Exhibit A

MONTICELLO NUCLEAR GENERATING PLANT

License Amendment Request Dated August 10, 1993

Evaluation of proposed changes to the Technical Specifications
for Operating License DPR-22

Pursuant to 10 CFR Part 50, Section 50.59 and 50.90, the holders of Operating License DPR-22 hereby propose the following changes to the Monticello Technical Specifications:

Page	Section	Proposed Change (underlining added for emphasis)
51	Table 3.2.1	Revise note (2)(a) to read "With one required instrument channel inoperable..." (editorial error which occurred when Amendment 81 was issued)
195	3.8.A.3.a	Delete redundant word "used" from first sentence (editorial error which occurred when Amendment 15 was issued)
198	4.8.B.2 and 4.8.B.2.a	Correct spelling of the word "noble" (editorial error which occurred when Amendment 46 was issued)
198d	4.8.B.5.2	Correct spelling of the word "following" (editorial error which occurred when Amendment 40 was issued)
	4.8.B.6.b	The specification currently reads: "Prior to containment venting or purging, the sampling and analysis requirements of Table 4.8.4 shall be met." Revise the specification as follows: "Prior to containment purging, the sampling and analysis requirements of Table 4.8.4 shall be met."
198i	Table 3.8.1 Page 1 of 2	Revise the specification (action requirement) for the Liquid Radwaste Effluent Line Gross Radioactivity

Monitor as follows (editorial error which occurred when Amendment 15 was issued):

"a. At least two independent samples are analyzed in accordance with specification 4.8.A.1.b

198i Table 3.8.1 & 198j

The current specifications (action requirements) for the Discharge Canal Gross Radioactivity Monitor, the Service Water Discharge Pipe Gross Radioactivity Monitor, and the Turbine Building Normal Drain Sump Monitor state that releases/discharges:

"...may continue for up to 30 days provided that at least once every 8 hours a grab sample shall be collected and analyzed for gross beta and gamma radioactivity at an LLD of 10^{-7} μCi/ml."

Revise the three specifications as follows:

"... may continue for up to 30 days provided that at least once every 8 hours a grab sample shall be collected and analyzed for gross beta at an LLD of 10^{-7} μCi/ml or gamma isotopic for principle gamma emitters at an LLD of 5.0×10^{-7} μCi/ml."

198t Table 4.8.4 Note h.

The specification currently reads:

"H^3 analysis shall not be required prior to venting if the limits of 3.8.B.1 are satisfied for other nuclides. The analysis shall be completed within 24 hours after sampling, however."

Revise the specification as follows:

"H^3 analysis shall not be required prior to purging if the limits of 3.8.B.1 are satisfied for other nuclides. However, the H^3 analysis shall be completed within 24 hours after sampling."

Reason for Changes:

1. Clarification of Containment Vent and Purge Sampling Requirements:

The plant Technical Specifications, as written, are unclear with respect to primary containment atmosphere sampling and analysis requirements. Technical Specification 4.8.B.6.b states "Prior to containment venting or purging, the sampling and analysis requirements of table 4.8.4 shall be met." However, in table 4.8.4, the sampling and analysis frequency is identified as being required "Each Purge". Venting is not mentioned except for in note (h) on page 198t, thus it is not clear from the specification whether or not sampling and analysis is required prior to venting. We do not believe it is the intent of the specification to require containment atmosphere sampling and analysis prior to venting, however, a literal interpretation of the wording would imply that these actions be completed each time venting is to be performed.

In a non-accident scenario, plant operating procedures direct the operator to vent the containment to avoid reaching the reactor protection system high drywell pressure setpoint (2 psig maximum). There are some non-accident scenarios, most notably a loss of drywell cooling or an instrument air line break, where the drywell pressurization rate would be rapid enough to reach the high drywell pressure setpoint before containment atmosphere sampling and analysis could be completed. This would result in unnecessary challenges to safety systems and complicate recovery from the event.

The proposed change will clarify that containment atmosphere sampling and analysis is not required prior to venting.

2. Radioactive Liquid Effluent Sampling Requirements:

The current specifications require 8 hour grab sampling and analysis of various plant liquid effluent streams for gross beta and gamma radioactivity whenever the gross radioactivity monitor associated with that process stream is inoperable. Due to the increased sensitivity of gamma spectroscopy instrumentation, it is no longer necessary to perform both types of analysis, and continued routine discharge of the plant liquid effluents can be justified based on the results of either test alone.

3. Editorial Corrections:

The remaining changes are editorial in nature and are intended to correct existing typographical errors that occurred when previous amendments were issued.

Safety Evaluation:

1. Clarification of Containment Vent and Purge Sampling Requirements:

The reactor protection system is designed to scram the reactor and initiate Emergency Core Cooling Systems if drywell pressure reaches 2 psig (maximum). This trip is intended to detect a loss of coolant accident and provide an appropriate automatic plant response to this

event, but there are other non-accident scenarios, most notably a loss of drywell cooling or an instrument air-line break, that can cause the drywell to pressurize rapidly. In such scenarios a reactor scram and Emergency Core Cooling System initiation is unnecessary and in fact undesirable, since this would subject the plant to an unnecessary transient and complicate recovery from the event.

Plant operating procedures direct operators to attempt to relieve primary containment pressure by venting through the standby gas treatment system in order to avoid unnecessary challenges to safety systems. This is consistent with intent of the basis for Revision 4 of the Emergency Procedure Guidelines, which call for the use of normal plant operating procedures as the first method of drywell/torus pressure control. The basis for this is to provide a smooth transition from normal plant operating procedures to the Emergency Operating Procedures, and to ensure that normal methods of primary containment pressure control are tried before more complex actions are taken. This objective would not be met if the delay (approximately 1 & 1/2 hour) associated with obtaining and analyzing a containment atmosphere sample resulted in the high drywell pressure trip setpoint being reached before venting could commence.

Purging and venting represent two distinct and different evolutions as defined by Section 1 of the Technical Specifications (definitions 1.AI and 1.AJ), and NUREG-1302 (Offsite Dose Calculation Manual Guidance: Radiological Effluent Controls for Boiling Water Reactors). Table 4.11-2 of NUREG-1302 parallels Table 4.8.4 of the plant Technical Specifications in that equivalent information is being conveyed. It is noteworthy that Table 4.11-2 of the NUREG requires sampling and analysis prior to purging, but not prior to venting. The reason for these differing requirements can be understood when the differences between the two processes are considered:

- Purging involves the addition of air or gas (Nitrogen) to the drywell to purify (inert or de-inert) the atmosphere and can therefore involve the release of large volumes of containment atmosphere. Because larger volumes of containment atmosphere are being displaced and released by this process, the potential for a significant release of activity is inherently greater.

- No replacement air or gas (Nitrogen) is provided for venting and the amount of containment atmosphere released is comparatively small. Consequently, the potential for any significant release of activity is negligible.

Further protection against unplanned releases is provided by Sections 3.8 and 4.8 of the plant Technical Specifications, which are based on NUREG-0473, Revision 2, "Radiological Effluent Technical Specifications for BWR's". Technical Specifications 3.8.B.6.a and 3.7.A.5.c require that, except for inerting operations following startup and deinerting prior to shutdown, containment venting and purging above cold shutdown shall be via the 2 inch bypass flow path using the standby gas treatment

system. The associated surveillance requirement (Specification 4.8.B.6.a) requires that proper alignment through the standby gas treatment system be verified within 4 hours prior to start of venting or purging and at least once per 12 hours while venting or purging is in progress. Venting or purging through the standby gas treatment system ensures that iodine and particulates are removed from the containment atmosphere prior to release. Use of the 2 inch bypass flow path prevents damage to the standby gas treatment system in the unlikely event of a loss of coolant accident during a vent or purge evolution. These restrictions are sufficient to provide reasonable assurance that releases will not exceed the limits of 10 CFR Part 20. Also, all releases through the standby gas treatment system are discharged through the plant offgas stack and are therefore monitored for noble gases by the wide range gas monitors. The monitors provide control room alarms to alert operators of high release rates.

In addition to the above, primary containment atmosphere particulate activity is normally monitored by a Continuous Air Monitor whenever the reactor is in operation, as required by Technical Specifications 3.6.D.5 and 4.6.D.1.b (note: These are the current specification identification numbers. On July 7, 1993 we submitted an unrelated amendment request that may result in these numbers being changed). The Continuous Air Monitor is alarmed in the control room and would thus alert operators to any significant increase in drywell activity levels. Although the monitor is not designed to directly measure gaseous activity in the drywell, it is highly improbable that any significant increase in gaseous activity would go undetected because the cause of any such increase (increased reactor coolant leakage) would result in a simultaneous increase in drywell particulate activity levels.

We conclude that there is no significant risk of an unanticipated release of gaseous activity while venting because the operator can; 1) confirm the drywell pressure increase is not the result of a significant increase in reactor coolant leakage; and 2) confirm there is no significant increase in the drywell particulate activity level. We believe that sufficient information is available to allow the operator to make the appropriate decision concerning the acceptability of venting because, for the types of non-accident scenarios likely to cause a rapid drywell pressure increase, the operator could quickly determine the cause through the control room indicators and alarms associated with malfunctions in the involved systems. Similarly, the operator would be aware of any significant increase in reactor coolant leakage through the leak detection systems provided (drywell sump level indication and leak rate change alarm). Furthermore, as noted in a preceding paragraph, the release path is monitored so the operator would be alerted to any higher than allowable release rates.

In consideration of the above, the added precaution of collecting and analyzing a containment atmosphere sample prior to venting is overly conservative and creates an unnecessary delay when prompt action may needed to mitigate a non-accident event.

2. Radioactive Liquid Effluent Sampling Requirements:

When the plant Radiological Effluent Technical Specifications were first developed, a gross beta analysis was far more sensitive than a gamma isotopic analysis. The gross beta analysis was therefore used as a screening mechanism to detect the presence of radioactivity in the process effluent stream. However, the gross beta analysis does not provide information concerning the type of activity present and for this reason gamma isotopic analysis was also specified. Although less sensitive, the gamma isotopic analysis nonetheless provided needed information concerning the specific isotopes present in the grab sample. The specific isotope information was required to ensure that any release was less than one Maximum Permissible Concentration (MPC).

Since the time that the Radiological Effluent Technical Specifications were first developed, technological improvements have resulted in gamma detection efficiencies and resolution (sensitivity) similar to the proportional counting systems used for beta analysis. It is therefore unnecessary to perform both analyses, since either analysis is of sufficient sensitivity to alert plant personnel to the presence of radioactivity in process liquid effluent streams at a low enough level to ensure that plant Technical Specifications release limits will not be exceeded.

As a matter of practicality, it is expected that gamma isotopic analysis of the grab samples would normally be performed in lieu of gross beta analysis. The gamma isotopic analysis is preferred because it is less labor intensive to perform than the gross beta analysis and provides the information necessary to ensure liquid releases do not exceed one MPC. Furthermore, since the gross beta analysis only screens the samples for activity, any activity detected using this method would result in the need to perform the additional (gamma isotopic) analysis in order to determine the specific isotopes present. The need to perform two analyses can be avoided by opting to perform the gamma isotopic analysis initially, since all necessary information concerning activity level and isotopes present can be obtained from this single analysis.

A gamma isotopic analysis Lower Limit of Detection (LLD) of 5.0×10^{-7} μCi/ml has been selected for the grab samples to be consistent with the batch release principle gamma emitter analysis requirements of the Technical Specifications, provided in Table 4.8.3, and with Regulatory Guide 1.21, titled "Measuring, Evaluating and Reporting Radioactivity in Solid Wastes and Releases of Radioactive Materials in Liquid and Gaseous Effluents from Light-Water-Cooled Nuclear Power Plants", Revision 1, June 1974.

3. Editorial Corrections:

The remaining changes are editorial in nature and represent the correction of existing typographical errors that occurred when various prior amendments were issued. The changes have no impact on the scope or intent of the Technical Specifications and are therefore of no safety

significance.

Based on the above discussion, we conclude that the proposed change is technically acceptable and does not adversely affect safety. In addition, we conclude that this amendment does not involve any significant increase in the types or amounts of effluents released from the site and therefore has no significant environmental impact.

Determination of Significant Hazards Consideration:

This proposed change to the Operating License has been evaluated to determine if it constitutes a significant hazards consideration as required by 10 CFR Part 50, Section 50.91 using the standards provided in Section 50.92. This analysis is provided below:

a. The proposed amendment will not involve a significant increase in the probability or consequences of an accident previously evaluated.

With respect to primary containment venting, obtaining and analyzing a containment atmosphere sample prior to venting is not a factor in any accident analysis, therefore, elimination of this requirement will not increase the probability or consequences of any accident previously analyzed. Venting through the 2 inch bypass flow path prevents damage to the standby gas treatment system in the unlikely event of a loss of coolant accident during a vent or purge evolution, as discussed in the current Bases for Technical Specification 3.8.B.6. Venting under accident conditions would be performed as directed by the Emergency Operating Procedures and is considered beyond the scope of this change.

With respect to liquid effluent sample analysis, the proposed changes involve grab sample analysis methods only. The specific method utilized is not a factor in, and thus has no impact on, the probability or consequence of any accident previously evaluated.

The proposed editorial corrections are of no safety significance and thus have no impact on any previous accident analysis.

Based on the above, we conclude the proposed amendment has no adverse impact on the probability or consequences of any accident previously evaluated.

b. The proposed amendment will not create the possibility of a new or different kind of accident from any accident previously analyzed.

With respect to primary containment venting, elimination of the requirement to obtain and analyze a containment atmosphere sample prior to venting will not introduce a new or different accident scenario. The proposed change does not involve any plant or equipment modifications, nor does it change Technical Specification requirements concerning vent path limitations.

With respect to liquid effluent sample analysis, the proposed changes involve effluent grab sample analysis methods only, which has no impact on plant operations or equipment.

The proposed editorial corrections do not change the scope or intent of the Technical Specifications and are of no safety significance.

Based on the above, we conclude the proposed changes in no way create the possibility of a new or different kind of accident from any accident previously analyzed.

c. The proposed amendment will not involve a significant reduction in the margin of safety.

With respect to primary containment venting, operators will continue to be cognizant of significant changes in the level of activity in the drywell as well as the level of activity being released while venting, and will be able to discontinue venting in the event release rates are higher than anticipated. As before, venting will be performed through the standby gas treatment system via the 2 inch bypass line to protect against a postulated loss of coolant accident while venting, thus there will be no significant decrease in the margin of safety. The proposed amendment will ensure that the intent of the plant operating procedures (prompt operator action in a non-accident situation to vent the containment in order to avoid an unnecessary high drywell pressure trip and accompanying challenges to safety systems) is fulfilled. From the standpoint of risk assessment, the proposed change represents an enhancement to safety because the elimination of unnecessary challenges to safety systems yields a corresponding reduction in the projected core damage frequency.

With respect to liquid effluent sample analysis, technology has advanced to the point that either of the proposed analysis methods (gross beta or gamma isotopic) is by itself sufficiently sensitive to detect the presence of any liquid effluent activity that would be of concern. Either analysis method will detect activity at a low enough level to ensure that the Technical Specification bases are satisfied, thus the margin of public health and safety will be preserved.

The proposed editorial corrections do not change the scope or intent of the current Technical Specifications and are of no safety significance.

Based on the above, we conclude the proposed amendment will not involve a significant reduction in the margin of safety

Based on the evaluation described above, and pursuant to 10 CFR Part 50, Section 50.91, Northern States Power Company has determined that operation of the Monticello Nuclear Generating Plant in accordance with the proposed license amendment request does not involve any significant hazards considerations as defined by NRC regulations in 10 CFR Part 50, Section 50.92.

Environmental Assessment:

Northern States Power has evaluated the proposed changes and determined that:

1. The changes do not involve a significant hazards consideration,

2. The changes do not involve a significant change in the types or significant increase in the amounts of any effluents that may be released offsite, or

3. The changes do not involve a significant increase in individual or cumulative occupational radiation exposure.

Accordingly, the proposed changes meet the eligibility criterion for categorical exclusion set forth in 10 CFR Part 51 Section 51.22(c)(9). Therefore, pursuant to 10 CFR Part 51 Section 51.22(b), an environmental assessment of the proposed changes is not required.

Exhibit B

Monticello Nuclear Generating Plant

License Amendment Request Dated August 10, 1993

Technical Specification Pages Marked Up
with Proposed Wording Changes

Exhibit B consists of the existing Technical Specification pages marked up with the proposed changes. Existing pages affected by this change are listed below:

Page
51
195
198
198d
198i
198j
198t

3.0 LIMITING CONDITIONS FOR OPERATION	4.0 SURVEILLANCE REQUIREMENTS
3. Liquid Radwaste System	3. Liquid Radwaste System
a. The liquid radwaste treatment system shall be ~~used~~ used to reduce the radioactive materials in liquid wastes prior to their discharge when the projected doses due to the liquid effluent from the site (Figure 3.8.1) when averaged over one month would exceed 0.06 mrem to the total body or 0.2 mrem to any organ.	a. Doses due to liquid releases shall be projected at least once each month in accordance with the ODCM.
b. With radioactive liquid waste being discharge without treatment in excess of the limit in (a) above, within 30 days submit to the Commission a special report which includes the following information:	
1. Identification of the inoperable equipment or subsystems and the reason for inoperability,	
2. Action(s) to be taken to restore equipment to operable status, and	
3. Summary description of action(s) taken to prevent a recurrence.	

3.0 LIMITING CONDITIONS FOR OPERATION	4.0 SURVEILLANCE REQUIREMENTS
2. Dose from Noble Gases	2. Dose from Noble~~el~~ Gases
a. The air dose due to noble gases released in gaseous effluents from the site (Figure 3.8.2) shall be limited to the following values: 1. During any calendar quarter, to ≤5 mrad for gamma radiation and ≤10 mrad for beta radiation, and 2. During any calendar year, to ≤10 mrad for gamma radiation and ≤20 mrad for beta radiation.	a. Cumulative dose contributions for the current calendar quarter and year from noble~~el~~ gases in gaseous effluents shall be determined in accordance with the ODCM monthly.
b. With the calculated air dose from radio-active noble gases in gaseous effluent exceeding any of the above limits, within 30 days submit to the Commission a special report which identifies the cause(s) for exceeding the limits(s) and defines the corrective actions taken to reduce the releases and the proposed corrective actions to be taken to assure the subsequent releases will be within the above limits.	

3.0 LIMITING CONDITIONS FOR OPERATION	4.0 SURVEILLANCE REQUIREMENTS
5. Main Condenser Offgas Activity	5. Main Condenser Offgas Activity
a. The gross gamma radioactivity release rate measured at the stream jet air ejector shall be limited to $\leq 2.6 \times 10^5$ uci/sec following a 30-minute decay.	The gross gamma radioactivity of noble gases from the main condenser air ejector shall be determined to be within the limit specified in 3.8.B.5.a at the following times by performing an isotopic analysis of a representative sample of gases:
b. When the limit in (a) above is exceeded, restore the gross gamma radioactivity release rate to within the limit within 72 hours or be in at least hot shutdown within the next 12 hours.	1. Once every month.
c. the activity of radioactive material in gaseous form removed from the main condenser shall be continuously monitored by the steam jet air ejector monitors in accordance with Table 3.8.2.	2. Within 24 hours following an increase in the continuous monitor reading of 50% after factoring out increases due to power level.
d. The steam jet air ejector monitors shall be set to automatically terminate offgas flow within 30 minutes at the limit established in Specification 3.8.B.5.a.	6. Containment Venting and Purging
6. Containment Venting and Purging	a. Except for inerting operations following startup and deinerting prior to shutdown, the containment shall be determined to be aligned for venting or purging through the Standby Gas Treatment System within 4 hours prior to start of and at least once per 12 hours during venting or purging of the containment above cold shutdown.
a. Except for inerting operations following startup and deinerting prior to shutdown, containment venting and purging above cold shutdown shall be via the 2-inch bypass flow path using the Standby Gas Treatment System.	b. Prior to containment ~~venting or~~ purging, the sampling and analysis requirements of Table 4.8.4 shall be met.
b. Containment inerting following startup and deinerting prior to shutdown shall be via the Reactor Building plenum and vent.	

TABLE 4.8.4 - RADIOACTIVE GASEOUS WASTE SAMPLING AND ANALYSIS PROGRAM (continued)
(Page 2 of 2)

Notes:

a. The LLD is the smallest concentration of radioactive material in a sample that will be detected with 95% probability with 5% probability of falsely concluding that a blank observation represents a "real" signal. Note (a) of Table 4.8.3 is applicable.

b. Grab samples taken at the discharge of the plant stack and reactor building vent are generally below minimum detectable levels for most nuclides with existing analytical equipment. For this reason, isotopic analysis data, corrected for holdup time, for samples taken at the steam jet air ejector may be used to calculate noble gas ratios.

c. Whenever the steady state radioiodine concentration is greater than 10 percent of the limit of Specification 3.6.C.1, daily sampling of reactor coolant for radioactive iodines of I-131 through I-135 is required. Whenever a change of 25% or more in calculated Dose Equivalent I-131 is detected under these conditions, the iodine and particulate collection devices for all release points shall be removed and analyzed daily until it is shown that a pattern exists which can be used to predict the release rate. Sampling may then revert to weekly. When samples collected for one day are analyzed, the corresponding LLD's may be increased by a factor of 10. Samples shall be analyzed within 48 hours after removal.

d. To be representative of the average quantities and concentrations of radioactive materials in particulate form in gaseous effluents, samples should be collected in proportion to the rate of flow of the effluent streams.

e. The principal gamma emitters for which the LLD specification will apply are exclusively the following radio-nuclides: Kr-87, Kr-88, Xe-133, Xe-133m, Xe-135, and Xe-138 for gaseous emissions and Mn-54, Fe-59, Co-58, Co-60, Zn-65, Mo-99, Cs-134, Cs-137, Ce-141, and Ce-144 for particulate emissions. This list does not mean that only these nuclides are to be detected and reported. Other peaks which are measurable and identifiable, together with the above nuclides, shall also be identified and reported.

f. Nuclides which are below the LLD for the analyses shall be reported as "less than" the LLD of the nuclide and should not be reported as being present at the LLD level for that nuclide. The "less than" values shall not be used in the required dose calculations. When unusual circumstances result in LLD's higher than reported, the reasons shall be documented in the semiannual effluent report.

g. The ratio of the sample flow rate to the sampled stream flow rate shall be known for the time period sampled.

h. H^3 analysis shall not be required prior to ~~venting~~purging if the limits of 3.8.B.1 are satisfied for other nuclides. However, the H^3~~The~~ analysis shall be completed within 24 hours after sampling.~~, however,~~

i. In lieu of grab samples, continuous monitoring with bi-weekly analysis using silica-jel samplers may be provided.

TABLE 3.8.1 - RADIOACTIVE LIQUID EFFLUENT MONITORING INSTRUMENTATION
(Page 1 of 2)

Instrument	Minimum Channels Operable	Applicability	Action if Minimum Channels not operable
Liquid Radwaste Effluent Line Gross Radioactivity Monitor	1	During Release of Liquid Radwaste	Liquid radwaste releases may continue for up to 14 days provided that prior to initiating a release: a. At least two independent samples are analyzed in accordance with Specification 4.8.A.1.b~~d~~ b. At least two technically qualified members of the Facility Staff independently verify the release rate calculations and discharge line valving; Otherwise, suspend release of radioactive effluents via this pathway.
Liquid Radwaste Effluent Line Flow Instrument	1	During Release of Liquid Radwaste	Liquid radwaste releases via this pathway may continue for up to 30 days provided the flow rate is estimated at least once every four hours during actual releases. Pump curves may be used to estimate flow.
Discharge Canal Flow Measurement: - Open Cycle Mode - Closed/Helper Cycle Mode	 1 1	During Release of Liquid Radwaste	Effluent releases via this pathway may continue for up to 30 days provided the flow rate is estimated at least once every four hours during actual releases. Pump curves may be used to estimate flow.
Discharge Canal Gross Radioactivity Monitor*	1	At all times	Effluent releases may continue for up to 30 days provided that at least once every 8 hours a grab sample shall be collected and analyzed for gross beta at an LLD of 10^{-7} μCi/ml or gamma isotopic for principle gamma emitters at an LLD of 5.0×10^{-7} μCi/ml.~~and gamma radioactivity at an LLD of 10^{-7} uCi/ml.~~
Service Water Discharge Pipe Gross Radioactivity Monitor*	1	At all times	Service water discharge may continue for up to 30 days provided that at least once every 8 hours a grab sample shall be collected and analyzed for gross beta at an LLD of 10^{-7} μCi/ml or gamma isotopic for principle gamma emitters at an LLD of 5.0×10^{-7} μCi/ml.~~and gamma radioactivity at an LLD of 10^{-7} uCi/ml.~~

* - Indicates monitor provided with automatic alarm

TABLE 3.8.1 - RADIOACTIVE LIQUID EFFLUENT MONITORING INSTRUMENTATION
(Page 2 of 2)

Instrument	Minimum Channels Operable	Applicability	Action if Minimum Channels not operable
Turbine Building Normal Sump Monitor*	1	At all times	Liquid sump releases may continue for up to 30 days provided that at least once every 8 hours a grab sample shall be collected and analyzed for gross beta at an LLD of 10^{-7} μCi/ml or gamma isotopic for principle gamma emitters at an LLD of 5.0×10^{-7} μCi/ml ~~and gamma radioactivity at an LLD of 10^{-7} uCi/ml.~~
Level Monitors for Temporary Outdoor Tanks Holding Radioactive Liquid	1	When tanks are in use	Liquid additions to a tank may continue for up to 30 days provided the tank liquid level is estimated during all liquid additions.

* - Indicates monitor provided with automatic alarm

NOTES:

(1) For Groups 1, 2 and 3, there shall be two operable or tripped trip systems for each function. A channel may be placed in an inoperable status for up to 6 hours for required surveillance without placing the trip system in the tripped condition provided that at least one other operable channel in the same trip system is monitoring that parameter.

For Groups 4, 5 and Reactor Pressure Interlocks there shall be two operable or tripped trip systems for each function.

(2) For Groups 1, 2 and 3, upon discovery that minimum requirements for the number of operable or operating trip systems or instrument channels are not satisfied action shall be initiated as follows:

(a) With one required instrument channel inoperable in one or more trip functions, place the inoperable channel(s) or trip system in the tripped condition within 12 hours, or

(b) With more than one instrument channel inoperable for one or more trip functions, immediately satisfy the requirements by placing appropriate channels or systems in the tripped condition, or

(c) Place the plant under the specified required conditions using normal operating procedures.

For Groups 4, 5 and Reactor Pressure Interlocks upon discovery that minimum requirements for the number of operable or operating trip systems or instrument channels are not satisfied action shall be initiated to:

(a) Satisfy the requirements by placing appropriate channels or systems in the tripped condition.

(b) Place the plant under the specified required conditions using normal operating procedures.

(3) Low pressure in main steam line only need to be available in the RUN position.

(4) All instrument channels are shared by both trip systems.

(5) May be bypassed when necessary only by closing the manual containment isolation valves during purging for containment inerting or de-inerting. Verification of the bypass condition shall be noted in the control room log. Also, need not be operable when primary containment integrity is not required.

* Required conditions when minimum conditions for operation are not satisfied.

A. Group 1 isolation valves closed.

B. Reactor Power on IRM range or below and reactor in startup, refuel, or shutdown mode.

C. Isolation Valves closed for: Shutdown Cooling System, and Reactor Head Cooling Line.

D. Comply with Condition C. above.

E. Isolation Valves closed for: Reactor Cleanup System.

F. HPCI steam line isolated. (See specification 3.5 for additional requirements.)

G. RCIC steam line isolated.

Exhibit C

Monticello Nuclear Generating Plant

License Amendment Request Dated August 10, 1993

Revised Monticello Technical Specification Pages

Exhibit C consists of revised Technical Specification pages that incorporate the proposed changes. The pages included in this exhibit are:

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51
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198d
198i
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198t

3.0 LIMITING CONDITIONS FOR OPERATION	4.0 SURVEILLANCE REQUIREMENTS
3. Liquid Radwaste System	3. Liquid Radwaste System
a. The liquid radwaste treatment system shall be used to reduce the radioactive materials in liquid wastes prior to their discharge when the projected doses due to the liquid effluent from the site (Figure 3.8.1) when averaged over one month would exceed 0.06 mrem to the total body or 0.2 mrem to any organ.	a. Doses due to liquid releases shall be projected at least once each month in accordance with the ODCM.
b. With radioactive liquid waste being discharge without treatment in excess of the limit in (a) above, within 30 days submit to the Commission a special report which includes the following information:	
1. Identification of the inoperable equipment or subsystems and the reason for inoperability,	
2. Action(s) to be taken to restore equipment to operable status, and	
3. Summary description of action(s) taken to prevent a recurrence.	

3.0 LIMITING CONDITIONS FOR OPERATION	4.0 SURVEILLANCE REQUIREMENTS
2. Dose from Noble Gases	2. Dose from Noble Gases
a. The air dose due to noble gases released in gaseous effluents from the site (Figure 3.8.2) shall be limited to the following values: 1. During any calendar quarter, to ≤5 mrad for gamma radiation and ≤10 mrad for beta radiation, and 2. During any calendar year, to ≤10 mrad for gamma radiation and ≤20 mrad for beta radiation.	a. Cumulative dose contributions for the current calendar quarter and year from noble gases in gaseous effluents shall be determined in accordance with the ODCM monthly.
b. With the calculated air dose from radio-active noble gases in gaseous effluent exceeding any of the above limits, within 30 days submit to the Commission a special report which identifies the cause(s) for exceeding the limits(s) and defines the corrective actions taken to reduce the releases and the proposed corrective actions to be taken to assure the subsequent releases will be within the above limits.	

3.0 LIMITING CONDITIONS FOR OPERATION	4.0 SURVEILLANCE REQUIREMENTS
5. Main Condenser Offgas Activity	5. Main Condenser Offgas Activity
a. The gross gamma radioactivity release rate measured at the stream jet air ejector shall be limited to $\leq 2.6 \times 10^5$ uci/sec following a 30-minute decay.	The gross gamma radioactivity of noble gases from the main condenser air ejector shall be determined to be within the limit specified in 3.8.B.5.a at the following times by performing an isotopic analysis of a representative sample of gases:
b. When the limit in (a) above is exceeded, restore the gross gamma radioactivity release rate to within the limit within 72 hours or be in at least hot shutdown within the next 12 hours.	1. Once every month.
c. the activity of radioactive material in gaseous form removed from the main condenser shall be continuously monitored by the steam jet air ejector monitors in accordance with Table 3.8.2.	2. Within 24 hours following an increase in the continuous monitor reading of 50% after factoring out increases due to power level.
d. The steam jet air ejector monitors shall be set to automatically terminate offgas flow within 30 minutes at the limit established in Specification 3.8.B.5.a.	6. Containment Venting and Purging
6. Containment Venting and Purging	a. Except for inerting operations following startup and deinerting prior to shutdown, the containment shall be determined to be aligned for venting or purging through the Standby Gas Treatment System within 4 hours prior to start of and at least once per 12 hours during venting or purging of the containment above cold shutdown.
a. Except for inerting operations following startup and deinerting prior to shutdown, containment venting and purging above cold shutdown shall be via the 2-inch bypass flow path using the Standby Gas Treatment System.	b. Prior to containment purging, the sampling and analysis requirements of Table 4.8.4 shall be met.
b. Containment inerting following startup and deinerting prior to shutdown shall be via the Reactor Building plenum and vent.	

TABLE 4.8.4 - RADIOACTIVE GASEOUS WASTE SAMPLING AND ANALYSIS PROGRAM (continued)
(Page 2 of 2)

Notes:

a. The LLD is the smallest concentration of radioactive material in a sample that will be detected with 95% probability with 5% probability of falsely concluding that a blank observation represents a "real" signal. Note (a) of Table 4.8.3 is applicable.

b. Grab samples taken at the discharge of the plant stack and reactor building vent are generally below minimum detectable levels for most nuclides with existing analytical equipment. For this reason, isotopic analysis data, corrected for holdup time, for samples taken at the steam jet air ejector may be used to calculate noble gas ratios.

c. Whenever the steady state radioiodine concentration is greater than 10 percent of the limit of Specification 3.6.C.1, daily sampling of reactor coolant for radioactive iodines of I-131 through I-135 is required. Whenever a change of 25% or more in calculated Dose Equivalent I-131 is detected under these conditions, the iodine and particulate collection devices for all release points shall be removed and analyzed daily until it is shown that a pattern exists which can be used to predict the release rate. Sampling may then revert to weekly. When samples collected for one day are analyzed, the corresponding LLD's may be increased by a factor of 10. Samples shall be analyzed within 48 hours after removal.

d. To be representative of the average quantities and concentrations of radioactive materials in particulate form in gaseous effluents, samples should be collected in proportion to the rate of flow of the effluent streams.

e. The principal gamma emitters for which the LLD specification will apply are exclusively the following radio-nuclides: Kr-87, Kr-88, Xe-133, Xe-133m, Xe-135, and Xe-138 for gaseous emissions and Mn-54, Fe-59, Co-58, Co-60, Zn-65, Mo-99, Cs-134, Cs-137, Ce-141, and Ce-144 for particulate emissions. This list does not mean that only these nuclides are to be detected and reported. Other peaks which are measurable and identifiable, together with the above nuclides, shall also be identified and reported.

f. Nuclides which are below the LLD for the analyses shall be reported as "less than" the LLD of the nuclide and should not be reported as being present at the LLD level for that nuclide. The "less than" values shall not be used in the required dose calculations. When unusual circumstances result in LLD's higher than reported, the reasons shall be documented in the semiannual effluent report.

g. The ratio of the sample flow rate to the sampled stream flow rate shall be known for the time period sampled.

h. H^3 analysis shall not be required prior to purging if the limits of 3.8.B.1 are satisfied for other nuclides. However, the H^3 analysis shall be completed within 24 hours after sampling.

i. In lieu of grab samples, continuous monitoring with bi-weekly analysis using silica-jel samplers may be provided.

TABLE 3.8.1 - RADIOACTIVE LIQUID EFFLUENT MONITORING INSTRUMENTATION
(Page 1 of 2)

Instrument	Minimum Channels Operable	Applicability	Action if Minimum Channels not operable
Liquid Radwaste Effluent Line Gross Radioactivity Monitor	1	During Release of Liquid Radwaste	Liquid radwaste releases may continue for up to 14 days provided that prior to initiating a release: a. At least two independent samples are analyzed in accordance with Specification 4.8.A.1.b b. At least two technically qualified members of the Facility Staff independently verify the release rate calculations and discharge line valving; Otherwise, suspend release of radioactive effluents via this pathway.
Liquid Radwaste Effluent Line Flow Instrument	1	During Release of Liquid Radwaste	Liquid radwaste releases via this pathway may continue for up to 30 days provided the flow rate is estimated at least once every four hours during actual releases. Pump curves may be used to estimate flow.
Discharge Canal Flow Measurement: - Open Cycle Mode - Closed/Helper Cycle Mode	 1 1	During Release of Liquid Radwaste	Effluent releases via this pathway may continue for up to 30 days provided the flow rate is estimated at least once every four hours during actual releases. Pump curves may be used to estimate flow.
Discharge Canal Gross Radioactivity Monitor*	1	At all times	Effluent releases may continue for up to 30 days provided that at least once every 8 hours a grab sample shall be collected and analyzed for gross beta at an LLD of 10^{-7} μCi/ml or gamma isotopic for principle gamma emitters at an LLD of 5.0×10^{-7} μCi/ml.
Service Water Discharge Pipe Gross Radioactivity Monitor*	1	At all times	Service water discharge may continue for up to 30 days provided that at least once every 8 hours a grab sample shall be collected and analyzed for gross beta at an LLD of 10^{-7} μCi/ml or gamma isotopic for principle gamma emitters at an LLD of 5.0×10^{-7} μCi/ml.

* - Indicates monitor provided with automatic alarm

TABLE 3.8.1 - RADIOACTIVE LIQUID EFFLUENT MONITORING INSTRUMENTATION
(Page 2 of 2)

Instrument	Minimum Channels Operable	Applicability	Action if Minimum Cha .nels not operable
Turbine Building Normal Sump Monitor*	1	At all times	Liquid sump releases may continue for up to 30 days provided that at least once every 8 hours a grab sample shall be collected and analyzed for gross beta at an LLD of 10^{-7} μCi/ml or gamma isotopic for principle gamma emitters at an LLD of 5.0×10^{-7} μCi/ml.
Level Monitors for Temporary Outdoor Tanks Holding Radioactive Liquid	1	When tanks are in use	Liquid additions to a tank may continue for up to 30 days provided the tank liquid level is estimated during all liquid additions.

* - Indicates monitor provided with automatic alarm

NOTES:

(1) For Groups 1, 2 and 3, there shall be two operable or tripped trip systems for each function. A channel may be placed in an inoperable status for up to 6 hours for required surveillance without placing the trip system in the tripped condition provided that at least one other operable channel in the same trip system is monitoring that parameter.

For Groups 4, 5 and Reactor Pressure Interlocks there shall be two operable or tripped trip systems for each function.

(2) For Groups 1, 2 and 3, upon discovery that minimum requirements for the number of operable or operating trip systems or instrument channels are not satisfied action shall be initiated as follows:

(a) With one required instrument channel inoperable in one or more trip functions, place the inoperable channel(s) or trip system in the tripped condition within 12 hours, or

(b) With more than one instrument channel inoperable for one or more trip functions, immediately satisfy the requirements by placing appropriate channels or systems in the tripped condition, or

(c) Place the plant under the specified required conditions using normal operating procedures.

For Groups 4, 5 and Reactor Pressure Interlocks upon discovery that minimum requirements for the number of operable or operating trip systems or instrument channels are not satisfied action shall be initiated to:

(a) Satisfy the requirements by placing appropriate channels or systems in the tripped condition.

(b) Place the plant under the specified required conditions using normal operating procedures.

(3) Low pressure in main steam line only need to be available in the RUN position.

(4) All instrument channels are shared by both trip systems.

(5) May be bypassed when necessary only by closing the manual containment isolation valves during purging for containment inerting or de-inerting. Verification of the bypass condition shall be noted in the control room log. Also, need not be operable when primary containment integrity is not required.

* Required conditions when minimum conditions for operation are not satisfied.

A. Group 1 isolation valves closed.

B. Reactor Power on IRM range or below and reactor in startup, refuel, or shutdown mode.

C. Isolation Valves closed for: Shutdown Cooling System, and Reactor Head Cooling Line.

D. Comply with Condition C. above.

E. Isolation Valves closed for: Reactor Cleanup System.

F. HPCI steam line isolated. (See specification 3.5 for additional requirements.)

G. RCIC steam line isolated.