

October 16, 2001

Mr. L. M. Quintana
Vallecitos and Morris Operations
Vallecitos Nuclear Center
General Electric Company
6705 Vallecitos Road
Sunol, CA 94586

SUBJECT: ISSUANCE OF AMENDMENT NO. 22 TO FACILITY OPERATING
LICENSE NO. R-33 - GENERAL ELECTRIC NUCLEAR TEST REACTOR
(TAC N O. MB2355)

Dear Mr. Quintana:

The U.S. Nuclear Regulatory Commission has issued Amendment No. 22 for Facility Operating License No. R-33. This amendment corrects errors on section numbers referenced in the Technical Specifications. This is in response to the application dated July 3, 2001.

Enclosed is a copy of the Safety Evaluation Report and a copy of the Environmental Assessment associated with this amendment.

Sincerely,

/RA/

Marvin M. Mendonca, Senior Project Manager
Operational Experience and Non-Power Reactors Branch
Division of Regulatory Improvement Programs
Office of Nuclear Reactor Regulation

Docket No. 50-73

Enclosures: 1. Amendment No. 22
2. Safety Evaluation Report
3. Environmental Assessment

cc w/enclosures:
Please see next page

General Electric Company (NTR)

Docket No. 50-73

cc:

Mr. Steve Hsu
Radiologic Health Branch
State Department of Health Service
P.O. Box 942732
Sacramento, CA 94234-7320

California Department of Health
ATTN: Chief, Environmental Radiation
Control Unit
Radiological Health Section
714 P Street, Room 498
Sacramento, CA 95814

Mr. Chuck Bassett, Manager
Regulatory Compliance
Vallecitos and Morris Operations
Vallecitos Nuclear Center
General Electric Company
6705 Vallecitos Road
Sunol, CA 94586

Test, Research, and Training
Reactor Newsletter
University of Florida
202 Nuclear Sciences Center
Gainesville, FL 32611

Mr. Chris Hamilton
Senior Licensing Engineer
Certified Six Sigma Green Belt
Vallecitos Nuclear Center
Sunol, CA 94586

Mr. Harold Neems
General Electric Company
Nuclear Energy Business Operations
175 Cutner Avenue
Mail Code 123
San Jose, CA 95125

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GENERAL ELECTRIC COMPANY
THE GENERAL ELECTRIC NUCLEAR TEST REACTOR
DOCKET NO. 50-73
AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 22
License No. R-33

1. The U.S. Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment filed by the General Electric Company dated July 3, 2001, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I.
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public and (ii) that such activities will be conducted in compliance with the rules and regulations of the Commission;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public;
 - E. This amendment is issued in accordance with 10 CFR Part 51 of the regulations of the Commission and all applicable requirements have been satisfied; and
 - F. Prior notice of this amendment was not required by 10 CFR 2.105 and publication of a notice for this amendment is not required by 10 CFR 2.106.

2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the enclosure to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. R-33 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 22, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of the date of its issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

/RA/

Marvin M. Mendonca, Senior Project Manager
Operational Experience and Non-Power Reactors Branch
Division of Regulatory Improvement Programs
Office of Nuclear Reactor Regulation

Enclosure:
Appendix A, Technical
Specifications Changes

Date of Issuance: October 16, 2001

ENCLOSURE TO LICENSE AMENDMENT NO. 22

FACILITY OPERATING LICENSE NO. R-33

DOCKET NO. 50-73

Replace the following pages of the Appendix A Technical Specifications with the enclosed pages. The revised pages are identified by amendment number and contain vertical lines indicating the areas of changes.

Remove

3-11

6-6

6-8

Insert

3-11

6-6

6-8

Table 3-3

STACK RELEASE RATE LIMITS

Isotope Group	Annual Average
Halogen, > 8d T1/2	180 mCi/wk
Particulate, > 8d T1/2	
Beta-Gamma	870 microcuries/wk
Alpha	8.7 microcuries/wk
All other (including Noble Gas)	18 Ci/wk

3.4.3.4

During operation of the reactor above 0.1 kW or the performance of activities that could release radioactivity to the ventilation system, the stack particulate activity monitor and the gaseous activity monitor shall be operating.

If either the gas or particulate monitor is not operable, the reactor shall be shut down, or the activity involving releases shall be terminated, or the unit shall be promptly repaired or replaced with one of comparable monitoring capability. During this period, any indication of abnormal reactor operation shall be cause to shut down the reactor immediately.

3.4.4 Bases

Operation in accordance with Specification 3.4.3.1 ensures that potentially contaminated reactor cell air due to reactor operation is released and monitored through the ventilation system.

The ventilation system release limits in Specification 3.4.3.2 are based on the following:

The annual average dilution factor from the NTR stack to the site boundary based on 1976 and 1977 meteorological conditions and stack flow rate of 1,800 cu ft/min equals approximately 33,000. That is, the concentration at the site boundary from a continuous uniform release from the NTR stack will be $\leq 1/33,000$ of the concentration at the stack when averaged over 1 year.

- b. Proposed changes to the procedures or the facility, as described in the Safety Analysis Report, including safety evaluations, to be completed without prior NRC approval, pursuant to 10 CFR 50.59, to verify the activity does not constitute a change in the Technical Specifications or an unreviewed safety question.
- c. All new procedures and revisions thereto having safety significance required by the specifications in Section 6.4.
- d. Proposed changes to the Technical Specifications or the facility operating license.
- e. Violations of the Federal Regulations, Technical Specifications, and facility license requirements.
- f. Unusual or abnormal occurrences which are reportable to the NRC under provisions of the Federal Regulations or the Specifications in Section 6.6.
- g. Significant operating abnormalities or deviations from normal and expected performance of facility equipment that affect, or could affect, nuclear safety.

6.2.4

Independent periodic examination and verification shall be performed of facility operations, maintenance and administration. These periodic examinations and verifications shall be performed by staff that do not have direct responsibility for the safe operation of the reactor.

6.3 RADIATION SAFETY

6.3.1

The radiation safety program must achieve the requirements of 10 CFR Part 20.

6.3.2

Safety is foremost at the facility. Regulatory compliance personnel have the authority to intercede and suspend activities which could involve or result in radiologically hazardous situations.

6.4.2

The facility manager shall approve all procedures (including revisions) required by Specification 6.4.1 before implementation.

6.4.3

Minor changes to the original procedures which do not change their original intent may be made by the Level 1 Reactor Supervisor or Level I manager. These changes must be subsequently approved by the facility manager.

6.4.4

Temporary deviations from established procedures may be made by a Licensed Senior Reactor Operator in order to deal with special or unusual circumstances. These deviations shall be documented and reported to the facility manager.

6.5 REQUIRED ACTIONS

6.5.1 Action to be taken in the event of an occurrence of the type identified in

Section 6.6.2.

1. Reactor conditions shall be returned to normal or the reactor shall be shut down. If it is necessary to shut down the reactor to correct the occurrence, operations shall not be resumed unless authorized by the facility manager.
2. Occurrence shall be reported to the facility manager and to the NRC addressed in accordance with 10 CFR 50.73(d).
3. Occurrence shall be reviewed by Regulatory Compliance.

6.5.2 Action to be Taken in Case of Safety Limit Violation

1. The reactor shall be shut down, and reactor operations shall not be resumed until authorized by Level 3 management.
2. The safety limit violation shall be promptly reported to the facility manager.

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NO. 22 TO

FACILITY OPERATING LICENSE NO. R-33 FOR

THE GENERAL ELECTRIC COMPANY NUCLEAR TEST REACTOR

DOCKET NO. 50-73

1.0 INTRODUCTION

By letter date July 3, 2001, the General Electric Company (the licensee) requested changes for their nuclear test reactor Technical Specifications to correct errors related to section number references.

2.0 EVALUATION

The first change involves the reference to Specifications 3.4.3.1 and 3.4.3.2 in the first paragraph under "3.4.4 Bases" on page 3-11. This first paragraph is for operation of the reactor with negative pressure maintained in the reactor cell. Only 3.4.3.1 applies to this portion of the basis, so 3.4.3.2 is deleted from the first paragraph. The deletion of the reference to Specification 3.4.3.2 from 3.4.4 bases is acceptable.

The second change relates to Specification 3.4.3.2 and is in the second paragraph under "3.4.4 Bases" on page 3-11. Specification 3.4.3.2 applies to limits on discharge. The second paragraph refers to the bases for the discharge limit and referenced Specification 3.4.3.3. Specification 3.4.3.3 is applicable to reactor coolant conductivity. Therefore, the change to 3.4.3.2 from 3.4.3.3 is acceptable.

The third change involves Specification 6.2.3.c and the requirements for procedures on page 6-6. It changes the reference to Specification 6.4 rather than 6.3. Specification 6.4 applies to procedures and Specification 6.3 applies to radiation safety. Therefore, the proposed change to this administrative requirement for procedures is acceptable.

The final change involves Specification 6.5.1 on page 6-8. The section applies to actions in case of an event. The current Specification refers to Specification 6.5.2 which does not specify types of events. The proposed change is to refer to Specification 6.6.2 which does list the type of events applicable to Specification 6.5.1. Therefore, this change is acceptable.

3.0 ENVIRONMENTAL CONSIDERATION

The Commission has prepared an Environmental Assessment and Finding of No Significant Impact (EA), which was published in the *Federal Register* on September 26, 2001 (66 FR 49219). On the basis of the EA, the Commission has determined that no environmental impact statement is required and that issuance of this amendment will have no significant adverse effect on the quality of the human environment.

4.0 CONCLUSION

The staff has concluded, based on the considerations discussed above, that: (1) because the amendment does not involve a significant increase in the probability or consequences of accidents previously evaluated, or create the possibility of a new or different kind of accident from any accident previously evaluated, and does not involve a significant reduction in a margin of safety, the amendment does not involve a significant hazards consideration, (2) there is reasonable assurance that the health and safety of the public will not be endangered by the proposed activities, and (3) such activities will be conducted in compliance with the Commission's regulations and the issuance of this amendment will not be inimical to the common defense and security or the health and safety of the public.

Principal Contributor: Marvin M. Mendonca

Date: October 16, 2001

UNITED STATES NUCLEAR REGULATORY COMMISSION

GENERAL ELECTRIC COMPANY

DOCKET NO. 50-73

THE GENERAL ELECTRIC NUCLEAR TEST REACTOR

ENVIRONMENTAL ASSESSMENT AND FINDING OF

NO SIGNIFICANT IMPACT

The U.S. Nuclear Regulatory Commission (NRC) is considering issuance of an amendment for Facility Operating License No. R-33, issued to the General Electric Company (the licensee), for operation of the General Electric Nuclear Test Reactor, located in Sunol, California. Therefore, as required by 10 CFR 51.21, the NRC is issuing this environmental assessment and finding of no significant impact.

ENVIRONMENTAL ASSESSMENT

Identification of the Proposed Action:

The proposed action would correct typographical errors in section numbers referenced in the Technical Specifications.

The proposed action is in accordance with the licensee's application dated July 3, 2001.

Need for the Proposed Action:

The proposed action would make the Technical Specifications accurate.

Environmental Impacts of the Proposed Action:

The NRC has completed its evaluation of the proposed action and concludes that the proposed action is administrative in nature and will have no significant environmental impacts.

The proposed action will not significantly increase the probability or consequences of accidents, no changes are being made in the types of effluents that may be released off site,

and there is no significant increase in occupational or public radiation exposure. Therefore, there are no significant radiological environmental impacts associated with the proposed action.

With regard to potential non-radiological impacts, the proposed action does not have a potential to affect any historic sites. It does not affect non-radiological plant effluents and has no other environmental impact. Therefore, there are no significant non-radiological environmental impacts associated with the proposed action.

Accordingly, the NRC concludes that there are no significant environmental impacts associated with the proposed action.

Environmental Impacts of the Alternatives to the Proposed Action:

As an alternative to the proposed action, the staff considered denial of the proposed action (i.e., the “no-action” alternative). Denial of the application would result in no change in current environmental impacts. The environmental impacts of the proposed action and the alternative action are similar.

Alternative Use of Resources:

The action does not involve the use of any different resource than those previously considered in the Environmental Assessment for the General Electric Nuclear Test Reactor dated April 13, 2001.

Agencies and Persons Consulted:

On August 10, 2001, the staff consulted with the California Department of Health official, Steve Hsu, regarding the environmental impact of the proposed action. The State official had no comments.

FINDING OF NO SIGNIFICANT IMPACT

On the basis of the environmental assessment, the NRC concludes that the proposed action will not have a significant effect on the quality of the human environment. Accordingly, the NRC has determined not to prepare an environmental impact statement for the proposed action.

For further details with respect to the proposed action, see the licensee's letter dated July 3, 2001. Documents may be examined, and/or copied for a fee, at the NRC's Public Document Room, located at One White Flint North, 11555 Rockville Pike (first floor), Rockville, Maryland. Publically available records will be accessible electronically from the ADAMS Public Library component on the NRC Web site, <http://www.nrc.gov> (the Public Electronic Reading Room). If you do not have access to ADAMS or if there are problems in accessing the documents located in ADAMS, contact the NRC Public Document Room (PDR) Reference staff at 1-800-397-4209, or 301-415-4737, or by e-mail at pdr@nrc.gov.

Dated at Rockville, Maryland, this 18th day of September, 2001.

FOR THE NUCLEAR REGULATORY COMMISSION

/RA/

Patrick M. Madden, Chief
Non-Power Reactors Section
Operational Experience and Non-Power Reactors Branch
Division of Regulatory Improvement Programs
Office of Nuclear Reactor Regulation