

Florida Power Crystel River Unit 3 Docket No. 50-302

July 8, 1994 3F0794-03

U. S. Nuclear Regulatory Commission Attn: Document Control Desk Washington, D. C. 20555

Subject:Intermediate Building High Energy Line Break<br/>Inspection of Welds Associated With Valves MSV-55 & MSV-56Reference:1)FPC to NRC letter, 3F1193-02, dated November 10, 1993

2) NFC to FPC letter, 3N0594-19, dated May 26, 1994

Dear Sir:

9407190197 7.0708 PDR ADDCK 05000302

Florida Power Corporation (FPC) stated in our letter (Reference 1) that we would provide the NRC with the results of surface and volumetric non-destructive examination (NDE) for certain welds associated with valves MSV-55 and MSV-56 located in the Crystal River Unit 3 (CR-3) Intermediate Building. The examinations were being performed to support our Intermediate Building High Energy Line Break (HELB) engineering analysis. This letter provides the results of the examinations. Please refer to the attached sketch to aid in understanding the weld locations discussed in this report.

FPC stated in the reference letter, we would perform surface and volumetric NDE examination of the following welds for valve MSV-56 during Refuel Outage 9:

- Weld 1: 24 in Sch 60 x 6 in sch 40 weldolet to 24 in Sch 60 main steam line and
- Weld 2: 24 in Sch 60 x 6 in Sch 40 weldolet to 6 in Sch 40 x 3 in Sch 40 concentric reducer.

The first surface examination method inspection for MSV-56 using magnetic particle revealed two indications at Weld 1. Both indications were removed and re-examination was performed. The weld was found to be acceptable.

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The first volumetric examination inspection for MSV-56 using ultrasonic techniques at Weld 1 revealed that a meaningful examination could not be conducted because of the weld joint configuration.

After finding the two indications and encountering the ultrasonic difficulties on MSV-56, FPC discussed the difficulties with NRC personnel present on-site. It was agreed that it would be prudent to also inspect MSV-55.

During preparation for examining MSV-55, FPC reviewed the CR-3 historical records for previous inspections on this area of the piping. The search found that during the 1974 Preservice inspection ultrasonic examination produced no meaningful results for Weld 1 for either MSV-55 or MSV-56. The 1974 Preservice inspection using ultrasonic techniques was not possible on the weldolets because of the weld joint configuration. A review of the ASME Code shows that the original requirement (found in the 1974 edition of Section XI) for a volumetric examination for this type of weld joint was replaced by a surface examination in all later editions of ASME Section XI.

Although it appeared that ultrasonic examination of Weld 1 for MSV-55 would encounter the same difficulties because of joint configuration, FPC did try a "best-effort" ultrasonic examination again on this weld. Again, meaningful results could not be obtained. FPC decided to proceed with the other types of NDE examinations.

Weld 1 associated with MSV-55 was examined by surface examination using the magnetic particle method and was found to be acceptable. As stated earlier, Weld 1 at MSV-56 was found acceptable by magnetic particle examination after removing the indications.

Weld 2 at MSV-55 and MSV-56 were examined by the surface examination method using magnetic particle and found to be acceptable. Weld 2 at MSV-55 and MSV-56 were examined by the volumetric examination method using radiographic technique and were found to be acceptable.

Based upon the results of these inspections, FPC concludes there is reasonable assurance that a pipe break will not occur in the weldolet or the 6 inch end of the reducer. This conclusion supports our HELB analysis.

Sincerely,

Sinch P. M. Beard, Jr.

P. MJ Beard, Jr. Senior Vice President Nuclear Operations

PMB/JWT:ff

xc: Regional Administrator, RII Senior Resident Inspector NRR Project Manager

