UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
101 MARIETTA STREET, N.W., SUITE 2900
ATLANTA, GEORGIA 30323-0199

Report Nos.: 50-250/94-21 and 50-251/94-21

Licensee: Florida Power and Light Company
9250 West Flagler Street
Miami, FL 33102

Docket Nos.: 50-250 and 50-251 License Nos.: DPR-31 and DPR-41

Facility Name: Turkey Point Plant Units 3 and 4

Inspection Conducted: October 17-21, 1994

Inspector: _____ 11/18/94
Nick Economos Date Signed

Approved by: _____ 11/16/94
Jerome J. Blake, Chief Date Signed
Materials and Process Section
Engineering Branch
Division of Reactor Safety

SUMMARY

Scope:

This routine, announced inspection was conducted in the areas of inservice examination (ISI) of safety related welds, eddy current testing (ET) of steam generator (S/G) tubing, engineering plant modifications of pressurizer (Pzr) welded diaphragm and flow accelerated corrosion pipe replacement.

Results:

Preliminary ET results of S/G tubing showed no evidence of significant tube degradation or changes from previous examinations in that there were no pluggable tubes identified and only a relatively small number of tubes were found with indications in the 20 to 39 percent through wall range.

The licensee will implement programmatic enhancements in the area of providing procedures for bobbin coil wear limits and qualification of computerized data analysis process. An inspector followup item (IFI) was identified to assure review of procedural changes, see paragraph 2.a.

Enclosure

Previously incorrectly examined branch connection nozzle welds on the reactor coolant piping system (RCS) were examined and programmatic changes were made to preclude recurrence, see non-cited violation (NCV) 250,251/94-21-02, Use of Incorrect Ultrasonic Procedure to Examine RCS Branch Connection Welds, paragraph 2.b.

A plant modification for the installation of a welded diaphragm to the pressurizer mainway penetration was performed satisfactorily. Field proficiency could be improved by placing more emphasis on training using mockups to simulate plant conditions.

In the areas inspected, managers and supervisors were actively involved and proactive in their areas of responsibility. Technicians, craft and QA/QC inspectors were well trained and performed their assigned tasks in a conscientious manner. These indicators demonstrate the licensee's apparent strength in technical areas such as engineering modifications and ISI.

Except for the non-cited violation, in the areas inspected violations or deviations were not identified.

REPORT DETAILS

1. Persons Contacted

Licensee Employees

*T. Abbatiello, Site Quality Manager
*G. Alexander, NDE Supervisor, Component Support Inspection (CSI)
G. Boyers, S/G Technical Coordinator
F. Carr, Inservice Inspection (ISI) Level III Examiner
R. Earl, WC Supervisor
R. Giafranco, Maintenance Support Service Supervisor
W. Klein, Supervisor Maintenance Programs Flow Accelerated Corrosion (FAC)
A. Montalbano, S/G Coordinator, Juno Project Nuclear (JPN)/CSI
C. Mowrey, Plant Licensing Analyst
*L. Pearce, Plant General Manager
R. Powers, QA Welding Supervisor
G. Rogers, Site Welding Engineer Supervisor
T. Skiba, Corporate Welding Engineer
*R. Turner, ISI Specialist, JPN/CSI
*E. Weinkam, Licensing Manager

Other licensee employees contacted during this inspection included engineers, technicians and administrative personnel.

NRC Resident Inspectors

*T. Johnson, Senior Resident Inspector
J. King, Intern, Nuclear Reactor Regulation

2. Inservice Inspection (ISI) Unit 4

This was the first refueling outage, in the first 40 month period of the third, 10-year interval for this Unit. The inspector reviewed procedures and evaluated results of examinations indicated below, to determine whether they were being conducted in accordance with the applicable codes, procedures, regulatory requirements and licensee commitments. The applicable code for examination activities was the American Society of Mechanical Engineers Boiler and Pressure Vessel (ASME B&PV) Code, Section XI, 1989 edition. The licensee's corporate and site ISI organizations were in charge of ISI examinations.

a. Review of NDE Procedures (73052)

The inspector reviewed the procedures listed below to determine whether these procedures were consistent with regulatory requirements and licensee commitments. The items reviewed included procedure approval, requirements for qualification of NDE personnel, compilation of required records, and division of responsibility between the licensee and contractor personnel, as applicable.

Procedures Reviewed

NDE-5.4	Rev. 10 B	Ultrasonic Examination of Austenitic Piping Welds, ≤ 2" Thick Vessels
NDE-5.5	Rev. 4	Ultrasonic Examination of Main Piping Welds (Turkey Point 3 and 4)
NDE-1.3	Rev. 6	Eddy Current Examination of Nonferromagnetic Tubing Using Multi-frequency Techniques MIZ-18/MIZ-30
ENG-QI-5.0	Rev. 0	Component/Code Activities
STD-M-027		ASME Section XI Repair.Replacement
JP-CSI-2	Rev. 0	ASME Section XI Inservice Inspection
JI-IS-2.1	Rev. 0	Orientation Program for Contractor NDE Personnel
JI-IS-3.1	Rev. 0	Orientation for Inspection Section Personnel
CSI-ET-94-094	Rev 0	Eddy Current Plan for S/G Tubing at Turkey Point Unit 4

By review of the above mentioned procedures and through discussions with cognizant personnel the inspector ascertained that two elements important to good eddy current testing (ET) practices were not included in the applicable procedures and/or controlling documents.

One of these pertains to wear limits on bobbin coil probes. Currently the decision of probe replacement, because of wear, is left to the analyst, who makes the determination during data analysis. Through training and experience the analyst is able to make this determination by observing the behavior/stability of the signal on the computer screen during analysis. However, because this approach lacks consistency, the inspector suggested that the licensee establish a reasonable acceptance criteria using some voltage level beyond which continued probe use would be unacceptable. In response, the licensee stated that proceduralizing this element has been under review and discussion within FP&L and other utilities but its implementation had been delayed until an industry consensus could be reached. In conclusion, the licensee agreed to incorporate this element into the applicable controlling document in time for use during the upcoming St. Lucie refueling outage.

The other pertained to the use of computer data screening (CDS) for secondary analysis of ET data. Through discussion with

cognizant technical personnel and by review of the analysis guidelines, including related records, the inspector verified that the system had been qualified and that personnel were adequately trained to assure system integrity. However, as with the bobbin coil wear limits, the qualification was not proceduralized and as such there was no procedural requirements to control this activity. The licensee agreed that this activity should also be proceduralized and indicated that it would be incorporated in the applicable controlling document for St. Lucie's upcoming refueling outage.

These two programmatic enhancement elements were identified as one inspector followup item: 250,251/94-21-01, Proceduralize Bobbin Probe Wear Measurement and Qualification of CDS Analysis.

b. Review and Evaluation of ISI Examination Results Unit 4 (73755)

o Ultrasonic Examination

At the time of this inspection, volumetric and/or surface examination of designated components and welds was completed. Consequently, the inspector selected records of completed examinations and performed an in depth review of circumstances which led to the misdirected (incorrect) examination of certain safety related welds (RCS branch connections) and resulted in unresolved item: 50-250,251/94-11-02, Incorrect ISI of Branch Line Connections to the RCS. Specifically, the subject welds, involved seven branch connections to the RCS piping system per unit and included the following systems:

System	Size	Welds Unit 3	Welds Unit 4
Residual Heat Removal	14" Ø sch. 140	1	1
Pressurizer Surge line	12" Ø sch. 140	1	1
Safety Injection	10" Ø sch. 140	3	3
Pressurizer Spray	4" Ø SCH. 140	2	2

From this population, the licensee selected three from Unit 3 and four from Unit 4 for inclusion in the ISI program. Branch connections selected for this purpose were as follows:

Unit 3

System	Line	Size
Safety Injection	27.5"-RCS-1307-BG2	10" diameter
Safety Injection	26.5"-RCS-1306-BC-4	10" diameter
Pressurizer Surge	29"-RCS-1305-BC-3	12" diameter

Unit 4

Safety Injection	27.5"-RCS-1407-20	10" diameter
	27.5"-RCS-1406-18	10" diameter
	27.5"-RCS-1409-BC-17	10" diameter
Pressurizer Spray	27.5"-RCS-1409-BC-16	4" diameter

The subject welds are ASME Code section XI Class 1 welds. As such, they are listed in Table IWB-2500-1, Examination category B-J, Pressure Retaining Welds in Piping, Item B9.30 Branch Pipe Connection Welds, nominal pipe size $\geq$ 4"Ø. The subject welds were selected by the licensee as part of the weld population mix for the initial inservice interval of the ISI program and have remained in the ISI program to the present.

Table IWB-2500 requires that welds selected under this category undergo volumetric and surface examinations once every interval. In reference to these welds, the inspector ascertained through discussions with licensee personnel and document review that the subject welds were designed and fabricated in a "set-on" configuration meaning that the end of the branch connection was welded to the outside of the RCS piping. In this configuration, the weld is oriented parallel to the surface of the RCS piping. However, it appears that this significant design feature was overlooked during the development of the ISI program and possibly the preservice examination, in that the welds were incorrectly assumed to be oriented in a "set-in" configuration. Under this design, the branch pipe would penetrate the RCS pipe and the connecting weldment would be perpendicular to the surface of the RCS piping. Under these circumstances, the sound beam would be directed into the RCS piping material and not into the weld as required by the code. This would mean that the subject welds were never UT examined as prescribed by the ISI program and Section XI requirements.

The licensee discovered this problem during the 1994 Unit 3 outage when a UT examiner could not locate the interface between the base metal and the weldment. A subsequent search into the applicable drawings verified that the subject branch connections were "set-on" and not "set-in" as originally assumed. To investigate the problem further, the licensee issued Condition Report (CR) 94-698, Reactor Coolant System branch Connections, dated June 13, 1994 that was applicable to both Units. Through this document the licensee assessed operability and reportability issues and

determined that no concerns existed in this area. The CR attributed the root cause of this problem to be a failure to review the appropriate drawings during the preparation phase of the ISI program. In addition, the CR identified several contributing factors and related issues within the scope of the ISI program's development and data input. Items identified for corrective action and disposition were as follows:

(1) Identification of the nozzle as "set on" vs "set in"

(2) Review of other systems/drawings for similar conditions

(3) Review of weld selection criteria (i.e., 10 CFR 50, ASME Section XI, etc.)

(4) Examination of affected nozzles

(5) Interface of Engineering stress analysis and selection within ISI program

(6) Review of existing stress analyses

(7) Review of other inspector activities for similar conditions

(8) Update/clarification of ISI program

The inspector reviewed and discussed the corrective action(s) taken in response to these issues and determined that adequate administrative measures were taken to correct the problem and prevent its recurrence. In addition, the licensee is taking steps to revise previous ten year ISI submittals to the NRC. The revised submittals will address the identified problem and the corrective actions taken.

While reviewing records of completed welds and the subject CR, the inspector noted that the pressurizer surge line nozzle in each unit was identified as a high stress weld based on analysis performed in response to IEB 88-11. Moreover, the inspector ascertained from this review and discussions with the licensee that these two nozzles have been identified as "high stress" components, i.e., they meet the criteria in Note (1)(b) for Table IWB-2500-1, Category B-J. However as stated earlier, the pressurizer surge nozzle in Unit 3 was one of the seven branch connections selected for the ISI program and as such was examined correctly during the previous Unit 3 outage, conducted in the Spring of 1994. Originally the nozzle in Unit 4 was not included in the ISI program but was added later because of its high stress category. This nozzle was scheduled for examination during the next Unit 4 refueling outage.

The inspector expressed concern over the examination schedule of this weld on the basis that it had been identified as a high-stress weld whose integrity had not been verified since it was radiographed to satisfy construction code requirements. Because of these circumstances, the inspector requested that the licensee reconsider and examine this nozzle while the plant was in a refueling outage. As an alternative to this examination, the inspector suggested that the licensee determine the cumulative usage factor and the number of heatup/cooldown cycles this nozzle had seen over the operating life of the plant and as such determine whether it was safe to return to power for one more cycle under existing conditions.

Following these discussions, the licensee announced that it had been decided to proceed with the ultrasonic examination of the subject nozzle weld during this outage. The examination was performed on October 20, 1994 and the licensee indicated the weld was found to be satisfactory.

On October 20, 1994, the inspector met with the licensee's site licensing staff and cognizant ISI personnel to inform them that performing ultrasonic examination with the use of an incorrect procedure and calibration block was in violation of 10 CFR Appendix B Criterion V requirements. However, because this violation was identified by the licensee, positive actions were taken to investigate the root cause of the problem and implement appropriate measures to correct and prevent its recurrence, this finding would be identified as a non-cited violation, NCV 250,251/94-21-01, Use of Incorrect Ultrasonic Procedure to Examine RCS Branch Connection Welds. This licensee identified violation, is not being cited because the criteria specified in Section VII.B (2) of the NRC Enforcement Policy were satisfied. Unresolved item 94-11-02 was therefore closed. Records of examinations performed on these nozzles in both units were reviewed and found to be in order.

- Eddy Current Examination of S/G Tubing

At the time of this inspection, eddy current (ET) examination of S/G tubing was complete and resolution of discrepancies were practically finished. Through discussions with cognizant personnel and by review of the Eddy Current Examination Plan, CSI-ET-94-094, dated August 17, 1994, the inspector ascertained the following information:

The examination would include all non-plugged tubes previously identified with tube wall indications measuring up to 39 percent of tube wall thickness, all tubes with previously identified manufacturing burnishing marks (MBM9S)), tubes with previously identified dents and overexpanded locations and, tubes with no history of degradation. The examination would include all tubes in service and would cover 100 percent of the tubes' length. This

examination was controlled by documents listed below and those implementing procedures identified earlier in this report.

Turkey Point Unit No. 4 Plant Technical Specifications 4.4.5.3.a.

ASME Boiler and Pressure Vessel Code Section XI 1989 Edition. (No Addenda)

USNRC Regulatory Guide 1.83, "In-service Inspection of Pressurized Water Reactor Steam Generator Tubes," Rev. 1, July 1985.

The code required eddy current examination, was performed utilizing multi-frequency MIZ-18A testing equipment and two coil differential type-bobbin coil probes measuring 0.720" diameter. These were used for examination of outer row tubes and 0.650" diameter probes for inner row U-bends.

Data acquisition was performed by ABB-Combustion Engineering Company with support from the licensee's Inspection Section. Primary analysis was performed off-site by Zetec Inc., at Issaquah, Washington, utilizing the eddynet-system with software Version 24, also used during the previous outage. Secondary analysis was performed on site utilizing computer data screaning discussed earlier in this report. Personnel performing data analysis were qualified as Level IIA in accordance with ASNT-TC-1A, 1984 Recommended Practice and provisions of ASME Code Section XI by reference. In addition, these analysts had successfully completed the EPRI sponsored Qualified Data Analyst (QDA) program contained in NP-6201 Rev. 3. Two Level III ET examiners were available per shift to resolve discrepancies.

Personnel qualification records reviewed included: 28 technicinas used for acquisition, from ABB-Combustion Engineering, 9 analysts from NDE Technology and 17 analysts from Zetec. In addition to these records, the inspector reviewed calibration and QA related documents for 10 data acquisition (MIZ-18A) units. All records reviewed were found to be in order. Test results of site specific demonstrations were provided for review. Test material and degree of proficiency required was consistent with code requirements.

A review of preliminary data analysis reports requested for information prior to the close of this inspection revealed that there were no tubes removed from service during this outage. Tubes identified with indications between 20 percent and 39 percent through wall degradation included 7 in S/G "A," 6 in S/G "B" and 13 in S/G "C." The following table provides a summary of tubes removed from service by plugging in Unit 4 prior to this outage.

	S/G "A"	S/G "B"	S/G "C"
Preservice Plugs	15	7	9
Tubes Plugged during Previous Outages	1	1	0
TOTALS	16	8	9

Within the area inspected, violations or deviations were not identified.

3. Engineering Plant Changes and Modifications

o Welded Pressurizer Manway Diaphragm Unit 4

This modification was performed under Plant Change and Modification (PC/M) number PC/M 94-057 dated 8/22/94 for the purpose of replacing the original gasket and insert manway closure design with weldable pressurizer manway diaphragm. The decision to implement this modification was in response to previous manway gasket leakages experienced in the pressurizer manway closures of both units which resulted in forced shutdowns or prevented returning the unit to service following a refueling outage until gasket replacement could be completed. By review of PC/M 94-057 the inspector ascertained the following information relative to design, material compatibility and welding considerations.

1) Use of a welded diaphragm seal will eliminate the degradable gasket joint but would not preclude reverting back to the original insert and gasket design if deemed necessary by plant conditions.

2) The welded diaphragm will function as an extension of the stainless steel clad Vessel lining for resistance to corrosive attack by the borated water environment. As such this diaphragm is not a structural, pressure-retaining element. This function is performed by the manway cover and associated bolting. The diaphragm is classified as a quality related component. This evaluation concluded that installation/welding of the subject diaphragm was not an ASME Code Section XI Repair or Replacement activity. The vender of the pressurizer vessel, Westinghouse (W) has approved this alternate seal design for the Turkey Point Units.

3) Initially, Inconel 600 material was selected and approved by W for this application. However, because of its propensity to cracking when used in pressure retaining component applications, the licensee elected to use Inconel 690 which has demonstrated superior resistance to cracking under similar service conditions.

4) Welding of the diaphragm to the existing cladding, 308-L stainless steel material, would be performed using the gas tungsten arc welding (GTAW) process. Filler metal to be used would be Inconel 690 material, permitted through Code Case 2142, listed under classification F, No. 43 material. All welding would be performed in accordance with the licensee's Weld Control Manual.

5) The evaluation performed, determined that this alternate design did not involve an unreviewed safety question or a change to the current Technical Specifications persuant to 10 CFR 50.59 requirements.

Engineering documents and technical procedures used to implement this PC/M which were reviewed for technical content and compliance with applicable code requirements were as follows:

o PC/M 94-057 Rev. 0 Attachment 2	W Memorandum 93-TP-TD-5525 J. Cadogam to R. Kundalkap "Pressurizer Manway Unit 3"
o PC/M 94-057, Rev. 0 Attachment 3	W Vendor Manual, N. Z313 Revision, Pressurizer
o PC/M 94-057, Rev. 0 Attachment 4	W Seal-Welded Diaphragm, Welding Procedure and Parameters
o Unique Weld Traveler	Work Order No. 94022156, 10/19/94
o Welding Procedure Specification, WPS-72 Rev. 2 with Amendment No. 002 dated 10/14/94	Implementation of WPS-72 parameters vs W requirement
o Change Request Notice CRN No. M-8088	In-Process NDE requirements clarifications
o Change Request CRN No. M-8099	Revise minimum fillet weld thickness requirements

The replacement diaphragm was procured from W under Customer Order No. C94677-90428. It was identified as Part/Dwg. No. 9740D10H02 Rev. 3 and it was manufactured from Alloy 690 material produced from heat No. RY58. As such the inspector reviewed the licensee's Receipt Inspection Report No. R94-3184, 10/5/94 and applicable quality records including certificate of compliance and QA material release with associated metallurgical, chemical and mechanical test reports attached.

In addition, the inspector observed the partially completed weldment (root pass), reviewed in process weld records, and noted the following:

Welding the tack welds and the root pass without experiencing cracking proved very difficult. For example, nine crack indications ranging from 3/32" to 3/8" long, were identified on the initial surface examination/PT of the root pass. Following excavation and weld repair, a PT examination identified seven similar crack indications in the center of the weld ranging from 1/8" to 3/16" long. At this point weld repair instructions were

revised to require the use of 200 degree F, preheat where the full thickness of the weld metal was removed and additional manual current control was added. This was done to assure the removal of any moisture trapped between the diaphragm and the clad base metal and modify bead profile respectively. Existing indications were excavated and repairs were performed following the revised procedure. However, results of a PT examination identified two areas, one at the top and another at the bottom of the manway penetration, exhibiting a total of five crack indications each approximately 3/32" long. Following the same repair procedure, these indications were repaired and the remaining weld was completed without further problems.

Based on the above, the inspector concluded that the welding problems, could be attributed in part to a failure to develop a satisfactory technique through the use of a mock-up component to duplicate field conditions. During discussions with the licensee's technical personnel, the inspector stressed the importance of training and experience obtained using a mock-up and, for its use to develop a technique that would be suitable for field conditions such as the cramped conditions in the pressurizer cubicle. Application of preheat, under certain conditions, as described above, and adjusting the welding technique to change weld profile i.e., bead concavity were other examples that could have been addressed with greater preplanning and with experience gained using a mock-up.

4. Flow Accelerated Corrosion Examination

a. Feedwater Riser Pipe to S/G B Has below Minimum Wall Thickness Unit 4

Wall thickness measurement on a section of the feedwater riser pipe just outside of the 4B steam generator feedwater nozzle, produced a thickness measurement reading of 0.471" that was determined to be below the code minimum wall thickness (6m) 0.462". Specifically, the subject pipe section which is 26 inches long, is made of ASTM A106 GR B material, 14" diameter schedule 60. The piping is classified as safety related, Quality Group B from containment penetration P-27B, to S/G "4B" feedwater nozzle-per drawing 5614-M-3074. The code of record was identified as ASA B31.1, 1955 Edition. Condition Report, CR No. 94-995 dated 10/14/94 issued to investigate and evaluate the condition disclosed the following: Nominal wall thickness for this pipe section was 0.594". Maximum calculated wear during the next cycle was 0.018". Calculated minimum wall thickness at the end of the next cycle was 0.471"-0.018" or 0.453". This thickness is above the minimum allowable t.min 0.443" as determined by application of the 10 percent Rule of the Evaluation and Acceptance Specification and Specification Spec-M-006, applicable to this plant by reference. In conclusion the licensee determined by calculation

based on maximum wear rate that the pipe wall thickness at the next refueling would be 0.453" which meets minimum acceptable wall thickness. In addition to these calculations, the licensee calculated pipe acceptability based on hoop stress and found it be acceptable for service until the next refueling outage. Acceptability of the remaining pipe wall thickness was evaluated based on the longitudinal stress analysis of record. In this case it was again demonstrated that, based on longitudinal stress, the existing condition was acceptable until the next refueling outage. Corrective actions to be taken under CR 94-955 provide for the replacement of this pipe section (IFB-P-19), during Unit 4 Cycle 16 refueling outage but no later than July 31, 1996. This work effort would be performed under WO No. 94015350. Measurements on the comparable component for S/G "4A" showed the area in question to be 0.567 inches. S/G "4C" feedwater piping has a different configuration and therefore there is no riser pipe in this location. Results of measurements from Unit 3 feedwater piping with similar configuration will be reviewed on a future inspection.

b. Moisture Separator Reheater Drain Line Replacement

At the time of this inspection the replacement of moisture separator A, B, C and D drain lines with piping made of Chrome-Moly material was in progress. Work was being performed per PC/M 94-088. Pipe installation and welding was controlled by ABA B31.1 Power Pipe Code. Welding Procedures and welder qualifications were controlled by ASME Code Section IX requirements. Within those areas, the inspector observed in progress welding on weld joint 25A used to connect a 24" diameter pipe, in line "A," to a 24" x 8" reducer. As such, the inspector checked the in process weld for bead uniformity, adequate tie-ins, staggered starts and stops, arc strikes, undercut, spatter, cleanliness, controls on welding electrodes and adequately energized portable rod holders. Applicable weld procedures were identified as WPS-M01002, Rev. H and WPS-A05177 Rev. C. Welds were fabricated using the GTA process for the root and the SMAW process to weld the balance of the joint. A preheat temperature of 400 degrees F was used on the Chrome-Moly material followed by a postweld thermal treatment of 1325 degrees F ± 25 degrees. In that this weld was the only one being fabricated at the time, the inspector elected to inspect vendor fabricated spools in storage. The subject spools were made by Welding Services of Atlanta, GA, using their own QA program and welding procedures. The licensee indicated this vendor was on their approved list. The piping was designed for 200 psig pressure at 400 degrees F. Operating pressure for this line was identified as 151.3 psig at 350 degrees F. Shop fabricated welds inspected were as follows:

SW72A	8" diam.	Elbow to Pipe	OP Surface ground to repair surface condition
SW76A	10" diam.	Elbow to Pipe	OP Surface ground to repair surface condition
SW205D	8" diam.	Elbow to Pipe	Incomplete fusion, Full depth Excavation Required for Repair

Through discussions with site QC and the licensee's welding engineer the inspector ascertained that poor surface condition and rejectable indications were called to their attention by craft and field QC. In response to this finding/report, the licensee inspected all the spools supplied by this vendor for this modification. Conditions identified included weld spatter, undercut, some drop through, incomplete fusion (root condition) and lack of fusion. Some of the welds were found without proper identification.

Repairs performed varied from minor surface buffing to cutting and rewelding the entire joint. All welds were subsequently reinspected by site QC and were found acceptable. A visual NDE was required for this classification (B31.1) of welds. In addition to reviewing inspection and repair records, the inspector reviewed the following materials and personnel records:

Filler Metal

Size	Type	Heat/Lot	Vendor
1/8" diam. x 36	ER 90S-B3	211030/ No. 022509-10-3	Techalloy
3/32" diam.	E9018	88094/ 2F008H03	Chemtron
3/32" diam.	E7018	T27338/ 2A417A01	Weldstar
3/32" dian. x 36"	E 90S-B3	F5797/ 236612-1-1	Weldstar

Craft (Welders)

MJL	6849
JLR	6772
EPL	4733
CJD	7210

These welders worked for and were qualified by Welding Services to weld in accordance with welding procedure specification M01002 Rev. H. This procedure was qualified as a combination gas tungsten arc/shielded metal arc (GTA/SMAW) process for manual and machine welding with GTA and manual only for SMA welding. The inspector reviewed the original performance qualification records and found them to be in order. The welders update records showed that their qualifications to use the above mentioned precesses were current. Within the areas inspected violations or deviations were not identified.

5. Exit Interview

The inspection scope and results were summarized on October 21, 1994, with those persons indicated in paragraph 1. The inspector described the areas inspected and discussed in detail the inspection results. The licensee did not identify as proprietary any of the material provided to or reviewed by the inspector during this inspection.

Dissenting comments were not received from the licensee.

- (Closed) NCV, 50-250,-251/94-21-02, Use of Incorrect ultrasonic Procedure to Examine RCS Branch Connection Welds - paragraph 2.b.

- (Closed) UNR, 50-250,251/94-11-02 Incorrect ISI of Branch Line Connections to the RCS - paragraph 2.b.

- (Open) IFI, 50-250,251/94-21-01 Proceduralize: Bobbin Probe Wear Measurement and Qualification of CDS analysis - paragraph 2.a.