

CATEGORY 1

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR: 9612020112 DOC.DATE: 96/11/21 NOTARIZED: NO DOCKET #
FACIL: 50-269 Oconee Nuclear Station, Unit 1, Duke Power Co. 05000269
50-270 Oconee Nuclear Station, Unit 2, Duke Power Co. 05000270
50-287 Oconee Nuclear Station, Unit 3, Duke Power Co. 05000287

AUTH.NAME AUTHOR AFFILIATION
HAMPTON, J.W. Duke Power Co.
RECIP.NAME RECIPIENT AFFILIATION
Document Control Branch (Document Control Desk)

SUBJECT: Provides description & basis for scope of integrated ES test during current outage of Units 1, 2 & 3, as committed to in 961031 ltr.

DISTRIBUTION CODE: A001D COPIES RECEIVED: LTR 1 ENCL 0 SIZE: 5
TITLE: OR Submittal: General Distribution

NOTES:

	RECIPIENT ID CODE/NAME	COPIES LTR ENCL	RECIPIENT ID CODE/NAME	COPIES LTR ENCL
	PD2-2 LA	1	PD2-2 PD	1
	LABARGE, D	1		
INTERNAL:	ACRS	1	FILE CENTER 01	1
	NRR/DE/EMCB	1	NRR/DRCH/HICB	1
	NRR/DSSA/SPLB	1	NRR/DSSA/SRXB	1
	NUDOCS-ABSTRACT	1	OGC/HDS2	1
EXTERNAL:	NOAC	1	NRC PDR	1

NOTE TO ALL "RIDS" RECIPIENTS:
PLEASE HELP US TO REDUCE WASTE. TO HAVE YOUR NAME OR ORGANIZATION REMOVED FROM DISTRIBUTION LISTS OR REDUCE THE NUMBER OF COPIES RECEIVED BY YOU OR YOUR ORGANIZATION, CONTACT THE DOCUMENT CONTROL DESK (DCD) ON EXTENSION 415-2083

TOTAL NUMBER OF COPIES REQUIRED: LTR 13 ENCL 0

C
A
T
E
G
O
R
Y
1
D
O
C
U
M
E
N
T

Duke Power Company
Oconee Nuclear Site
P.O. Box 1439
Seneca, SC 29679

J. W. HAMPTON
Vice President
(864)885-3499 Office
(864)885-3564 Fax



DUKE POWER

November 21, 1996

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

Subject: Oconee Nuclear Station
Docket Nos. 50-269, -270, -287
Oconee Integrated Engineered Safeguards Test

In a letter dated October 31, 1996, Duke Power committed to respond in writing to the NRC by November 22, 1996, with a decision regarding the performance of an integrated engineered safeguards (ES) test during the current outage of the three Oconee units. The following letter provides a description of the planned test and the basis for the scope of the integrated ES test.

Duke Power will perform a one-time integrated ES test of the Oconee emergency power system. Duke Power has evaluated the scope of the integrated ES test from both a deterministic and probabilistic perspective. The integrated ES test will demonstrate that the current testing and design analyses provide a high level of confidence that the Oconee emergency power system can perform its intended safety function. In addition to demonstrating design basis requirements, certain portions of the test will also exercise the emergency power system under the most likely scenarios for a three unit loss of offsite power. Because this will be a one-time integrated ES test, Duke Power stands available to meet with the NRC to answer any NRC questions prior to the performance of the integrated ES test.

The resulting spectrum of test conditions represents various plant conditions in order to provide confidence that the emergency power system will perform its design basis function. It should be noted that the scope of the Oconee integrated ES test is much broader than a typical ES

9612020112 961121
PDR ADOCK 05000269
PDR

1/0
A1021

actuation in that this test will simulate single failures to achieve bounding loading configurations.

The planned integrated ES test consists of six individual parts which demonstrate various loading configurations of the Oconee emergency power system. The scope of the six parts of the integrated ES test is provided in the following paragraphs. The procedure for the test is still under development. Therefore, the order for the six parts of the test has not been finalized.

1. One portion of the integrated ES test simulates a simultaneous loss of offsite power (LOOP) on all three Oconee units. This portion of the integrated ES test loads the three Oconee LOOP units on the overhead power path following a Keowee load rejection. This case demonstrates the ability of Keowee to accept the simultaneous loading of the three Oconee LOOP units on the overhead power path.
2. Another portion of the integrated ES test simulates a simultaneous loss of offsite power (LOOP) on all three Oconee units and a failure of the overhead power path. This portion of the integrated ES test loads the three Oconee LOOP units on the underground power path with Keowee at steady state conditions. This case demonstrates the ability of Keowee to accept the simultaneous loading of the three Oconee LOOP units on the underground power path.
3. Another portion of the integrated ES test simulates a simultaneous LOOP on all three Oconee units, a LOCA on one Oconee unit, and a single failure of the overhead power path. This scenario results in the loading of the Oconee LOCA unit on a load rejected Keowee unit followed by the loading of two Oconee LOOP units. This portion of the integrated ES test demonstrates that the engineered safeguards equipment starts following a load rejection transient and operates properly during the loading of the two Oconee LOOP units.
4. Another portion of the integrated ES test simulates a simultaneous LOOP on two Oconee units, a loss of coolant accident (LOCA) on one of the Oconee LOOP units, and a single failure which results in additional non-scheduled

loads. The single failure results in simultaneous loading of the Oconee LOCA unit and one Oconee LOOP unit on a load rejected Keowee unit which is aligned to the underground power path. This case demonstrates Keowee's ability to start and accelerate the engineered safeguards loads and the additional loads of an Oconee LOOP unit following a Keowee load rejection.

5. The scenario described above in paragraph 4 is repeated with the Keowee unit starting from standby. The single failure results in simultaneous loading of the Oconee LOCA unit and one Oconee LOOP unit on an accelerating Keowee unit which is aligned to the underground power path. This case demonstrates Keowee's ability to start and accelerate the engineered safeguards loads and the additional loads of an Oconee LOOP unit while Keowee is starting from standby.
6. The final portion of the integrated ES test simulates the scenario of a LOCA on one Oconee unit and a LOOP on all three Oconee units. However, test conditions will be established such that a Lee gas turbine supplies power to the standby buses. This portion of the integrated ES test demonstrates that a Lee gas turbine can accept the loading of the Oconee loads under emergency conditions. In addition, the ability of the Oconee equipment to start and operate while being supplied from a Lee gas turbine is demonstrated.

Since the test procedure, data acquisition procedure and associated 50.59 evaluations are still being developed, specific information such as test acceptance criteria and expected loads during each test are not currently available. Copies of the approved procedures and their supporting safety evaluations performed in accordance with 10 CFR 50.59 will be provided to the resident inspectors as soon as they are available.

Currently, the integrated ES test is scheduled for the week of December 15, 1996. However, this date may change based on further development of the test procedure and ongoing activities associated with the current outage of the three Oconee units. The actual test date will be provided to the NRC resident inspectors at Oconee.

During the performance of the integrated ES test, if a failure should occur, the failure will be evaluated for any impact on the integrated ES test. The integrated ES test will be resumed if the review of the failure indicates that the integrated ES test is not impacted.

Data obtained from the integrated ES test will be used to demonstrate the adequacy of the Oconee emergency power system. The test results from the integrated ES test will be made available to the NRC resident inspectors. In addition, Duke Power is willing to discuss the test results with the NRC in the NRC's Washington office, NRC's Atlanta office or at Oconee, as necessary.

After performing the integrated ES test described in this letter, Duke Power does not intend to perform the integrated ES test that was discussed in the September 19, 1996, meeting with the NRC and in Open Issues #3 and #4 in Attachment 1 to the Duke Power letter dated October 31, 1996.

If there are any questions regarding this submittal, please contact Michael Bailey at (864) 885-4390.

Very Truly Yours,

Handwritten signature of J. W. Hampton, with the word "for" written below it.

J. W. Hampton, Site Vice President
Oconee Nuclear Station

MEB

cc: S. D. Ebnetter, Regional Administrator
Region II

M. A. Scott, Senior Resident Inspector
Oconee Nuclear Site

D. E. LaBarge, Project Manager
NRR