## Southern California Edison Company



P. O. BOX 800

2244 WALNUT GROVE AVENUE ROSEMEAD, CALIFORNIA 91770 January 9, 1979

TELEPHONE 213-572-1472

J. T. HEAD, JR.

U.S. Nuclear Regulatory Commission Office of Inspection and Enforcement Region V Suite 202, Walnut Creek Plaza 1990 North California Boulevard Walnut Creek, California 94596

## REGULATORY DOCKET FILE COPY

Attention: Mr. R. H. Engelken, Director

Docket No. 50-206 San Onofre Unit 1

Dear Sir:

Efcomatic Ball Valve Actuator
Manufactured by EPG Fluid Systems, Inc.

In conversations between members of your staff and our Mr. J. M. Curran, we were advised that problems had been experienced during recent seismic qualification testing of the subject electro-hydraulic actuator. Although the testing was performed on behalf of Arkansas Power and Light (APL) for the ANO-Unit 2 facility, the actuator tested was supplied by SCE at APL's request and is the type employed in safety-related applications at San Onofre Unit 1. For these reasons, your staff requested that we review the problems encountered in the APL qualification testing and any corrective measures taken for possible application to San Onofre Unit 1. The purpose of this letter is to inform you of the results of our review which has now been completed.

There are ten Efcomatic actuators in use in safety-related applications at San Onofre Unit 1. However, in only two of these applications would actuator failure, such as that experienced in the APL testing, result in the valves not assuming their safety-related posture. These valves are designated CV-517 and CV-518 and were added to the containment spray system as part of the Sphere Enclosure Project. They conform to the design criteria reflected in Amendment 52 to the Final Safety Analysis which was forwarded to the Commission by letter dated December 3, 1975. Modifications accomplished on CV-517 and CV-518 are discussed in a later paragraph of this letter.

7901260161

USNRC January 4, 1979 Page 2



In reviewing the APL testing relative to San Onofre Unit 1 actuators, the following items were considered:

- 1. Applicability of APL test conditions to seismic design of San Onofre Unit 1 Efcomatic actuators, and
- 2. Applicability of problems experienced in the APL test to safety related functions of San Onofre Unit 1 actuators during and following a design basis seismic event.

Regarding Item 1, based on review of the seismic qualification requirements for the actuators at San Onofre Unit 1 and the test conditions during the testing of actuators on behalf of APL, we have concluded that the test conditions were significantly more severe than conditions expected during a seismic event at San Onofre. CV-517 and CV-518 are mounted to a very rigid piping system and located near grade level. The calculated seismic response of CV-517 and CV-518 is approximately 1 g whereas the amplitude used in the testing was 3 g's. Such conservatism in the testing was probably intended to demonstrate that valve actuators at various locations at the ANO-Unit 2 plant, and with varying piping configurations, would be operable during a seismic event.

Regarding Item 2, we have concluded that although the test conditions were more severe than the seismic qualification requirements for actuators at San Onofre Unit 1, the tests have served to identify relatively simple modifications which do enhance the seismic withstand capability of the operators. We have therefore made the modifications which were made to the APL test actuators to CV-517 and CV-518. These modifications were completed during the recent refueling outage. Therefore, notwithstanding the conclusion in regard to Item 1 above, appropriate Efcomatic actuators at San Onofre Unit 1 have been modified to preclude problems experienced in the APL seismic testing which could defeat the safety functions of the San Onofre Unit 1 actuators.

If we may be of further assistance, please let me know.

Sincerely,

cc: Director, Office of Inspection and Enforcement (30)

Director, Office of Management Information and Program Control (3)