

Department of Nucleic Engineering & Engineering Physics

March 16, 1992

Document Control Center U.S. Nuclear Regulatory Commission Washington, DC 20555

Dear Sirs:

This is the Annual Report of Operations (ARO) at the RPI Reactor Critical Facility required under technical Specification 6.5.1. Since the last ARO

- 6.5.1.a.1. There have been no changes in RCF design.
- 6.5.1.a.2. There have been no change in performance characteristics.
- 6.5.1.a.3. There have been no changes in Operating Procedures.
- 6.5.1.a.4. Surveillance tests, calibrations, and checks have yielded results within requirements.
- 6.5.1.a.5. There have been no changes, tests, or experiments requiring NRC authorization under 10 CFR 50.59a. Critical experiments for ABB Combustion Engineering, carried out this year, required no changes outside of 10 CFR 50.59a.
- 6.5.1.a.6. P.L. Angelo was replaced as RCF Supervisor by Dr. R.C. Rohr on July 28, 1991. Dr. R.C. Rohr was replaced as RCF Supervisor by Kenneth J. Connor on October 18, 1991. Senior Reactor Operator licenses are currently held by Dr. D.R. Harris, Dr. R.C. Rohr, Mr. K.J. Connor, and Mr. D.L. Hayes. The present membership of the Nuclear Safety Review Board is: Dr. Harris, Dr. Biock, Dr. Lahey, Dr. Podowski, Dr. Malaviya, Dr. Hockenbury, Dr. Ryan, Dr. Rohr, Mr. K.J. Connor, Dr. DeRusso and Dr. Judd.
- 6.5.1.b. The time-integrated thermal power generated is 0.43 kilowatt hours.

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- 6.5.1.c. There have been several unplanned scrams resulting from failures to change ranges on detector channels LP1 and LP2. A safety-related incident occurred when a control rod withdrew to far and was stopped on the top lattice plate. NRC and NSRB approved modifications to the control rod system have been put into place to prevent recurrence and communicated to the NRC.
- 6.5.1.d. Only routine maintenance was required for the RCF safety systems.
- 6.5.1.e. No changes, and only routine tesis and experiments were carried out not requiring prior NRC approval under 10 Ci-R 50.59a.
- 6.5.1.f. No radioactive efficient were released or discharged beyond the reactor environs.
- 6.5.1.g. The TLD cumulative doses at the exclusion and exclusion and site boundaries were:

Boundary	Exclusion Boundary	Site
Gamma (Li7)	U Rem	0 Rem
Neutron (Lac)	0 Rem	0 Rem

6.5.1.n. No radiation exposures greater than 25% of the 10 CRF 20 allowed values were received by faculty, students, or experimenters.

Sincerely,

Dr. Donald R. Harris, Director RPI Reactor Critical Facility (RCF)

V. R. Hamis

DRH:jjd