

U.S. NUCLEAR REGULATORY COMMISSION  
OFFICE OF INSPECTION AND ENFORCEMENT

Region V

Report No. 50-312/79-11

Docket No. 50-312 License No. DPR-54 Safeguards Group \_\_\_\_\_

Licensee: Sacramento Municipal Utility District

P. O. Box 15830

Sacramento, California 95813

Facility Name: Rancho Seco

Inspection at: Clay Station, California

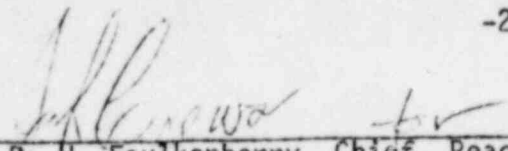
Inspection Conducted: June 12 - July 12, 1979

Inspectors:	<u><i>A. D. Johnson</i></u>	<u>8/20/79</u>
	H. L. Canter, Reactor Inspector	Date Signed
	<u><i>M. J. Bagaglio</i></u>	<u>8/20/79</u>
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	<u><i>A. D. Johnson</i></u>	<u>8/20/79</u>
	A. D. Johnson, Reactor Inspector	Date Signed
	<u><i>A. D. Johnson</i></u>	<u>8/20/79</u>
	P. H. Johnson, Reactor Inspector	Date Signed
	<u><i>J. D. Carlson</i></u>	<u>8/20/79</u>
	J. D. Carlson, Reactor Inspector	Date Signed
	<u><i>A. J. Horn</i></u>	<u>8/20/79</u>
	A. J. Horn, Reactor Inspector	Date Signed
	<u><i>G. W. Johnston</i></u>	<u>8/20/79</u>
	G. W. Johnston, Reactor Inspector	Date Signed
	<u><i>G. B. Zwetzig</i></u>	<u>8/20/79</u>
	G. B. Zwetzig, Reactor Inspector	Date Signed
	<u><i>P. J. Morrill</i></u>	<u>8/20/79</u>
	P. J. Morrill, Reactor Inspector	Date Signed

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Approved By:

  
B. H. Faulkenberry, Chief, Reactor Projects Section 2  
Reactor Operations and Nuclear Support Branch

8/20/79  
Date Signed

Summary:

Areas Inspected: Operator training pertaining to "Three Mile Island" incident, IE Bulletins, Licensee Event Reports, special tests, design changes, procurement and reactor operations. The inspection involved 252 inspector hours onsite by nine NRC inspectors.

Results: No items of noncompliance or deviations were identified.

## DETAILS

### 1. Persons Contacted

- \*R. Rodriguez, Manager, Nuclear Operations
- \*F. Oubre, Plant Superintendent
- \*G. Coward, Maintenance Supervisor
- \*R. Colombo, Technical Assistant
- \*R. Miller
- W. Ford, Operations Supervisor
- R. Wichert, Plant Mechanical Engineer
- J. Mau, Training Supervisor
- H. Heckert, Engineering Technician
- J. McColligan, Supervisor, Engineering and Quality Control

### 2. Auxiliary Feedwater System Tests

The inspectors examined the approved test procedures and results of the auxiliary feedwater system tests to verify system performance capabilities. STP-070, Auxiliary Feedwater Flow verification test, verified:

- a. that using either auxiliary feedwater pump, adequate flow would be supplied to each steam generator;
- b. that with the ICS overridden, auxiliary feedwater flow was capable of being manually controlled;
- c. that upon loss of both main feedwater pumps, auxiliary feedwater flow would be initiated; and
- d. that upon loss of air pressure, the auxiliary feedwater control valves can be manually closed.

STP-071, Auxiliary Feedwater Pump Endurance Test, verified the endurance capability of the auxiliary feedwater pumps by continuous operation of each for forty hours.

In addition to performing the above examinations the inspectors witnessed those portions of the tests described in STP-070 a. and b. and a portion test described in STP-071.

No items of noncompliance or deviations were identified.

\*Denotes those attending exit interview.

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3. IE Bulletins

The inspector confirmed the information submitted by the licensee in response to IE Bulletins 79-03, 79-04, 79-07, 79-09 and 79-10 thru discussion with licensee representatives and by examination of pertinent documents.

4. Licensee Event Reports

The inspector confirmed the information contained in Licensee Event Reports (LER's) No. 79-03 and 79-04.

5. Operator Retraining (Inspection Report 50-312/79-10)

A representative of General Physics Corporation provided training to licensed operators at Rancho Seco during the week of June 11, 1979. This training emphasized small break procedures, the sequence of events at and lessons learned from Three Mile Island, and other changes in plant design and procedures made during the recent shutdown period. Portions of this training were audited by the inspectors. Following the training a General Physics auditor conducted oral interviews with the operators to verify that they understood the materials presented and discussed. An NRC inspector also interviewed approximately 50% of the licensed operators on June 17-18, 1979. These interviews confirmed the effectiveness of the training and audit program provided by the licensee.

6. Reactor Trip

A reactor trip occurred on July 12, 1979 while an inspector was at the site. Erratic operation of the turbine intercept valves led to a turbine trip, which tripped the reactor by means of the direct trip function installed during the recent shutdown. All safety-related equipment operated as required. Following evaluation and trouble-shooting of the turbine control system the plant returned to power with a brush recorder connected to system parameters of interest. These parameters showed further instability at a power output of approximately 200 MWe, and portions of the "D" reheater pressure transmitter were replaced. Further intercept valve instability was experienced on July 14, 1979, although a plant trip did not occur. The licensee replaced the complete "D" reheater pressure transmitter following this transient, and further difficulties were not observed.

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7. Procurement

The inspector examined the following Quality Assurance Procedures (QAP's) to verify that administrative controls exist relating to the procurement of safety-related equipment:

QAP-4	Procurement Document Control
QAP-5	Supplier Quality Assurance
QAP-10	Receiving Inspection
QAP-15	Handling, Storage, Shipping and Preservation
QAP-17	Nonconforming Material Control

For selected components in the following listed systems the inspector verified that procurement specifications contained proper approval signatures, quality control inspection requirements, and quality record requirements. The inspector also verified that the items were inspected upon delivery, handled and stored in accordance with the plant procedures, and purchased from approved vendors. The inspector toured the warehouse areas and examined the storage conditions.

Reactivity Control and Power Distribution  
Instrumentation  
Reactor Coolant System  
Emergency Core Cooling System  
Containment System  
Plant and Electrical Power Systems

No items of noncompliance or deviations were identified.

8. Design, Design Changes, and Modifications

The inspector reviewed the licensee's program for handling design changes and modifications. In addition to the program review, the inspector examined the documentation for the NRC required modifications resulting from the Three Mile Island incident. The modifications examined were:

- a. Keyswitch cutout of the loss of feedwater and turbine trip (used for startup and shutdown of the unit.)
- b. Loss of feedwater and turbine trip - reactor trip.
- c. Auxiliary feedwater flow indication.
- d. Condensate storage tank low level alarm.

No items of noncompliance or deviations were identified.

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9. Management Interview

The inspectors met with licensee representatives at the conclusion of the inspection and reviewed the scope and findings of the inspection. The inspectors informed the licensee that no items of noncompliance or deviations were identified during the course of the inspection.

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