August 31, 2000

Dr. Nolan Hertel, Director
Neely Nuclear Research Center
Georgia Institute of Technology
900 Atlantic Drive
Atlanta, GA 30332-0425

SUBJECT: NRC INSPECTION REPORT NO. 50-160/2000-202

Dear Dr. Hertel:

This refers to the inspection conducted on March 31, April 4, May 9, June 21, and August 22 and 23, 2000, at your Georgia Institute of Technology Research Reactor facility. The enclosed report presents the results of that inspection.

Areas examined during the inspection are identified in the report. Within these areas, the inspection consisted of selective examinations of procedures and representative records, interviews with personnel, and observations of decommissioning activities in progress. Based on the results of this inspection, no safety concerns or noncompliances with NRC requirements were identified. No response to this letter is required.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at http://www.nrc.gov/NRC/ADAMS/index.html (the Public Electronic Reading Room).

If there are any questions concerning this letter, please contact Mr. Craig Bassett at 404-562-4712.

Sincerely,

/RA/
Ledyard B. Marsh, Chief
Events Assessment, Generic Communications
and Non-Power Reactors Branch
Division of Regulatory Improvement Programs
Office of Nuclear Reactor Regulation

Docket No.: 50-160
License No.: R-97

Enclosure: NRC Inspection Report
No. 50-160/2000-202

cc w/enclosure: Please see next page

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cc:

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U. S. NUCLEAR REGULATORY COMMISSION
OFFICE OF NUCLEAR REACTOR REGULATION

Docket No:	50-160
License No:	R-97
Report No:	50-160/2000-202
Licensee:	Georgia Institute of Technology
Facility:	Georgia Institute of Technology Research Reactor (GTRR)
Location:	900 Atlantic Drive Atlanta, GA 30332
Dates:	March 31, April 4, May 9, June 21, and August 22 and 23, 2000
Inspector:	C. H. Bassett
Approved by:	Ledyard B. Marsh, Chief Events Assessment, Generic Communications and Non-Power Reactors Branch Division of Regulatory Improvement Programs Office of Nuclear Reactor Regulation

EXECUTIVE SUMMARY

Georgia Institute of Technology
Report No: 50-160/2000-202

The primary focus of this routine, announced inspection was the on-site review of selected programs of this Class III non-power reactor (NPR) including licensee and contractor organization, ongoing decommissioning activities, and transportation of radioactive material.

Organization and Staffing

- The licensee's organization and staffing level were in compliance with the requirements specified in the Technical Specifications and the Decommissioning Plan.
- The staffing level was acceptable for reviewed activities.
- Because of unforeseen delays, the Decommissioning Contractor has had to change the schedule and currently the decommissioning will tentatively be completed by the first part of November of this year.

Decommissioning Activities

- The Technical Safety Review Committee was meeting to review changes to the project and audits were conducted as required.
- Surveys were completed and documented acceptably to permit evaluation of the potential radiation hazards.
- Postings satisfied regulatory requirements.
- Personnel dosimetry was worn as required and doses were within the established regulatory limits.
- Radiation monitoring equipment was maintained and calibrated as required.
- The program for monitoring radioactive effluents was acceptable.

Transportation

- The program for shipping radioactive material was consistent with regulatory requirements.

REPORT DETAILS

Summary of Plant Status

The Georgia Institute of Technology Research Reactor (GTRR) was shut down on November 17, 1995, and has not been operated since that date. All reactor fuel was removed from the site in early 1996 and no fuel was ever brought back. On July 22, 1999, Amendment No. 14 to the facility license (No. R-97) was issued which authorized decommissioning of the GTRR pursuant to 10 CFR 50.82(b). The licensee and various licensee contractors have proceeded with decommissioning activities since that time.

1. Organization and Staffing (40755)

a. Inspection Scope

The inspector reviewed the following regarding the licensee's organization and staffing to ensure that the requirements of the Technical Specification (TS) and the Decommissioning Plan (DP) were met:

- the licensee and contractor organizational structure
- management responsibilities
- licensee and contractor staffing for decommissioning work
- Decommissioning Contractor schedules and plans

b. Observations and Findings

Through discussions with licensee representatives and contractor personnel, the inspector determined that management responsibilities and the organization at the facility met the requirements specified in the TS and the DP. The inspector verified that the Director of the NNRC continued to retain overall responsibility for direction of the decommissioning of the facility and that the Radiation Safety Officer advised the Director and the Technical Safety Review Committee (TSRC) in matters pertaining to radiological safety. An Executive Engineer, hired as a consultant for the licensee, continued to provide overall contractual direction to the decommissioning contractor.

Roles and responsibilities of the Decommissioning Contractor (DC) were also reviewed. The DC had responsibility for, and was continuing to perform, engineering and decommissioning work, waste packaging and disposal, and was tasked to complete the final release survey.

The inspector determined that the current licensee and contractor staffing levels were adequate to support the activities conducted at the facility.

The inspector noted that DC personnel have been attempting to follow the schedule for completion of the decommissioning project but various difficulties have caused delays. The schedule initially indicated that the decommissioning would be completed by the middle of this year. Currently, the schedule reflects a tentative completion date of November 1, 2000.

c. Conclusions

The licensee's organization was in compliance with the requirements specified in the TS and the DP and the current staffing level was acceptable. Because of unforeseen delays,

the Decommissioning Contractor has had to change the schedule and currently the decommissioning will tentatively be completed by the first part of November of this year.

2. Decommissioning Activities (40755)

a. Inspection Scope

In order to verify that activities at the site were proceeding as outlined in the Decommissioning Schedule and in the DP, the inspector reviewed:

- Technical Safety Review Committee meeting minutes
- safety review and audit records
- radiological signs and posting
- routine surveys and monitoring
- dosimetry records
- maintenance and calibration of radiation monitoring equipment
- the environmental monitoring program
- effluent release records
- annual audit of the Radiation Protection Program

b. Observations and Findings

Minutes of the Technical Safety Review Committee (TSRC) show that the committee has been meeting at the required frequency and that a quorum was present for each meeting. The topics considered during the meetings were appropriate and as stipulated in TS. Records also show that safety reviews were conducted as required in the Technical Specification and the Decommissioning Plan. Topics of these reviews were consistent with TS requirements to provide guidance, direction, and oversight. Audits were also being conducted as required in those areas outlined in the TS and at the required frequency.

Copies of NRC Form 3, “Notice to Employees,” were posted in accordance with 10 CFR 19.11. Caution signs, postings and controls to radiation areas were as required in 10 CFR 20, Subpart J. Licensee and DC personnel were noted observing the indicated precautions for access to the radiation areas.

Use of dosimeters and exit frisking practices were in accordance with radiation protection requirements. The licensee and the contractor were using a National Voluntary Laboratory Accreditation Program (NVLAP)-accredited vendor to process dosimetry. Radiological exposure records show that occupational doses were above projected levels for the project but were still within 10 CFR Part 20 limitations.

Radiation monitoring and survey activities were as required. Equipment used for these activities were maintained and calibrated acceptably.

The program for the monitoring and storage of radioactive liquid, gases, and solids was acceptable. Radioactive effluents were monitored and released when within established limits as outlined in licensee procedures and the regulations. The principles of As Low As Reasonably Achievable (ALARA) were acceptably implemented to minimize radioactive releases. Monitoring equipment was maintained and calibrated as required. Records were current and acceptably maintained.

c. Conclusions

The Technical Safety Review Committee was meeting to review changes to the project as required and audits were conducted. Surveys were completed and documented acceptably to permit evaluation of the potential radiation hazards. Postings satisfied regulatory requirements. Personnel dosimetry was worn as required and doses were well within the licensee's specified procedural action levels and regulatory limits. Radiation monitoring equipment was maintained and calibrated as required. The program for monitoring radioactive effluents was acceptable.

3. Transportation of Radioactive Materials (86740)

a. Inspection Scope

In order to verify that transportation of radioactive materials was conducted as outlined in the Decommissioning Plan, the inspector reviewed:

- radioactive materials shipping procedures
- radioactive materials transportation and transfer records

b. Observations and Findings

Records showed that the radioactive waste material for disposal was shipped in accordance with the applicable regulations. This program for radioactive material transport was acceptably implemented.

c. Conclusions

The program for shipping radioactive material was consistent with regulatory requirements.

4. Exit Meeting Summary

The inspection scope and results were summarized on August 23, 2000, with licensee representatives. The inspector discussed the findings for the areas reviewed. The licensee did not identify any of the materials provided during the inspection as proprietary.

PARTIAL LIST OF PERSONS CONTACTED

Licensee Personnel

N. Hertel, Director, Neely Nuclear Research Center
R. Ice, Manager, Office of Radiation Safety
E. Jawdeh, Research Scientist
F. Strydom, Research Scientist

Licensee Contractor Personnel

J. Bell, Project Manager - Energy and Nuclear, IT Corporation
R. Eby, Executive Engineer, (Vice President Energy, Environment, and Systems) CH2M HILL
P. Jones, Project Manager, GTS Duratek Field Services
G. Kalinauskas, Senior Project Engineer, IT Corporation
P. Mann, Project Manager, GTS Duratek (no longer with Duratek)
S. Marske, Deputy Executive Engineer, CH2M HILL
J. Nelson, Health and Safety Officer, IT Corporation
M. Stafford, Health Physic Manager, IT Corporation

State of Georgia Personnel

C. Blackman, Inspector, Georgia State Division of Natural Resources (DNR)
J. Butler, Director, Georgia State Financing and Investment Commission (GSFIC)
D. Ivey, Project Manager, GSFIC

NRC Contractor Personnel

T. Vitkus, Survey Projects Manager, Environmental Survey and Site Assessment Program (ESSAP), Oak Ridge Institute for Science and Education (ORISE)

INSPECTION PROCEDURES USED

IP 40755 Class III Non-Power Reactors
IP 86740 Inspection of Transportation Activities

ITEMS OPENED, CLOSED, AND DISCUSSED

Opened

None

Closed

None

LIST OF ACRONYMS USED

ADAMS	Agencywide Documents Access and Management Systems (NRC's document system)
ALARA	As Low As Reasonably Achievable
CFR	Code of Federal Regulations
DC	Decommissioning Contractor
DP	Decommissioning Plan
GTRR	Georgia Institute of Technology Research Reactor
NPR	Non-Power Reactor
NRC	Nuclear Regulatory Commission
NVLAP	National Voluntary Laboratory Accreditation Program
PARS	Publicly Available Records (a component of ADAMS)
TRTR	Test, Research, and Training Reactors
TS	Technical Specifications
TSRC	Technical Safety Review Committee