

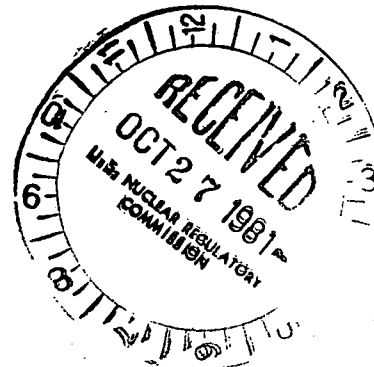
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October 20, 1981

Docket No. 50-255
LS05-81-10-043

Mr. David P. Hoffman
Nuclear Licensing Administrator
Consumers Power Company
1945 W. Parnall Road
Jackson, Michigan 49201



Dear Mr. Hoffman:

Ref: Status of NUREG-0737 Items II.F.1.1 and II.F.1.2

NUREG-0737 Items II.F.1.1 and II.F.1.2 require the installation of high range noble gas effluent monitors and provisions for effluent monitoring of radioiodines at accident conditions, respectively, by January 1, 1982. Since a postimplementation review is planned, we are presently reviewing only deviations to the stated NRC positions.

Based on our review of your submittals, no technical deviations from our stated positions are requested to implement NUREG-0737 Items II.F.1.1 and II.F.1.2. If this understanding is not correct, we request formal notification of such within 30 days of the date of this letter.

Your submittal further indicates that you anticipate no problems meeting the implementation date of January 1, 1982 for Items II.F.1.1 and II.F.1.2. You should be aware that Commission approval is required to postpone the implementation date for any NUREG-0737 item at any facility. Therefore, any equipment delivery or installation problems should be brought to our attention as early as possible.

Changes to your plant Technical Specifications are necessary to fully implement NUREG-0737 Items II.F.1.1 and II.F.1.2. Sample Standard Technical Specification pages are provided as Enclosure 1 for your assistance. Your application for such proposed changes may be submitted any time prior to January 1, 1982.

If you have questions on any portions of this letter, please contact your assigned NRC project manager.

Sincerely,

Original signed by

Dennis M. Crutchfield, Chief
Operating Reactors Branch #5
Division of Licensing

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PDR ADOCK 05000255
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Enclosure(s):

OFFICE	As stated	JWW	DL: ORB #5	DL: ORB #3	DL: ORB #5		
SURNAME	cc: See next page		TWambach:cc	Conner	DCrutchfield		
DATE			10/16/81	10/20/81	10/20/81		

Mr. David P. Hoffman

- 2 -

October 20, 1981

cc

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INSTRUMENTATION

3/4.3.3 MONITORING INSTRUMENTATION

RADIATION MONITORING INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

3.3.3.1 The radiation monitoring instrumentation channels shown in Table 3.3-6 shall be OPERABLE with their alarm/trip setpoints within the specified limits.

APPLICABILITY: As shown in Table 3.3-6.

ACTION:

- a. With a radiation monitoring channel alarm/trip setpoint exceeding the value shown in Table 3.3-6, adjust the setpoint to within the limit within 4 hours or declare the channel inoperable.
- b. With one or more radiation monitoring channels inoperable, take the ACTION shown in Table 3.3-6.
- c. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.3.3.1 Each radiation monitoring instrumentation channel shall be demonstrated OPERABLE by the performance of the CHANNEL CHECK, CHANNEL CALIBRATION and CHANNEL FUNCTIONAL TEST operations for the MODES and at the frequencies shown in Table 4.3-3.

TABLE 3.3-6

RADIATION MONITORING INSTRUMENTATION

<u>INSTRUMENT</u>	<u>MINIMUM CHANNELS OPERABLE</u>	<u>APPLICABLE MODES</u>	<u>ALARM/TRIP SETPOINT</u>	<u>MEASUREMENT RANGE</u>	<u>ACTION</u>
1. AREA MONITORS					
a. Fuel Storage Pool Area					
i. Criticality Monitor	(1)	*	≤ 15 mR/hr	(10 ⁻¹ - 10 ⁴) mR/hr	25
ii. Ventilation System Isolation	(1)	**	(≤ 2 x background)	(1 - 10 ⁵) cpm	27
b. Containment - Purge & Exhaust Isolation	(1)	6	(≤ 2 x background)	(1 - 10 ⁵) cpm	28
c. Control Room Isolation	(1)	All MODES	(≤ 2 x background)	(10 ⁻¹ - 10 ⁴) mR/hr	29
d. Containment Area	2	1, 2, 3 & 4	() rad/hr	1-10 ⁸ rad/hr	30
2. PROCESS MONITORS					
a. Fuel Storage Pool Area - Ventilation System Isolation					
i. Gaseous Activity	(1)	**	(≤ 2 x background)	(1 - 10 ⁵) cpm	27
ii. Particulate Activity	(1)	**	(≤ 2 x background)	(1 - 10 ⁵) cpm	27
b. Containment					
i. Gaseous Activity					
a) Purge & Exhaust Isolation	(1)	6	(≤ 2 x background)	(1 - 10 ⁵) cpm	28
b) RCS Leakage Detection	(1)	1, 2, 3 & 4	N/A	(1 - 10 ⁵) cpm	26
ii. Particulate Activity					
a) Purge & Exhaust Isolation	(1)	6	(≤ 2 x background)	(1 - 10 ⁵) cpm	28
b) RCS Leakage Detection	(1)	1, 2, 3 & 4	N/A	(1 - 10 ⁵) cpm	26

* With fuel in the storage pool or building

** With irradiated fuel in the storage pool

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TABLE 3.3-6 (Continued)

RADIATION MONITORING INSTRUMENTATION

<u>INSTRUMENT</u>	<u>MINIMUM CHANNELS OPERABLE</u>	<u>APPLICABLE MODES</u>	<u>ALARM/TRIP SETPOINT</u>	<u>MEASUREMENT RANGE</u>	<u>ACTION</u>
PROCESS MONITORS (Continued)					
c. Noble Gas Effluent Monitors					
i. Radwaste Building Exhaust System	1	1, 2, 3 & 4	() rad/hr	1-10 ² uCi/cc	30
ii. Auxiliary Building Exhaust System	1	1, 2, 3 & 4	() rad/hr	1-10 ³ uCi/cc	30
iii. Steam Safety Valve Discharge	1/valve	1, 2, 3 & 4	() rad/hr	1-10 ³ uCi/cc	30
iv. Atmospheric Steam Dump Valve Discharge	1/valve	1, 2, 3 & 4	() rad/hr	1-10 ³ uCi/cc	30
v. Shield Building Exhaust System	1	1, 2, 3 & 4	() rad/hr	1-10 ⁴ uCi/cc	30
vi. Containment Purge & Exhaust System	1	1, 2, 3 & 4	() rad/hr	1-10 ⁵ uCi/cc	30
vii. Condenser Exhaust System	1	1, 2, 3 & 4	() rad/hr	1-10 ⁵ uCi/cc	30

TABLE 3.3-6 (Continued)

ACTION STATEMENTS

- ACTION 25 - With the number of OPERABLE channels less than required by the Minimum Channels OPERABLE requirement, perform area surveys of the monitored area with portable monitoring instrumentation at least once per 24 hours.
- ACTION 26 - With the number of OPERABLE channels less than required by the Minimum Channels OPERABLE requirement, comply with the ACTION requirements of Specification (3.4.6.1).
- ACTION 27 - With the number of OPERABLE channels less than required by the Minimum Channels OPERABLE requirement, comply with the ACTION requirements of Specification (3.9.12).
- ACTION 28 - With the number of OPERABLE channels less than required by the Minimum Channels OPERABLE requirement, comply with the ACTION requirements of Specification (3.9.9).
- ACTION 29 - With the number of OPERABLE channels less than required by the Minimum Channels OPERABLE requirement, within 1 hour initiate and maintain operation of the control room emergency ventilation system in the recirculation mode of operation.
- ACTION 30 - With the number of OPERABLE Channels less than required by the Minimum Channels OPERABLE requirement, either restore the inoperable Channel(s) to OPERABLE status within 72 hours, or:
- 1) Initiate the preplanned alternate method of monitoring the appropriate parameter(s), and
 - 2) Prepare and submit a Special Report to the Commission pursuant to Specification 6.9.2 within the next 14 days following the event outlining the action taken, the cause of the inoperability and the plans and schedule for restoring the system to OPERABLE status.

TABLE 4.3-3

RADIATION MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS

<u>INSTRUMENT</u>	<u>CHANNEL CHECK</u>	<u>CHANNEL CALIBRATION</u>	<u>CHANNEL FUNCTIONAL TEST</u>	<u>MODES FOR WHICH SURVEILLANCE IS REQUIRED</u>
1. AREA MONITORS				
a. Fuel Storage Pool Area				
i. Criticality Monitor	S	R	M	*
ii. Ventilation System Isolation	S	R	M	**
b. Containment - Purge & Exhaust Isolation	S	R	M	6
c. Control Room Isolation	S	R	M	All MODES
d. Containment Area	S	R	M	1, 2, 3 & 4
2. PROCESS MONITORS				
a. Fuel Storage Pool Area - Ventilation System Isolation				
i. Gaseous Activity	S	R	M	**
ii. Particulate Activity	S	R	M	**
b. Containment				
i. Gaseous Activity				
a) Purge & Exhaust Isolation	S	R	M	6
b) RCS Leakage Detection	S	R	M	1, 2, 3, & 4
ii. Particulate Activity				
a) Purge & Exhaust Isolation	S	R	M	6
b) RCS Leakage Detection	S	R	M	1, 2, 3, & 4

*With fuel in the storage pool or building.

**With irradiated fuel in the storage pool.

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TABLE 4.3-3 (Continued)

RADIATION MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS

<u>INSTRUMENT</u>	<u>CHANNEL CHECK</u>	<u>CHANNEL CALIBRATION</u>	<u>CHANNEL FUNCTIONAL TEST</u>	<u>MODES FOR WHICH SURVEILLANCE IS REQUIRED</u>
PROCESS MONITORS (Continued)				
c. Noble Gas Effluent Monitors				
i. Radwaste Building Exhaust System	S	R	M	1, 2, 3 & 4
ii. Auxiliary Building Exhaust System	S	R	M	1, 2, 3 & 4
iii. Steam Safety Valve Discharge	S	R	M	1, 2, 3 & 4
iv. Atmospheric Steam Dump Valve Discharge	S	R	M	1, 2, 3 & 4
v. Shield Building Exhaust System	S	R	M	1, 2, 3 & 4
vi. Containment Purge & Exhaust System	S	R	M	1, 2, 3 & 4
vii. Condenser Exhaust System	S	R	M	1, 2, 3 & 4

INSTRUMENTATION

BASES

The OPERABILITY of these systems is required to provide the overall reliability, redundancy and diversity assumed available in the facility design for the protection and mitigation of accident and transient conditions. The integrated operation of each of these systems is consistent with the assumptions used in the accident analyses.

The surveillance requirements specified for these systems ensure that the overall system functional capability is maintained comparable to the original design standards. The periodic surveillance tests performed at the minimum frequencies are sufficient to demonstrate this capability.

The measurement of response time at the specified frequencies provides assurance that the RPS and ESFAS action function associated with each channel is completed within the time limit assumed in the safety analyses. No credit was taken in the analyses for those channels with response times indicated as not applicable.

Response time may be demonstrated by any series of sequential, overlapping or total channel test measurements provided that such test demonstrate the total channel response time as defined. Sensor response time verification may be demonstrated by either 1) in place, onsite or offsite test measurements or 2) utilizing replacement sensors with certified response times.

3/4.3.3 MONITORING INSTRUMENTATION

3/4.3.3.1 RADIATION MONITORING INSTRUMENTATION

The OPERABILITY of the radiation monitoring channels ensures that: 1) the radiation levels are continually measured in the areas served by the individual channels; 2) the alarm or automatic action is initiated when the radiation level trip setpoint is exceeded; and 3) sufficient information is available on selected plant parameters to monitor and assess these variables following an accident. This capability is consistent with the recommendations of Regulatory Guide 1.97, "Instrumentation for Light-Water-Cooled Nuclear Power Plants to Assess Plant and Environs Conditions During and Following an Accident," December 1980 and NUREG-0737, "Clarification of TMI Action Plan Requirements," November, 1980.

3/4.3.3.2 MOVABLE INCORE DETECTORS

The OPERABILITY of the movable incore detectors with the specified minimum complement of equipment ensures that the measurements obtained from use of this system accurately represent the spatial neutron flux distribution of the reactor core. The OPERABILITY of this system is demonstrated by irradiating each detector used and determining the acceptability of its voltage curve.

For the purpose of measuring $F_Q(Z)$ or $F_{\Delta H}^N$ a full incore flux map is used. Quarter-core flux maps, as defined in WCAP-8648, June 1976, may be used in recalibration of the excore neutron flux detection system, and full incore flux maps or symmetric incore thimbles may be used for monitoring the QUADRANT POWER TILT RATIO when one Power Range Channel is inoperable.

BASES

3/4.3.3.3 SEISMIC INSTRUMENTATION

The OPERABILITY of the seismic instrumentation ensures that sufficient capability is available to promptly determine the magnitude of a seismic event and evaluate the response of those features important to safety. This capability is required to permit comparison of the measured response to that used in the design basis for the facility to determine if plant shutdown is required pursuant to Appendix "A" of 10 CFR Part 100. The instrumentation is consistent with the recommendations of Regulatory Guide 1.12, "Instrumentation for Earthquakes," April 1974.

3/4.3.3.4 METEOROLOGICAL INSTRUMENTATION

The OPERABILITY of the meteorological instrumentation ensures that sufficient meteorological data is available for estimating potential radiation doses to the public as a result of routine or accidental release of radioactive materials to the atmosphere. This capability is required to evaluate the need for initiating protective measures to protect the health and safety of the public and is consistent with the recommendations of Regulatory Guide 1.23, "Onsite Meteorological Programs," February 1972.

3/4.3.3.5 REMOTE SHUTDOWN INSTRUMENTATION

The OPERABILITY of the remote shutdown instrumentation ensures that sufficient capability is available to permit shutdown and maintenance of HOT STANDBY of the facility from locations outside of the control room. This capability is required in the event control room habitability is lost and is consistent with General Design Criteria 19 of 10 CFR 50.

3/4.3.3.6 ACCIDENT MONITORING INSTRUMENTATION

The OPERABILITY of the accident monitoring instrumentation ensures that sufficient information is available on selected plant parameters to monitor and assess these variables following an accident. This capability is consistent with the recommendations of Regulatory Guide 1.97, "Instrumentation for Light-Water-Cooled Nuclear Power Plants to Assess Plant and Environs Conditions During and Following an Accident," December 1980 and NUREG-0737, "Clarification of TMI Action Plan Requirements," November, 1980.