Omaha Public Power District

444 South 16th Street Mall
Omaha NE 68102-2247

March 28, 2008
LIC-08-0034

U. S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, DC 20555-0001

References:
1. Docket No. 50-285
2. Letter from OPPD (D. J. Bannister) to NRC (Document Control Desk), "Fort Calhoun Station Unit No. 1 License Amendment Request (LAR), Modifications of the Containment Spray System Actuation Logic," dated July 30, 2007 (LIC-07-0052) (ML072150293)
3. Letter from NRC (Document Control Desk) to OPPD (D. J. Bannister), "Fort Calhoun Station, Unit 1 – Request for Additional Information Regarding License Amendment Request for Proposed Technical Specification Changes for Modification of Containment Spray System Actuation Logic (TAC No. MD6204)," dated January 18, 2008 (NRC-08-0011)
4. Letter from OPPD (D. J. Bannister) to NRC (Document Control Desk), "Response to Request for Additional Information Regarding License Amendment Request for Proposed Technical Specification Changes for Modification of Containment Spray System Actuation Logic," dated February 21, 2008 (LIC-08-0015) (ML080580407)
5. Email from NRC (M. T. Markley) to OPPD (T. C. Matthews), "Second RAIs (Pre-Decisional Draft)," dated March 11, 2008
6. Email from NRC (M. T. Markley) to OPPD (T. C. Matthews), "Second RAIs CS.doc," dated March 27, 2008

SUBJECT: Response to Second Round Request for Additional Information Regarding Containment Analysis for Fort Calhoun Station Water Management License Amendment Request (TAC No. MD6204)

In Reference 2, the Omaha Public Power District (OPPD) requested changes to the Fort Calhoun Station (FCS), Unit No. 1, Operating License No. DPR-40 to modify the containment spray (CS) system actuation logic to preclude automatic start of the containment spray pumps for a loss-of-coolant accident (LOCA). The Nuclear Regulatory Commission (NRC) staff reviewed the information provided in Reference 2 and determined that additional information was necessary to complete their review. The

NRC sent OPPD a request for additional information (RAI) (Reference 3), which OPPD responded to in Reference 4.

OPPD subsequently received a second round of RAI questions by email on March 11, 2008 (Reference 5). A teleconference with the NRC to discuss those questions was held on March 14, 2008. Following the teleconference, the NRC decided to split the questions into two parts, one part pertaining to the containment analysis and another pertaining to heating, ventilation and air conditioning (HVAC).

The Attachment to this letter provides OPPD's response to the containment analysis questions as revised by the NRC in an email from M. T. Markley to T. C. Matthews on March 27, 2008 (Reference 6). The HVAC questions will be answered in a forthcoming submittal.

No proprietary information is included in the Attachment.

This letter contains no regulatory commitments.

If you should have any questions regarding this submittal or require additional information, please contact Mr. Thomas C. Matthews at (402) 533-6938.

I declare under penalty of perjury that the foregoing is true and correct. Executed on March 28, 2008.

R. P. Clemens
Division Manger – Nuclear Engineering

RPC/mle

Attachment: Response to Second Request for Additional Information License Amendment Request RE: Modification of Containment Spray Actuation Logic (Water Management) TAC No. MD 6204

OMAHA PUBLIC POWER DISTRICT (OPPD)

FORT CALHOUN STATION (FCS), UNIT NO. 1

DOCKET NO. 50-285

RESPONSE TO SECOND REQUEST FOR ADDITIONAL INFORMATION LICENSE AMENDMENT REQUEST RE: MODIFICATION OF CONTAINMENT SPRAY ACTUATION LOGIC (WATER MANAGEMENT) (TAC No. MD6204)

FORT CALHOUN STATION
SECOND REQUEST FOR ADDITIONAL INFORMATION
LICENSE AMENDMENT REQUEST RE: MODIFICATION OF CONTAINMENT SPRAY ACTUATION LOGIC (WATER MANAGEMENT)
(TAC No. MD6204)

List of Acronyms

AOR	Analysis of Record
CAC	Containment Air Coolers
CACF	Containment Air Cooling and Filtering
CCW	Component Cooling Water
CSAS	Containment Spray Actuation Setpoint
DG	Diesel Generator
ECCS	Emergency Core Cooling System
EEQ	Electrical Equipment Qualification
EM	Evaluation Model
EOP	Emergency Operating Procedure
EQ	Environmental Qualification
FCS	Fort Calhoun Station
HPSI	High Pressure Safety Injection
L/V IA	Liquid-Vapor Interface Area
LOCA	Loss-of-Coolant Accident
MER	Mass and Energy Release
MSLB	Main Steam Line Break
NPSH	Net Positive Suction Head
NRC	Nuclear Regulatory Commission
OPPD	Omaha Public Power District
RAI	Request for Additional Information
RAS	Recirculation Actuation Signal
RCS	Reactor Coolant System
RW	Raw Water
SDC	Shutdown Cooling

NOTE: The reference documents delineated throughout the responses to the Request for Additional Information (RAI) appear as bracketed references and are listed on page 13 of the Attachment.

FORT CALHOUN STATION
SECOND REQUEST FOR ADDITIONAL INFORMATION
LICENSE AMENDMENT REQUEST RE: MODIFICATION OF CONTAINMENT SPRAY ACTUATION LOGIC (WATER MANAGEMENT)
(TAC No. MD6204)

Containment Analysis

NRC Question

1. July 30, 2007 letter Attachment 3

(a) In TS 2.4b., please explain the difference between "(1)a.i and (1)a.ii" and "(1)a.i or (1)a.ii." How is this difference made clear to the operators?

(b) TS 2.4(2)a. discusses "two of the components listed in (1)a.i and ii." Should this "and" also be an "or"?

OPPD Response:

(a) The Technical Specification (TS) 2.4(1)b limiting conditions for operability (LCO) statement is being revised to clarify that it is applicable to one component in (1)a.i **or** one component in (1)a.ii. for a total of "one" component; not to be interpreted to be one component in (1)a.i. **and** one component in (1)a.ii, for a total of "two" components. Operators already understand this distinction and are trained accordingly. The change will not alter the way in which the plant is operated, but does remove the possibility of misinterpretation.

(b) TS 2.4(2)a permits the minimum requirements of TS 2.4(1) to be modified to allow a total of two of the engineered safeguards components associated with DG-1 and DG-2 to be inoperable for a limited period of time subject to certain restrictions. Using "or" in place of "and" would allow two engineered safeguards components on DG-1 or two engineered safeguards components on DG-2 to be inoperable as TS 2.4(2)a does now. However, using "or" in place of "and" would not permit an engineered safeguards component on each DG to be inoperable as currently allowed by TS 2.4(2)a. This is permissible because the engineered safeguards components on the DGs are redundant and capable of mitigating a design basis accident (DBA) even with one engineered safeguards component on each DG inoperable.

NRC Question

2. July 30, 2007 letter Attachment 6 FC07247 Section 3.1

The mass and energy release for the short-term containment analysis assumes both low and high constant containment back-pressure. Please explain why a

low containment backpressure can yield the limiting peak containment pressure since the reflood rate would be slower for this case.

OPPD Response:

The peak containment pressure does not vary significantly in magnitude or time as can be seen in [3], Attachment 6, Table 1. Peak pressures are within 2 psi for the entire spectrum of cases analyzed and within 1 psi for the limiting break location (i.e., hot leg break cases).

In general, there may be up to three "peak" pressures predicted during a LOCA depending on the assumed break location. These peaks can generally be categorized as blowdown, reflood, and post-RAS pressure peaks. The initial peak occurs near the end-of-blowdown as can be seen in [4], Attachment 1, Figures 7 and 8.

With respect to the blowdown peak, the major contributor from the mass and energy release to the containment peak pressure is the initial mass and energy of the fluid within the RCS. A second peak in containment pressure, commonly called the "reflood peak", can occur for cold leg pump suction breaks as shown in [4], Attachment 1, Figure 8. The magnitude of this peak is a function of the amount of energy removed from the fuel and steam generators that are affected by the containment back-pressure, engineered safeguards availability and capability, etc. A lower reactor vessel pressure during the reflood portion of the LOCA increases the heat of vaporization, causes higher steam velocities, and increases droplet entrainment. These conditions lead to a slight increase in energy removal from the steam generators. For the limiting cold leg pump suction break case, the difference in containment pressure between the blowdown and reflood peaks is extremely small.

NRC Question

3. <u>July 30, 2007 letter Attachment 6 FC07247 Sections 3.1, 3.3.4.2, 3.5</u>

Please verify and complete the entries in the following table.

	Transition (Early: 1000 seconds/Late: RAS)	**Energy Dissipation (Existing/Alternate)**
LOCA Peak Containment Pressure	**N/A. Time to peak pressure is too short.**	**N/A. Time to peak pressure is too short.**
LOCA peak Containment temperature	**N/A. Time to peak pressure is too short.**	**N/A. Time to peak pressure is too short.**
LOCA Long-term (24 hour) Pressure	**RAS**	**Existing/Alternate**

LOCA Sump Temperature	**RAS**	**Existing**
Peak CCW and RW Temperature	**RAS**	**?**

OPPD Response:

The above table was revised to reflect the final set of analyses, which included additional cases in support of the response to a request for information submitted in [4]. Refer to the notes below the revised table for additional information.

	Transition (Early: 1000 seconds Late: RAS)	Energy Dissipation (Existing/Alternate)
LOCA Peak Containment Pressure	N/A[(a)]	N/A[(a)]
LOCA peak Containment temperature	N/A[(a)]	N/A[(a)]
LOCA Long-term (24 hour) Pressure	RAS	Existing/Alternate
LOCA Long-Term Temperature (EQ)	RAS	Alternate
LOCA Sump Temperature	RAS	Existing/Alternate[(b)]
Peak CCW and RW Temperature	N/A[(c)]	N/A[(c)]

Notes

a. The analyses to assess the LOCA peak pressure and temperature are short-term analyses that do not require transition from RELAP5/MOD2-B&W to GOTHIC for mass and energy and stored energy release.

b. The analyses to assess the LOCA long-term sump temperature response were reanalyzed using the alternate stored energy dissipation methodology in support of the response to NRC Question No. 6 submitted in [4].

c. As discussed in [3], Attachment 6, Section 3.6, the post-RAS containment peak temperature is lower than the pre-RAS peak, and shutdown cooling is not actuated without containment spray operation. Therefore, the analysis of the LOCA CCW and RW temperature response are short-term analyses that do not require transition from RELAP5/MOD2-B&W to GOTHIC for mass and energy and stored energy release.

NRC Question

4. July 30, 2007 letter Attachment 6 FC07247 Section 3.3.4

Section 3.3.4 states that: "For the purposes of this assessment, stored energy dissipation was forced to be completely dissipated by 24 hours (86400 seconds) by increasing the energy dissipation rates, as necessary."

Will this method be used for future calculations? If not, what method for stored energy dissipation will be used?

OPPD Response:

The stored energy dissipation rates are calculated for both the existing and alternate methodologies by post-processing data from the RELAP5/MOD2-B&W mass and energy release analysis. Modeling the stored energy dissipation at a constant rate based on the calculated values is conservative because heat transfer is a function of the temperature difference, which decreases with energy dissipation. Increasing the linear energy dissipation rates to dissipate the stored energy by 24 hours adds an additional conservatism that is not required. Future analyses will be performed with the linear stored energy dissipation rates calculated from the results of the RELAP5/MOD2-B&W mass and energy release analysis.

NRC Question

5. July 30, 2007 letter Attachment 6 Section 3.4

Why are the limiting hot leg and cold leg break cases with containment spray necessarily the most limiting without containment spray?

OPPD Response:

The spectrum of short-term cases performed with automatic containment spray actuation analyzed from the analysis of record was reanalyzed without automatic containment spray actuation. No differences in response were identified that would invalidate the selection of the limiting cases; specifically, there were minimal changes in peak pressures and times and the post peak trends were comparable. Therefore, performance of additional cases was not required.

NRC Question

6. July 30, 2007 letter Attachment 6 FC07247 Section 3.4

A second CCW pump is started for the case of heat removal by the fan coolers. What is the purpose for starting the second CCW pump, that is, what limit would not be met if the second CCW pump was not started?

OPPD Response:

Starting the second CCW pump increases the secondary flowrate to the containment air coolers (CAC) and containment air cooler filtering units (CACF); thereby increasing the containment energy removal. The containment vapor temperature from the analysis of record (AOR) was used as the gauge for meeting the equipment environmental qualification (EQ) temperature profile. A preliminary evaluation indicated that vapor temperature from the AOR would be exceeded unless credit was taken for manually starting a second CCW pump within 30 minutes. The long-term containment pressure criterion of half the peak within 24 hours is expected to still be met with credit for only one CCW pump.

NRC Question

How is this operator action specified in the emergency operating procedures?

OPPD Response:

Functional Recovery Procedure, Section MVA-CC (Maintenance of Vital Auxiliaries – Component Cooling) requires that at least two CCW pumps be operating. The same requirement for two CCW pump operation is also in EOP-03 (Loss of Coolant Accident) and EOP-05 (Uncontrolled Heat Extraction).

NRC Question

What are the consequences if the operator starts the second CCW pump before 30 minutes?

OPPD Response:

Starting the second CCW pump before 30 minutes would be beneficial. The heat removal capacity of the fan cooler would be higher than assumed in the analysis and pressures/temperatures will be lower that in the analysis.

NRC Question

After 30 minutes, e.g., after 1 hour? Not at all?

OPPD Response:

See above; the containment components EEQ temperature qualifications would have to be re-evaluated.

NRC Question

What effect does this have on emergency diesel loading?

OPPD Response:

This condition (loading the swing bus on the operating diesel generator (DG)) is only applicable if DG-1 fails to start. DG-2, on which the second CCW pump would be loaded, has excess capacity and can handle the additional load. In addition, EOP-20 MVA-CC contains a Caution statement warning operators not to allow exceeding diesel generator power and current limits if starting additional loads (this caution applies to any additional loads manually added to a diesel generator).

NRC Question

7. July 30, 2007 letter Attachment 6 FC07247 Section 3.3.4.1 and 3.3.4.2

For the limiting cases of hot leg and cold leg breaks without containment spray, please provide the start time of the containment fan coolers.

OPPD Response:

Actuation was based on the containment spray actuation setpoint (CSAS) with the actuation delays listed in [3], Attachment 6, Table 3. For the LOCA containment analyses without containment spray, the CACF and CAC actuations occurred on the order of 52 seconds and 82 seconds, respectively.

NRC Question

8. July 30, 2007 letter Attachment 6 FC07247 Section 3.3.4.2

(a) How much heat is required to be removed by the containment air cooling and filtering system (CACFS) to mitigate the consequence of the limiting hot leg and cold leg break LOCAs? How does this compare with the capability of the fan coolers?

OPPD Response:

The analysis conservatively assumes 100 MBTU/hr heat removal from one train of fan coolers for the first 30 minutes of the accident and 150 MBTU/hr heat removal after 30 minutes, when the second CCW pump is started. (Table 3 of [3]). The design capacity of one train of fan coolers is 210 MBTU/hr, 140 MBTU/hr for the CAFC and 70 MBTU/hr for the CAC. (Section 3.1.4 of [3])

NRC Question

(b) Discuss any verification of the assumed heat removal rates of the fan coolers with data.

OPPD Response:

The assumed heat removal rates were not specifically validated; however, the CCW flow rates assumed in the CCW system model were validated against plant operating data with various system alignments. Validation of the CCW system confirmed that the CCW system model provides accurate results for various system alignments such as LOCA or MSLB conditions.

NRC Question

(c) What assurance is there in terms of testing and surveillances, that the actual heat removal rates during a LOCA will not be lower than the assumed heat removal rates?

OPPD Response:

Verification that fan cooler air flows are within surveillance criteria is performed every refueling outage. The air sides of the coolers are visually inspected every outage and cleaned as needed. In addition, a preventive maintenance procedure is performed each outage to flush the coils and to verify that post-DBA flows can be achieved through the cooling coils. (See Response to Question No. 3 of [4]).

There is no actual heat transfer performance testing performed, as the cooling fluid is CCW, which is a chemically controlled closed loop system, not subject to fouling.

NRC Question

9. July 30, 2007, letter Attachment 6 Section 3.6

This section states that

"The peak component cooling water temperature and the peak raw water temperature are a function of the containment vapor temperature and humidity for the containment air coolers throughout the transient and the sump temperature for the shutdown cooling (SDC) system after RAS."

But the shutdown coolers will not be used during the LOCA. Please explain.

OPPD Response:

The first paragraph of [3], Attachment 6, Section 3.6, from which the statement was excerpted, provides a general description of the CCW/RW system response following a LOCA in the current plant configuration with automatic actuation of containment spray and post-RAS shutdown cooler operation. It provides a comparison basis for the plant change to eliminate automatic containment spray actuation. The second paragraph provides a discussion of the change in the pre-RAS containment response

without containment spray, which concludes with a statement concerning the elimination of the SDC load post-RAS.

NRC Question

10. July 30, 2007 letter Attachment 6 FC07247 Section 5 References

(a) Please provide Reference 1 or provide a docketed reference. If Reference 1 is the Framatome ANP report BAW-10252(P) submitted to the NRC for approval by letter dated July 13, 2004, what is the relationship between this reference and the licensee's January 27, 2003, GOTHIC submittal?, (b) If Reference 1 applies only to peak containment pressure calculations, explain its applicability to the other portions of the present application (long term LOCA, NPSH).

OPPD Response:

(a) The AREVA NP containment analysis methodology (BAW-10252PA [1]) was listed in [3] Attachment 6 by the AREVA NP internal document number (43-10252PA-000) and is the same document as BAW-10252PA [1], which was approved by the NRC in [1]. BAW-10252PA was developed by AREVA NP for use on all large dry containment types and as such applies to Fort Calhoun Station.

OPPD developed a methodology to perform LOCA and MSLB containment pressure and equipment qualification temperature profile analyses, which was submitted for approval in [5]. By submittal of license amendment request [3], OPPD proposes replacing the LOCA portion of containment analysis methodology [5] with AREVA NP containment analysis methodology [1]. The methodology described in [5] would be retained as the licensed method for Fort Calhoun Station containment pressure and equipment qualification temperature profile analyses for MSLB breaks.

(b) The AREVA NP containment analysis methodology topical report (BAW-10252PA [1]) states in Section 1.0 that the methodology would be applied to short and long-term containment analyses.

NRC Question

11. February 21, 2008 letter Table 1 and Response to Question 2

(a) The response to Question 2 states that the short term LOCA analysis assumes a surface area of the sump of zero ft^2. Table 1 states that the liquid-vapor interface area is maintained consistent with the AOR. Are these consistent? Why is this conservative?

(b) What assumption is made about heat transfer from the sump to the containment atmosphere for the long term calculations? Why is this conservative?

OPPD Response:

(a) The statements are consistent in that setting the liquid-vapor interface area (L/V IA) to zero sets the sump surface area to zero. The sump liquid temperature is lower than that of the vapor temperature. By not allowing heat and mass transfer between the vapor and liquid, the vapor region temperature remains slightly higher, which produces a slightly higher pressure. The impact of changing the L/V IA (i.e., zero, actual pool area, or DEFAULT) for short-term containment analyses in GOTHIC is insignificant through the time of the blowdown peak as discussed in [1] page A-10. For cases that predict a reflood peak such as cold leg pump suctions breaks, the reflood peak is slightly higher with the L/V IA set to zero. This input selection does not model the condensation of the saturated steam on the surface of the subcooled pool; thereby, holding up pressure. Even with this conservatism, the hot leg break generates the limiting peak pressure.

(b) As listed in [4] Table 1, the L/V IA is set consistent with the NRC approved methodology identified in [1].

NRC Question

12. <u>February 21, 2008 letter response to Question 9</u>

(a) What is the required NPSH of the HPSI pump for comparison with the available NPSH values? What flow rate does the required NPSH correspond to? Why is this flow rate conservative? Does this assume one HPSI pump in operation or more? How does this flow rate compare with the flow rate assumed in the Fort Calhoun 10 CFR 50.46 ECCS analysis?

(b) The long term containment sump temperature analysis was done with the transition time at RAS and the stored energy dissipation rates calculated using the existing method. This approach, as shown in Figures 11 and 14 of Attachment 6 to the July 30, 2007, 2007, letter, yields the lowest sump temperature. Would NPSH margin exist for the HPSI pumps using the other combinations (early-existing, early-alternative, extended-alternate)?

(c) The FCS DRAFT response to first round RAI 1 states that "the results of this analysis (of available head) will be compared graphically against the NPSH required which will be determined based on the sump temperature and pump flow as a function of time after RAS." Please describe how sump temperature is included in the

determination of required NPSH. How is this consistent with the guidance of Regulatory Guide 1.82 Revision 3 Position 1.3.1.5?

OPPD Response:

(a) The required NPSH of the HPSI pumps varies between 7.55 feet and 25.21 feet depending on the number of pumps in operation, flow paths and the resulting HPSI flows for each case. The most conservative cases (the lowest margin) were used in the development of the curves reported in [4].

(b) As described in [4] Question No. 6, the long-term sump temperature analysis was reanalyzed with transition at RAS and the alternate energy dissipation methodology. The results of the NPSH evaluation reported in [4] are based on the alternate methodology. The change in sump temperature between the two methods used to evaluate the long-term sump temperature for NPSH evaluation was small. As described in the response to NRC questions submitted in [4], there is no intent to choose one method option over the other, but rather, to maintain a consistent set of options across the suite of analyses to the extent possible.

For the FCS LOCA analyses without containment spray, the RAS time was chosen for the transition time as a convenience. As presented in Attachment 6 of [3], one of the changes to [1] is the extension of the transition time to as late as RAS. For early transitions, the sump temperature is higher due to the artificiality of the stored energy dissipation techniques (i.e., existing versus alternate).

(c) The sump temperature is not used in determining the required NPSH of the pumps. The required NPSH is taken from the manufacturer's curve for the pump flow calculated by the hydraulic model. The NPSH required curves were developed using ~65°F water and the value is not adjusted for temperature.

NRC Question

13. <u>February 21, 2008 letter Response to Question 2</u>

Revaporization is considered for the peak containment pressure calculation (Table 1 of Attachment 1 to the February 21, 2008 letter) but is zero for the sump temperature analysis (Page 5 of Attachment 1, Item 5). Why is zero conservative for the sump temperature calculation? How significant is this assumption?

OPPD Response:

With the change in methodology to transition as late as RAS and alternate stored energy dissipation rates, the value of the re-vaporization fraction has an insignificant

impact on a LOCA containment analysis because the containment vapor space remains saturated and there would be no revaporization even if allowed.

NRC Question

14. July 30, 2007 letter Attachment 6 Section 3.2

RELAP5/MOD2-B&W is proposed for mass and energy release calculations as input to containment calculations. Please explain what changes have been made to ensure that RELAP5/MOD2-B&W is appropriately biased for this purpose. Address both the short term (peak containment pressure) and long term (NPSH) calculations.

OPPD Response:

The NRC-approved AREVA NP containment analysis methodology in BAW-10252PA [1] Section 5.1.2.3 describes how RELAP5/MOD2-B&W is used for the short-term analyses. There are no modifications to the code approved for Appendix K LOCA EM methodologies documented in BAW-10252PA references 18 and 19. Only model changes are made to enhance energy removal from the core. The model changes for extending the short-term mass and energy release analyses for long-term are described in [3], Attachment 6, Section 3.3.1, which included extending the runs to beyond the time of recirculation and implementing the ASB 9-2 decay heat reduction from 1.2 to 1.1 at 1000 seconds which was also discussed in the response to NRC Question No. 8 submitted in [4].

References

[1] AREVA NP Document BAW-10252PA-00, "Analysis of Containment Response to Postulated Pipe Ruptures Using GOTHIC"

[2] Letter from NRC (M. C. Thadani) to Framatome ANP (R. E. Gardner), "Correction to Letter Forwarding the Final Safety Evaluation for Framatome ANP Topical Report BAW-10252(P), Revision 0, "Analysis of Containment Response to Postulated Pipe Ruptures Using GOTHIC (TAC No. MC3783)" dated September 6, 2005 (ML052450297)

[3] Letter from OPPD (D. J. Bannister) to NRC (Document Control Desk), "Fort Calhoun Station Unit No. 1 License Amendment Request (LAR), Modification of the Containment Spray System Actuation Logic," dated July 30, 2007 (LIC-07-0052) (ML072150293)

[4] Letter from OPPD (D. J. Bannister) to NRC (Document Control Desk), "Response to Request for Additional Information Regarding License Amendment Request for Proposed Technical Specification Changes for Modification of Containment Spray System Actuation Logic," dated February 21, 2008 (LIC-08-0015) (ML080580407)

[5] Letter from OPPD (D. J. Bannister) to NRC (Document Control Desk), "Fort Calhoun Station (FCS) Unit No. 1 License Amendment Request, Containment Pressure Analysis using the GOTHIC Computer Code," dated January 27, 2003 (LIC-03-0001) (ML030360205)