December 12, 2008

Mr. Greg Gibson
Vice President, Regulatory Affairs
UniStar Nuclear Energy
100 Constellation Way, Suite 1400P
Baltimore, Maryland 21202-3106

SUBJECT: COMBINED LICENSE APPLICATION ACCEPTANCE REVIEW FOR NINE MILE POINT 3 NUCLEAR POWER PLANT

Dear Mr. Gibson:

By letter dated September 30, 2008, as supplemented by letter dated November 18, 2008, Nine Mile Point 3 Nuclear Project, LLC, and UniStar Nuclear Operating Services, LLC (UniStar), submitted an application to the U.S. Nuclear Regulatory Commission (NRC) for a combined license (COL) for a single unit of the U.S. Evolutionary Power Reactor (U.S. EPR) in accordance with the requirements contained in Title 10 of the *Code of Federal Regulations* (10 CFR) Part 52, "Licenses, Certifications, and Approvals for Nuclear Power Plants." This letter informs you that the NRC staff has completed its acceptance review and has determined that your application is acceptable for docketing. This reactor will be identified as Nine Mile Point 3 Nuclear Power Plant (NMP3NPP) and is to be located adjacent to the current Nine Mile Point Nuclear Station, Unit 1 and Unit 2, in Oswego County, New York. The Docket Number established for Unit 3 is 52-038.

The NMP3NPP COL application (COLA) incorporates by reference the U.S. EPR Design Control Document submitted by AREVA NP as Revision 0. As allowed by 10 CFR 52.55(c), at your own risk, you have referenced a design certification application that has been docketed but not granted. Therefore, your COLA review schedule is dependent on the review schedule for the design certification. In addition, as a subsequent combined license applicant, your COLA review schedule is also dependent on the review schedule for the Calvert Cliffs Nuclear Power Plant COLA (the reference COLA for the U.S. EPR design center). Because it utilizes the standard content contained in the reference COLA (R-COLA), it is incumbent upon Nine Mile Point 3 Nuclear Project, LLC, and UniStar Nuclear Operating Services, LLC (UniStar) to remain cognizant of the resolution of the standard technical issues that will be addressed during the NRC review of the Calvert Cliffs Nuclear Power Plant R-COLA application. If you determine that it is necessary to resolve a standard issue differently for the NMP3NPP COLA, you must notify the NRC immediately so that we may determine the review impact of this standard issue being considered as site specific.

Your application includes a discussion in Part 2, FSAR Chapter 1.0, Section 1.1, that information enclosed in braces "{ }" is unique to NMP3NPP, and information not enclosed in braces is generic for all UniStar Nuclear Operating Services facilities. However, later you state that minor changes are made within the generic text that are not identified as site-specific. This creates a problem for the review of the application in that the standard text is not identical between the R-COLA and your subsequent COLA (S-COLA). This inconsistent standard text

practice makes implementation of the designed-centered review approach for an S-COLA less efficient because the staff cannot assume that the information reviewed in the R-COLA is the same as that included in an S-COLA. This potentially impacts review resources, with associated potential schedule impacts. The staff recommends that you amend your application to provide standard language identical to that in the R-COLA to support the review of your application.

As stated in the October 22, 2008, letter acknowledging the receipt of the NMP3NPP COLA, it was the NRC's intention to issue a review schedule within 30 days of docketing the COLA. However, the staff has identified issues in the area of seismology that have introduced uncertainty into the review schedule. Enclosure 1 contains these issues. Although our acceptance review determined that the NMP3NPP COLA is complete and technically sufficient, the date that we intend to publish a complete and integrated review schedule cannot be determined, as discussed with your staff, until additional information is provided by you to address these issues.

The enclosed *Federal Register* Notice of acceptance for docketing has been forwarded to the Office of the *Federal Register* and a separate notice will be published, in accordance with the provisions of 10 CFR 2.104, regarding the opportunity to file a petition for leave to intervene in the mandatory hearing required for this application.

Should you have any questions or comments concerning this matter, I can be reached at 301-415-1647 or e-mail address of Prosanta.Chowdhury@nrc.gov.

Sincerely,

/RA/

Prosanta Chowdhury, Project Manager
US EPR Projects Branch
Division of New Reactor Licensing
Office of New Reactors

Docket No. 52-038

Enclosures:
1: List of Issues
2. Federal Register Notice

cc: See next page

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Sincerely,

/RA/

Prosanta Chowdhury, Project Manager
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Office of New Reactors

Docket No. 52-038

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ADAMS Accession Number: ML083300519 ***previous concurrences**

OFFICE	DNRL/NARP:PM	DNRL/NARP:LA	DSER/RGS1:BC	OGC	DNRL/NARP:BC
NAME	PChowdhury*	JMcLellan*	RKaras*	SBrock*	JColaccino*
DATE	12/08/08	12/08/08	12/08/08	12/11/08	12/12/08

OFFICIAL RECORD COPY

SUBJECT: COMBINED LICENSE APPLICATION ACCEPTANCE REVIEW FOR NINE MILE POINT 3 NUCLEAR POWER PLANT DATED _____

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Nine Mile Point 3 Nuclear Power Plant
Nine Mile Point 3 Nuclear Project, LLC, UniStar Nuclear Operating Services, LLC (UniStar)
Docket No. 52-038

ISSUES for Geosciences and Geotechnical Engineering Branch (RGS)
SRP Section: 02.05.02 – Vibratory Ground Motion
Application Section: SRP 2.5.2

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.

Sensitivity Analyses:

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.

In addition, 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.

The supplement also 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. Furthermore, 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.