NRC FORM 195 (2-76)

U.S. NUCLEAR REGULATORY COMMISSION

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DOCKET NUMBER: 50-261

FILE NUMBER:

TO: Robert W. Reid

FROM: CP&L
Raleigh N.C. 27602
E. E. Utley

DATE OF DOCUMENT: 2-11-77

DATE RECEIVED: 2-17-77

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DESCRIPTION

Ltr Ref. their 2-5-76 ltr...Concerning rescheduling of Main Steam Isolation Valves modification is necessary...

(1 page)

ENCLOSURE

ACKNOWLEDGED

DO NOT REMOVE

PLANT NAME: HB ROBINSON UNIT # 2

FOR ACTION/INFORMATION — ENVIRO — JCM 2-17-77

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☑ ACRS 16 CYS ~~HOLDING~~/SENT Cat "B" on 2-17-77		

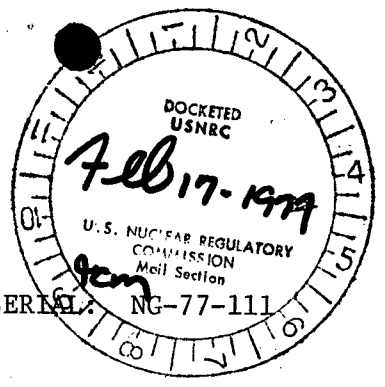
CONTROL NUMBER

1703 261 MA-4

GD

NRC FORM 195 (2-76)

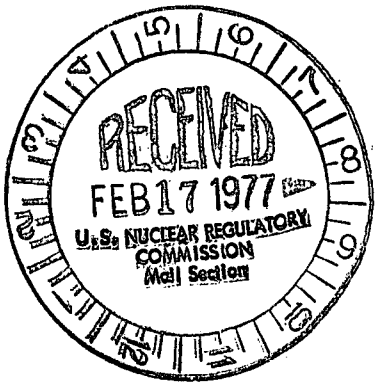
CP&L
Carolina Power & Light Company



February 11, 1977

FILE: NG-3514(R) SERIAL: NG-77-111

Regulatory Docket File



Mr. Robert W. Reid, Chief
Operating Reactors Branch No. 4
Director of Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission
Washington, DC 20555

Dear Mr. Reid:

H. B. ROBINSON UNIT NO. 2
DOCKET NO. 50-261
LICENSE NO. DPR-23
MAIN STEAM ISOLATION VALVES

Our letter NG-76-155 of February 5, 1976, reported final results of analyses and resulting proposed modifications regarding the integrity of the H. B. Robinson Unit No. 2 swing-check main steam isolation valves. The planned modification was scheduled to be completed during the fall (1976) refueling outage, pending procurement of materials. As a result of the previously unidentified structural concerns described below, and the present unavailability of material to alleviate these concerns, rescheduling of the modification is necessary.

Although materials had not arrived on site at the beginning of the outage, modification preparations were initiated in anticipation of material delivery. Following disassembly of the valves, a dimensional check of the existing rock-shaft bushing holder revealed that machining of the ID of the holder would be required to accept the larger, modified rock-shaft and bushing. This machining would reduce the effective quantity of material which provides support for the valve internals. Dynamic stress analyses were performed for spurious valve closure using the machined holder. Results indicated that, during a spurious closure, stresses within the modified bushing holder approached yield strength. Although any yielding which might occur was described as local rather than general, it was believed that the modification, as originally planned, could not be properly implemented under these conditions.

To eliminate the limiting condition, described above, a modification to the present bushing holder and the manufacture of a sleeve-type insert will be required. The bushing holder will be modified to permit the installation of the sleeve insert into the valve body. The sleeve insert will be capable of accepting the larger bushing and rock-shaft without creating the stress condition described.

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Presently, drawings of the addition to the modification are being prepared with arrangements for manufacture of the sleeve inserts to follow. Due to the delays experienced with procurement of the materials received thus far, completion of the modification has been rescheduled for the Robinson valves during the next refueling outage in early 1978.

It should be noted that the original analyses performed on the valves revealed that although the disc and seat would undergo some plastic deformation in the impact areas under the "worst case" failures, the valve would still close to effectively shut off steam flow. Therefore, the necessary deferral of this modification will not reduce the capability of the main steam isolation valves to perform their safety-related function. The increased performance margin originally anticipated for the modified valves will be maintained by this revised approach.

Yours very truly,

E. E. Utley
Senior Vice President
Power Supply

WH/JMC/dkm