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NUCLEAR PRODUCTION

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March 11, 1983

Mr. James P. O'Reilly, Regional Administrator
U. S. Nuclear Regulatory Commission
Region II
101 Marietta Street, NW, Suite 2900
Atlanta, Georgia 30303

Re: Catawba Nuclear Station
Unit 2
Docket No. 50-414

Dear Mr. O'Reilly:

Pursuant to 10 CFR 50.55e, please find attached Significant Deficiency Report SD 414/83-02.

Very truly yours,

Hal B. Tucker

Hal B. Tucker

RWO/php
Attachment

cc: Director
Office of Inspection and Enforcement
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Mr. P. K. Van Doorn
NRC Resident Inspector
Catawba Nuclear Station

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CATAWBA NUCLEAR STATION

REPORT NUMBER: SD 414/83-02

REPORT DATE: March 11, 1983

FACILITY: Catawba Nuclear Station - Unit #2

IDENTIFICATION OF DEFICIENCY:

During the installation and inspection process some unacceptable base metal indications were detected in two fittings. These were identified by NCI 16,045 on December 20, 1982.

INITIAL REPORT:

On January 18, 1983, A. Ignatonis, NRC Region II, Atlanta, Georgia, was notified of the subject deficiency by W. O. Henry and J. E. Cavender of Duke Power Company, Charlotte, NC 28242. This is documented by our Potentially Reportable Item Serial Number CA-83-2 (MG-30).

COMPONENT AND SUPPLIER:

The fittings in question are two 12" S-140 Smls. L. R. 90° Elbows to ASME SA-403 WP316, Heat Number E-3438. These were manufactured by Custom Alloy of Califon, New Jersey to ASME Section III Class 2 requirements.

DESCRIPTION OF DEFICIENCY:

During routine visual inspection of the circumferential butt welds adjacent to these fittings, rejectable linear indications were detected on the outer surface of the fittings. Subsequent exploratory grinding and penetrant testing (PT) was performed to determine the nature and extent of the indications. As a result of this exploration, we found that one elbow had an indication about 3/4" long which was slightly skew to the surface. The other elbow had indications of 1/8", 3/8" and 1 1/2" in length which were essentially parallel to the surface after the initial penetration. None of the indications were deep enough to encroach on material specification minimum wall thickness. Based on the size, location and orientation of the indications we conclude that they were surface laps produced during the manufacture of the raw material and/or the finished fitting. The PT done during the exploration also turned up some small pits in the area of the indications. These were probably inclusions worked into the material during the forming process. These were all removed along with the linear indications.

ANALYSIS OF SAFETY IMPLICATIONS:

By virtue of the limited number and size of the indications and the fact that they did not encroach on material specification minimum wall, the safety of the system would not have been adversely affected had they gone undetected.

CORRECTIVE ACTION:

All of the detected indications have been removed. This condition has been discussed with the manufacturer. From this discussion and our experience, these small, tight surface indications may pass even the most stringent visual examination unless the surfaces are highly polished or the indication opens up upon application of heat (welding). Based on this, no further corrective action is planned.