NOV 0 9 1981

Docket Files
DCS-MS-016

Docket Nos. 50-282
and 50-306

Mr. L. O. Mayer, Manager
Nuclear Support Services
Northern States Power Company
414 Nicollet Mall - 8th Floor
Minneapolis, Minnesota 55401

Dear Mr. Mayer:

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, we understand that a deviation from our stated positions is requested. Specifically your submittal shows that the upper range limit will be 1×10^4 uci/cc (Xe_{133}) instead of 1×10^5. We find this lower limit acceptable since you indicated to us that the noble gas effluent exposed to the radiation monitor is diluted by at least a factor of 10 of non radioactive gases. If this understanding is not correct we request formal modification 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.

OFFICE ▶							
SURNAME ▶							
DATE ▶							

Changes to your plant Technical Specifications (TS) for Items II.F.1.1 and II.F.1.2 were envisioned for NUREG-0737 implementation. Sample TS pages are provided as Enclosure 1 for your assistance. The schedule for requesting such TS changes will be determined following our receipt of the OMB clearance of all NUREG-0737 items currently under review pursuant to the Paperwork Reduction Act of 1980.

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

Sincerely,

Original signed by
Robert A. Clark

Robert A. Clark, Chief
Operating Reactors Branch #3
Division of Licensing

Enclosures:
As stated

cc: See next page

DISTRIBUTION:

Docket File	ACRS-10
NRC PDR	JHeltemes
L PDR	RAClark
NSIC	PMKreutzer-3
TERA	I&E-3
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SURNAME	PMKreutzer	DDiIanni/pn	EConner	RAClark	P.Stoddart		
DATE	11/4/81	11/4/81	11/9/81	11/9/81	11/9/81		

NRC FORM 318 (10-80) NRCM 0240 OFFICIAL RECORD COPY USGPO: 1981—335-960

Northern States Power Company

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

INSTRUMENT	MINIMUM CHANNELS OPERABLE	APPLICABLE MODES	ALARM/TRIP SETPOINT	MEASUREMENT RANGE	ACTION
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

TABLE 3.3-6 (Continued)

RADIATION MONITORING INSTRUMENTATION

INSTRUMENT	MINIMUM CHANNELS OPERABLE	APPLICABLE MODES	ALARM/TRIP SETPOINT	MEASUREMENT RANGE	ACTION
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

INSTRUMENT	CHANNEL CHECK	CHANNEL CALIBRATION	CHANNEL FUNCTIONAL TEST	MODES FOR WHICH SURVEILLANCE IS REQUIRED
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.

TABLE 4.3-3 (Continued)

RADIATION MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS

INSTRUMENT	CHANNEL CHECK	CHANNEL CALIBRATION	CHANNEL FUNCTIONAL TEST	MODES FOR WHICH SURVEILLANCE IS REQUIRED
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

BASES

The OPERABILITY of these systems is required to provide the overall reliability, redundance 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 $F^N_{\Delta H}$ 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.

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.

Attachment 2

GENERIC LETTER ON ITEMS II.F.1.1 AND II.F.1.2

Operating Plant	Docket No.	Type	Project Manager	Phone No.	Branch	Letter Paragraphs
Arkansas 1	313	B&W	Guy Vissing	28136	4	1 2 4 6 7
Arkansas 2	368	CE	Bob Martin	24727	3	1 2 4 6 7
Beaver Valley 1	334	CE	Dennis Chaney	27110	1	1 2 4 6 7
Big Rock Point 1	155	GE	Walt Paulson	27214	5	1 2 5 6 7
Browns Ferry 1	259	GE	Richard Clark	29797	2	1 2 4 6 7
Browns Ferry 2	260	GE	Richard Clark	29797	2	1 2 4 6 7
Browns Ferry 3	296	GE	Richard Clark	29797	2	1 2 4 6 7
Brunswick 1	325	GE	Jim Van Vliet	29795	2	1 3 5 6 7
Brunswick 2	324	GE	Jim Van Vliet	29795	2	1 3 5 6 7
Calvert Cliffs 1	317	CE	Dave Jaffe	27261	3	1 2 4 6 7
Calvert Cliffs 2	318	CE	Dave Jaffe	27261	3	1 2 4 6 7
Cook 1	315	W	Sid Miner	27266	1	1 3 4 6 7
Cook 2	316	W	Sid Miner	27266	1	1 3 4 6 7
Cooper	298	GE	Byron Siegel	29409	2	1 2 5 6 7
Crystal River 3	302	B&W	Pete Erickson	29564	4	1 2 4 6 7
Davis-Besse 1	346	B&W	Dan Garner	28430	4	1 2 4 6 7
Dresden 1	10	GE	Paul O'Connor	27215	5	1 2 4 6 7
Dresden 2	237	GE	Paul O'Connor	27215	5	1 2 4 6 7
Dresden 3	249	GE	Tom Alexion	29786	2	1 2 4 6 7
Duane Arnold	331	GE	Ken Eccleston	29799	2	1 2 4 6 7
Farley 1	348	W	Ed Reeves	27050	1	1 2 4 6 7
Fitzpatrick	333	GE	Phil Polk	29777	2	1 2 4 6 7
Fort Calhoun	285	CE	Charles Trammell	27070	3	1 2 4 6 7
Fort St. Vrain	267	HTGR	George Kuzmycz	28198	SSPB	1 2 4 6 7
Ginna	244	W	Dick Snaider	27876	5	1 2 4 6 7
Haddam Neck	213	W	Walt Paulson	27214	5	1 3 4 6 7
Hatch 1	321	GE	Mort Fairtile	28196	4	1 2 4 6 7
Hatch 2	366	GE	Mort Fairtile	28196	4	1 2 4 6 7
Humboldt Bay	133	GE	Vern Rooney	29787	2	1 2 4 6 7
Indian Pt 1 (Decom)	3	GE	L. Olshan	27144	1	1 3 4 6 7
Indian Pt 2	247	W	L. Olshan	27144	1	1 3 4 6 7
Indian Pt 3	286	W	L. Olshan	27144	1	1 3 4 6 7
Kewaunee	305	W	Robert Licciardo	28362	1	1 2 4 6 7
LaCrosse	409	A/C	Ralph Caruso	27232	5	1 2 4 6 7
Maine Yankee	309	CE	Bud Requa	28478	3	1 3 4 6 7

Operating Plant	Docket No.	Type	Project Manager	Phone No.	Branch	Letter Paragraphs
Millstone 1	245	GE	James Shea	27231	5	1 3 4 6 7
Millstone 2	336	CE	Monte Conner	27564	3	1 3 4 6 7
Monticello	263	GE	Ken Eccleston	29799	2	1 2 4 6 7
Nine Mile Pt 1	220	GE	Phil Polk	29777	2	1 3 5 6 7
North Anna 1	338	W	Leon Engle	28349	3	1 2 4 6 7
North Anna 2	339	W	Leon Engle	28349	3	1 2 4 6 7
Oconee 1	269	B&W	Philip Wagner	27072	4	1 2 5 6 7
Oconee 2	270	B&W	Philip Wagner	27072	4	1 2 5 6 7
Oconee 3	287	B&W	Philip Wagner	27072	4	1 2 5 6 7
Oyster Creek	219	GE	Jim Lombardo	27356	5	1 3 4 6 7
Palisades	255	CE	Tom Wambach	27038	5	1 2 4 6 7
Peach Bottom 2	277	GE	Mort Fairtile	28196	4	1 3 4 6 7
Peach Bottom 3	278	GE	Mort Fairtile	28196	4	1 3 4 6 7
Pilgrim 1	293	GE	Mark Williams	29798	2	1 3 4 6 7
Point Beach 1	266	W	Tim Colburn	28129	3	1 3 4 6 7
Point Beach 2	301	W	Tim Colburn	28129	3	1 3 4 6 7
Prairie Island	282	W	Dom Dilanni	27793	3	1 3 4 6 7
Prairie Island	306	W	Dom Dilanni	27793	3	1 3 4 6 7
Quad Cities 1	254	GE	Roby Bevan	29784	2	1 2 4 6 7
Quad Cities 2	265	GE	Roby Bevan	29784	2	1 2 4 6 7
Rancho Seco	312	B&W	Mark Padovan	29778	4	1 2 4 6 7
Robinson 2	261	W	Don Neighbors	27037	1	1 3 4 6 7
Salem 1	272	W	Bill Ross	27134	1	1 2 4 6 7
San Onofre 1	206	W	Stan Nowicki	27218	5	1 2 4 6 7
St. Lucie 1	335	CE	Chris Nelson	27563	3	1 2 4 6 7
Surry 1	280	W	Don Neighbors	27037	1	1 2 4 6 7
Surry 2	281	W	Don Neighbors	27037	1	1 2 4 6 7
Three Mile Island 1	289	B&W	Harley Silver	28427	4	1 2 4 6 7
			Rick Jacobs	29774	4	
Trojan	344	W	Charles Trammell	27070	3	1 3 4 6 7
Turkey Pt 3	250	W	Marshall Crotenhuis	27128	1	1 2 4 6 7
Turkey Pt 4	251	W	Marchall Grotenhuis	27128	1	1 2 4 6 7
Vermont Yankee	271	CE	Vern Rooney	29787	2	1 3 4 6 7
Yankee Rowe	29	W	Ralph Caruso	27232	5	1 3 4 6 7
Zion 1	295	W	David Wigginton	27167	1	1 2 4 6 7
Zion 2	304	W	David Wigginton	27167	1	1 2 4 6 7