UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

# SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

# RELATING TO REFERENCE OF THE NOTRUMP SMALL-BREAK

# LOSS-OF-COOLANT ACCIDENT ANALYSIS METHODOLOGY

# BY THE ROCHESTER GAS AND ELECTRIC CORPORATION

# R. E. GINNA NUCLEAR POWER PLANT

# DOCKET NO. 50-244

## 1.0 INTRODUCTION

By letter dated June 19, 1995, Rochester Gas and Electric Corporation (RG&E), the licensee for the R. E. Ginna Nuclear Power Plant (Ginna), submitted documentation discussing the evaluation model to be used for a small-break loss-of-coolant accident (SBLOCA) at the Ginna plant. As part of the documentation, RG&E provided information to show that the evaluation model (NOTRUMP) for the SBLOCA model (Westinghouse WCAP-10054-P) could appropriately be applied to the Ginna two-loop upper plenum injection design. Also, as part of the documentation, RG&E provided information to describe inputs and assumptions that would be used in applying NOTRUMP to the Ginna plant.

## 2.0 EVALUATION

In its submittal of June 19, 1995, RG&E (1) described a typical SBLOCA scenario, (2) referenced the NOTRUMP evaluation model (EM), (3) discussed how the NOTRUMP EM includes correlations to appropriately analyze SBLOCA events for the Ginna design, (4) identified specialized inputs and assumptions used for the two-loop Ginna design, and (5) provided a small-break spectrum of analytical results for the Ginna plant that was calculated by using the NOTRUMP EM. Although RG&E indicates that the results provided were performed with another version of NOTRUMP (known as COSI), which is under continuing NRC review, the submittal demonstrates the applicability of any version of NOTRUMP to the Ginna plant. The calculational results, using this as yet unapproved version of the NOTRUMP EM, exhibit such a large margin to the Ginna large-break LOCA spectrum that they amply demonstrate that current large-break LOCA analyses continue to bound the SBLOCA analyses for the Ginna plant.

## 3.0 CONCLUSIONS

On the basis of its review, the NRC staff finds that the NOTRUMP SBLOCA evaluation model described in any approved version of Westinghouse WCAP-10054-P is acceptable for use in Ginna SBLOCA analyses, and approved versions of this methodology may be referenced in Ginna licensing documentation, including the Ginna core operating limits report.

Enclosure

The staff finds that the SBLOCA results provided in the licensee's submittal demonstrate that large-break LOCA analyses currently bound SBLOCA analyses for the Ginna plant. Assumptions such as high-pressure injection pump performance in the submitted analyses may be used to determine plant surveillance criteria, and so on, even though the results were performed with an unapproved version of the NOTRUMP EM (known as COSI). This conclusion is primarily due to the large margins used in the submitted analyses that have been qualitatively demonstrated.

Principal Contributor: Frank Orr

Date:

February 27, 1996

Dr. Robert C. Mecredy
Vice President, Nuclear Operations
Rochester Gas and Electric Corporation
89 East Avenue
Rochester, NY 14649

SUBJECT: R. E. GINNA NUCLEAR POWER PLANT SMALL-BREAK LOSS-OF-COOLANT ACCIDENT ANALYSIS MODEL (TAC NO. M92764)

Dear Dr. Mecredy:

By letter dated June 19, 1995, Rochester Gas and Electric Corporation (RG&E), the licensee for the R. E. Ginna Nuclear Power Plant (Ginna), submitted documentation discussing the evaluation model to be used for a small-break loss-of-coolant accident (SBLOCA) at the Ginna plant. As part of the documentation, RG&E provided information to show that the evaluation model (NOTRUMP) for the SBLOCA model (Westinghouse WCAP-10054-P) could appropriately be applied to the Ginna two-loop upper plenum injection design. Also, as part of the documentation, RG&E provided information to describe inputs and assumptions that would be used in applying NOTRUMP to the Ginna plant.

On the basis of its review, the NRC staff finds that reference to an approved version of NOTRUMP is acceptable and that this reference is suitable for inclusion in the Ginna core operating limits report or other licensing documentation.

A copy of the related Safety Evaluation is enclosed. This action closes TAC No. M92764.

Sincerely,

Original signed by:

Allen R. Johnson, Project Manager
Project Directorate I-1
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Docket No. 50-244

Enclosure: As stated

cc w/encl: See next page

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