



WORCESTER
POLYTECHNIC
INSTITUTE

Nuclear Reactor Facility

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January 29, 1993

Director of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Re: Docket No. 50-134
License R-61
Annual Report for 1992

Dear Sir:

The operation of the WPI Reactor was routine during most of 1992. A malfunction of the facility evacuation horns during a routine semi-annual evacuation drill in January prompted a report as required by the WPI Technical Specifications. The problem was promptly analyzed and corrected. There has been no recurrence. A commercially made solid state log power and period amplifier was installed in February, replacing the original vacuum tube based amplifier. It has been working properly. In June, an ultra-violet sterilizer was placed in line with the existing water demineralizer to eliminate algae growth. The system has worked adequately.

A log-N chart was removed in January. Analysis of the chart revealed the total power produced for the period May 1991 to December 1991 was 21.7 kW-hrs. The total power produced by the reactor as of January 1992 was 7585 kW-hrs. The total power produced by the present fuel is 171 kW-hrs.

Annual maintenance and inspections were completed as of September 1992. There were no unusual findings and measurements from all annually checked parameters were within normal ranges.

There were 5 unscheduled scrams during the year. Of these, 3 were due to electronic noise in the neutron measuring channels; one resulted from moving the start-up source in proximity of a neutron detector while sub-critical, one resulted from an operator trainee range switching error.

As of December there are 2 SROs and 3 ROs at the facility. In April, Mr. E. Preble received an RO license. There are 4 students in training for an RO exam scheduled in April 1993.

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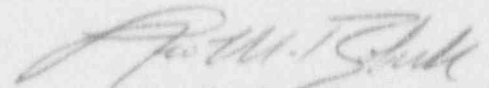
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Effluent releases have been well within 10CFR 20 limits. Gaseous Ar-41 has been released in trace amounts, measurable only when in operation above 1 kW.

The WPI Reactor continues to be used primarily for academic instruction, student projects, and occasional research.

Please contact me if further information is required.

Sincerely,

A handwritten signature in dark ink, appearing to read "Leo M. Bobek", written in a cursive style.

Leo M. Bobek,
Director