

OCT - 4 1990

In Reply Refer To:
Dockets: 50-313/90-01
50-368/90-01

Entergy Operations, Inc.
ATTN: Neil S. Carns, Vice President
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Gentlemen:

Thank you for your letter of September 14, 1990, (OCAN099002) in followup to your previous correspondence of April 20, 1990, (OCAN049012) related to validation of nonlicensed operator (NLO) staffing. We have reviewed your validation efforts and results and find your actions responsive to our concerns.

As mentioned in our previous correspondence, we will review the implementation of your corrective actions during a future inspection.

Sincerely,

Original Signed By:
Thomas P. Gwynn

Samuel J. Collins, Director
Division of Reactor Projects

cc:
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*RIV:RI:OPS
TMckernon/cjg
/ /90

*C:OPS
JGagliardo
/ /90

D:DRP
LJCallan/10/13/90
10/13/90

D:DRP
SJCollins
10/13/90

*Previously concurred

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-3-

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**Entergy
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P.2/4

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September 14, 1990

0CAN099002

U. S. Nuclear Regulatory Commission
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SUBJECT: Arkansas Nuclear One - Units 1 and 2
Docket Nos. 50-313/50-368
License Nos. DPR-51 and NPF-6
Validation of Non-Licensed Operator Staffing
Inspection Report 50-313/90-01; 50-368/90-01

Gentlemen:

As discussed in our letter of April 20, 1990 (0CAN049012), a validation of non-licensed operator (NLO) staffing has been performed on Units 1 and 2. This validation was performed to ensure that Arkansas Nuclear One (ANO) has sufficient NLO staffing to properly execute the required actions of the Emergency Operating Procedures (EOPs).

To perform the validation for Units 1 and 2, three scenarios were chosen which required use of the Emergency Operating Procedures and which had been identified as potentially challenging to the non-licensed operators. The local operator actions in each EOP section were evaluated to determine the EOP section that would be the most burdensome for the non-licensed operators. The scenarios used were verified to include the EOP sections identified. The "most limiting" event (for both Units 1 and 2) was a loss of off-site power with emergency feedwater initially unavailable. The other two scenarios performed were a steam line break inside containment and a steam line break downstream of the main steam isolation valves. These scenarios were chosen because previous validations of the EOP had raised a concern about the ability of the NLOs to perform required actions under these circumstances.

The verification and validation (V&V) process used for the staffing validation was a revised process developed after the EOP audit by the NRC had been performed. This V&V process was developed with the assistance of a subject matter expert in the area of human factors and human performance.

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U. S. NRC

Page 2

September 14, 1990

The validation for Unit 2 was done using the control room simulator and walkthroughs in the plant. The scenarios were conducted with two different control room operating crews. An observation team in the simulator kept a record of the actions required of the non-licensed operators during the event and the time at which the actions were needed. Walkthroughs were performed in the plant of the actions to be completed by the NLOs and the time required to complete the actions was recorded on local action verification forms. (Local action verification walkthroughs for both Units One and Two were performed by non-licensed operators working the support shift at the time the walkthroughs were done.) A comparison was made between the time required to complete each task and the scenario time when the task was needed. Based on this review, the actions required of non-licensed operators can successfully be performed by two operators. However, a staffing level of three NLOs will be maintained to allow for differing levels of expertise among the NLOs and possible complications during a transient.

A similar validation was performed for Unit 1 using the same three scenarios conducted with one operating crew on the control room simulator. The local action verification walkthroughs had been performed prior to the simulator sessions. As the drills were run on the simulator, the control room operators requested actions of the NLOs as needed and the observers kept track of the time the actions were requested. That NLO was not allowed to be used again for another action until the required time had elapsed for the first action to be completed. The observers assumed the normal shift complement of three non-licensed operators. Based on these drills, the actions required of the NLOs by the EOP can successfully be performed by three operators. Although a review of the data indicated that the actions required could have been performed adequately by two operators, three NLOs per shift will be maintained to allow for differing levels of expertise among the NLOs and possible complications during a transient.

Based on the results of the validations, changes to both units' Technical Specifications will be requested to require staffing three non-licensed operators per shift. These change requests will be submitted by February 28, 1991, in accordance with the schedule included in our letter of April 20, 1990. In the interim, three NLOs per shift are currently required by procedure.

To provide additional assurance that NLOs are prepared to perform actions required by the EOP, the Unit 2 Operations Manager issued in July 1990 an addendum to the Auxiliary Operator qualification card which specifically included performance tasks required by the EOP. Waste Control Operator tasks are also included in the addendum. Qualified non-licensed personnel are being required to complete the addendum. This includes operators in the current Reactor Operators license class, qualified Waste Control Operators and qualified Auxiliary Operators. Personnel presently in training to become qualified Auxiliary Operators have added this addendum to their qualification cards and must complete performance or simulation of the tasks prior to qualification as an Auxiliary Operator.

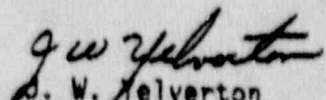
U. S. NRC
Page 3
September 14, 1990

This addendum will ensure that Auxiliary Operators are qualified to perform the tasks required by the EOP of not only the Auxiliary Operator but also the Waste Control Operator, should it become necessary during the course of a transient. Unit 1 NLO training includes actions required by the EOP.

The verification and validation (V&V) process as revised includes verification of local actions and of adequate staffing to perform these actions. As part of the V&V of the upgraded AND-2 EOP (upgrade to CEN-152 guidelines) and of the upgraded AND-1 EOP, a 100 percent validation will be performed of actions required to be performed outside the Control Room. The adequacy of non-licensed staffing will be reassessed at that time.

Based on the results of the validations performed, we have concluded that the current level of three NLOs per shift is adequate to meet the demands of operations under the EOP and to ensure the continued health and safety of the public.

Very truly yours,


J. W. Helverton
Director, Operations

JWY/JDJ/sgw

cc: Regional Administrator
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