November 23, 2004

L-MT-04-064
10 CFR 50.90
10 CFR 50.67

U.S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, DC 20555

Monticello Nuclear Generating Plant
Docket 50-263
License No. DPR-22

Supplement 1 to License Amendment Request: Selective Scope Application of an Alternative Source Term Methodology for Re-evaluation of the Fuel Handling Accident

Reference: 1) NMC letter to NRC, "License Amendment Request: Selective Scope Application of an Alternative Source Term Methodology for Re-evaluation of the Fuel Handling Accident," (L-MT-04-023) dated April 29, 2004, (TAC No. MC3299).

On April 29, 2004, pursuant to 10 CFR 50.67 and 10 CFR 50.90, the Nuclear Management Company, LLC, (NMC) requested a selective scope application of an alternative source term (AST) to the fuel handling accident for the Monticello Nuclear Generating Plant (Reference 1). NMC proposed to amend the Monticello Nuclear Generating Plant licensing basis and Technical Specifications based on a revised radiological consequence analysis with AST.

On August 24, 2004, at a public meeting with the U.S. Nuclear Regulatory Commission discussing AST application, NMC personnel indicated that information would be provided concerning Secondary Containment controls during refueling operations and validation of Control Room inleakage assumptions. Enclosures 1 and 2 provide this information.

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Enclosures (2)

cc: Administrator, Region III, USNRC
Project Manager, Monticello, USNRC
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ENCLOSURE 1

INTRODUCTION

On April 29, 2004, pursuant to 10 CFR 50.67 and 10 CFR 50.90, the Nuclear Management Company, LLC, (NMC) submitted a license amendment request proposing a selective scope application of an alternative source term (AST) for the fuel handling accident (FHA) for the Monticello Nuclear Generating Plant (Reference 1). NMC proposed to amend the Monticello Nuclear Generating Plant (MNGP) licensing basis and Technical Specifications (TS) based on a revised radiological consequence analysis of a FHA utilizing AST.

On August 24, 2004, a public meeting was held between NMC and the U.S. Nuclear Regulatory Commission (NRC) to discuss the AST application. NMC personnel stated that information would be provided on administrative controls for Secondary Containment, ventilation system and radiation monitor availability during refueling, and validation of the FHA analysis Control Room inleakage assumptions. Part 1 of this enclosure discusses shutdown safety administrative controls and their application in lieu of TS requirements on Secondary Containment closure, ventilation system and radiation monitor availability during refueling. Part 2 discusses validation of FHA radiological consequence analysis assumptions by the ASTM E741 baseline testing (Reference 2) performed on the Control Room envelope during June 1 – 4, 2004. This testing was performed in response to Generic Letter (GL) 2003-01, “Control Room Habitability” (Reference 3).

PART 1 – USE OF SHUTDOWN SAFETY ADMINISTRATIVE CONTROLS

In Reference 1, NMC made the following commitment to revise the guidelines for assessing MNGP systems removed from service during refueling operations as described below:

> “NMC will revise the guidelines for assessing MNGP systems removed from service during handling of irradiated fuel assemblies or core alterations to implement the provisions of Section 11.3.6.5 of NUMARC 93-01, “Industry Guideline for Monitoring the Effectiveness of Maintenance at Nuclear Power Plants,” Revision 3.”

The procedures discussed below describe the intended NMC approach for implementation of the commitment above.

Secondary Containment integrity and operation of associated Engineered Safety Feature (ESF) Systems is required during handling of ‘recently’ irradiated fuel, i.e., fuel that has resided in a critical core within the past 24 hours. Following this 24-hour post-shutdown period, Secondary Containment integrity and selected ESF System operability may be relaxed during handling of irradiated fuel, based on the results of the AST FHA analysis. Technical Specification Task Force Traveler TSTF-51 (Reference 4) requires licensees to commit to the Reviewer's Note for a plant to utilize shutdown safety administrative controls in lieu of TS requirements on

Secondary Containment closure and assess ventilation system and radiation monitor availability during refueling. The Reviewer's Note to TSTF-51 is consistent with Section 11.3.6.5 of NUMARC 93-01 (Reference 5).

Assessment of Ventilation System and Radiation Monitor Availability

NUMARC 93-01, Section 11.3.6.5, provides the following guidance for the assessment of systems removed from service during movement of irradiated fuel:

> "During fuel handling/core alterations, ventilation system and radiation monitor availability (as defined in NUMARC 91-06) should be assessed, with respect to filtration and monitoring of releases from the fuel. … The goal of maintaining ventilation system and radiation monitor availability is to reduce doses even further below that provided by the natural decay, and to avoid unmonitored releases."

As described in Section 11.3.6.5 of NUMARC 93-01 and the Reviewer's Note, utilization of shutdown safety administrative controls is acceptable provided that ventilation system and radiation monitor availability are assessed and unavailability minimized consistent with shutdown risk considerations.

Assessment of systems removed from service during refueling involves two integrated considerations: (1) outage schedule design and evaluation, and (2) minimization of risk consistent with the particular plant configurations involved. Current site procedures for outage schedule design and risk minimization contain NUMARC 91-06 and NUMARC 93-01 guidance. Changes in requirements for the Secondary Containment, Standby Gas Treatment (SBGT) System (and associated radiation monitoring system), and Control Room Emergency Filtration (EFT) System operability resulting from this license amendment request (LAR) are to be addressed in the procedures controlling these processes.

The plant procedure for shutdown and refueling specifies minimum system and off-site power availability for refueling conditions. System configuration requirements for the above systems/structures are to be addressed in this procedure based on results of the AST FHA analysis and NRC approval of the LAR.

Assessment of systems removed from service during refueling is performed under the MNGP refuel outage management procedure. Evaluation of the availability of the previously discussed ventilation systems and associated radiation monitors with respect to impacts on filtering, monitoring, and minimizing potential releases in the event of a FHA will occur under this process during development of an outage schedule. This procedure requires that the status of systems fulfilling Secondary Containment requirements, including electrical buses, load centers (sources), and support systems be considered in the development of the outage schedule and continually monitored during an outage.

The impact on risk of outage schedule plant configurations is reviewed and the schedule is revised until an acceptable risk level is achieved. The availability of the ventilation systems and associated radiation monitors discussed above is evaluated via this process. Risk determination is performed under the MNGP Risk Management Program that implements NUMARC 91-06 Guidelines and also satisfies NUMARC 93-01, Section 11 requirements for shutdown conditions. The primary objectives are to backup key safety functions and support functioning of key equipment to mitigate loss of function. Key safety functions are backed-up by redundant, alternate or diverse methods to ensure defense-in-depth. Outage activities are planned and scheduled in a manner to optimize safety system availability. Administrative controls are provided to support the functioning of key equipment to mitigate loss of key safety functions. Contingency plans are developed to maintain defense-in-depth by alternate means when pre-outage planning reveals that specified systems, structures or components will be unavailable, or to restore defense-in-depth when system availability drops below a planned level during an outage.

Therefore, outage scheduling, in conjunction with the assessment of ventilation and radiation monitoring system availability, assures that they are maintained consistent with risk considerations to further reduce doses below that provided by the natural decay of the fuel in the event of a FHA.

Secondary Containment Closure Requirements

NUMARC 93-01, Section 11.3.6.5, provides the following guidance concerning Secondary Containment closure in the event of a FHA:

> "A single normal or contingency method to promptly close primary or secondary containment penetrations should be developed. Such prompt measures need not completely block the penetration or be capable of resisting pressure. The purpose is to enable ventilation systems to draw the release from a postulated fuel handling accident in the proper direction such that it can be treated and monitored."

NMC has reviewed industry correspondence and identified a June 21, 2004, NRC request for additional information (RAI) to the Browns Ferry Nuclear Plant (Reference 6) in which the NRC requested information related to Containment closure contingencies (Question 7 of the RAI - shown in bold below),

> **"The staff considers the Administrative controls to restore isolation of the secondary containment and to terminate venting in the event of a refueling accident as an important defense in depth measure. In what document will these administrative controls be located? Other licensees have indicated that (1) designated personnel will be aware of which openings would require closure, (2) specific responsibilities for closure would be assigned, and (3) obstructions that could prevent closure would be easily removable.**

In some cases, licensees have specified a time to achieve closure and have added the administrative control definition to their technical specifications. Please provide the staff with additional information as to the content of the administrative controls."

The AST FHA analysis results demonstrate compliance with 10 CFR 50.67 limits. The analysis does not assume Secondary Containment isolation. The analysis also does not assume operation of the SBGT System and Control Room EFT System (both ESF systems). The FHA analysis is predicated on a 24-hour period for radioactive decay of the fuel prior to fuel handling after reactor shutdown. The release is assumed to occur over a two-hour period. Operation of the SBGT and EFT Systems or isolation of Secondary Containment during the release is not required to maintain compliance with the 10 CFR 50.67 limits. In the event of a FHA, isolation of the Secondary Containment per the administrative controls discussed herein further reduces doses below those determined by the AST FHA analysis.

Instruction for Secondary Containment penetration control consistent with the guidance of NUMARC 93-01 and the above NRC expectations is provided in current site procedures. NMC utilized the Browns Ferry RAI, guidance in NUMARC 93-01, and other industry submittals to identify current Secondary Containment administrative control practices. Enclosure 2 provides draft administrative control guidelines for MNGP for Secondary Containment control during refueling. These guidelines are based on existing MNGP procedures providing instruction for Secondary Containment penetration control together with other licensee approaches. These guidelines are similar to Exhibit I, "Administrative Containment Closure Controls During Fuel Movement," that Prairie Island proposed for a selective scope application of AST to a FHA (Reference 7). The NRC approved this amendment for Prairie Island on September 10, 2004 (Reference 8).

The current site procedures for Secondary Containment penetration control are to be modified consistent with Section 11.3.6.5 of NUMARC 93-01 to address Secondary Containment penetration control during refueling in accordance with the draft guidelines in Enclosure 2. These procedures provide for: (1) designated individuals aware of the Secondary Containment penetrations that require closure, (2) assignment of specific responsibilities for closure, (3) instructions for closure, and (4) identification of obstructions that could prevent closure and ensure they are easily removable. Procedures for response to a FHA are to direct that Secondary Containment penetrations be closed expeditiously. These controls ensure that Secondary Containment penetrations are readily closed in the event of a FHA allowing the ventilation systems to draw the release in the proper direction such that it can be treated and monitored.

PART 2 – VALIDATION OF FHA ANAYTICAL ASSUMPTIONS BY CONTROL ROOM ENVELOPE INLEAKAGE TESTING

Reference 1, Section 5.5, “Discussion of Control Room Ventilation Systems Operation,” provides a description of the ventilation systems operation. The following discussion provides more detailed information on: (1) the control room envelope (CRE) and Control Room (CR) ventilation system design, (2) results of the FHA radiological consequence analysis, and (3) results of the CR integrity tests.

Control Room Design and Ventilation System Description

The CRE consists of the Control Room (located on the second floor of the Administration Building) and the first and second floors of the Emergency Filtration Treatment (EFT) Building (excluding the Division II 250 Volt Battery Room on the first floor). Figure 1 illustrates the CRE and surrounding structures. The redundant trains of the Control Room Heating and Ventilation (CRV) and Emergency Filtration Train (EFT) System are designed to maintain a habitable environment in the CR during normal and accident conditions. Figure 2 provides a depiction of the CRV-EFT System and the CRE. The CRV System provides HVAC to the CRE during normal and emergency operation. The EFT subsystem is designed to operate under emergency conditions to maintain the CRE at a positive pressure for radiological events and at a neutral pressure for events involving the release of toxic or hazardous chemicals.

The CR ventilation mechanical systems (contained on the second floor of the EFT Building) communicate with the CR via short supply and return ducts running through the southeast corner of the Turbine Building. A three-hour fire barrier separates the two CRV-EFT System trains. Each train shares a common outside air intake. Blanking plates were installed in each CRV train air intake duct due to historical unfiltered inleakage concerns; thus each CRV train currently operates as a recirculation-only subsystem. The EFT System, therefore, is also currently used under normal conditions to provide fresh air to the CRE. The proposed AST FHA radiological consequence analysis bounds CRV System operation with or without the CRV System air intake blanking plates installed.

The Division II 250 Volt Battery Room fans located within the CRE (EFT Building – second floor) and the supply and exhaust ducts traversing the CRE are a potential source of unfiltered inleakage. The battery room receives unfiltered outside air from the CR air intake and receives conditioned air from the CRE.

Review of FHA Radiological Consequence Analysis and Assumptions

Parametric studies were performed as part of the AST FHA radiological consequence analyses where the CR air intake and inleakage flows were varied. The bounding case assumes an unfiltered 7440 scfm air intake and 1000 scfm inleakage for the duration of the accident. The 7440 scfm value for the CR outside unfiltered air intake was chosen based on the maximum capacity of one CRV System fan (with the blanking plate removed) to bound possible system operating configurations. This value is highly conservative and would not be approached or exceeded under current or potential operating conditions. The unfiltered inleakage value of 1000 scfm was chosen as a conservative input to produce bounding radiological dose consequences for the AST FHA analysis.

Engineering assessment identified the Division II 250 Volt Battery Room and associated ductwork as a potential source of significant inleakage into the CRE. Outside air is supplied to the battery room from the same point (inlet) that supplies the CR air intake. The atmospheric dispersion factor (χ/Q) for the Control Room outside air intake location was considered applicable to the AST FHA analysis for both the unfiltered inleakage and the intake air.[(1)]

The AST FHA analytical cases, based on the assumptions described previously (see Table 7 of Reference 9), demonstrate that the CR dose for a FHA is not sensitive to the amount of CRV System intake flow or inleakage. The dose varies only about one percent for flow rates between 300 and 8500 cfm. Off-site and CR doses are maintained within 10 CFR 50.67 limits for a FHA assuming an AST.

A second potentially significant source of CR inleakage was identified during development of the ASTM E741 (Reference 2) baseline tracer gas testing configurations performed in response to GL 2003-01 (Reference 3). This second path is via the Cable Spreading Room (CSR), assuming operation or failure of certain non-safety related ventilation units in the most adverse manner. The CSR is served by the non-safety related Administration Building Ventilation System. The χ/Q for the Administration Building Ventilation System air intake[(2)] was evaluated (Reference 10) and determined to be nearly identical and slightly less limiting than that for the CR air intake. The CR air intake χ/Q was used to model the AST FHA. Values for both atmospheric dispersion factors are provided below.

Intake Location	**Atmospheric Dispersion Factor - χ/Q** (sec/meter^3)
Control Room Air Intake	2.48 x E-3
Administration Building Air Intake	2.47 x E-3

1 Because the χ/Q for the source of outside air intake and unfiltered inleakage (the CR air intake) and the timing (throughout the accident) are the same, the AST FHA analysis treats them equivalently.

2 The Administration Building air intake is the source for most areas adjacent to the CR.

Control Room Envelope Integrity Test Results

The 1000 scfm of unfiltered inleakage assumed in the AST FHA analysis was verified as conservative via tracer gas testing performed June 1 – 4, 2004. Testing was performed in accordance with the ASTM E741 Standard and site procedures, which established limiting conditions for the CRE and adjacent area ventilation systems.

In order to impose worst-case test conditions on the CRE, consistent with the GL 2003-01 requirement to verify unfiltered inleakage is not greater than the value assumed in the current licensing basis, various component failures were simulated for ASTM E741 baseline testing. Testing was performed for a worst-case mode for both the A and B EFT Trains where the differential pressure (ΔP) between the CRE and adjacent spaces was minimized. For comparison purposes, testing was also performed for a best-case condition assuming proper actuation of EFT System and adjacent area ventilation system components. See the Table below for the test conditions and results as they apply to the AST FHA.

The ASTM E741 baseline test procedure alignment simulated failure of multiple, non-safety related, ventilation control system components to properly respond to an EFT actuation signal to conservatively minimize the ΔP between adjacent areas and the CRE. Simulated failures included CRE boundary dampers not closing, fans failing to trip either depressurizing a portion of the CRE or pressurizing adjacent areas, and pressurizing the Cable Spreading Room (CSR) by stopping the non-safety related exhaust fan while the supply fan remained in operation. Additionally, opening the railroad access door neutralized the Turbine Building pressure, which is normally negative. These imposed failures were designed to establish bounding conditions to maximally reduce the ΔP between the CR and adjacent areas resulting in bounding worst-case potential CRE inleakage.

ASTM E741 TEST PERFORMED		AST FHA ANALYTICAL LIMIT(2)	ASTM E741 TEST RESULTS
Case	**Control Room Isolation – Pressurization Mode**		
1	"A" Train EFT – Worst-case Condition (adjacent areas pressurized)	1000 cfm(1)	100 ± 25 cfm
2	"B" Train EFT – Worst-case Condition (adjacent areas pressurized)	1000 cfm(1)	49 cfm(3)
3	"A" Train EFT – Best-case Condition (adjacent areas not pressurized)(4)	1000 cfm(1)	16 cfm(3)

1 For personnel ingress/egress via doorways 10 cfm unfiltered inleakage is subtracted from this analytical limit per RG 1.197.
2 For comparison, the current licensing basis analytical limit for unfiltered inleakage, is established by the present design basis accident, i.e., the Loss of Coolant Accident.

The current analytical inleakage limits are 250 cfm for less than 8 hours (Cases 1 and 2) and 10 cfm thereafter (Case 3).

3 The NRC concluded in RG 1.197 that it is not necessary to include the uncertainty for a CRE inleakage value less than 100 cfm.

4 Only the “A” Train EFT was tested in the best-case condition since this train had the most limiting (greatest) inleakage rate.

ASTM E741 baseline test results for both the A and B EFT System trains demonstrate low inleakage, less than approximately 125 cfm, during the emergency pressurization worst-case mode with ventilation systems aligned to minimize the ∆P between the CRE and adjacent spaces. Inleakage via the CSR was inferred as the most significant source under this worst-case mode since this was the only positive area with respect to the CRE and the interface contains many penetrations for cables. With the ventilation systems adjacent to the CRE secured during the emergency pressurization best-case mode, ASTM E741 baseline test results infer that leakage from other ventilation systems ductwork within the CRE, i.e., the Division II 250 Volt Battery Room exhaust ducts, low pressure CRV-EFT System ductwork outside the CRE, and CRV System air inlet dampers is insignificant - about 16 cfm. See Figure 2 for a diagram of the CRE and ventilation systems. Thus, the MNGP has a low–leakage CRE.

The AST FHA radiological consequence analyses assumed a continuous 1000 cfm of unfiltered inleakage for the duration of the accident. The highest inleakage determined from ASTM E741 baseline testing for the A and B EFT System trains in the worst-case mode (minimizing ∆P between the CRE and adjacent areas) was 125 cfm. Thus, the unfiltered inleakage measured by ASTM E741 baseline testing for the worst-case mode is approximately one-eighth(3) of the value assumed in the AST FHA radiological consequence analyses.

Conclusion

A comparison of the AST FHA analysis CRE inleakage assumptions to ASTM E741 baseline tracer gas test results demonstrates that the analytical assumptions are very conservative. Test results demonstrate low CR inleakage. Unfiltered inleakage was approximately one-eighth of the value (1000 cfm) assumed in the AST FHA radiological consequence analysis with ventilation systems aligned to minimize ∆P between the CRE and adjacent areas. Additionally, parametric studies demonstrate that the CR dose is not sensitive to the amount of CRV System air intake flow or inleakage. Therefore, the assumptions of the AST FHA radiological consequence analyses are validated by the results of the CRE inleakage testing.

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3 Using a continuous unfiltered CR air intake of 8440 scfm (7440 scfm air intake plus 1000 scfm inleakage) the ASTM E741 baseline test inleakage results are less than one-sixtieth the combined unfiltered air intake assumed in the AST FHA radiological consequence analyses.

REFERENCES

1. NMC letter to NRC, "License Amendment Request: Selective Scope Application of an Alternative Source Term Methodology for Re-evaluation of the Fuel Handling Accident," (L-MT-04-023) dated April 29, 2004.

2. American Society for Testing and Materials (ASTM) E741, "Standard Test Method for Determining Air Change in a Single Zone by Means of Tracer Gas Dilution."

3. U.S. Nuclear Regulatory Commission Letter, "NRC Generic Letter 2003-01: Control Room Habitability," dated June 12, 2003.

4. Technical Specification Task Force (TSTF), Improved Standard Technical Specifications Change Traveler, TSTF-51, "Revise containment requirements during handling irradiated fuel and core alterations," Revision 2, NRC approved on November 1, 1999.

5. Nuclear Energy Institute, NUMARC 93-01, Revision 3, "Industry Guideline for Monitoring the Effectiveness of Maintenance at Nuclear Power Plants," dated July 2000.

6. Letter from U.S. NRC to Mr. Karl W. Singer, Browns Ferry Nuclear Plant, Subject: Browns Ferry Nuclear Plant, Units 1, 2, and 3 — Request for Additional Information Regarding the Alternative Source Term Implementation (TAC Nos. MB5733, MB5734, and MB5735) dated June 21, 2004.

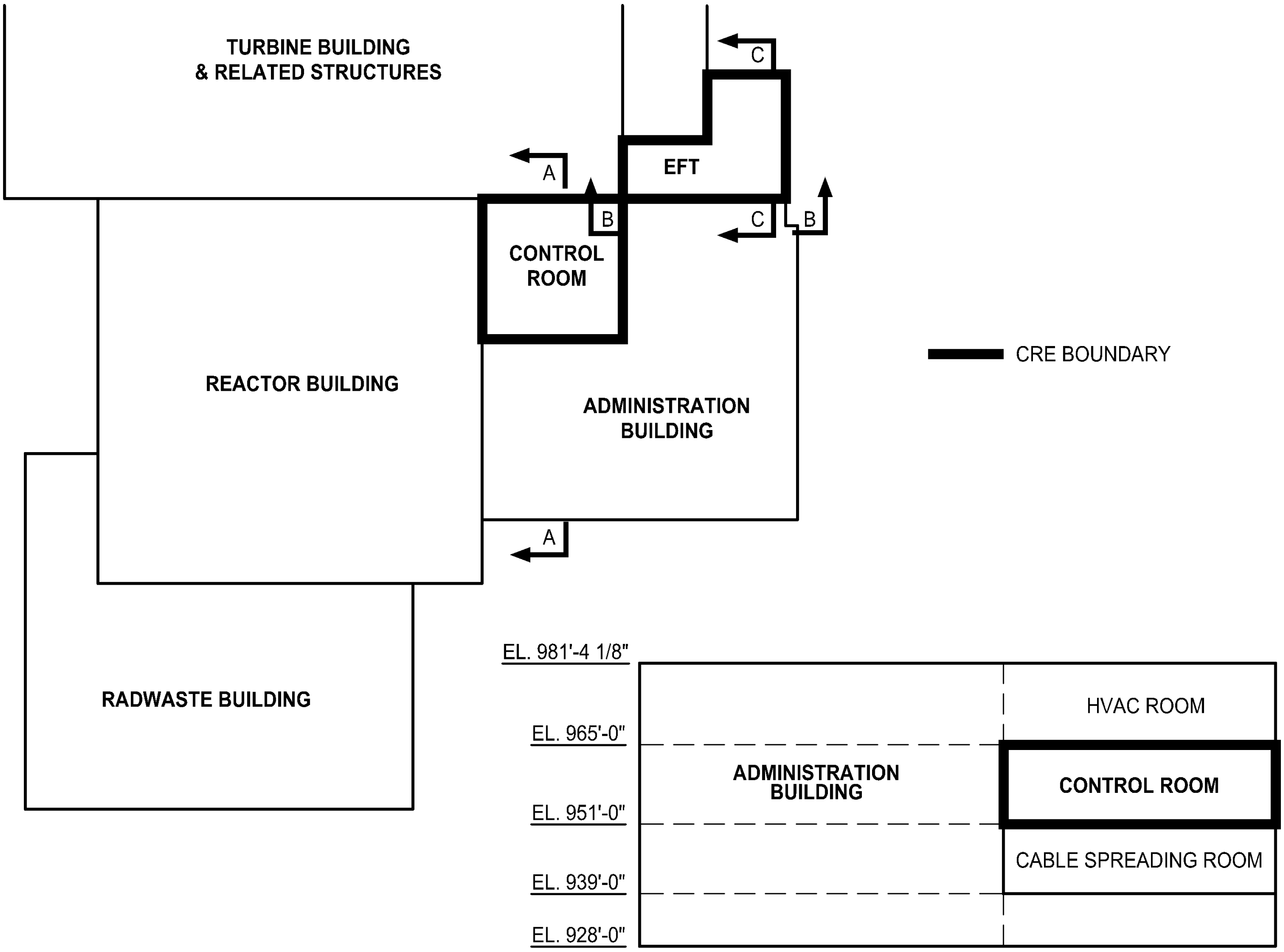
7. NMC letter to NRC, "License Amendment Request (LAR), dated January 20, 2004, Selective Scope Implementation Of Alternate Source Term for Fuel Handling Accident Applied to Containment Technical Specifications," (L-PI-04-001) dated January 20, 2004, for the Prairie Island Nuclear Generating Plant.

8. NRC letter to NMC, "Prairie Island Nuclear Generating Plant, Units 1 and 2 – Issuance of Amendments Re: Selective Implementation of Alternate Source Term for Fuel Handling Accidents," (TAC Nos. MC1843 and MC1844) dated September 10, 2004.

9. Calculation 04-041 (MNGP-006), "MNGP AST – FHA Radiological Consequence Analysis," Revision 0.

10. Calculation 04-037 (MNGP-002), "MNGP AST - CR/TSC Post-Accident Atmospheric Dispersion Analysis," Revision 1.

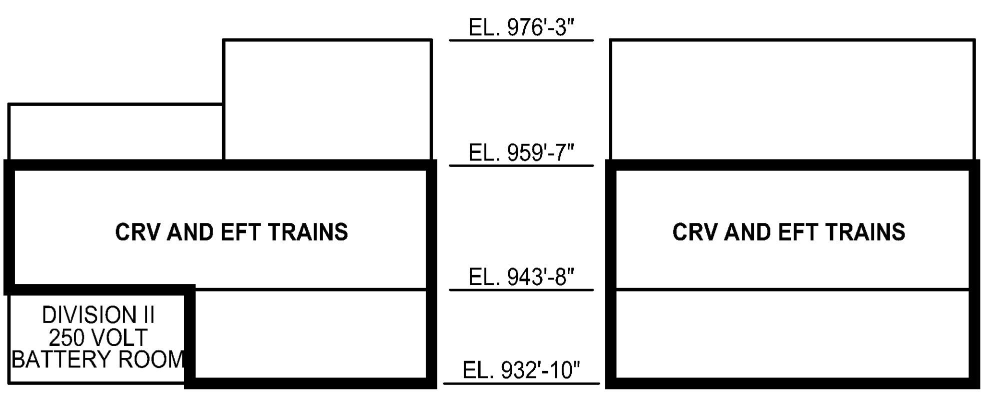
FIGURE 1
CONTROL ROOM ENVELOPE



SECTION A-A

ADMINISTRATION BUILDING LOOKING WEST

(CONTROL ROOM AND CABLE SPREADING STRUCTURE)



SECTION B-B

EFT BUILDING SECTION VIEW

LOOKING NORTH

SECTION C-C

EFT BUILDING SECTION VIEW

LOOKING WEST

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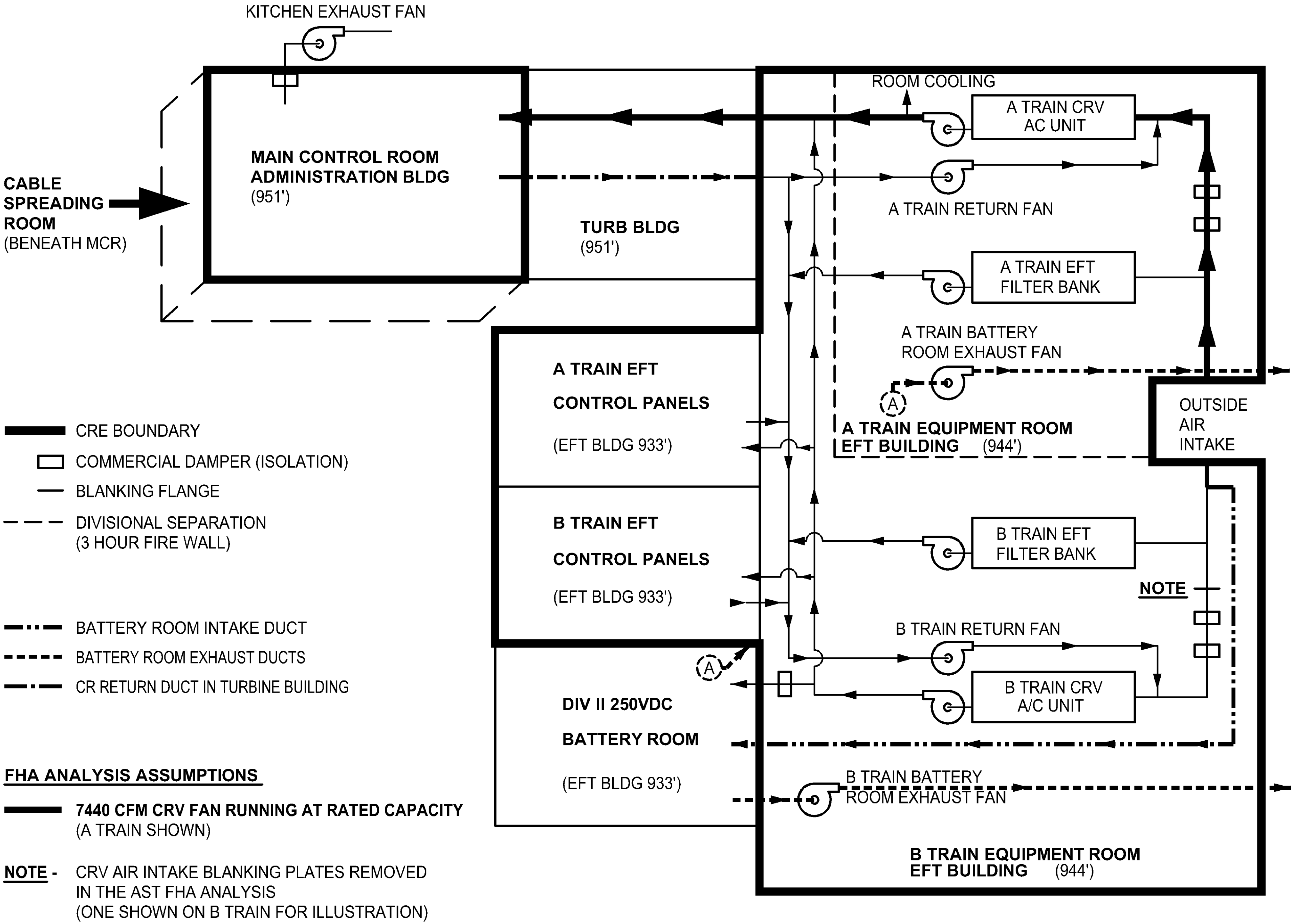

FIGURE 2
AST - FHA CRE DIAGRAM

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ENCLOSURE 2

DRAFT

ADMINISTRATIVE CONTROL GUIDELINES FOR SECONDARY CONTAINMENT CONTROL DURING FUEL MOVEMENT

FOR

MONTICELLO NUCLEAR GENERATING PLANT

ENCLOSURE 2

DRAFT ADMINISTRATIVE CONTROL GUIDELINES FOR SECONDARY CONTAINMENT CONTROL DURING FUEL MOVEMENT

The following criteria are maintained to ensure defense-in-depth. Secondary Containment closure controls are in effect whenever Secondary Containment penetrations are open with movement of irradiated fuel assemblies in progress. The definition of an open Secondary Containment penetration is a penetration that provides direct access from the Secondary Containment atmosphere to the outside environment with no automatic closure available. In this context, Secondary Containment penetrations also include the Reactor Building Railroad and Secondary Containment airlock doors.(1) Procedures for response to a Fuel Handling Accident will direct that Secondary Containment penetrations are closed expeditiously. The following is representative of the guidance provided for Secondary Containment penetration control during refueling.

A. For Secondary Containment penetrations to be left open for the duration of work during refueling, the procedure/work control document specifies the following:

1. An individual is designated as responsible for penetration closure.
2. The designated individual is provided with:
   - Means for immediate communication with the Control Room.
   - Instructions on what to do in the event that Secondary Containment isolation is required.
   - Adequate materials for temporarily sealing the penetration. Seals need not completely block the penetration or be capable of resisting pressure. Equipment necessary to implement containment closure should be appropriately staged prior to maintaining any Secondary Containment penetration open.
3. Control Room personnel are provided with instructions to notify the designated individual in the event that Secondary Containment isolation is required.
4. Control Room personnel are kept informed of the penetration status.

B. Hoses and cables running through open Secondary Containment penetrations are configured to facilitate rapid removal (or sealing around) in the event that Secondary Containment closure is required. Temporary hose or pipe services installed through utility penetrations while refueling use approved plant techniques. Work control documents for these activities should specify requirements similar to the following:

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1 Personnel access to the Secondary Containment is through pairs of airlock doors, electrically interlocked so that only one door is open at a time. The Reactor Building Railroad Doors are also arranged in an airlock fashion and are electrically interlocked so that only one door is open at a time.

ENCLOSURE 2

DRAFT ADMINISTRATIVE CONTROL GUIDELINES FOR SECONDARY CONTAINMENT CONTROL DURING FUEL MOVEMENT

1. The temporary hose or pipe to be capped or isolated at one end while installing and removing service.
2. Temporary hose or pipe to have an isolation valve near the Secondary Containment boundary.
3. If the temporary hose or pipe can communicate with the Secondary Containment volume, an isolation valve is closed when service is not in use or in the event of Secondary Containment isolation.
4. A designated individual using the service is readily available to close the isolation valve.
5. Status of the service hose or pipe is maintained on the appropriate site form(s).

C. Reactor Building Railroad and Secondary Containment airlock doors may be open provided the following conditions exist:

1. One door in each airlock is capable of being closed or a temporary closure method is available and can be implemented.[2]
2. The airlock door opening is not blocked in such a way that it cannot be expeditiously closed.
3. Personnel are designated each shift with the responsibility for expeditious closure of at least one door on each airlock or closure of an appropriate temporary door following Secondary Containment evacuation.

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2 Means to close the airlock doors or otherwise restrict air-flow out of the Secondary Containment are fabricated and staged in the area along with the necessary installation tools. These may include methods such as an air curtain or temporary doors.