

APPENDIX

U.S. NUCLEAR REGULATORY COMMISSION  
REGION IV

NRC Inspection Report: 50-602/87-01

Construction Permit: CPPR-123

Docket: 50-602

Expiration Date: December 31, 1987

Licensee: University of Texas  
College of Engineering  
Department of Mechanical Engineering  
Nuclear Engineering Program  
Austin, Texas 78712

Facility Name: Nuclear Engineering Teaching Laboratory (NETL) (TRIGA 1 Mw)

Inspection At: NETL, Balcones Research Center, Austin, Texas

Inspection Conducted: October 15, 1987

Inspector:

G. L. Constable, Chief, Project Section D  
Division of Reactor Projects

12/18/87  
Date

Approved:

  
G. L. Constable, Chief, Project Section D  
Division of Reactor Projects

12/18/87  
Date

Inspection Summary

Inspection Conducted October 15, 1987 (Report 50-602/87-01)

Areas Inspected: Routine, announced inspection of the construction of NETL facility.

Results: Within the areas inspected, no violations or deviations were identified.

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## DETAILS

### 1. Persons Contacted

\*T. L. Bauer, Assistant Director, NETL  
J. McFarland, CIT Construction

\*Denotes individual contacted for exit interview.

### 2. Observation of Construction Status of Nuclear Engineering Teaching Laboratory

Construction on the Nuclear Engineering Teaching Laboratory (NETL) began during February 1987. The facility consists of a new building located at the university's Balcones Research Center which is about 7 miles north of the main campus in downtown Austin. The four-story building, which encloses approximately 20,000 square feet of floor space will house the reactor, a neutron generator, and rooms for mechanical equipment, maintenance, office space, and laboratories.

The reactor is a TRIGA Mark II that is designed to operate at up to 1.1 Mw thermal steady state and to be pulsed with step reactivity insertions of up to 2.2 percent ( $\Delta$ ) k/k.

NRC Region IV personnel have maintained frequent contact with NETL management including a visit to the construction site in June 1987. At that time, the excavation was complete and concrete placement was in progress. On October 15, 1987, the NRC inspector observed the placement of the building walls and toured the building. All major floor areas appeared to be in place. The floor and below grade walls of the reactor room had been poured; however, the above grade walls and roof had not been installed. At the time of the inspection, no safety-related construction activities had begun.

The University of Texas employs an inspector that monitors construction to ensure that contract requirements are met.

No violations or deviations were identified.

### 3. Facility Completion Schedule

The NRC inspector discussed the facility completion schedule with NETL management and was subsequently provided a letter dated November 6, 1987, which provided the following information.

The NETL project has a projected completion date of June 10, 1988. Present figures by the general contractor indicate a 46 percent completion at mid October. The university estimates indicate slippage of some project items by as much as 6 weeks.

A list of key items and date estimates follow:

General Contractor (CIT Inc.)

bridge crane delivery	11/05/87
reactor tank delivery	12/16/87
initial shield construction	01/01/88
final shield construction	02/28/88
initial coolant system installation	03/01/88
final coolant system installation	03/30/88
security & communications (initial)	02/02/88
security & communications (complete)	03/30/88
HVAC adjustments	05/01/88
project completion	06/10/88

Reactor Supplier (GA Technologies)

Mechanical components delivery	03/20/88
Instrumentation components delivery	03/20/88
Mechanical installation	06/10/88 (4 weeks)
Electronic installation	06/10/88 (3 weeks)

License Issuance (projected)

08/10/88

Relocation of fuel and other  
radioactive materials

08/15/88-08/31/88<sup>1</sup>

08/15/88-09/15/88<sup>2</sup>

Startup Program

10/01/88-10/30/88

<sup>1</sup>Schedule assumes BMI-1 cask

<sup>2</sup>Schedule assumes 6M packages

No violations or deviations were identified.

4. Exit Interview

The NRC inspector discussed the results of the inspection with NTEL management by telephone.