

TENNESSEE VALLEY AUTHORITY
WATTS BAR NUCLEAR PLANT
EMPLOYEE CONCERNS TASK GROUP
OTHER SITES
CEG

Element Title: Inadequate Implementation of Fuel Handling Procedure;
Untimely Plant Access Procedure

SWEC Concerns: A02850124027-001
-002

Source Document: NRC Report 50-328/84-36

Report Number: SWEC-SQN-20

Evaluator:	<u>R C Birchell</u> R. C. Birchell	<u>10/8/86</u> Date
Reviewed by:	<u>John Knightly</u> J. J. Knightly	<u>10/8/86</u> Date
Approved by:	<u>A. G. Debbage</u> A. G. Debbage	<u>10/8/86</u> Date

I. INTRODUCTION

During a routine Nuclear Regulatory Commission (NRC) follow-up inspection of Sequoyah Nuclear Plant's (SQN) unit 2 rod control cluster assembly (RCCA) damage (November 28 - December 3, 1984), the NRC inspector identified and reported (reference 1) one violation. In addition, the NRC inspector had a minor concern involving the SQN plant access procedure for offsite personnel. These issues were addressed as issues in the Stone & Webster Engineering Corporation (SWEC) systematic analysis, as follows:

1. A02850124027-001 (Violation 50-328/84-36-01), Inadequate Implementation of Fuel Handling Procedure.
2. A02850124027-002, Untimely Plant Access Procedure.

Information on the background, corrective actions taken, verification methodology and analysis, completion status, any pertinent references for these items is included in this report.

II. VERIFICATION OF THE SWEC ISSUES

A. Background

1. The NRC inspector identified the following violation (328/84-36-01): Technical Specification 6.8.1.6 requires that written procedures be established and implemented to control refueling operations. The licensee's Fuel Handling Instruction (FHI)-7, "Refueling Operation," Revision 16, Section III establishes and requires the operator to verify, before raising the fuel transfer side upender, that the conveyor at reactor lamp is illuminated on the reactor side console and that the fuel assembly (FA) is clear of the transfer tube.

Contrary to the above, on October 25, 1984, FHI-7 was inadequately implemented in that the conveyor interlock was challenged by raising the reactor side upender without the conveyor at reactor lamp illuminated. In addition, verification was not adequately performed to ensure the required conveyor location before raising the reactor side upender.

2. In addition, a minor concern was identified with the amount of time required to process unescorted access requests for offsite NRC inspectors. No response was required by the NRC for this concern, and the concern was not tracked by the NRC for closure.

B. Corrective Actions Taken

1. The SQN response (reference 2) to the violation stated: Immediately after damaging the RCCA in the FA, refueling operations were stopped for investigation. To correct the binding near the reactor side upender, plant instruction change number 84-1687 for FHI-7, dated October 29, 1984, was issued to raise and lower reactor side upender before receiving the FA to remove small alignment offsets of the upender with the fuel transfer canal.

In addition, permanent corrective actions were taken to replace the transverse digital counter quadrature conversion circuit with a bidirectional motion decoder to prevent noise received in the circuit to reset the digital counter. To ensure proper alignment of the reactor side upender with the transfer canal, guide pins were installed for the upender. To provide visual verification, a television camera will be used to verify the conveyor at the reactor side upender stop and clearance from the fuel transfer canal, as specified in FHI-7, revision 17, instruction step I.4.

2. A02850124027-002, Untimely Plant Access Procedure

Each month the NRC provides TVA with a list of NRC personnel who have a security clearance and have completed the required training for unescorted access. When NRC personnel arrive at SQN and are on these lists, the Public Safety Shift Supervisor can provide site specific training for unescorted access in accordance with Public Safety Instruction MI-72, "Special Procedures for Processing NRC Personnel into the Protected Area" (reference 3). This was the corrective action requested by the NRC (reference 1, page 3).

C. Verification Methodology

The SWEC concerns identified for ECTG verification were stated as follows:

<u>RIMS Number</u>	<u>Issue</u>	<u>RIMS Item</u>
A02850124027	Inadequate implementation of fuel handling procedure	RIMS-001
A02850124027	Untimely Plant Access Procedure	RIMS-002

ECTG reviewed the SQN Compliance Licensing files for internal and external correspondence related to this issue, the applicable procedure, and the NRC status and tracking system for the issue. This review of the pertinent documentation formed the basis for this verification activity.

D. Verification Analysis

The ECTG review indicated that the NRC violation and concern were adequately resolved as identified in Section II.B. The required corrective action was found acceptable to the NRC and the violation closed in report 85-44 (reference 4). The NRC closure stated:

In addition to correcting equipment problems (IE Report 50-328/84-36), the licensee has specified in fuel handling instructions that all interlocks are to be checked out and functional. Also, if it is necessary to bypass an interlock, the procedure requires approval by the refueling SRO and clear documentation of the event. Further, before raising the upper, the licensee's instruction requires visual verification that the fuel assembly and any inserts will clear the transfer tube flange. The verification is done by means of an underwater TV system. The violation is considered closed.

III. REFERENCES

1. NRC Inspection Report number 50-328/84-36, dated January 23, 1985, John A. Olshinski to H. G. Parris.
2. Response to NRC Inspection Report Number 50-328/84-36, dated February 19, 1985, H. L. Abercrombie to J. W. Hufham.
3. SQN Public Safety Service Instruction MI-72, "Special Procedures for Processing NRC Personnel Into the Protected Area", Revision 2.
4. NRC Inspection Report Number 50-327/85-44, 50-328/85-44, dated January 14, 1986, David M. Verrelli to H. G. Parris.