Duke Energy®

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May 13, 2011

Mr. Victor McCree, Regional Administrator
U.S. Nuclear Regulatory Commission, Region II
Marquis One Tower
245 Peachtree Center Ave., NE, Suite 1200
Atlanta, GA 30303-1257

Subject: **OCONEE NUCLEAR STATION**
ILT39 Operating Exam Post Exam Comments

Dear Mr. McCree:

An NRC initial license operating exam was administered the week of May 2, 2011. Oconee has the following operating exam post exam comments:

Comment #1
Simulator scenario number two (2) had a loss of an operating LPSW pump followed by a subsequent SBLOCA. Form ES-D-2 (Required Operator Actions) for this scenario stated that during the performance of EOP Enclosure 5.1 (ES Actuation) step 35 required 1LPSW-4 and 1LPSW-5 be opened. This is not correct. To meet Step 35 of Enclosure 5.1 either of the following conditions must be met:

- Three LPSW pumps operating
  or
- Two LPSW pumps operating when Tech Specs only requires two operable.

In this case neither part is met and therefore the step to open 1LPSW-4 and 1LPSW-5 should not be performed. This step should be removed from the scenario.

Comment #2
Simulator scenario number three (3) contained an event in which the Pzr Spray Valve (1RC-1) failed open. Form ES-D-2 (Required Operator Actions) for this scenario stated that if RCS pressure decreased to less than 2125 psig then TS 3.4.1 (RCS Pressure, Temperature, and Flow DNB Limits) would be entered. This is not correct. This is only correct if the unit is in "MODE 1 during steady state operation". In this case the unit was in MODE 2 at 3% reactor power and therefore outside the mode of applicability. TS 3.4.1 is therefore not applicable to scenario number three.

Comment #3
JPM NLO-600 (Transfer of MCC 2XA Between Normal and Emergency Power) was administered as part of the operating exam. The Chief Examiner requested information concerning the affect on the plant if the normal feeder breaker to 2XA motor control center (MCC) were inadvertently opened and then reclosed.

The initial conditions for this JPM state that the unit is in MODE 5. In MODE 5 most secondary systems would be shutdown. 2XA MCC supplies various secondary loads including the 2A EHC Pump, U2 Vapor Extractor, U2 Steam packing Exhauster, various MS and SD valves, and other miscellaneous loads. All loads have been reviewed and none of these loads would be adversely affected by a momentary loss of power while the plant is in MODE 5. The Primary IA compressor would be operating with Unit 2 in MODE 5. 2XA MCC does supply power to the Primary IA Compressor Fans "A" and "B" which would be operating with Unit 2 in MODE 5. However, engineering has stated that with a momentary loss of power these fans would restart with no adverse affect on the compressor. In summary, the overall effect of a momentary loss of power to 2XA MCC with Unit 2 in MODE 5 would have little to no impact on plant operation.

Comment #4
JPM Admin-124 (Determine Shift Staffing) was administered as part of the operating exam. This JPM requires the candidate to interpret SLC 16.13.1 (Minimum Station Staffing Requirements) to determine staffing requirements for a given situation. Questions have arisen concerning the correct method to interpret the SLC. Regulatory Compliance has been asked to interpret the requirements of SLC 16.13.1. The attachment reflects the utility position and the correct response to the JPM.

If you require any additional information, or have any questions, please contact Gabriel Washburn at (864) 873-4490 or John R. Steely at (864) 873-3446.

Sincerely,

T Gillespie

T. Preston Gillespie, Jr.
Site Vice President
Oconee Nuclear Station

Attachment

cc: Mr. Malcolm T. Widmann, Chief
U.S. Nuclear Regulatory Commission, Region II
Division of Reactor Safety
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Marquis One Tower
245 Peachtree Center Ave., NE, Suite 1200
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Mr. Mark Bates
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Question

How many SROs are required when Unit 1 & 2 are in MODE 1 and core offload is in progress on Unit 3?

Answer

Three SROs are required when a qualified NLO is designated the fire brigade leader, otherwise four.

Basis for the answer is as follows:

SLC 16.13.1 Commitment a.1 requires one licensed SRO to be present in the Control Room when a Unit is in MODES 1 – 4.

SLC 16.13.1 Commitment a.2 requires an SRO or an SRO limited to fuel handling to be present in the Reactor Building to directly supervise the activity and, during this time, shall not be assigned to other licensed activities when fuel handling operations in the reactor building are in progress.

SLC Table 16.13.1-1 requires four SROs to be on staff when two units are in MODES 1-4 controlled from one Control Room.

Note 1 to Table 16.13.1-1 allows the SRO number to be reduced by one when a qualified NLO is designated the fire brigade leader. The NLO number must be increased by one, or one fire brigade member must be supplied from another organization

The requirements of SLC 16.13.1 consolidate ONS station staffing requirements into one document. This SLC includes the shift manning requirements of ITS 5.2.2, 10 CFR 50 Appendix R Section III.H, 10 CFR 50.54.m, Operations Management Procedures (OMPs), NSD 112, and the Emergency Plan. This SLC also includes the old requirements of SLC 16.13.1, "Fire Brigade," dated 3/27/99 and SLC 16.13.5; "Additional Operating Shift Requirements," dated 3/27/99. The numbers for each position per shift are additive. For example, Table 16.13.1-1 requires a total of 5 SROs per shift (3 SROs required by 10 CFR 50.54(m)(2)(i) plus 1 additional SRO for the Fire Brigade and 1 additional for the ERO). The bases for the SRO numbers in the first column (all three Units in MODES 1-4) of SLC Table 16.13.1-1 are described in the SLC Bases as follows:

3 SRO's (active SRO)	Required by 10 CFR 50.54(m)(2)(i). Per ITS 5.2.2.b and 10 CFR 50.54(m)(2)(iii) at least 2 SRO's must be in the control room.
1 SRO (active or inactive) or NLO - Fire Brigade	Required by Appendix R Section III.H. Implemented by OMP and NSD. Individual fulfilling position shall be a SRO or an NLO who is qualified to be a fire brigade leader. Per OMP this individual functions as fire brigade leader and is not available for control room activities when directing the fire brigade. Appendix R does not specify that the

	brigade leader be an SRO, it only specifies that the fire brigade leader have sufficient training in or knowledge of plant safety-related systems to understand the effects of fire and fire suppression systems on safe shutdown capability. When an NLO is serving as the fire brigade leader, the SRO number for each column in Table 16.13.1-1 may be reduced by one.
1 SRO (licensed or previously licensed) – ERO	Required by Volume A, Section B, Figure B-2 of the Emergency Plan. Implemented by OMP. SRO serves as the offsite communicator and the NRC communicator in the CR/TSC. This is permissible since the offsite communicator role is completed prior to the NRC communicator role starting.

Per the SLC Bases, the Minimum Station Staffing numbers for the SRO in Table 16.13.1-1 change as a function of the number of units in MODES 1-4 and whether the operating Units are controlled from one or two Control Rooms. The number for the remaining positions in Table 16.13.1-1 is not affected by operational condition of the units.

- 10 CFR 50.54(m)(2)(i) requires 3 SROs when two units are in MODES 1-4 and controlled from two Control Rooms, 2 SROs when two units are in MODES 1-4 and controlled from a common control room, 2 SROs when one unit is MODES 1-4 and 1 SRO when no units are MODES 1-4. Thus considering fire brigade and ERO requirements, this results in the requirement for 5 SROs when two units are in MODES 1-4 and controlled from two Control Rooms, 4 SROs when two units are in MODES 1-4 and controlled from a common control room, 4 SROs when one unit is MODES 1-4 and 3 SROs when no units are MODES 1-4.

Since Unit 1 and 2 are in MODES 1 – 4 and are controlled from a common control room, 4 SROs are required. One of these SRO's must be in the shared Unit 1 & 2 control room. One of the SRO's must fulfill the ERO function. One of the SRO's must fulfill fire brigade requirements (Note: If a qualified NLO is fulfilling the fire brigade function this SRO position is not required). Since core off load is in progress on Unit 3, the 4th SRO must be in the Unit 3 Reactor Building. Therefore, the minimum number of SROs is 4 unless an NLO is fulfilling the fire brigade function, then it is 3.

This is further supported by 10 CFR 50.54(m) which list 3 SROs as being required on shift when 3 nuclear plants are operated from 2 control rooms. Note 2 of the table defines operating as: "For the purpose of this table, a nuclear power unit is considered to be operating when it is in a mode other than cold shutdown or refueling as defined by the unit's technical specifications."