

APPENDIX

U.S. NUCLEAR REGULATORY COMMISSION
REGION IV

NRC Inspection Report: 50-602/88-05

Construction Permit: CPPR-123

Expiration Date: December 31, 1988

Docket: 50-602


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

Facility Name: Nuclear Engineering Teaching Laboratory
(NETL) (TRIGA Mark II)

Inspection At: NETL Balcones Research Center, Austin Texas

Inspection Conducted: September 22-23, 1988

Inspector:


M. E. Murphy, Reactor Inspector
Test Programs Section, Division of Reactor
Safety

10/12/88
Date

Approved:


W. C. Seidle, Chief, Test Programs Section
Division of Reactor Safety

10/12/88
Date

Inspection Summary

Inspection Conducted September 22-23, 1988 (Report 50-602/88-05)

Areas Inspected: Routine announced inspection of mechanical equipment, piping, and electrical systems installation; construction progress and schedule status.

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

DETAILS1. Persons ContactedUniversity of Texas

*T. Bauer, Assistant Director, NETL
 J. Green, Construction Inspector
 H. Lott, Jr., Vice President, Business Affairs

Construction Incorporated of Texas

T. Hampton, Project Superintendent
 B. Webb, Senior Project Manager

LETSOS Company

M. Gardner, Mechanical Superintendent

WSM Architects

H. Wilson
 C. Estes

*Denotes individual contacted for exit interview.

2. Construction Progress

The NRC inspector toured the facility to determine specific work in progress and review the overall status of the facility. Finish work, cleaning, and painting were in progress. Electrical work was complete except for control room console installation and control and instrumentation circuit installation.

The chill water piping to the pool cooling system heat exchanger was being installed. This work entailed fit-up, cutting, grinding and welding. The NRC inspector found the primary side pipe connections to the heat exchanger open to the atmosphere. A licensee representative was informed and they were immediately sealed up. The primary pool water recirculation system piping installation had not started. The primary recirculation pump is on its foundation but not mounted. The pump was also found open to the atmosphere and was immediately sealed.

The pool water purification system is not yet on site. It is to be delivered by General Atomics (GA).

Radioactive waste storage installation is complete. The licensee had identified one piping error in this system. A direct line to the sewage sump was installed. This sump vent line should connect to the shield foundation sump vent line and will be rerouted.

Other items or needing significant work to complete were identified as:

- ° Complete sealing and conduct tightness test on reactor room.
- ° Complete HVAC system balance.
- ° Check out and operationally test the low volume auxiliary ventilation system.
- ° Install pool water makeup system.
- ° Complete reactor top seal - concrete to aluminum.
- ° Install pool overflow drains.

No violations or deviations were identified in the review of this program area.

3. Schedule Milestones

Due to construction delays, the milestone schedule dates as published in NRC Inspection Report 50-602/88-04 have been revised and are as follows as of September 23, 1988:

<u>Milestones</u>	<u>Completion Dates-1988/1989</u>
Reactive control room console and mechanical components	October 1
Complete HVAC balancing	October 15
Complete physical security elements	November 1
Complete pool water system (installation)	October 3
Complete preoperational test procedures (including GA installation and test)	December 1
Install control room console	November 1-11
Install GA mechanical components (including purification system)	October 3-31
Install radiation monitoring equipment (installation by EA)*	November 1-11
License two Senior Reactor Operators	December 1?

Complete all operating procedures	November 12 (90 percent complete by October 1)
receive operating license	January 16, 1989
load reactor fuel - achieve initial criticality	January 16-30

*Argon exhaust monitoring equipment to be complete by December 15.

4. Exit Interview

The inspection scope and findings were discussed with the Assistant Director, NETL, at the conclusion of the inspection on September 23, 1988. The licensee did not identify as proprietary any of the material provided to, or reviewed by the NRC inspector.