

UNITED STATES
ATOMIC ENERGY COMMISSION
DIRECTORATE OF REGULATORY OPERATIONS
REGION III
799 ROOSEVELT ROAD
GLEN ELLYN, ILLINOIS 60137

TELEPHONE
(312) 858-2660

A. RO Inspection Report No. 050-305/74-07

Transmittal Date : April 5, 1974

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RO Files

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B. RO Inquiry Report No. _____

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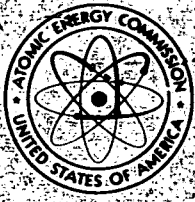
C. Incident Notification From: _____
(Licensee & Docket No. (or License No.))

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APR 5 1974

Wisconsin Public Service Corporation
ATTN: Mr. E. W. James, Senior Vice President
Power Generation and Engineering
Post Office Box 1200
Green Bay, Wisconsin 54305

Docket No. 50-305

Gentlemen:

This refers to the inspection conducted on January 26 and February 19, 20, and 22, 1974, by Mr. Ogg of this office of activities authorized by Operating License No. DPR-43 and to the discussion of our findings with Mr. Luoma and others of your staff at the conclusion of the inspection.

The enclosed copy of our inspection report identifies areas examined during the inspection. Within these areas, the inspection consisted of a selective examination of procedures and representative records, interviews with plant personnel, and observations by the inspector.

No violations of AEC requirements were identified within the scope of this inspection.

In accordance with Section 2.790 of the AEC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations, a copy of this letter and the enclosed inspection report will be placed in the AEC's Public Document Room, except as follows. If this report contains any information that you or your contractors believe to be proprietary, you must apply in writing to this office, within twenty days of your receipt of this letter, to withhold such information from public disclosure. The application must include a full statement of the reasons for which the information is considered

APR 5 1974

Wisconsin Public Service
Corporation

- 2 -

proprietary, and should be prepared so that proprietary information identified in the application is contained in an enclosure to the application.

We will gladly discuss any questions you have concerning this inspection.

Sincerely yours,

James G. Keppler
Regional Director

Enclosure:

RO Inspection Rpt No. 050-305/74-07

bec: RO Chief, FS&EB
RO HQ (4)
Licensing (4)
DR Central Files
RO Files
PDR
Local PDR
NSIC
DTIE
OGC, Beth, P-506A
R. Renfrow, GC (2)

U. S. ATOMIC ENERGY COMMISSION
DIRECTORATE OF REGULATORY OPERATIONS

REGION III

Report of Radiological Protection

RO Inspection Report No. 050-305/74-07

Licensee: Wisconsin Public Service Corporation
P. O. Box 1200
Green Bay, Wisconsin 54305

Kewaunee Nuclear Power Plant
Kewaunee, Wisconsin

License No. DPR-43
Category: B

Type of Licensee: PWR - 560 Mwe (W)

Type of Inspection: Routine Preoperational, Announced

Date(s) of Inspection: January 26, February 19, 20, 22, 1974

Date(s) of Previous Inspection: January 22, and 25, 1974 (Emergency Planning)

Principal Inspector:

W. L. Fisher for
W. W. Ogg

4/1/74
(Date)

Accompanying Inspector(s): None

Other Accompanying Personnel: None

Reviewed By:

W. L. Fisher
W. L. Fisher, Senior Health Physicist
Facilities Radiological Protection Section

4/1/74
(Date)

SUMMARY OF FINDINGS

Enforcement Action: None.

Licensee Action on Previously Identified Enforcement Matters

Not applicable within the scope of this inspection.

Unusual Occurrences: None.

Other Significant Findings

A. Current Findings

None.

B. Unresolved Items

None.

C. Status of Previously Reported Unresolved Items

Not applicable.

Management Interview

A management interview was conducted with Messrs. Luoma and Stern at the conclusion of the inspection on February 22, 1974.

Subjects Discussed

The inspector listed the items remaining to be completed before criticality which were not completed on the final day of the inspection due to blizzard conditions and other causes of delay. They were:

A. Final Evaporator Repairs and Tests

The licensee stated that the flange and disc would be repaired and the evaporator reruns made available for inspection prior to criticality. (Paragraph 3)

B. Final Preoperational Testing of the RMS

The licensee stated that the RMS would be operating prior to criticality and that results of preoperational tests would be available for inspection. (Paragraph 2)

C. Further Assure the Capability to Sample and Analyze Liquid and Gaseous Wastes

The licensee stated that more of the surveillance procedures would be performed preoperationally and would be available for review before criticality. (Paragraph 4)

REPORT DETAILS

1. Persons Contacted

J. Richmond, Technical Supervisor
G. Jarvela, Health Physics Supervisor
W. Truttman, Operations Supervisor
J. Larson, Radiochemistry Supervisor
G. Kingston, Shift Supervisor
M. Stern, Test Engineer
D. McSwain, Instrument and Control Supervisor
J. Hannon, Instrument and Control Technician

2. Readiness of the Automatic Continuous Radiation Monitors (RMS) for Criticality

a. Preoperational and Acceptance Test #45

The inspector reviewed as a sampling, test results RM-03, RM-04, RM-05, RM-06, RM-08, and the RM-09. The approved and signed reports indicated that the monitors were adequately tested and shown to be operable. The inspector noted that deficiencies were minor, were being corrected, and were not of a nature to hold criticality.

The inspector also noted that process monitor calibrations were performed using the contractor's solid sources and that calibration using fluid sources were scheduled to be performed at a later date. The inspector found no problems.

b. Physical Performance at the Control Panel; Reflash

On examining the RMS modules, readouts, and recorder, it was noted that all but one instrument, R-24, was in service, but that the multipoint count rate recorder was not operating. It was learned that process monitor R-24 was out of service due to an associated sampler being repaired and that a new recorder motor was on order. The licensee pointed out that they would be operable and available for reinspection prior to criticality. The inspector examined seven channels to compare actual alarm setpoints with those listed in the FSAR. There was apparently full agreement.

The licensee demonstrated an alarm, and the inspector noted that it went off at the specified count rate.

In a previous inspection^{1/} it was noted that the RMS did not have full reflash capability for instrument failure alarm. The inspector reviewed a requisition form to a vendor for the

purchase of modules which will enable the licensee to have 100% reflash capability.

The licensee demonstrated reflash capability for high radiation alarm (which already exists) for three successive alarms. The inspector had no further questions concerning RMS reflash.

c. Procedure SP049, RMS Monthly Surveillance Test

The inspector reviewed results of this surveillance test completed preoperationally on February 19, 1974. The work is performed by the I&E group and approved by the technical supervisor, the shift supervisor, and the assistant plant superintendent. There were apparently no functional deficiencies except R-24 which was not in service (see above).

3. Waste Evaporator

After preoperational tests were completed and approved, the licensee dismantled the evaporator in order to physically expand it for ease of maintenance. The physical plant was reinspected. The inspector noted tests made and saw that the only deficiency was a relief valve flange and its rupture disc.

4. Laboratory and Waste Analyses Surveillance Procedures

The inspector reviewed the following surveillance procedures and noted that several were performed preoperationally, evaluating the licensee's capability to perform liquid and gaseous analyses as required by technical specifications paragraph 4.11.

Procedures for Radioactive Waste Analyses, Boron, Chlorine, and Oxygen

- (1) "Tritium Radioactivity, RC-C-64," uses liquid scintillation techniques and includes a step which effects auto standardization.
- (2) "Strontium - 90, RC-C-77"
- (3) "Strontium - 89, RC-C-78"
- (4) "Gross Alpha Activity, RC-C-67" is for liquid samples including samples from the primary coolant and demineralizer inlet and outlet.
- (5) "Gross Activity, RC-C-116" is for beta and gamma activity determinations in liquid samples, such as from tanks and sumps.

- (6) "Radioiodine TIOA method, separates iodine activity by extracting it into xylene. The yield is purported to give 95% yield.
- (7) "Thirty Minute Gross Activity and Seven Day Activity RC C-66" includes steps for counting the sample at the two separate times. This procedure is a method of examining a system's gross specific activity when contamination is relatively low.
- (8) "Reactor Coolant Boron Sample, SP068": "Reactor Coolant Cl and O₂ Sample", SP066; "Reactor Coolant Gross Beta-Gamma Activity Sample, SP065" (measured $< 1 \times 10^{-7}$ microcuries per milliliter); "Boric Acid Tanks Boron Sample, SP071"; and "Accumulator Boron Sample, SP072" were performed pre-operationally with apparently satisfactory results.