

August 5, 2008

LICENSEE: AmerGen Energy Company, LLC

FACILITY: Three Mile Island Nuclear Station, Unit 1

SUBJECT: SUMMARY OF TELEPHONE CONFERENCE CALL HELD ON JULY 17, 2008,  
BETWEEN THE U.S. NUCLEAR REGULATORY COMMISSION AND AMERGEN  
ENERGY COMPANY, LLC., CONCERNING FOLLOW-UP QUESTIONS  
PERTAINING TO THE THREE MILE ISLAND NUCLEAR STATION, UNIT 1  
LICENSE RENEWAL ENVIRONMENTAL REVIEW AND SITE AUDIT

Representatives of the U.S. Nuclear Regulatory Commission (NRC or the staff) and representatives of AmerGen Energy Company, LLC (AmerGen) held a telephone conference call on July 17, 2008, to discuss and provide additional information regarding the staff's follow-up questions resulting from the April 28-May 1, 2008, environmental site audit of Three Mile Island Nuclear Station, Unit 1 (TMI-1) and comments received by the staff from the Susquehanna River Basin Commission during the environmental scoping period.

Enclosure 1 provides a listing of participants of the conference call. Enclosure 2 contains the follow-up questions discussed during the conference call and a summary of the information provided by AmerGen in response to the follow-up questions, including descriptions of documents to be submitted to the TMI-1 license renewal docket by AmerGen as a supplement to Appendix E of the license renewal application, the environmental report.

**IRA\**

Sarah Lopas, Project Manager  
Reactor Projects Branch 1  
Division of License Renewal  
Office of Nuclear Reactor Regulation

Docket No. 50-289

Enclosures:  
As stated

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Representatives of the U.S. Nuclear Regulatory Commission (NRC or the staff) and representatives of AmerGen Energy Company, LLC (AmerGen) held a telephone conference call on July 17, 2008, to discuss and provide additional information regarding the staff's follow-up questions resulting from the April 28-May 1, 2008, environmental site audit of Three Mile Island Nuclear Station, Unit 1 (TMI-1) and comments received by the staff from the Susquehanna River Basin Commission during the environmental scoping period.

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**LIST OF PARTICIPANTS FOR THE  
TELEPHONE CONFERENCE CALL  
THREE MILE ISLAND NUCLEAR STATION, UNIT 1  
LICENSE RENEWAL APPLICATION**

July 17, 2008

**PARTICIPANTS**

Sarah Lopas  
Richard Bulavinetz  
Dennis Logan  
Dennis Beissel  
Allison Travers  
Nathan Goodman  
Ekaterina Lenning  
Edwin Fuhrer  
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Exelon Generation Company, LLC (Exelon)  
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AmerGen  
AmerGen  
Exelon  
AmerGen  
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TetraTech NUS, Inc.

**FOLLOW-UP QUESTIONS FOR AMERGEN  
ENERGY COMPANY, LLC, REGARDING THE  
THREE MILE ISLAND NUCLEAR STATION, UNIT 1,  
LICENSE RENEWAL ENVIRONMENTAL REVIEW**

Representatives of the U.S. Nuclear Regulatory Commission (NRC or the staff) and representatives of AmerGen Energy Company, LLC (AmerGen) held a telephone conference call on July 17, 2008, to discuss and provide additional information regarding the staff's follow-up questions resulting from the April 28-May 1, 2008, environmental site audit of Three Mile Island Nuclear Station, Unit 1 (TMI-1) and comments received by the staff from the Susquehanna River Basin Commission during the environmental scoping period. The TMI-1 environmental site audit summary and the TMI-1 environmental scoping summary report are publicly available in the Agencywide Documents Access and Management System (ADAMS) at accession numbers ML081420398 and ML081920230, respectively. ADAMS is accessible at <http://adamswebsearch.nrc.gov/dologin.htm> or through the NRC's Electronic Reading Room link at <http://www.nrc.gov>. Persons who do not have access to ADAMS, or who encounter problems in accessing the documents located in ADAMS, should contact the NRC's Public Document Room staff at 1-800-397-4209, or 301-415-4737, or by e-mail at [pdr@nrc.gov](mailto:pdr@nrc.gov).

AmerGen provided responses to the staff's follow-up questions, these responses are summarized below. Furthermore, where expressly noted, AmerGen will provide supplemental documentation in response to the staff's follow-up questions to supplement Appendix E of the TMI-1 license renewal application, the environmental report. The supplemental documentation will be submitted to the TMI-1 license renewal docket.

**Aquatic Ecology Questions**

**ENV-84. Transportation Route of New Steam Generators**

Upon completion of your route study and the associated transportation impacts, please provide the following information (if not contained in the transportation study report):

- Potential routes (if not narrowed down to one).
- Number of streams to cross.
- Modifications required to bridges (itemized and cumulative).
- Any in-stream work required for each bridge, including channel-ward extent of any work into stream, and the surface area of waters or wetlands to be filled.
- Will new bridges need to be constructed?
- Will streams need to be bypassed or rechannelized during bridge improvements?
- Are any anadromous fish species or federally or state-listed aquatic species present in potential areas of stream work?
- List the associated permits that likely will be required for this work.

***AmerGen Response:*** *The schedule for completing the transportation plan for delivery of the replacement steam generators has changed, and the plan will not be complete until spring 2009. Until the transportation plan is available, AmerGen cannot provide specific information regarding alternative routes, work areas within the routes, or permits required for transportation of the replacement steam generators to the TMI-1 site. However, AmerGen stated reasonable assurance that the steam generators will be transferred to land at Port Deposit,*

Enclosure 2

*Maryland, and that preliminary bathymetry studies provide a high level of confidence that there would be no need for dredging in the Susquehanna River to accommodate the transfer at that location. AmerGen will keep the staff updated on the progress of the transportation plan, and although specific information likely will not be available in time for publication of the TMI-1 draft supplemental environmental impact statement (SEIS), more complete information may be available for inclusion in the final SEIS.*

#### **ENV-91. Dredging Operations**

Is the material annually dredged from the intake and discharge structures placed into an approved upland disposal site, with no impacts to the wetlands or waterways?

Is material being hydraulically dredged or dredged by bucket?

If hydraulically, are there time-of-year restrictions to protect anadromous fishes?

Please provide copies of U.S. Army Corps of Engineers and Pennsylvania Department of Environmental Protection dredging and encroachment permits, if applicable.

**AmerGen response:** *The TMI-1 screen intake structure is hydraulically dredged on an annual basis. Dredged material is deposited in an on-site sedimentation pond located in the northern portion of the site, within the flood protection dike. Any overflow from the sedimentation pond would flow into the yard drainage system, which discharges to the Susquehanna River under conditions dictated by the TMI-1 National Pollutant Discharge Elimination System permit. River silt accumulates in the sedimentation pond for several years, after which it is moved up-site for drying, spreading, grading, and seeding. There are no time-of-year restrictions contained in the dredging permits for TMI-1. AmerGen will provide copies of applicable dredging permits.*

#### **ENV-94. Submerged Aquatic Vegetation**

During annual dredging operations, are any areas dredged that contained submerged aquatic vegetation?

**AmerGen response:** *There is no submerged aquatic vegetation (SAV) in the area of the screen intake structure. Samples were collected to evaluate SAV at three locations twice annually during the initial TMI-1 Radiological Environmental Monitoring Program – just above the intake structure, just below the discharge structure, and approximately 1900 meters below the discharge structure. SAV was not found in these locations, and the SAV sampling program was discontinued. The substrate at the intake structure consists of large boulders and rip-rap. The other two sampling locations have been characterized as shallow with a silt-mud substrate.*

#### **Hydrology and Water Use Questions Related to Susquehanna River Basin Commission Environmental Scoping Comments**

**1. The Susquehanna River is well known for its flooding events, with over forty serious floods recorded since 1736. What information can AmerGen provide showing that the flood protection dike will effectively protect the site's non-radiological hazardous materials during a flood event? Or, if the flood protection dike would be breached, what measures or storage characteristics are present to protect on-site non-radiological hazardous materials? Original Susquehanna River Basin Commission (SRBC) comment**

states – “Documentation should be provided demonstrating that the flood protection dike – or the location and storage of hazardous material – ensures there is protection from contamination during the flood of record.”

**AmerGen Response:** *Information regarding Susquehanna floods of record and the TMI-1 flood protection dike can be found in sections 2.6.4, 2.6.4.1, 2.6.4.2, and 2.6.5 of the TMI-1 Updated Final Safety Analysis Report. Hazardous materials stored on-site are all located within the boundaries of the flood protection dike, with the exception of a 4000-gallon diesel fuel underground storage tank (UST), a 10,000-gallon unleaded gasoline UST, and eight small drums of oil/lubricants, which are located inside a building. While these materials are not covered by a flood protection plan, they are all located at an elevation higher than the 100-year flood plain.*

**2. Can AmerGen provide any available information on the use of the OSF Well (which is authorized for drinking water) for unauthorized purposes? Will there be steps taken to seek the review and approval of the SRBC for the well’s use in this capacity?** Original SRBC comment states, “SRBC has approved Wells 1, 2, and 3 (aka A, B, C) for industrial water supply and is perplexed to learn that the OSF Well is also used to augment the supply of service water. If this is the case, the well would require review and approval by SRBC.”

**AmerGen response:** *The OSF-NOB well was installed in 1986 as a potable drinking water supply. In 1997, GPU Nuclear (the previous owner/operator of TMI-1) began augmenting the TMI-1 high purity service water supply with groundwater from this well. Augmentation was initially occasional and was intended to be temporary. However it gradually increased through the years and became essentially continuous in 2004. All water withdrawals from OSF-NOB have been reported to SRBC in annual water withdrawal reports. AmerGen will provide the NRC with copies of the TMI-1 annual groundwater usage reports for the past five years (2003 through 2007). AmerGen and SRBC are discussing permitting issues, and AmerGen will update the staff if new information becomes available for inclusion in the final SEIS.*

**3. Can AmerGen provide more details about the Cowanesque Reservoir water allocation project? Such as, at what point (river elevation) during a drought is water released from the reservoir? A more detailed description of the project (specific to TMI-1’s operation and participation in the project) would be appreciated.** Original SRBC comment states, “As the Environmental Report states, SRBC directs the release of storage on behalf of TMI during times of drought. However, the quantity released is equivalent only to the consumptive loss at the plant, and not the total withdrawal, which is considerably greater. Further, replacement releases are made only during very severe droughts, and not during moderate droughts and other short-term periods of unusually low flows. Thus, despite releases by SRBC, there remains the potential for groundwater impacts due to the difference between total withdrawal and consumptive loss, and during periods of moderate and short-term severe droughts. These potential impacts should be assessed.”

**AmerGen response:** *The Cowanesque Reservoir is a U.S. Army Corps of Engineers (USACE) flood control and water storage project located near the New York/Pennsylvania border. USACE and SRBC have a contract allowing SRBC to store water there for releases during low flow periods of the Susquehanna River. In 1986 TMI-1 and the Susquehanna Steam Electric Station (located upriver of TMI-1 on the Susquehanna River) agreed to pay SRBC for water storage in the reservoir, as compensation for consumptive water use from the Susquehanna River basin. AmerGen will provide the NRC with a copy of the Cowanesque Reservoir Operations Manual, which was jointly created by USACE and SRBC and contains information*

*regarding operation of the reservoir to mitigate the impact of droughts on the Susquehanna River. Additional details regarding drought management in the Susquehanna River basin can be found in the Conowingo Pond Management Plan, located online at the SRBC website: <http://www.srbc.net/planning/conowingo.htm>.*

Letter to AmerGen Energy Company, LLC, from Sarah Lopas, dated August 5, 2008

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