UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION V
1990 N. CALIFORNIA BOULEVARD
SUITE 202, WALNUT CREEK PLAZA
WALNUT CREEK, CALIFORNIA 94596

August 18, 1981

Docket Nos. 50-361, 50-362

Southern California Edison Company
P. O. Box 800
2244 Walnut Grove Avenue
Rosemead, California 91770

Attention: Dr. L. T. Papay, Vice President
Advanced Engineering

Gentlemen:

The enclosed bulletin supplement is forwarded for action. A written response is required. To assist NRC in evaluating the value/impact of each bulletin and supplement on licensees, it would be helpful if you would provide an estimate of the manpower expended in the review and preparation of the report(s) required by the bulletin supplement. Please estimate separately the manpower associated with corrective actions necessary following identification of problems through the bulletin supplement.

If you need additional information regarding this matter, please contact this office.

Sincerely,

R. H. Engelken
Director

Enclosures:
1. IE Bulletin No. 81-02, Supplement 1
2. List of Recently Issued IE Bulletins

cc w/enclosures:
R. Dietch, SCE

SSIN No. 6820
Accession No.:
~~8011040283~~
IEB 81-02, Supp. 1

UNITED STATES
NUCLEAR REGULATORY COMMISSION
OFFICE OF INSPECTION AND ENFORCEMENT
WASHINGTON, D.C. 20555

August 18, 1981

IE BULLETIN NO. 81-02 SUPPLEMENT: FAILURE OF GATE TYPE VALVES TO CLOSE AGAINST DIFFERENTIAL PRESSURE

Description of Circumstances:

IE Bulletin No. 81-02, "Failure of Gate Type Valves to Close Against Differential Pressure," identified several gate type valves that had been shown by tests and/or analyses by Westinghouse to have a potential for not closing against differential pressure.

As a part of its ongoing analysis program, Westinghouse Electro-Mechanical Division (W-EMD) has applied the analytical methods developed for valves discussed in IE Bulletin 81-02 to the remaining motor operated gate valves that they manufacture. These analyses predict that closure problems could also be anticipated with 6, 8, 10, 12, 14, 16, and 18-inch nominal size valves in addition to 3- and 4-inch low-pressure valves. Thus, the entire line of W-EMD manufactured motor-operated gate valves has the potential for not closing against differential pressure.

Westinghouse has indicated to NRC that they have notified all of their domestic nuclear customers of this problem. When the valves were provided as original scope of supply, they also identified the recommended corrective action necessary to assure valve closure under the system service conditions that their records show the valves will experience. Where the valves were provided as spares or replacements, they indicated the threshold differential pressure across the valves above which closure could not be assured under the utility order equipment specification conditions.

A list of power reactor facilities that Westinghouse believes to have the potentially affected valves is given in Table 1. However, this list, as well as Westinghouse's notifications, does not take into consideration the fact that the valves may have been transferred between facilities. In addition, the Westinghouse determinations of operability and corrective action do not take into consideration the fact that the valves may have been transferred between systems or that the system service conditions may have changed through design evolution.

It is therefore essential that all facilities verify the presence or absence of W-EMD manufactured motor-operated gate valves and also verify their ability to close under the current and/or intended service conditions.

Actions To Be Taken by Licensees:

1. Within 30 days of the issuance date of this bulletin supplement, ascertain whether any W-EMD manufactured motor-operated gate valves have been

installed, or are maintained as spares for installation, in safety-related systems where they are required to close against a differential pressure.

2. If no valves, other than those reported in response to IE Bulletin 81-02, are identified, report this to be the case. No further action is required.

3. If any valves are identified as being installed, verify that they are capable of closing under their current limiting normal and post accident service conditions. If such cannot be shown, take corrective action on these affected valves and evaluate the effect that failure to close under any condition requiring closure would have on system(s) operability pursuant to the facility technical specifications for continued operation.

4. If any valves are identified as spares, verify that they are capable of closing under their intended limiting normal and post accident service conditions. If such cannot be shown, either modify the affected valves so that they are qualified for the intended service or obtain qualified replacements prior to installation.

5. Within 45 days of the issuance date of this bulletin supplement, submit a report to NRC listing the affected valves identified in safety-related systems, their service or planned service, and the maximum differential pressure at which they would be required to close, the safety consequences of the valves failing to close, the corrective action taken or planned, and the schedule for completing the corrective action.

Actions To Be Taken by Construction Permit Holders:

1. Ascertain whether any W-EMD manufactured motor-operated gates valves are or will be installed, or maintained as spares for installation, in safety-related systems where they are required to close against a differential pressure.

2. If no valves, other than those reported in response to IE Bulletin 81-02, are identified, report this to be the case. No further action is required.

3. If any valves are identified, verify that they are capable of closing under their intended limiting normal and post accident service conditions. If such cannot be shown, either modify the affected valves so that they are qualified for the intended service or obtain qualified replacements prior to startup.

4. Within 90 days of the issuance date of this bulletin supplement, submit a report to NRC listing the affected valves identified for use in safety-related systems, their planned service, the maximum differential pressure at which they would be required to close, the safety consequences of the valves failing to close, the corrective action taken or planned, and the schedule for completing the corrective action.

For those cases in which reports have already been submitted in accordance with the Technical Specification, 10 CFR Parts 21 and/or 50.55(e), this information need not be resubmitted. Rather, licensees or construction permit holders should reference this earlier report and submit only the additional information requested above.

Reports, signed under oath or affirmation under the provisions of Section 182a of the Atomic Energy Act of 1954, shall be submitted to the Director of the appropriate NRC Regional Office and a copy shall be forwarded to the Director of the NRC Office of Inspection and Enforcement, Washington, D.C. 20555.

If you need additional information regarding this matter, please contact the appropriate NRC Regional Office. This request for information was approved by OMB under blanket clearance number 3150-0012 that expires December 31, 1981. Comments on burden and duplication should be directed to the Office of Management and Budget, Reports Management Room 3208, New Executive Office Building, Washington, D.C. 20503.

Attachments:
1. Table 1, Partial List of Plants With Valves Manufactured by W-EMD
2. Recently issued IE Bulletins

Attachment 1
IEB 81-02, Supp. 1
August 18, 1981

TABLE 1. PARTIAL LIST OF PLANTS WITH VALVES MANUFACTURED BY W-EMD

Valves Supplied as Spares or Replacements	Valves Supplied as Original Scope of Supply
Arkansas Nuclear One 1	Beaver Valley 2
Beaver Valley 1	Braidwood 1, 2
Callaway 1, 2	Byron 1, 2
Catawba 1, 2	Callaway 1, 2
Diablo Canyon	Comanche Peak 1, 2
Farley	Shearon Harris 1, 2, 3
Indian Point 2	Marble Hill 1, 2
Midland 1, 2	Seabrook 1, 2
Oyster Creek	South Texas 1, 2
Prairie Island 1, 2	Summer 1
St. Lucie 2	Vogtle 1, 2
San Onofre 1, 2, 3	Watts Bar 1, 2
Summer 1	Wolf Creek 1
Surry 2	
Wolf Creek 1	

RECENTLY ISSUED
IE BULLETINS

Bulletin No.	Subject	Date Issued	Issued To
81-03	Flow Blockage of Cooling Water to Safety System Components by Corbicula Sp. (Asiatic Clam) and Mytilus Sp. (Mussel)	4/10/81	All nuclear power facilities with an OL or CP
81-02	Failure of Gate Type Valves to Close Against Differential Pressure	3/9/81	All power reactor facilities with an OL or CP
81-01 Rev. 1	Surveillance of Mechanical Snubbers	3/5/81	All power reactor facilities with an OL & specified facilities with CP
80-17, Supplement 5	Failure of Control Rods to Insert During a Scram	2/13/81	All BWR facilities with OL or CP
81-01	Surveillance of Mechanical Snubbers	1/27/81	All power reactor facilities with OL & to specified facilities with CP
80-25	Operating Problems with Target Rock Safety-Relief Valves at BWRs	12/19/80	All BWR facilities with OL & specified near-term OL BWR facilities & all BWRs with a CP
Supplement 4 to 80-17	Failure of Control Rods to Insert During a Scram at a BWR	12/18/80	To specified BWRs with an OL & All BWRs with a CP
80-24	Prevention of Damage Due to Water Leakage Inside Containment (October 17, 1980 Indian Point 2 Event)	11/21/80	All power reactor facilities with OL or CP
80-23	Failures of Solenoid Valves Manufactured by Valcor Engineering Corporation	11/14/80	All power reactor facilities with OL or CP

OL = Operating License
CP = Construction Permit