

December 17, 2004

Mr. Christopher M. Crane
President and Chief Executive Officer
AmerGen Energy Company, LLC
4300 Winfield Road
Warrenville, IL 60555

SUBJECT: BULLETIN 2003-01, "POTENTIAL IMPACT OF DEBRIS BLOCKAGE ON
EMERGENCY SUMP RECIRCULATION AT PRESSURIZED-WATER
REACTORS," FOR THREE MILE ISLAND NUCLEAR STATION, UNIT 1
(TMI-1), REQUEST FOR ADDITIONAL INFORMATION (RAI) (TAC NO.
MB9620)

Dear Mr. Crane:

By letter dated August 6, 2003, as supplemented July 6, 2004, you submitted your response to Nuclear Regulatory Commission (NRC) Bulletin 2003-01. The NRC staff has reviewed your submittals and determined that it will need the additional information contained in the enclosure in order to complete our review of the containment sump screen debris blocking issue at TMI-1. As discussed with and agreed to by your staff, you are requested to provide your response within 30 days receipt of this request.

If you have any questions, please contact me at 301-415-1402.

Sincerely,

/RA/

Timothy G. Colburn, Senior Project Manager, Section 1
Project Directorate I
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket No. 50-289

Enclosure: RAI

cc w/encl: See next page

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REQUEST FOR ADDITIONAL INFORMATION (RAI)

THREE MILE ISLAND NUCLEAR STATION, UNIT 1 (TMI-1)

BULLETIN 2003-01, "POTENTIAL IMPACT OF DEBRIS BLOCKAGE ON

CONTAINMENT EMERGENCY SUMP RECIRCULATION

AT PRESSURIZED-WATER REACTORS"

The Nuclear Regulatory Commission (NRC) staff has reviewed the TMI-1 licensee's August 6, 2003, as supplemented July 6, 2004, response to Bulletin 2003-01, and has determined that the additional information requested below is needed for the NRC staff to complete its review.

1. For TMI-1, has the licensee done any risk-assessment or quantitative/qualitative analysis to evaluate throttling emergency core cooling system (ECCS)/containment spray (CS) system as a measure to delay switchover to sump recirculation?
2. Please re-answer RAI question No. 1 from your July 6, 2004, RAI response letter. The response given (start recirculation EARLY (emphasis added) using one CS pump to refill the borated water storage tank (BWST)), is contradictory to the key premise of the original question (the purpose of refilling the BWST is to DELAY (emphasis added) having to use sump recirculation).
3. Has, or will, the licensee provide training to inform operators to consider the option of aggressive cooldown as a strategy for small loss-of-coolant accident (LOCA) events? If not, why not?
4. Please provide a more detailed discussion regarding TMI-1 evaluations of ECCS pump and valve susceptibility to clogging/damage/loss of lubrication/loss of cooling (e.g. wetted soft-surface pump bearings, pump flow channels, and valve seats) due to small debris downstream of sump screens.
5. On page 4 of the July 6, 2004, RAI response, the licensee correctly stated that "the WOG [Westinghouse Owners Group] guidance provided the following actions for consideration as interim measures: (a) Secure one or both trains of containment spray prior to switchover." On that same page, the licensee stated that TMI-1 "has incorporated a modified version of (a) into symptom-based guidance... to reduce draw on the sump whenever containment spray is not absolutely needed for dose or containment pressure reduction." On page 2 of the licensee's July 6, 2004, response, the licensee also stated, "in response to Bulletin 2003-01, we enhanced the emergency procedures to provide the following guidance in regard to ECCS operation after switchover to ECCS sump suction: ...3. SHUTDOWN both containment spray trains based on other emergency procedure guidance..."

Please provide the rationale for not implementing procedures to secure one or both CS trains prior to sump recirculation.

Enclosure

Three Mile Island Nuclear Station, Unit 1

cc:

Site Vice President - Three Mile Island Nuclear
Station, Unit 1
AmerGen Energy Company, LLC
P. O. Box 480
Middletown, PA 17057

Senior Vice President - Nuclear Services
AmerGen Energy Company, LLC
4300 Winfield Road
Warrenville, IL 60555

Vice President - Operations, Mid-Atlantic
AmerGen Energy Company, LLC
200 Exelon Way, KSA 3-N
Kennett Square, PA 19348

Vice President - Licensing and Regulatory Affairs
AmerGen Energy Company, LLC
4300 Winfield Road
Warrenville, IL 60555

Regional Administrator
Region I
U.S. Nuclear Regulatory Commission
475 Allendale Road
King of Prussia, PA 19406

Chairman
Board of County Commissioners
of Dauphin County
Dauphin County Courthouse
Harrisburg, PA 17120

Chairman
Board of Supervisors
of Londonderry Township
R.D. #1, Geyers Church Road
Middletown, PA 17057

Senior Resident Inspector (TMI-1)
U.S. Nuclear Regulatory Commission
P.O. Box 219
Middletown, PA 17057

Director - Licensing and Regulatory Affairs
AmerGen Energy Company, LLC
200 Exelon Way, KSA 3-E
Kennett Square, PA 19348

Rich Janati, Chief
Division of Nuclear Safety
Bureau of Radiation Protection
Department of Environmental Protection
Rachel Carson State Office Building
P.O. Box 8469
Harrisburg, PA 17105-8469

Plant Manager - Three Mile Island Nuclear
Station, Unit 1
AmerGen Energy Company, LLC
P. O. Box 480
Middletown, PA 17057

Regulatory Assurance Manager - Three Mile
Island Nuclear Station, Unit 1
AmerGen Energy Company, LLC
P.O. Box 480
Middletown, PA 17057

Peter Eselgroth, Region I
U.S. Nuclear Regulatory Commission
475 Allendale Road
King of Prussia, PA 19406

Michael A. Schoppman
Framatome ANP
Suite 705
1911 North Ft. Myer Drive
Rosslyn, VA 22209

Three Mile Island Nuclear Station, Unit 1

cc:

Vice President, General Counsel and Secretary
AmerGen Energy Company, LLC
2301 Market Street, S23-1
Philadelphia, PA 19101

Dr. Judith Johnsrud
National Energy Committee
Sierra Club
433 Orlando Avenue
State College, PA 16803

Eric Epstein
TMI Alert
4100 Hillsdale Road
Harrisburg, PA 17112

Correspondence Control Desk
AmerGen Energy Company, LLC
P.O. Box 160
Kennett Square, PA 19348

Manager Licensing - Three Mile Island Nuclear Station, Unit 1
Exelon Generation Company, LLC
200 Exelon Way, KSA 3-E
Kennett Square, PA 19348

Associate General Counsel
AmerGen Energy Company, LLC
4300 Winfield Road
Warrenville, IL 60555