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SUBJECT: Forwards "Steam Generator Repair Project Radiation  
 Protection 90 Day Interim Rept 1," for 880216-0516.

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AEP:NRC:0980M

Donald C. Cook Nuclear Plant Unit 2  
Docket No. 50-316  
License No. DPR-74  
STEAM GENERATOR REPAIR PROJECT  
RADIATION PROTECTION 90-DAY INTERIM REPORT NO. 1

U.S. Nuclear Regulatory Commission  
ATTN: Document Control Desk  
Washington, D.C. 20555

ATTN: T. E. Murley

June 23, 1988

Dear Dr. Murley:

As required by section 7.3 of the Safety Evaluation by the Office of Nuclear Reactor Regulation related to Amendment No. 100 to Facility License No. DPR-74, enclosed is one copy of the Steam Generator Repair Project Radiation Protection 90-Day Interim Report No. 1. This report summarizes the activities of the Project Radiation Protection/ALARA Group (PRPAG) for the period February 16, 1988, to May 16, 1988. These activities included procedure development, ALARA reviews of work packages, training, radwaste control, installation of a computerized radiation work permit and dose tracking system (PRISM), and NVLAP accreditation of our TLD processing laboratory. Attachment 1 to this letter provides a detailed discussion of these activities.

The collective occupational exposure estimate for the Steam Generator Repair Project remains at 1733 man-rem. The Project ALARA group tracks exposure on a per shift basis and reports the totals weekly in the Project ALARA Committee and the Project Management weekly meetings. Attachment 2 to this letter provides a comparison, on a weekly basis, of the actual man-rem expended versus the estimated man-rem expenditure. The reported weekly estimate is derived by calculating the job percent complete based on actual man-hours compared to 512,691 total Project RWP hours. The estimated man-rem expenditure through May 19, 1988, was 43.5 man-rem. Actual man-rem expenditure for this time period was 12.906 man-rem. The difference between actual and estimated accumulative exposure can be traced to

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Dr. T. E. Murley

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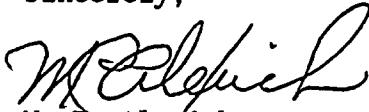
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the fact that most of the preparatory work to date took place in extremely low dose areas. As the Project moves into the removal phase, tasks should accrue exposure at a rate closer to the estimated average effective dose rate (task exposure/task RWP hours).

The Radiation Protection 90-Day Interim Report No. 2, which will cover the period May 17, 1988, to August 18, 1988, will be provided to you by September 16, 1988.

This document has been prepared following corporate procedures which incorporate a reasonable set of controls to ensure its accuracy and completeness prior to signature by the undersigned.

Sincerely,



M. P. Alexich  
Vice President

edg

Attachments

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COOK NUCLEAR PLANT, UNIT 2  
STEAM GENERATOR REPAIR PROJECT  
RADIATION PROTECTION 90-DAY INTERIM REPORT NO. 1

1.0 Introduction

Indiana Michigan Power Company is repairing the four steam generators at the Cook Nuclear Plant unit 2 which suffered secondary side tube degradation due to intergranular attack/stress corrosion cracking at the tube support plate and tube sheet regions. Since this type of large-scale maintenance has the potential for individual and collective radiation exposures beyond that of routine maintenance, the NRC received a description of the project's planned radiation protection program as part of the Steam Generator Repair Report submitted November 7, 1986, and revised on March 30, July 24, October 30, December 4, 1987, and February 18, 1988. The implementation of the Radiation Protection Program as of May 16, 1988, is provided below.

2.0 Programs and Procedures

The Project Radiation Protection/ALARA Group (PRPAG) completed and issued 88 project-specific procedures to control the radiation protection and radwaste aspects of the Repair Project. The procedures cover seven functional areas: operational radiation protection, ALARA, dosimetry, training, support services, PRISM and radwaste. The status of each functional area is identified below.

3.0 Dosimetry

PRPAG dosimetry staff completed the development, installation and National Voluntary Laboratory Accreditation Program (NVLAP) accreditation of the TLD processing laboratory. Final NVLAP approval was received April 28, 1988. Project personnel were badged under the new system on May 1, 1988, at which time the dosimetry records staff completed program development for dosimetry recordkeeping, whole body counting and respirator fit testing.

To date 349 whole body counts and 177 respirator fit tests have been performed.

4.0 Training

The PRPAG Training Staff completed the development and implementation of 29 training modules covering: General Employees Training (GET), Project-Specific Training, Supervisor ALARA Training and Radiation Protection Technician Training. The training of 89 Radiation Protection Personnel has been completed. A total of 341 personnel have attended PRPAG GET training sessions.

5.0 PRISM System

PRISM is a computerized radiation work permit and dose tracking system. The PRISM System installation was completed on



November 16, 1987, and became the system of record dose on April 1, 1988, for the SGRP project. Fine tuning of report formats and the incorporation of user identified needs is on-going.

#### 6.0 Operational Radiation Protection

The PRPAG Operational Radiation Protection Group has completed program development, begun staff augmentation and completed the set-up of Radiation Protection areas in the new Containment Access Building (CAB). This included the counting room (2 HPGi counters and 1 proportional counter), the instrument area, the Radiation Work Permit area (PRISM terminals and office areas), personnel decontamination areas and access/egress routes into the Radiation Control Area. Staffing levels during the period grew to 65 technicians to support Project work activities. There have been three personnel contaminations, one exposure investigation (lost TLD) and one Radiological Occurrence Report during the period.

#### 7.0 Support Services

Arrangements for the purchase or lease of protective clothing, expendable supplies, support facilities and equipment continued during the period. On April 14, 1988, 14 Support Services Technicians completed initial training. The mobile respirator cleaning/repair facility was received on April 18, 1988, and was available for use May 13, 1988. An initial stock of 440 respirators have been made available for service.

#### 8.0 Radwaste

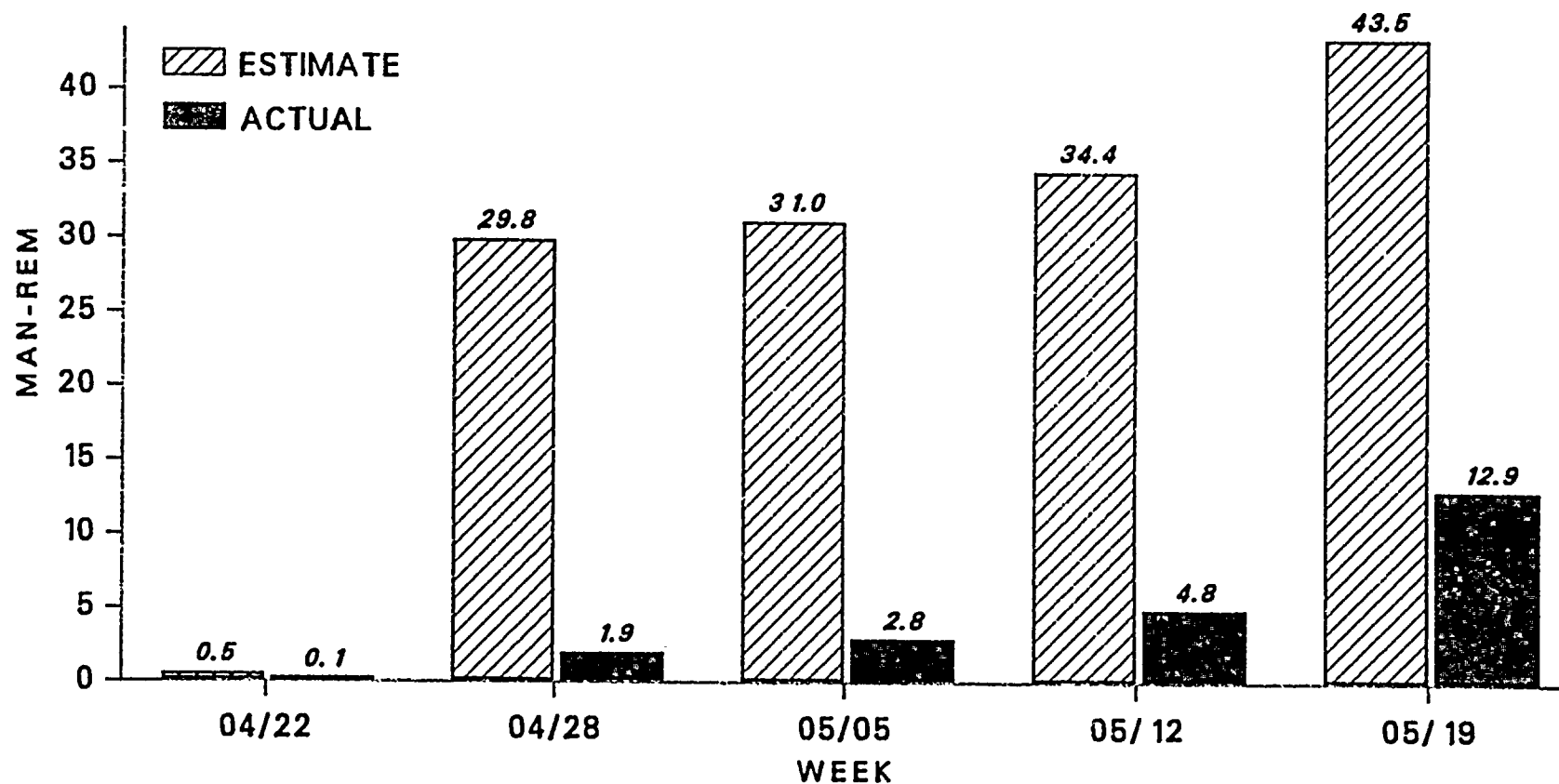
The Radwaste Group completed development of the Project Radwaste Plan in January 1988. Major objectives of this plan called for construction of a Radwaste Support Building, contracting for off-site processing services, implementation of a computerized Waste Tracking and Manifesting System, and development of program procedures. The construction of the Radwaste Support Building began February 26, 1988, and was completed May 16, 1988. A contract was awarded for off-site processing of Radwaste. A contract was awarded for the purchase of a computerized Waste Tracking and Manifesting System and installation of the system was scheduled for May 17 and 18, 1988. Nine Radwaste Procedures have been developed and issued. The first Radwaste Technicians arrived on-site May 2, 1988, and completed training on May 16, 1988.

#### 9.0 ALARA

The PRPAG ALARA Group completed 82 planning stage work package ALARA reviews out of a total 126. During these reviews hold points, special ALARA Notes and Cautions and training requirements were introduced into the work packages.

Thirty-seven shielding and four containment requests have been received and are in progress. Five pre-job briefings have been performed.

## SGRP PREPARATION PHASE PERSONNEL EXPOSURES - ESTIMATED vs. ACTUAL



NOTE: ESTIMATE VALUES DERIVED FROM PROJECT % COMPLETE BY RWP HOURS



