

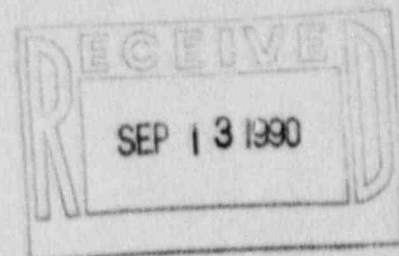


DEPARTMENT OF MECHANICAL ENGINEERING
THE UNIVERSITY OF TEXAS AT AUSTIN

Nuclear Engineering Teaching Laboratory · 10100 Burnet Road · Austin, Texas 78758 · (512) 471-5787

September 10, 1990

Mr. Bill Beach
Director, Division of Radiation Safety and Safeguards
Region IV
611 Ryan Plaza Dr., Suite 1000
Arlington, TX 76011



Re: August 6, 1990

Dear Mr. Beach:

The following information is being provided in response to Region IV inspection docket 50-192/90-01.

Routine surveys at the Taylor Hall (docket 50-192) reactor facility include weekly equipment checks of area radiation monitors (4 locations) and an air particulate monitor (1 location).

Reasons for Violation:

Routine records did not document adequately, periodic surveys of areas by routine checks or knowledge of personnel of the radiation levels. Prior to cessation of reactor operation additional records were available as part of the startup checklist. However, the routine checks excluding the reactor operation checklist have not changed subsequent to the cessation of reactor operation.

A low source check at approximately 0.1 mrem/hr. at each of the four fixed locations sets a limit on the area radiation levels at four points in the facility. These four points located in the vicinity of the reactor pool set limits on the radiation levels at 4 points in an area of about 2000 square feet. The levels are less than 0.1 mrem/hr as demonstrated by weekly check records. A similar check of the air particulate monitor fixes the ambient air particulate activity. Area contamination swipes are done on a project by project basis. Since the Taylor Hall facility has not operated the reactor since April 30, 1988, the project activities in the facility average approximately one each ten to fourteen days.

9009240002 900910
PDR ADCK 05000192
PDC

IC-90-273

110
IE017

At this frequency, the equipment check records and less periodic swipe measurements were considered adequate to demonstrate the generally accessible areas of the facility did not have radiation levels in excess of 2 mrem/hr. Only the area above the reactor pool (5 mrem/hr) exceeds the 2 mrem/hr level. The room area is posted as a radiation area. Access is limited to only staff personnel that have knowledge of the location and types of hazards in the facility.

Less frequent radiation measurements done by the radiation safety office provide both background at the facility boundary and confirmation that area surface contamination within the facility are acceptable. These contamination levels although measurable at some locations would be acceptable in non radiation areas (typically less than 100 dpm/100cm²). The reporting in proper units for survey records are available in the files but not done on each record.

Corrective Actions Taken:

At the time of the inspection, the licensee verbally committed to a change in operating procedures for radiation surveys. This was done prior to any knowledge regarding a violation of 10CFR 20.201 which requires subjective judgement on the frequency, type and number of accesses to the area. A survey by the H.P. of the facility staff at least once each two weeks, will document and post area radiation levels and surface contamination on a simple schematic floor plan.

The survey maps will provide current data including the correct unit references without any reference or dependence on the Safety Office records. A request has been made for the Safety Office to document the correct units on each record document for the docket 50-192 and docket 50-602 facilities.

The number of personnel with access to the area has been immediately limited to only those with direct knowledge of the status of the facility. Routine work with radioactive materials has been moved from the area and made subject to the procedures of the TDH-6-485 license and docket 50-602 requirements. These procedures meet and in most cases exceed previous docket 50-192 requirements.

Corrective Steps to Avoid Future Violations :

The additional measurement and documentation for radiation levels in the docket 50-192 facility are being implemented in a manner similar but not completely identical to those being applied at the docket 50-602 facility.

The future of radiation measurements at Taylor Hall for the docket 50-192 facility is considered to be of limited duration. The licensee plans to continue the present measurement procedures until facility decommissioning is initiated. The dismantling process will reevaluate the monitoring requirements. Plans are to begin this work within one year.

Date Of Full Compliance:

The licensee may not agree completely with all aspects of the violation but did not disagree that better procedures were desirable. Full compliance was implemented prior to Aug. 31, '990 by starting a routine survey including measurement and documentation at an interval of at least once every other week.

Sincerely,

Thomas L. Bauer

Thomas L. Bauer
Assistant Director, NETL

Approval:

Bernard W. Wehring

Bernard W. Wehring
Director, NETL

TLB/ekr

cc: W. H. Bryant
Bureau of Radiation Control
A. Mitchell