



A PECO Energy/British Energy Company

10 CFR 50.90

AmerGen Energy Company, LLC
Three Mile Island Unit 1

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August 11, 2000
5928-00-20255

U. S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, DC 20555

Dear Sir or Madam:

SUBJECT: THREE MILE ISLAND NUCLEAR STATION, UNIT 1
OPERATING LICENSE NO. DPR-50
DOCKET NO. 50-289
LICENSE CHANGE APPLICATION (LCA) NO. 289, SUPPLEMENT NO. 1

The purpose of this letter is to respond to the NRC's request regarding LCA No. 289, dated November 30, 1999, which submitted changes to the Air Treatment Systems Technical Specifications in response to NRC Generic Letter (GL) 99-02, Laboratory Testing of Nuclear-Grade Activated Charcoal." In a conference call with the NRC and its contractor, AmerGen committed to provide a supplement to LCA No. 289 with regard to the following two issues:

1. The NRC stated that in order to approve the request to change the activated charcoal test requirements in Technical Specifications (T.S.) 4.12.4, "Fuel Handling Building ESF Air Treatment System," from a test performed at 95% relative humidity (the current test) to tests conducted at 70% relative humidity, a surveillance test will need to be included to demonstrate the operability of installed heaters.

Response:

AmerGen wishes to defer consideration of adding a surveillance for these heaters until a later date. Therefore, the change to permit testing the Fuel Handling Building (FHB) ESF ATS activated charcoal at 70% relative humidity is being withdrawn at this time.

2. The NRC requested that the test standard, "ASTM D3803-1989," be reflected in the specification.

Response:

LCA No. 289 included a commitment to the 1989 standard as requested by GL 99-02. Because of the TMI-1 custom T.S. format, the standard was included in the Bases. In response to the NRC's request, the test standard is also being added to specifications 3.15.1.2.b, 3.15.2.2.b, and 3.15.2.4.b.

Enclosed is a markup of the T.S. pages affected by this supplement incorporating the changes described above.

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AmerGen has concluded that this supplement does not constitute a change to the previously supplied significant hazards consideration analysis. Pursuant to 10 CFR 50.91(b)(1), a copy of this supplement is being provided to the designated official of the Commonwealth of Pennsylvania, Bureau of Radiation Protection, as well as the chief executives of the township and county in which the facility is located.

Please contact Bob Knight of TMI Licensing at (717) 948-8554 if you have any questions regarding this submittal.

Very truly yours,

A handwritten signature in cursive script, appearing to read "Mark E. Warner for MEW".

Mark E. Warner
Vice President, TMI Unit 1

MEW/mrk

Enclosure: Hand Markup of Technical Specifications Revised Pages

cc: USNRC Regional Administrator, Region I
USNRC TMI Senior Resident Inspector
USNRC TMI Unit 1 Senior Project Manager
Chairman, Board of Supervisors of Londonderry Township
Chairman, Board of County Commissioners of Dauphin County
Director, Bureau of Radiation Protection, PA Department of Environmental Resources
File No. 99117

Three Mile Island Nuclear Station, Unit 1
Operating License No. DPR-50
Docket No. 50-289
License Change Application (LCA) No. 289, Supplement 1

Member, Pennsylvania Association of Notaries

Enclosure

Hand Markup of the Current TMI Unit 1 Technical Specifications Pages
for License Change Application No. 286

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3.15 AIR TREATMENT SYSTEMS

3.15.1 EMERGENCY CONTROL ROOM AIR TREATMENT SYSTEM

Applicability

Applies to the emergency control room air treatment system and its associated filters.

Objective

To specify minimum availability and efficiency for the emergency control room air treatment system and its associated filters.

Specifications

- 3.15.1.1 Except as specified in Specification 3.15.1.3 below, both emergency treatment systems, AH-E18A fan and associated filter AH-F3A and AH-E18B fan and associated filter AH-F3B shall be operable at all times, per the requirements of Specification 3.15.1.2 below; when containment integrity is required and when irradiated fuel handling operations are in progress.
- 3.15.1.2 a. The results of the in-place DOP and halogenated hydrocarbon tests at design flows on HEPA filters and charcoal absorber banks shall show <0.05% DOP penetration and <0.05% halogenated hydrocarbon penetration, except that the DOP test will be conducted with prefilters installed.
- b. The results of laboratory carbon sample analysis shall show 95% ~~≥ 90%~~ radioactive methyl iodide decontamination efficiency when tested at 125°F, 95% R.H. (30 degrees C) ~~in accordance with ASTM D3803-1984~~
- c. The fans AH-E18A and B shall each be shown to operate within ± 4000 CFM of design flow (40,000 CFM).
- 3.15.1.3 From and after the date that one control room air treatment system is made or found to be inoperable for any reason, reactor operation or irradiated fuel handling operations are permissible only during the succeeding 7 days provided the redundant system is verified to be OPERABLE.
- 3.15.1.4 From the date that both control room air treatment systems are made or found to be inoperable or if the inoperable system of 3.15.1.3 cannot be made operable in 7 days, irradiated fuel handling operations shall be terminated in 2 hours and reactor shutdown shall be initiated and the reactor shall be in cold shutdown within 48 hours

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3.15.2 REACTOR BUILDING PURGE AIR TREATMENT SYSTEM

Applicability

Applies to the reactor building purge air treatment system and its associated filters.

Objective

To specify minimum availability and efficiency for the reactor building purge air treatment system and its associated filters.

Specification

- 3.15.2.1 Except as specified in Specification 3.15.2.3 below, the Reactor Building Purge Air Treatment System filter AH-F1 shall be operable as defined by the Specification below at all times when containment integrity is required unless the Reactor Building purge isolation valves are closed.
- 3.15.2.2 a. The results of the in-place DOP and halogenated hydrocarbon tests at maximum available flows on HEPA filters and charcoal adsorber banks for AH-F1 shall show less than 0.05% DOP penetration and less than 0.05% halogenated hydrocarbon penetration; except that the DOP test will be conducted with prefilters installed.
- b. The results of laboratory carbon sample analysis for the reactor building purge system filter carbon shall show greater than or equal to 90% radioactive methyl iodide decontamination efficiency when tested at 30 degrees C 250°F, 95% R.H. in accordance with ASTM D3803-1989 85%
- 3.15.2.3 From and after the date that the filter AH-F1 in the reactor building purge system is made or found to be inoperable as defined by Specification 3.15.2.2 above, the Reactor Building purge isolation valves shall be closed until the filter is made operable.

Bases

The Reactor Building Purge Exhaust System (Reference 1) filter AH-F1 while normally used to filter all reactor building exhaust air. It is necessary to demonstrate operability of these filters to assure readiness for service if required to mitigate a fuel handling accident (Reference 2) in the Reactor Building and to assure that 10CFR50 Appendix I limits are met. Reactor Building purging is required to be terminated if the filter is not operable.

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3.15.4 Fuel Handling Building ESF Air Treatment System

Applicability

Applies to the Fuel Handling Building (FHB) ESF Air Treatment System and its associated filters.

Objective

To specify minimum availability and efficiency for the FHB ESF Air Treatment System and its associated filters for irradiated fuel handling operations.

Specifications

- 3.15.4.1 Prior to fuel movement each refueling outage, two trains shall be operable. One train shall be operating continuously whenever TMI-1 irradiated fuel handling operations in the FHB are in progress.
- With one train inoperable, irradiated fuel handling operations in the Fuel Handling Building may continue provided the redundant train is operating.
 - With both trains inoperable, handling of irradiated fuel in the Fuel Handling Building shall be suspended until such time that at least one train is operable and operating. Any fuel assembly movement in progress may be completed.
- 3.15.4.2 A FHB ESF Air Treatment System train is operable when its surveillance requirements are met and:
- The results of the in-place DOP and halogenated hydrocarbon tests at design flows on HEPA filters and carbon adsorber banks shall show <0.05% DOP penetration and <0.05% halogenated hydrocarbon penetration.
 - The results of laboratory carbon sample analysis shall show 95% ~~>90%~~ radioactive methyl iodide decontamination efficiency when tested at 30°C, 95% R.H.
in accordance with ASTM D3803-1989
 - The fans AH-E-137A and B shall each be shown to operate within $\pm 10\%$ of design flow (6,000 SCFM).

Bases

Compliance with these specifications satisfies the condition of operation imposed by the Licensing Board as described in NRC's letter dated October 2, 1985, item 1.c.

The FHB ESF Air Treatment System contains, controls, mitigates, monitors and records radiation release resulting from a TMI-1 postulated spent fuel accident in the Fuel Handling Building as described in the FSAR. Offsite doses will be less than the 10 CFR 100 guidelines for accidents analyzed in Chapter 14 (Reference 1).

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Bases (Continued)

Normal operation of the FHB ESF Air Treatment System will be during TMI-1 irradiated fuel movements in the Fuel Handling Building. The system includes air filtration and exhaust capacity to ensure that any radioactive release to atmosphere will be filtered and monitored. Effluent radiation monitoring and sampling capability are provided.

See
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next page

References

- (1) UFSAR, Section 14.2.2.1 - "Fuel Handling Accident"
- (2) *NRC Generic Letter 99-02, dated June 3, 1999*