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Duane Arnold Energy Center

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Duane Arnold Energy Center
Docket 50-331
License No. DPR-49

Response to Apparent Violation in Office of Investigations Report No. 3-2004-033; EA-06-047

This letter and enclosure are provided in response to the Apparent Violation described in Office of Investigations Report Number 3-2004-033.

If you have any questions, please call Steve Catron, Licensing Manager, at (319) 851-7234.

This letter contains no new commitments.

Gary D. Van Middlesworth
Site Vice President, Duane Arnold Energy Center
FPL Energy Duane Arnold

Enclosure

cc: Administrator, Region III, USNRC
Project Manager, DAEC, USNRC
Resident Inspector, DAEC, USNRC

This letter contains no new commitments.

2006-03-07

If you have any questions, please call Steve Catron, Licensing Manager, at (319)

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IEDI

ENCLOSURE

FPL Energy Duane Arnold
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SUMMARY OF OFFICE OF INVESTIGATIONS REPORT NO. 3-2004-033

Office of Investigations (OI) Report No. 3-2004-033 involves a refueling floor supervisor at the Duane Arnold Energy Center (DAEC) who repositioned three irradiated fuel bundles in the DAEC spent fuel pool on November 9, 2004, without completing a "Pre Fuel Move Checklist."

On June 16, 2004, DAEC Refueling Procedure No. 403, "Performance of Fuel Handling Activities," Revision No. 16, was issued. Section 5.2 of this procedure provided, in part, that the designated fuel handling supervisor will complete applicable sections of the "Pre Fuel Checklist" before starting fuel handling activities. The refueling floor supervisor was primarily responsible for preparing Revision No. 16 to Refueling Procedure No. 403 and he provided training on the revised procedure to other DAEC employees. The refueling floor supervisor was the designated fuel handling supervisor on November 9, 2004, and failed to complete the "Pre Fuel Move Checklist," as required by Refueling Procedure No. 403, before moving three irradiated fuel bundles in the DAEC spent fuel pool.

Based on the information developed during the OI investigation, it appears that the refueling floor supervisor had sufficient understanding of the procedural requirement to complete applicable sections of the "Pre Fuel Move Checklist" before starting fuel handling activities on November 9, 2004. Also, the refueling floor supervisor was experienced in refueling floor activities and was appropriately trained for the movement of irradiated fuel in the spent fuel pool.

As a result, OI concluded that the refueling floor supervisor willfully (with careless disregard) violated DAEC Procedure No. 403, a procedure required by DAEC Technical Specification 5.4.1, by moving irradiated fuel bundles in the spent fuel pool without first completing the "Pre Fuel Move Checklist."

RESPONSE TO THE APPARENT VIOLATION:

1. REASON FOR THE APPARENT VIOLATION

The procedure controlling handling of irradiated fuel, Refueling Procedure 403, Rev. 16 (RFP 403) "Performance of Fuel Handling Activities," was not met because its required prerequisites and associated checklist were not completed prior to movement of irradiated fuel within the fuel pool. Specifically, on November 9, 2004:

- The fuel handling team (two Licensed Operators and the Fuel Handling Supervisor) moved three of the irradiated fuel bundles in the spent fuel pool without verifying prerequisite conditions of RFP-403.
- During movement of the third irradiated fuel bundle, the Health Physics Technician (HPT) realized that the fuel movement team was moving irradiated components in the fuel pool without having notified the HPT.

An independent investigation into the cause of the event (ACE 1400) determined the following apparent cause:

Failure to use Human Performance Tools, specifically place-keeping by the Fuel Handling Supervisor and questioning attitude by the licensed individuals, allowed for the work crew to deviate out of RFP-401, "New Fuel Receipt, Inspection, and Channeling," into work normally governed by RFP-403, thereby resulting in irradiated fuel movements outside of procedural guidance.

2. CORRECTIVE STEPS TAKEN AND THE RESULTS ACHIEVED

CAP 33781 was initiated documenting the unauthorized movement of irradiated fuel bundles. The following immediate actions were taken:

- Suspended fuel movement on the refuel floor.
- Convened a fact finding meeting.
- Determined that with all Technical Specifications' (TS) systems operable, there were no reportability requirements associated with the event.
- Notified plant management and the NRC Resident Inspector.

On November 9, 2004, site access for the Refuel Floor Supervisor was suspended, and subsequently his employment was terminated on November 15, 2004.

Prior to re-commencement of fuel handling activities, the following actions were taken as part of the New Fuel Receipt & Inspection Recovery Plan.

- Conducted Just-in-Time training for operators performing fuel movement activities.
- Assigned a dedicated Manager as sponsor for the New Fuel Receipt and Inspection Recovery Plan.
- Assigned a Senior Reactor Operator as the Fuel Handling Supervisor for New Fuel Receipt & Inspection.
- Created a dedicated fuel movement team that was used for the entire new fuel receipt campaign.
- Assigned management observations of fuel handling activities.

As a result of inadequate corrective actions from previous similar events, a thorough Root Cause Evaluation (RCE 1028) was conducted with several comprehensive corrective actions taken to address programmatic and management deficiencies.

Results Achieved:

New fuel receipt and inspection activities were completed in January 2005 without any fuel handling incidents.

3. **CORRECTIVE STEPS THAT WILL BE TAKEN TO AVOID FURTHER VIOLATIONS**

None required.

4. **DATE WHEN FULL COMPLIANCE WILL BE ACHIEVED**

Full compliance was achieved on November 9, 2006 when Operations verified that RFP-403, "Pre Fuel Move Checklist," was verified to be met.