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 FACIL: 50-244 Robert Emmet Ginna Nuclear Plant, Unit 1, Rochester G 05000244
 AUTH. NAME: CRUTCHFIELD, D. AUTHOR AFFILIATION: Operating Reactors Branch IS
 RECIPIENT AFFILIATION: Rochester Gas & Electric Corp.
 MAIER, J.E.

SUBJECT: Forwards revised safety evaluation of SEP Topic VII-3, "Sys Required for Safety Shutdown." Second channel of component cooling water surge tank level indication should be provided.

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

March 25, 1982

Docket No. 50-244
LS05-82-03-100

Mr. John E. Maier
Vice President
Electric and Steam Production
Rochester Gas & Electric Corp.
89 East Avenue
Rochester, New York 14649

Dear Mr. Maier:

SUBJECT: SEP TOPIC VII-3, SYSTEMS REQUIRED FOR SAFE SHUTDOWN,
SAFETY EVALUATION REPORT - R.E. GINNA

The enclosed staff safety evaluation is a revision to the staff report dated June 24, 1981. It has been revised to reflect the findings of the integrated safety assessment team during a recent site visit. As a result of the visit, the staff proposes that a second channel of component cooling water surge tank level indication be provided.

This safety evaluation may be revised in the future if your facility design is changed or if NRC criteria relating to this topic are modified before the integrated assessment is completed.

Sincerely,

Dennis M. Crutchfield
Dennis M. Crutchfield, Chief
Operating Reactors Branch No. 5
Division of Licensing

Enclosure:
As stated

cc w/enclosure:
See next page

8203300132

Mr. John E. Maier

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631 Park Avenue
King of Prussia, Pennsylvania 19406

SYSTEMATIC EVALUATION PROGRAM

TOPIC VII-3

GINNA

TOPIC: VII-3, Systems Required For Safe Shutdown

I. INTRODUCTION

The systems aspects of the review of Systems Required for Safe Shutdown was conducted as part of Topic V-10.B (RHR Reliability). This safety evaluation is limited to the electrical instrumentation and control systems identified as being required for safe shutdown. Plant systems that are needed to achieve and maintain a safe shutdown condition of the plant, including the capability for prompt hot shutdown of the reactor from outside the control room were reviewed. Included also, was a review of the design capability and method of bringing the plant from a high pressure condition to low pressure cooling assuming the use of only safety grade equipment. The objectives of the review were to assure:

- (1) The design adequacy of the safe shutdown system to (a) initiate automatically the operation of appropriate systems, including the reactivity control systems, such that specified acceptable fuel design limits are not exceeded as a result of anticipated operational occurrences or postulated accidents and (b) initiate the operation of systems and components required to bring the plant to a safe shutdown.
- (2) That the required systems and equipment, including necessary instrumentation and controls to maintain the unit in a safe condition during hot shutdown, are located at appropriate places outside the control room and have a potential capability for subsequent cold shutdown of the reactor through the suitable procedures.
- (3) That only safety grade equipment is required to bring the reactor coolant system from a high pressure condition to a low pressure cooling condition.

II. REVIEW CRITERIA

The review criteria are presented in Section 2 of EG&G Report 0314J, "Electrical, Instrumentation, and Control Features of Systems Required for Safe Shutdown."

III. RELATED SAFETY TOPICS AND INTERFACES

Review areas outside the scope of this topic and safety topics that are dependent on the present topic information for completion are identified in Section 3 of EG&G Report 0314J.

IV. REVIEW GUIDELINES

The review guidelines are presented in Section 4 of EG&G Report 0314J.

V. EVALUATION

As noted in EG&G Report 0314J, the systems required to take Ginna from hot shutdown to cold shutdown, assuming only offsite power is available or only onsite power is available and a single failure, are capable of initiation to bring the plant to safe shutdown and are in compliance with current licensing criteria and the safety objectives of SEP Topic VII-3, except that long-term cooling (RHR) is susceptible to single E&IC failures which render this form of long-term cooling inoperable. However, other systems are available for the removal of decay heat.

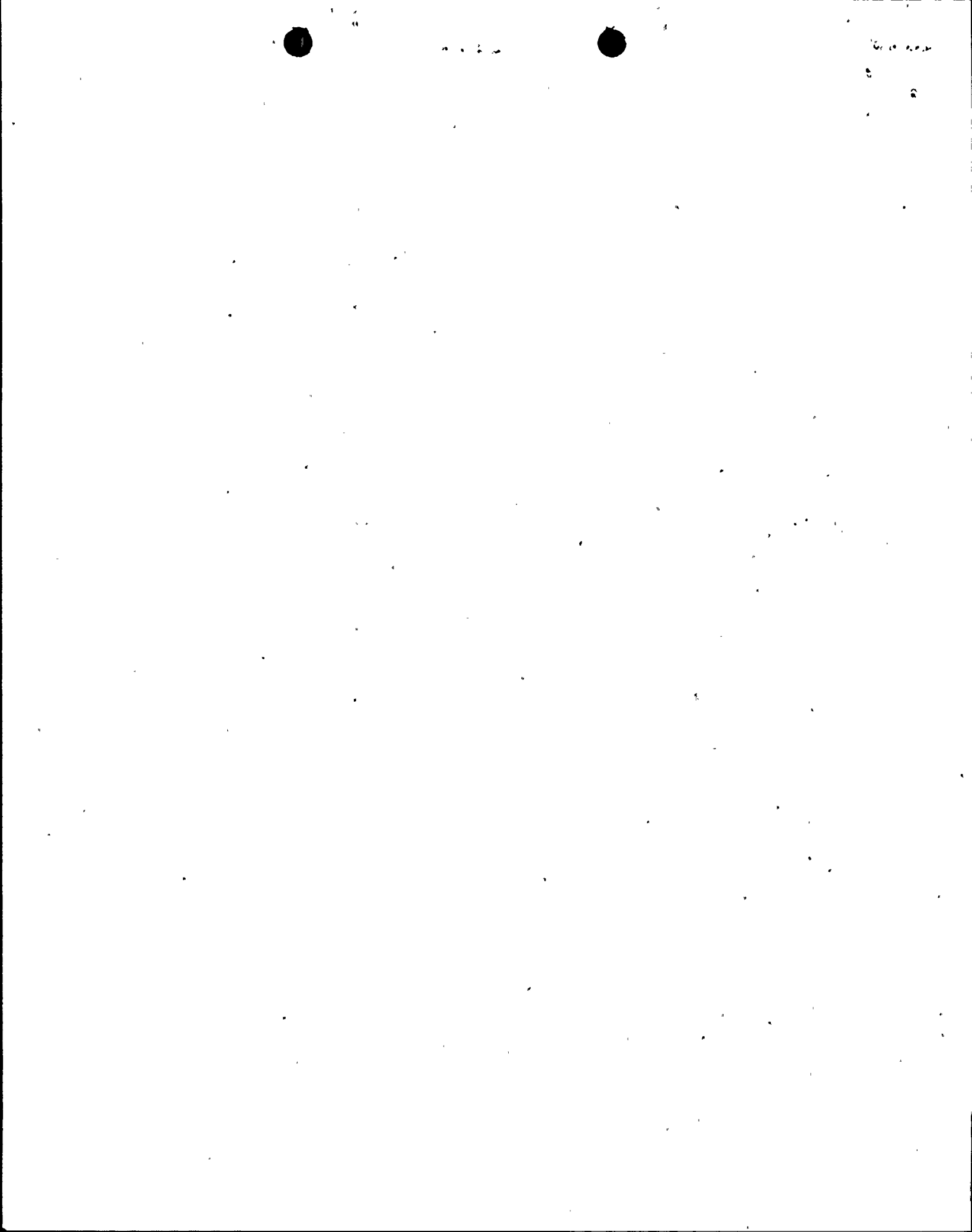
Report 0314J, also notes that sufficient battery capacity must be provided to assure that GDC 17 can be satisfied.

In addition to our contractor's report, the integrated assessment team conducted a site visit during the week of March 8, 1982. During that visit, it was determined that the component cooling water surge tank level indication was not redundant and, therefore, did not satisfy IEEE Std. 279-1971.

VI. CONCLUSIONS

With the exception of the component cooling water surge tank level indication, Ginna satisfies all of the requirements for Safe Shutdown, including GDC 17, because of the number and quality of systems provided, an 8 hour battery capacity and the capability to establish a delayed access line by backfeeding through the main transformer in less than eight hours.

The staff recommends that a redundant level indication be provided for the component cooling water surge tank.

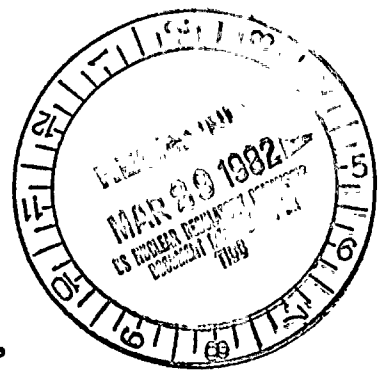


Certified By Bucky Low

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Original signed by:

Dennis M. Crutchfield, Chief
Operating Reactors Branch No. 5
Division of Licensing

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/ /
Dsu use(07)
Add)
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