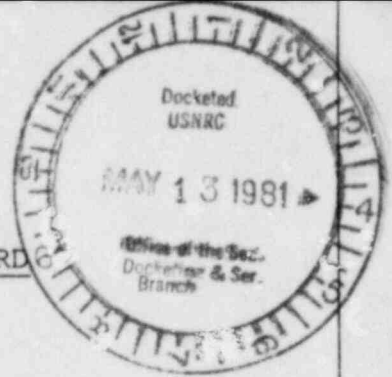


5-11-81

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD



In the Matter of)
)
HOUSTON LIGHTING & POWER COMPANY) Docket No. 50-460
)
(Allens Creek Nuclear Generating)
Station, Unit No. 1))
)

TESTIMONY OF MONTY A. ROSS ON BEHALF OF HOUSTON
LIGHTING & POWER CO. ON BOARD QUESTION 8
- SEISMIC CATEGORY 1 CONTROL RODS

Q. Please state your name and place of employment.

A. My name is Monty Ross and I am employed as Manager
of Data Acquisition and Operator Systems, the General
Electric Company. My business address is 175 Curtner
Avenue, San Jose, California.

Q. Would you describe your professional qualifications?

A. My professional qualifications are set forth in Exhibit
MAR-1 to this testimony.

Q. What is the purpose of your testimony?

A. The purpose of my testimony is to address Board Question
8 which questions whether the control rods, control rod
drives and the hydraulic control units should be designed as
Seismic Category I in accordance with Regulatory Guide 1.29.

Q. What are the requirements of Regulatory Guide 1.29 with
regard to the Control Rod Drive (CRD) System?

A. Regulatory Guide 1.29 requires that reactor vessel
internals and reactivity control systems, e.g. control rods
and control rod drives, be designated as Seismic Category 1
and be designed to withstand the effects of a safe shutdown

earthquake and remain functional.

Q Are the control rods, control rod drives, and the hydraulic control units for Allens Creek designated as Seismic Category I in accordance with Regulatory Guide 1.29 requirements?

A. Generally all systems, equipment, components, and structures designated as Safety Class 1, 2, or 3 are classified as Seismic Category I (see Section 3.2.1 of ACNGS PSAR). This would include the following portions of the Control Rod Drive System.

- a. CRD housing supports
- b. Control rods
- c. CRD's
- d. Valves on scram discharge volume insert, and withdraw lines.
- e. Piping for scram discharge volume, insert and return lines.
- f. Hydraulic Control Unit

Therefore, all portions of the CRD System necessary to shutdown the reactor are classified as Seismic Category I.

Q. What, if any, is the significance of CRD components being designated as Safety Class 2 in Table 3.9-4 of the ACNGS PSAR?

A. Components are classified as Safety Class 1, 2, 3 or as non-safety in accordance with the importance of the function they are to perform. As previously indicated, generally all Safety Class 1, 2, and 3 (including the

1
2 previously listed CRD components) components are classified
3 as Seismic Category I.

4 Q. What are your conclusions?

5 A. Safety Class components of the CRD system, including
6 control rods, control rod drives, and hydraulic control
7 units are classified as Seismic Category I.
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1 Exhibit MAR-1

2 EDUCATION AND PROFESSIONAL QUALIFICATIONS

3 Monty A. Ross

4 Mr. Ross is a manager in the Nuclear Steam Supply
5 Systems design organization of the General Electric Nuclear
6 Energy Business Group, in San Jose, California. His employ-
7 ment with General Electric began in 1972, as an Engineer
8 in the Design Engineering section, where he worked on the
9 design and analyses of pressure vessel components, nuclear
10 piping systems, refueling and servicing tools.

11 Starting in 1975, Mr. Ross participated in a career
12 developing program of rotating assignments. Major activities
13 while on this program included the experimental testing of
14 primary containment designs in the evaluation of the thermo-
15 dynamic transients which may (hypothetically) occur within
16 the primary containment as a result of a LOCA and non-LOCA
17 events.

18 In February 1979, he took the position of Lead System
19 Engineer (LSE) for the Rod Control System. As the LSE,
20 he was responsible for the design definition of the Rod
21 Control System. Major tasks in this position included
22 gaining NRC acceptance of the Control Rod Drive System return
23 line removal and directing the evaluation and design changes
24 resulting from the Browns Ferry 3 partial scram insertion
25 of June 28, 1980. In October 1980, Mr. Ross assumed his
26 present position as a manager in the Nuclear Steam Supply
27 System design organization. The group that he manages is
28 responsible for the design definition of six (6) BWR Standard

Plant systems including the Rod Control System.

Mr. Ross is a 1972 graduate of the University of California at Davis, with a BS Degree in Mechanical Engineering (power generation option) and in Material Science. In 1977, he received an MS Degree in Mechanical Engineering from the University of Santa Clara. Mr. Ross is a registered professional Engineer in the State of California.