PIPING - 31-RC-1202-NSS - LOOP 2	9	ELBOW TO REACTOR COOLANT PUMP 1B	52%VOL	LUG CONFIGURATION	1RE12
R-A-1	1R2.20	1	RC	PIPING - 31-RC-1302-NSS - LOOP 3	9	ELBOW TO REACTOR COOLANT PUMP 1C	82%VOL	WELD CONFIGURATION	1RE12

WELD EXAMINATION COVERAGE – UNIT 2

ASME Category	ASME Item No.	ASME Class	System	Component Description	Weld ID	Component Description	Coverage	Limitation	Exam Schedule
B-A	B1.11	1	RC	RPV - CIRCUMFERENTIAL VESSEL WELDS	RPV2-101-141	LOWER SHELL TO BOTTOM HEAD TORUS	74%VOL	CORE SUPPORT LUGS	2RE14
B-A	B1.21	1	RC	RPV - CIRCUMFERENTIAL VESSEL WELDS	RPV2-102-151	BOTTOM HEAD TORUS TO BOTTOM HEAD DOME	71%VOL	BMI PENETRATIONS	2RE14
B-B	B2.40	1	RC	RSG - HEAD WELDS	RSG-2A-T1	CHANNEL HEAD TO TUBEPLATE	88%VOL	STRUCTURAL STEEL	2RE13
B-D	B3.110	1	RC	PRESSURIZER - NOZZLE TO SHELL AND SHELL TO NOZZLE WELDS	PRZ-2-N3	SAFETY NOZZLE TO SHELL	75%VOL	NOZZLE WELD CONFIGURATION	2RE09
B-D	B3.110	1	RC	PRESSURIZER - NOZZLE TO SHELL AND SHELL TO NOZZLE WELDS	PRZ-2-N4A	RELIEF NOZZLE TO SHELL	78%VOL	NOZZLE WELD CONFIGURATION	2RE09
B-D	B3.110	1	RC	PRESSURIZER - NOZZLE TO SHELL AND SHELL TO NOZZLE WELDS	PRZ-2-N4B	SAFETY NOZZLE TO SHELL	64%VOL	NOZZLE WELD CONFIGURATION	2RE10
B-D	B3.110	1	RC	PRESSURIZER - NOZZLE TO SHELL AND SHELL TO NOZZLE WELDS	PRZ-2-N4C	SAFETY NOZZLE TO SHELL	61%VOL	NOZZLE WELD CONFIGURATION	2RE10
B-H	B8.20	1	RC	PRESSURIZER - INTEGRAL ATTACHMENTS	PRZ-2-1A,1B	SUPPORT BRACKET	70%SUR	PROXIMITY OF SUPPORT FRAME.	2RE09
B-H	B8.20	1	RC	PRESSURIZER - INTEGRAL ATTACHMENTS	PZR-2-4A,4B	SUPPORT BRACKET	70%SUR	PROXIMITY OF SUPPORT FRAME.	2RE09
B-H	B8.20	1	RC	PRESSURIZER - INTEGRAL ATTACHMENTS	PZR-2-2A,2B	SUPPORT BRACKET	70%SUR (2A) 63%SUR(2B)	PROXIMITY OF SUPPORT FRAME	2RE10

WELD EXAMINATION COVERAGE – UNIT 2

ASME Category	ASME Item No.	ASME Class	System	Component Description	Weld ID	Component Description	Coverage	Limitation	Exam Schedule
B-H	B8.20	1	RC	PRESSURIZER - INTEGRAL ATTACHMENTS	PRZ-2-3A,3B	SUPPORT BRACKET	70%SUR	PROXIMITY OF SUPPORT FRAME	2RE10
C-A	C1.10	2	RH	HEAT EXCHANGER - CIRCUMFERENTIAL WELDS	RHAHRS-2A-S2	SHELL TO FLANGE	88%VOL	FLANGE WELD CONFIGURATION.	2RE09
C-B	C2.21	2	RH	HEAT EXCHANGER - NOZZLE TO SHELL WELDS	RHAHRS-2A-NA	NOZZLE TO SHELL	66%VOL	NOZZLE WELD CONFIGURATION	2RE09
C-B	C2.21	2	RH	HEAT EXCHANGER - NOZZLE TO SHELL WELDS	RHAHRS-2A-NB	NOZZLE TO SHELL	69%VOL	NOZZLE WELD CONFIGURATION	2RE09
C-C	C3.10	2	SG	RSG - INTEGRAL ATTACHMENTS	RSG-2A-TR-LS-A	LOWER SHELL TRUNNION A	50%SUR	SUPPORT STRUCTURE.	2RE11
C-C	C3.20	2	MS	PIPING - 30-MS-2001-GA2	29PL1-29PL8	PIPE LUGS	55%SUR	LUG CONFIGURATION	2RE10
C-C	C3.20	2	MS	PIPING - 30-MS-2002-GA2	30PL1-30PL8	PIPE LUGS	55%SUR	LUG CONFIGURATION	2RE10
C-C	C3.20	2	MS	PIPING - 30-MS-2003-GA2	29PL1-29PL8	PIPE LUGS	55%SUR	LUG CONFIGURATION	2RE10
C-C	C3.20	2	MS	PIPING - 30-MS-2004-GA2	28PL1-28PL8	PIPE LUGS	55%SUR	LUG CONFIGURATION	2RE10
C-C	C3.20	2	FW	PIPING - 18-FW-2030-AA2	1PL1-1PL8	PIPE LUGS	51%SUR	LUG CONFIGURATION	2RE11
C-C	C3.20	2	FW	PIPING - 18-FW-2031-AA2	1PL1-1PL8	PIPE LUGS	50%SUR	LUG CONFIGURATION	2RE13
C-C	C3.20	2	FW	PIPING - 18-FW-2032-AA2	1PL1-1PL8	PIPE LUGS	50%SUR	LUG CONFIGURATION	2RE13

WELD EXAMINATION COVERAGE – UNIT 2

ASME Category	ASME Item No.	ASME Class	System	Component Description	Weld ID	Component Description	Coverage	Limitation	Exam Schedule
C-C	C3.20	2	FW	PIPING - 18-FW-2029-AA2	1PL1-1PL8	PIPE LUGS	51%SUR	LUG CONFIGURATION	2RE14
C-C	C3.30	2	RH	PUMP 2A	RHARHS-2A-IWA2	INTEGRALLY WELDED ATTACHMENT	90%SUR	PUMP SUPPORT LEG	2RE11
C-G	C6.10	2	CS	PUMP 2A	CIAPCS-2A-PCW1	FLANGE TO UPPER CASE	74%SUR	FLOOR PENETRATIONS	2RE10
C-G	C6.10	2	SI	PUMP 2A	SIAPLH-2A-PCW1	FLANGE TO UPPER CASE	74%SUR	FLOOR PENETRATIONS	2RE10
R-A-1	1R1.11.2	1	RC	PIPING - 6-RC-2012-NSS	11	ELBOW TO FLANGE	75%VOL	FLANGE GEOMETRY -PDI	2RE11
R-A-1	1R1.15	1	RC	PIPING - 29-RC-2101-NSS - LOOP 1	RSG-2A-IN-SE	SAFE END TO RSG INLET NOZZLE	50%VOL	COVERAGE FROM THE SAFE-END ONLY DUE TO THE NOZZLE CONFIGURATION	2RE12
R-A-1	1R1.15	1	RC	PIPING - 29-RC-2401-NSS - LOOP 4	RSG-2D-IN-SE	SAFE END TO RSG INLET NOZZLE	50%VOL	COVERAGE FROM THE SAFE-END DUE TO NOZZLE CONFIGURATION - PDI EXAM	2RE12
R-A-1	1R2.11.5	1	SI	PIPING - 12-SI-2315-BB1	9	PIPE TO VALVE	50%VOL	CONFIGURATION - PDI EXAM	2RE10
R-A-1	1R2.20	1	RC	PIPING - 31-RC-2102-NSS - LOOP 1	9	ELBOW TO REACTOR COOLANT PUMP	42%VOL	WELD CONFIGURATION AND SIZE OF SEARCH UNIT REQUIRED FOR CAST SS MATERIAL.	2RE09
R-A-1	1R2.20	1	RC	PIPING - 31-RC-2202-NSS - LOOP 2	9	ELBOW TO REACTOR COOLANT PUMP	45%VOL	PIPING CONFIGURATION	2RE10
R-A-1	1R2.20	1	RC	PIPING – 31-RC-2302-NSS - LOOP 3	9	ELBOW TO REACTOR COOLANT PUMP	50%VOL	PIPING CONFIGURATION	2RE10