- Reviewed QC inspection report (QCIR-M41-B21-G001-2-1) for this weld joint
- Verified that welder was properly qualified
- Verified preheat and interpass temperatures were controlled in accordance with procedure (PI-AT-LH/CVN) requirements
- Verified that quality control inspection and authorized inspector hold points were adhered to

No items of noncompliance were identified for the above inspection.

During the above inspection the inspector noted that the opposite weld joint end prep (WA3) had to be modified (mitered) in the field for alignment purposes. The inspector during his plant tour observed the final stages of machining of the weld end prep on October 16, 1979. During the investigation of the various documents involved in this modification, the inspector determined that the documents were issued after the machining was practically complete. The Bechtel re-work notice P-726 was issued on October 16, 1979. The General Electric (supplier of pipe spool piece) issued the field deviation disposition request on October 16, 1979. The inspector informed the licensee that this was contrary to the G.E. specification 22A2513, which requires G.E. approval prior to re-working. The licensee stated that one of their QA engineers also uncovered this and issued a PECO audit finding report (number P-285, dated October 16, 1979). The inspector informed the licensee that this item is considered unresolved pending review by an NRC inspector of the corrective action taken to assure that the requirements of procedures, specifications and instructions will be adhered to for safety related activities inside the containment. (352/79-11-01).

b. Also during the above inspection the inspector noticed a nonconformance (NCR) tag (#3795) on a reactor recirculation restraint located at azimuth 90° and elevation 278'. The tag stated that there was a crack in the fillet weld (attachment weld for restraint to biological shield). The inspector reviewed the NCR report which was validated October 12, 1979 and held discussions with Bechtel welding engineer and the piping foreman to determine the cause for the crack. It was both of their opinions that it was caused by improper sequencing of the weld. The inspector reviewed the welder's qualification and found that he was properly qualified on October 3, 1979, for this welding. It appears that this was his first production

weld onsite. The inspector informed the licensee that the AWS D1.1 Section 3.4 requires that the contractor shall develop welding sequences which control distortion and shrinkage. It is the licensee's opinion that the cracking of weld was not due to sequencing of the weld and that they are evaluating the cause. The licensee also stated that the engineering disposition for the NCR (sixty days from issue) will state the cause and corrective action. The inspector also stated that he is concerned, that since the welds for attaching restraints to the biological shield wall do not receive any non-destructive examinations other than a visual (no magnification) that there may be other cracks not detectable by the naked eye. This item is unresolved pending review by the NRC inspector the licensee's corrective actions (352/79-11-02).

c. Observed postweld heat treatment (PWHT) of feedwater weld joint (DLA-107-1-7 to DLA-107-1-1 at FW #50), to determine that requirements of Bechtel Job Rule G-33 Revision 6 and ASME Code are adhered to. The following activities were inspected:

- Verified recorder (W361) was in calibration
- Observed placing of thermocouples, installation of heaters and wrapping of insulation blankets
- Observed portions of heat up rates holding temperatures and cooldown rates
- Reviewed various types of documentation (workorder, QC records, recorder chart etc.) associated with this PWHT

No items of noncompliance were identified.

d. The inspector reviewed welder training records for the past three months and complied a list of weldors who are welding safety related items where only a visual examination is required. Two reactor recirculation restraints were randomly selected where the welds attaching the restraints to shield wall were made in accordance with Bechtel drawing C-956 Revision 2 requirements and accepted by quality control. The restraints were at location azimuth 105° and 135° on the shield wall and welds were accepted by QC on October 17, 1979 and November 1, 1979, respectively. No weld defects were noted (inspector used 5x magnification), however, the inspector noted that the restraint at the 135° azimuth the vertical welds were ground while at 105° it was not. The inspector questioned the Bechtel QC engineer what was the maximum reinforcement allowed by AWSD1.1 code and used for acceptance. He replied that one-eighth was the requirement. The code appears to be unclear and the licensee and Bechtel are to evaluate what maximum reinforcement is allowed for this particular joint configuration. This item is unresolved pending review of code and design requirements (352/79-11-03).