U.S. NUCLEAR REGULATORY COMMISSION
OFFICE OF INSPECTION AND ENFORCEMENT

REGION III

Report No. 50-155/79-17

Docket No. 50-155 License No. DPR-6

Licensee: Consumers Power Company
212 West Michigan Avenue
Jackson, MI 49201

Facility Name: Big Rock Point Nuclear Plant

Inspection At: Big Rock Point Site, Charlevoix, MI

Inspection Conducted: December 4-7, 1979

Inspector: W. L. Fisher for M. C. Schumacher 12/27/79

Approved By: W. L. Fisher, Chief 12/27/79
Fuel Facility Projects and
Radiation Support Section

Inspection Summary

Inspection on December 4-7, 1979 (Report No. 50-155/79-17)
Areas Inspected: Special, announced inspection of solid waste handling, including matters addressed in IE Bulletin No. 79-19 and licensee followup of previous inspection findings. The inspection involved 31 inspector-hours on site by one NRC inspector.
Results: No items of noncompliance were noted.

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DETAILS

1. Persons Contacted

*C. J. Hartman, Plant Superintendent
*C. E. Axtell, Health Physicist
R. Doan, Training Supervisor
*T. Bordine, QA Superintendent
*R. Bichel, General Engineer, QA
G. Fox, Chemistry and Radiation Protection Supervisor
J. Popa, Maintenance Engineer

*Denotes presence at exit interview.

The inspector also talked with other licensee employees, including health physics technicians, operators, maintenance men, and training instructors during the inspection.

2. General

This inspection, which began at 1:30 p.m. on December 4, 1979, was conducted to examine licensee radioactive waste management practices related to packaging and handling of low-level radioactive wastes shipped offsite for burial, including the items addressed in IE Bulletin No. 79-19, "Packaging at Low-Level Radioactive Waste for Transport and Burial." Relevant licensee records, procedures, tests, and audits were reviewed and discussed with licensee representatives.

Waste handling facilities were examined. Two previously packaged drums, one containing compressed trash and the other containing uncompacted waste materials were opened and examined for water, for agreement with contents listed on license records, and for agreement with survey data. No problems were noted. The inspector also examined closed unused drums stacked outside and exposed to weather. Six were opened and showed no moisture inside. No packaging of spent resins for shipment was in progress, so this activity could not be examined.

3. Licensee Action on Previous Inspection Findings

(Open) Licensee Commitment (155/79-02): High Radiation Occurrence at Fuel Pool, January 18, 1979. Licensee committed to additional training for RWP exempt personnel, an improved system of rope control at the pool, and installation of a new monitor nearer the pool. A report of the occurrence and corrective action taken was circulated to these personnel within a few weeks. A QA audit done in July 1979 noted that a new rope control procedure was in effect, that about 30% of the personnel had received training beyond the occurrence report review, and that the remainder would be trained by September 1979. At the time of

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this inspection, all of the approximately 60 RWP exempt personnel had received extra training, except eight who were scheduled for January 1980. It was also noted that the new fuel pool monitor ordered in April 1979 had not yet been received. It is now expected near the first of the year, according to licensee personnel. Licensee personnel also stated that retraining on such matters would be greatly expedited in the future, as it will be a responsibility of the soon-to-be activated on-shift technical advisor. This item remains open pending the completion of training, installation of the new monitor, and confirmation by the inspector that such matters will receive prompt attention in the future.

4. Solid Radioactive Waste

The licensee's solid waste handling facilities are described in a previous inspection report.[1/] Two categories of wastes are handled; trash and miscellaneous contaminated materials in 17-H drums (compacted or uncompacted depending on the nature of the material); and steel liners and dewatered spent resins. The resins are transferred from underground storage tanks to a cask on a flatbed truck. The resin work is done by Chem-Nuclear Systems, Incorporated under contract. All waste handling and packaging is done in the presence of health physics technicians. The most recent resin shipments were done with station quality assurance personnel reviewing the work as it proceeded. In addition, cognizant Chem-Nuclear personnel from Barnwell reviewed the job in advance.

The licensee has reported the following information concerning transfer of low-level radioactive wastes for burial.

Period	No. of Shipments	Resins, sludges, etc.		Total		Total	
		Curies	Meter^3	Curies	Meter^3	Curies	Meter^3
Jan-June '78	1	-	-	0.17	26	0.17	26
July-Dec '78	4	25	5	-	-	25	5
Jan-June '79	2	-	-	2	60	2	60
*July-Nov '79	6	274	28	1	2	275	30

*Determined from examination of records at site.

The inspector confirmed that the information in the January-June 1979 semiannual report accurately reflected the licensee's primary records.

5. IE Bulletin 79-19

A detailed examination was made of licensee activities addressed in the bulletin and in the licensee's response.[2/]

1/ Region III Inspection Report No. 155/78-14.
2/ Letter dated September 25, 1979, D. A. Bixel, CPCo to J. G. Keppler, RIII.

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a. The licensee maintains an up-to-date copy of Title 10 CFR and has a bound copy of 49 CFR 100-199 revised through October 1, 1978. An order has been submitted for a loose leaf version with periodic updates.

b. Copies of the South Carolina License No. 097, Amendment 26, (transmittal letter October 30, 1979) for Barnwell, and Washington License WN 1019-2, Amendment No. 9, and State of Washington Executive Order No. 79-09 (November 15, 1979) were held by the licensee.

c. Station administrative procedures assign control of radioactive materials onsite, including required shipment records, to the Chemistry and Radiation Protection (C&RP) Supervisor, who reports to the Health Physicist. The Health Physicist is responsible for ensuring that appropriate procedures are used.

d. Licensee procedures dealing with packaging and transport have been significantly strengthend during the past year. Currently applicable procedures are:

QAPP 2-57 (Revision 0, 6/15/79), "Packaging and Shipping of Greater than 'Type A' Quantities of Radioactive Material,"

RM50 (Revision 2, 11/6/79), "Solid Radioactive Waste,"

RM53 (Revision 2, 11/6/79), "Radioactive Material Shipment," and

HP-RWS-2 (Revision 1, 10/16/79), "Transfer of Spent Resin."

These procedures are available to plant personnel involved. They are generally well written and 10 CFR 71 and 49 CFR 170-199 requirements are referenced. However, cask handling procedures of the cask vendors are not referenced, although these procedures are onsite and are used, according to the licensee, in reviewing shipments. Also, occasional maintenance handling of casks for shipping uncompacted filters (generally Type A quantities) are not covered in maintenance or radiation protection procedures. Licensee representatives stated that procedures covering maintenance activities are being prepared and that maintenance and radiation protection procedures will contain appropriate references.

The licensee has made several tests on resin dewatering capabilities (conducted at Palisades Nuclear Plant) and has shown with a scale model (30 ft^3) that dewatering to less than 1% residual water was not achievable with an ordinary vertical well point, but was achievable with a "spider" arrangement furnished by Chem-Nuclear.

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e. As indicated in the licensee's response, a two-day training seminar was given to staff members. Plant records show that 14 people attended two days and 4 people attended one day of the seminar given on November 13 and 14, by D. Edling, a consultant. The attendees were health physics technicians and supervisors, and selected members of plant management.

f. Licensee representatives stated that controlling of waste generation provided in on-the-job training of operators will be more strongly stressed in future training. It is the inspector's opinion, based on shipping records and observations made in the facility, that the licensee carefully controls generation of solid wastes.

g. A management controlled audit function has been established with provisions for audit by both onsite QA and personnel from the corporate offices. The inspector was told that the latter audits would probably be increasingly combined QA-technical audits.

Quality assurance Procedure QAPD 2-57 defines the extent of applicability of the licensee's fuel QA program to packaging and shipping of radioactive material. Licensee personnel from health physics and QA indicated in discussion that certain of the QA requirements are not yet fully implemented. For example, the QA-recognized procurement document, "Return Material Request" (RMR), had not been signed by a QA representative for the October-November resin shipments. There appears to be some confusion as to what constitutes the appropriate QA "package" for these shipments, and licensee personnel state this problem is being worked on. Nevertheless, the plant quality assurance group participated in the preparation of these shipments by reviewing certain steps of the applicable procedures (RM53 and HP-RWS-2) such as truck placarding, container marking and labeling, possession of receiver's license, and package surveys.

h. A quality assurance audit was done on September 12-14, 1979.

No safety significant findings were made, but several observations relating to resin transfer, cask lifting, and requirements for cask registration were; these had been taken care of by procedure changes.

A combined quality assurance and technical audit was scheduled for the week of December 10, 1979. The inspector was informed on December 14 that this audit had been postponed and would probably be rescheduled for after January 1, 1980.

6. Exit Interview

The inspector summarized the inspection findings at a meeting with Mr. Hartman, Plant Superintendent, and others of his staff (Paragraph 1) on December 7, 1979.

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The licensee stated that procedure problems noted during the inspection were being worked on and would be corrected before the next radioactive waste shipment.

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