Greg Gibson
Vice President, Regulatory Affairs



10 CFR 52.75 10 CFR 2.390

March 31, 2009

UN#09-143

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

Subject:

UniStar Nuclear Energy, NRC Docket No. 52-038

Nine Mile Point 3 Nuclear Power Plant

Submittal of Revision 1 to the Combined License Application for Nine Mile Point Unit 3 Nuclear Power Plant; and Application for Withholding of Documents

Reference:

- 1) Greg Gibson (UniStar) to Document Control Desk (NRC), "Submittal of Combined License Application for the Nine Mile Point 3 Nuclear Power Plant; and Application for Withholding of Documents", dated September 30, 2008
- Greg Gibson (UniStar) to Document Control Desk (NRC), "Submittal of Updated Figures for Final Safety Analysis Report Chapter 8, Electric Power," dated October 24, 2008
- Greg Gibson (UniStar) to Document Control Desk (NRC), "Submittal of Supplement to Final Safety Analysis Report Section 2.5," dated November 18, 2008
- 4) Prosanta Chowdhury (NRC) to Greg Gibson (UniStar), "Combined License Application Acceptance Review for Nine Mile Point 3 Nuclear Power Plant," dated December 12, 2008
- 5) Greg Gibson (UniStar) to Document Control Desk (NRC), "Revised submittal date for NMP3NPP COLA Revision I including FSAR 2.5 Update," Dated March 6, 2009
- 6) William Reckley (NRC) to Russell Bell (NEI), "Update of NRC Guidance on Electronic Application Submittals," dated February 10, 2009

Provided herein is Revision 1 to the Nine Mile Point Unit 3 Nuclear Power Plant (NMP3NPP) Combined License Application (COLA). As submitted, Revision 1 changes are designated by revision bars on the right side of the document.

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In Reference 1, UniStar Nuclear Energy submitted to the US Nuclear Regulatory Commission (NRC) a Combined License Application (COLA) for an AREVA U.S. Evolutionary Power Reactor (U.S. EPR) nuclear power station to be located adjacent to the current Nine Mile Point Unit 1 and Unit 2 Nuclear Power Station.

In References 2 and 3, UniStar Nuclear Energy submitted supplements to the Nine Mile Point 3 Nuclear Power Plant COLA providing updates of Electrical Drawings and Geotechnical information, respectively.

In Reference 4, the NRC documented completion of their acceptance review and determined the COLA was acceptable for docketing. In that letter, the NRC recommended that the COLA be amended to provide standard language identical to that in the R-COLA outside of the braces "{ }". The purpose of this COLA Revision 1 is to adopt the USNRC recommendation to standardize wording outside of braces to match the R-COLA wording.

In order to complete the COLA revision, it was necessary to revise all the COLAs associated with the U.S. EPR Design Centered Working Group (DCWG). This concept was presented to the NRC staff on January 16, 2009 at the U.S. EPR DCWG meeting held in Rockville, Maryland. Revisions to the U.S. EPR R-COLA and other U.S. EPR S-COLAs were previously completed and submitted to the staff under separate submittals.

In addition to changes to standardized language outside of braces, UniStar Nuclear Energy made additional corrections to site-specific language inside the braces noted since submittal of the original application. Enclosure 1 provides a description of changes made in this COLA revision.

Also in reference 4, the NRC staff identified issues in the area of seismology that introduced uncertainty into the review schedule. Those issues were provided in Enclosure 1 of Reference 4. In Reference 5, UniStar stated that Revision 1 of the NMP3NPP COLA would also address these issues, and would be submitted on or before March 31, 2009. These issues are addressed in changes to FSAR 2.5.2 and 3.7 included in this submittal. Enclosure 2 of this submittal also provides a summary of the response to the NRC seismology issues.

Additionally, changes were made to remove the departure from AREVA EPR FSAR Technical Specifications. These changes are reflected in FSAR Section 1.8.2; FSAR Section 16.0; a complete replacement of Part 04; deletion of Part 07 sections as follows - section 1.1 items 4 and 5, section 1.1.4, section 1.1.5, section 1.1.6, section 1.2 items 4, 5 and 6, section 1.2.4, 1.2.5, and 1.2.6; and the addition of Part 10 ITAAC relating to a proposed license condition regarding Technical Specifications.

This COLA revision contains no Restricted Data or other defense information requiring separation in accordance with 10 CFR 50.33 (j). Part 9 of this COLA revision contains certain financial, SUNSI and security-related information that UniStar Nuclear Energy is requesting the NRC to withhold from public disclosure in accordance with the requirements of 10 CFR 2.390. An affidavit (Enclosure 5) is included with this letter requesting the proprietary treatment of UniStar Nuclear Energy financial information pursuant to 10 CFR 2.390. Also, in accordance with Reference 6, state and local emergency plans in Part 5 of the application are requested to be designated as "non-publicly available."

An updated set of the COLA documents is being provided in electronic file format on the two enclosed disks (Enclosures 3 and 4).

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Enclosure 3 contains information UniStar Nuclear Energy requests to be withheld from public. disclosure. Enclosure 4 contains information which can be made publicly available.

The submittal contains PDF files, one or more of which contains hyperlinks to other files or to the internet. These hyperlinks are either inoperable or are not essential to the use of the filing. Any material referenced by hyperlinks to the internet that was essential for the use of this filing has been submitted as part of the filing. Any material referenced by a hyperlink to another PDF that was essential for the use of this filing has either been included by reference or submitted as part of this filing.

Appropriate pre-submission checks have been successfully performed on the files for both disks to ensure compliance with the electronic filing guidelines provided on the NRC website. A "packing slip" describing the COLA contents, pursuant to NRC instructions for electronic filing, is provided.

There are no new Regulatory Commitments in this correspondence.

If there are any questions regarding this transmittal or additional information is needed, please contact me at (410)-470-4205, or Michael J. Yox at (410) 495-2436.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on March 31, 2009

Greg Gibson

- Enclosures: 1) Description of Changes Included in Nine Mile Point Unit 3 Nuclear Power Plant COL Application, Revision 1
 - 2) Summary of Responses to NRC Seismology Issues Identified in Enclosure 1 of NRC December 12, 2008 NMP3NPP Acceptance Letter
 - 3) Nine Mile Point Unit 3 COL Application Revision 1 Volume 1 NON-PUBLIC DVD
 - 4) Nine Mile Point Unit 3 COL Application Revision 1 Volume 2 PUBLIC DVD
 - 5) Affidavit for Withholding of Proprietary Information in Accordance with 10 CFR 2.390

Prosanta Chowdhury, NRC Project Manager, U.S. EPR COL Application CC: Philip Brandt, NRC Environmental Project Manager, U.S. EPR COL Application Paul Michalak, NRC Environmental Project Manager, U.S. EPR COL Application Getachew Tesfaye, NRC Project Manager, U.S. EPR DC Application (w/o enclosure) Loren Plisco, Deputy Regional Administrator, NRC Region II (w/o enclosure) Edward Knutson, U.S. NRC Senior Resident Inspector, Region 1, NMPNS U.S. NRC Region I Office

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Enclosure 1

Description of Changes Included in Nine Mile Point 3 Nuclear Power Plant COL Application, Revision 1

| COLA PART | TITLE | DESCRIPTION OF CHANGE |
|----------------|---------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <u>Part 1:</u> | General Information: | This COLA Part is now completely site specific. |
| <u>Part 2:</u> | FSAR: | Generic Text (i.e. text outside braces) is now consistent between the 4 U.S. EPR COLAs. The text inside braces is site specific. |
| | | Additional site specific changes to the FSAR are described below: |
| | | FSAR Section 2.5 now incorporates the UniStar supplement dated 11/18/08 FSAR Chapter 8 now incorporates the UniStar supplement dated 10/24/08 |
| <u>Part 3:</u> | Environmental Report: | This COLA Part is now completely site specific. |
| <u>Part 4:</u> | Technical Specifications: | All four U.S. EPR COL Applications have been changed to incorporate the US EPR Generic Technical Specifications by reference. Part 4 has been modified to provide information required by the U.S. EPR Generic Technical Specifications as reviewer notes. This Part contains generic and site specific information. |
| | | To support this change, Technical Specification departures were removed from FSAR Chapter 1 and from COLA Part 7. Finally, a proposed license condition has been added to COLA Part 10 to submit a license amendment following completion of a plant-specific set point study following selection of the plant-specific instrumentation. |
| <u>Part 5:</u> | Emergency Plan: | The braces and generic text have been made consistent between Calvert Cliffs 3, Bell Bend, and Nine Mile Point 3. |
| | | The State and local Emergency Plans have been designated "non-publicly available." |
| <u>Part 6:</u> | LWA: | Not Applicable |
| Part 7: | DCD Departures: | This COLA Part is now completely site specific. |
| <u>Part 8:</u> | Security Plan: | No Changes |
| Part 9: | Proprietary and SUNSI: | This COLA Part is now completely site specific. |

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| PART | TITLE | DESCRIPTION OF CHANGE |
|----------|-----------------------|----------------------------------------------------------------------------------------------------------------------------------|
| Part 10: | ITAAC: | Generic text (i.e. text outside braces) is now consistent between the 4 U.S. EPR COLAs. The text inside braces is site specific. |
| Part 11: | Supporting Documents: | No Changes |

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Enclosure 2

Summary of Responses to NRC Seismology Issues Identified in Enclosure 1 of NRC December 12, 2008 NMP3NPP Acceptance Letter

Summary of Responses to NRC Seismology Issues Identified in Enclosure 1 of NRC December 12, 2008 NMP3NPP Acceptance Letter

Enclosure 1 to the NRC's December 12, 2008 acceptance letter for the NMP3 docketing identified issues in the area of seismology that introduced uncertainty into the NRC's review schedule. These issues are addressed in the revised FSAR Section 2.5.2 and 3.7 text and figures. A summary of the issues and their discussions/resolution is presented herein:

1. There is substantial contribution to the seismic hazard for the Nine Mile Point 3 Nuclear Power Plant (NMP3NPP) from several seismically active source zones in the New England, New York, Ontario and Quebec regions. Recent studies have been performed for several of these regions. The applicant has not updated the seismic source models from the 1986 EPRI-SOG report, although new information on the seismic hazard for the areas exists. The staff is concerned that the EPRI-SOG seismic source models for the region may not adequately characterize the seismic hazard.

Discussion - A sensitivity analysis was performed to determine the level of contribution to seismic hazard at the Nine Mile Point 3 Nuclear Power Plant (NMP3NPP) from the distant seismic sources in New England, New York, Ontario and Quebec. The sources considered were those indicated as having potential for contribution based on recent independent seismic research studies and, in one case for Saguenay, Quebec, a location where a significant earthquake occurred just outside the boundaries of seismic source zone defined for the Charlevoix zone by the EPRI-SOG expert teams.

Information regarding the sensitivity study and its results are provided within FSAR Sections 2.5.2.1, 2.5.2.3, 2.5.2.4, and 2.5.2.7 of this revision. These results led to inclusion of a number of additional source zones within the EPRI-SOG model and a small increase in hazard calculated for the NMP3NPP site. They also affirm the conclusion that "...the EPRI-SOG seismic model with new information included provides assurance that the results for that model adequately characterize the seismic hazard from the NMP3NPP site."

2. The applicant provided a supplement to its application on November 18, 2008, which describes a sensitivity study performed for the Ramapo shear zone and the St. Lawrence Rift System. Although these source zones were defined by most of the EPRI-SOG teams, they were not included in the NMP3NPP Probabilistic Seismic Hazard Analysis (PSHA). The sensitivity study incorporated the EPRI-SOG Ramapo and St. Lawrence source zones in the NMP3NPP PSHA and then determined the contribution to the total site hazard. Based on the results of the sensitivity study, it appears that EPRI-SOG St. Lawrence sources should have been included in the NMP3NPP PSHA because the contribution to the total hazard is greater than one percent, which is the EPRI threshold for inclusion of a source zone.

Discussion - The Ramapo seismic zone is addressed directly in added information provided in FSAR Section 2.5.2.2.1 and Table 2.5-3, by interpretation of new sensitivity analyses and inclusion of additional source zones in the EPRI-SOG model for the NMP3NPP site. FSAR Section 2.5.2.3 includes new discussions of earthquake activity and related seismic sources and addresses new information considered in sensitivity analyses.

The St. Lawrence Rift System is addressed directly in added information provided in FSAR Section 2.5.2.2.1 and 2.5.2.3, and by the inclusion of additional source zones representing the St. Lawrence zone in the EPRI-SOG model of the NMP3NPP site to represent the St. Lawrence zone.

Zones representing the Ramapo and St Lawrence seismic sources are now included within the NMP3NPP PSHA because of their contribution to the total hazard.

3. The sensitivity study did not take into consideration some of the more recent research since the time of the EPRI-SOG evaluations, or evaluate all of the parameters critical to the PSHA. The sensitivity study did not involve any modifications to the parameters of the EPRI-SOG source zones (i.e., Mmax distribution, geometry, seismicity rate, and probability of activity), and discussions of how well the EPRI St. Lawrence source zones model the possible occurrence of a magnitude 7 earthquake beneath Lake Ontario (Wallach, 2002), and the Ramapo Shear Zone and intersections thereof (Sykes et al, 2008) were also not presented. Furthermore the PSHA sensitivity study did not address the Charlevoix seismic source zone (including the 1988 Saguenay earthquake) or the potential New England seismic source zones as described in Ebel, Bonjer, and Onescu (2000), Ebel (2006), and Ebel (1996) in Seismological Research Letters.

Discussion - Evaluation of the Wallach work is described in FSAR Section 2.5.2.2.2.1. Quantitative estimated seismic parameters were developed to allow sensitivity analysis for New England seismic zones and the Ramapo zone based on the studies by Ebel (2006) and Sykes et. al., (2008) respectively. The Charlevoix seismic source zone (including the 1988 Saguenay earthquake) is addressed directly by the development of estimated seismic parameters and an updated configuration for the Charlevoix zone area based on the Saguenay event. That includes FSAR Sections 2.5.2.2.2, 2.5.2.3, and 2.5.2.4 where the Saguenay event and the absence of impact for that event are discussed. New hazard curves were developed to determine the significance of the impact on site hazard and to determine whether additional seismic zones within the EPRI-SOG model should be used for analysis. The hazard curves for these alternate zones are presented in FSAR Figures 2.5-215 through 2.5-220.

4. The supplement states that one of the reasons for the difference in the deaggregation distances between the EPRI (and LLNL) and the NMP3NPP PSHA results is because the NMP3NPP PSHA included more distant seismic sources (i.e., the Charlevoix seismic source zone), which would increase the deaggregation distance. However, the EPRI 1989 PSHA likely included the Charlevoix seismic source zone and other distant source zones that contributed greater than one percent of the total hazard, which is the EPRI-SOG criterion for including a seismic source zone.

Discussion - Verification was provided that the EPRI 1989 PSHA did not include the Charlevoix seismic source zone or other distant source zones. A re-explanation of the results for a related question answered in the initial FSAR Supplement submittal is provided in FSAR Section 2.5.2.4.6.

5. From the documentation provided in the application and supplement, it is unclear whether the NMP3NPP PSHA may have excluded several other EPRI-significant seismic source zones from the PSHA. For example, the NMP3NPP PSHA excluded the EPRI St. Lawrence Rift source zones, even though the contribution to the total hazard is greater than one percent.

This topic is addressed directly by:

- a) New calculations for the GMRS and PSHA in FSAR Sections 2.5.2.3 and 2.5.2.4.
- b) Sensitivity analysis results addressed in this revision.
- c) Revision of Table 2.5-3 (and accompanying text in FSAR Section 2.5.2.2.1) to include a clear summary of seismic zones within 200 miles and those beyond that distance considered for their contribution to site hazard.

Enclosure 3

Nine Mile Point Unit 3 COL Application Revision 1 Volume 1

NON-PUBLIC DVD

Enclosure 4

Nine Mile Point Unit 3 COL Application Revision 1 Volume 2

PUBLIC DVD

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Enclosure 5

Affidavit for Request for Withholding of Proprietary Information in Accordance with 10 CFR 2.390

Affidavit of Gregory T. Gibson

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Gregory T. Gibson, being duly sworn, hereby deposes and states as follows:

- 1. My name is Gregory T. Gibson. I am the Vice President, Regulatory Affairs for UniStar Nuclear Energy, LLC (UniStar).
- 2. I have been authorized by UniStar to execute this affidavit in support of UniStar's request to withhold proprietary information identified in UniStar's letter to the NRC UN #09-143, "UniStar Nuclear Energy, NRC Docket No. 52-038, Submittal of Revision 1 to the Combined License Application for Nine Mile Point 3 Nuclear Power Plant; and Application for Withholding of Documents," hereafter referred to as the "Proprietary Information," from public disclosure in accordance with the Nuclear Regulatory Commission's (NRC's) regulations appearing at 10 C.F.R. 2.390(a)(4).
- 3. The proprietary Information is being submitted as proprietary and confidential information as part of an enclosure to UniStar's letter UN #09-143 from Greg Gibson to NRC's Document Control Desk.
- 4. The Proprietary Information includes detailed financial information regarding costs and taxes associated with the construction and operation of the proposed U.S. EPR nuclear power plant at the Nine Mile Point Site (i.e. NMP3NPP).
- 5. The Proprietary Information was prepared with the explicit understanding that the information itself would be treated as proprietary and confidential. The information should therefore be withheld from public disclosure. Indeed, UniStar has refrained from publicly disclosing this information. To the best of my knowledge and belief, the Proprietary Information has not otherwise been knowingly made available in any public source.
- 6. If the Proprietary Information was publicly disclosed, UniStar and Constellation Energy would suffer irreparable and incalculable harm. Specifically, UnlStar's competitors would gain valuable insight into otherwise unavailable business strategies, plans, and financial details. By knowing the details included in the Proprietary Information, UniStar's competitors would obtain an unfair commercial advantage that would significantly affect UniStar's ability to compete. In addition, the success of the UniStar's future plans is governed in large part by the cost and tax information, and thus to publicly disclose this information as reflected in Proprietary Information would result in substantial harm to the competitive position of UniStar.
- 7. Financial information by its nature is treated as confidential. The specific financial details in the Proprietary Information have not been publicly released for the reasons set forth above. Accordingly, withholding the Proprietary information from disclosure will not adversely affect the public.
- 8. A redacted version of the Proprietary Information has been provided. This version is for public disclosure.

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Affidavit of Gregory T. Gibson

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9. The proprietary Information is being submitted to the NRC in confidence. The Proprietary Information is of a sort customarily held in confidence by UniStar, and in fact has been held in confidence and not otherwise previously publicly released.

Further Affiant sayeth not.

Gregory T. Gibson

Vice President, Regulatory Affairs UniStar Nuclear Energy, LLC

Subscribed and sworn to before me, Notary Public, this 31st day of March, 2009:

My Commission expires: $\left(- / - / / \right)$

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