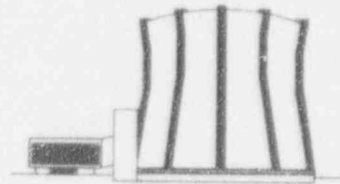


TEXAS ENGINEERING EXPERIMENT STATION

TEXAS A&M UNIVERSITY
COLLEGE STATION, TEXAS 77843-3575



NUCLEAR SCIENCE CENTER
409/845-7551

30 October 1996

96-0332

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555

SUBJECT: Reportable Occurrence, Cause and Corrective
Actions

REF: Reactor Facility License R-83, Docket 50-128

Dear Sir:

An evaluation of the reportable occurrence of 10/15/96 at the Texas A&M University Nuclear Science Center has been completed. All corrective actions have been implemented.

Description of Event

On 15 October 1996 at approximately 3:51 PM a loss of facility power occurred causing a reactor scram. At 3:55 power had been restored and the Reactor Operator (RO) began the performance of the facility pre-startup checks. The duty health physicist was not present at the facility. Therefore the Senior Reactor Operator (SRO) performed the Facility Air Monitor (FAM) alarm checks. This is allowed by our procedures. In general, the Health Physicist performs the checks if he or she is available. The FAM system will automatically shutdown the building exhaust fan when there is an alarm on the stack effluent particulate monitor as required by T.S. 3.4. A shutdown bypass is provided to prevent building ventilation shutdown during testing.

After performing the alarm checks the SRO went immediately to the control room for reactor startup and forgot to remove the key from the bypass switch. There is a line item of the pre-startup checklist that states:

"Air monitors verified operable and key removed from reception room control panel."

9611050271 961030
PDR ADDOCK 05000128
S PDR

IE22/0

050102

RESEARCH AND DEVELOPMENT FOR MANKIND

The RO performing the pre-startup checklist failed to read the entire step and initialed for the completion of the step. The SRO and RO signed for completion of the pre-startup checklist prior to reactor startup.

At about 10:00 PM that evening the on-duty SRO discovered the Shutdown Bypass Key was in the control panel in the reception room and in the bypassed position. The reactor had operated for six hours with the FAM automatic shutdown bypassed.

Cause of Event

The cause is considered to be a lack of attention to detail, excessive distractions to operators, and personal desire to return the reactor to full power operations. The RO had not routinely performed a reactor startup involving pre-startup checklist performance for several months. The RO was familiar with the procedure, but he did not fully read each checklist item. The SRO had rarely performed the FAM alarm checks because a Duty HP was normally available.

During the power failure, several RO trainees were observing the RO. The on-duty RO used this as an opportunity to perform impromptu training and discussed the power failure with the trainees. This contributed to a lack of concentration to the pre-startup checklist he was performing.

The SRO and RO wanted to return the reactor to full power as soon as possible to turn over to the oncoming shift. The SRO admitted that he felt he should have the reactor in steady state conditions for the evening shift arriving by 5:00 PM. This was a professional courtesy and not based on operational commitments, but this self-imposed pressure contributed to the overall events.

Corrective Actions

The pre-startup checklist had several individual instrument checks combined into single items. This allowed the operator to initial for partial completion of an item. The pre-startup checklist has been rewritten to separate and provide additional check boxes for these multiple checks.

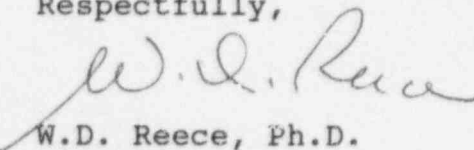
96-0332
Page '3

The FAM shutdown bypass switch is located remotely in the reception room for access during a facility emergency. The RO can not visually verify the key position (or if the key is removed) without leaving the control room. A warning light is now installed in the control room to provide remote indication of the bypass feature.

All licensed operators and trainees have been counseled on attention to detail, minimizing distractions in the control room during reactor operations and that there is never a reason to feel pressed for time when performing their licensed duties.

If you have any questions or comments on this event or our corrective actions please contact me or Sean O'Kelly at the Nuclear Science Center, 409-845-7551.

Respectfully,



W.D. Reece, Ph.D.
Director

WDR/sjm

xc: Dr. James Holste
Reactor Safety Board Chairman

Samuel J. Collins
Director, Region IV
Division of Radiation Safety and Safeguards

12110/Central File