

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

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 FACIL: 50-389 St. Lucie Plant, Unit 2, Florida Power & Light Co.
 AUTH. NAME: UHRIG, R.E. AUTHOR AFFILIATION: Florida Power & Light Co.
 RECIP. NAME: EISENHUT, D.G. RECIPIENT AFFILIATION: Division of Licensing

DOCKET # 05000389

SUBJECT: Forwards list of specific ESF actuation sys devices & associated actuated equipment which cannot be tested at power. Equipment not previously identified in FSAR Table 7.3-9.

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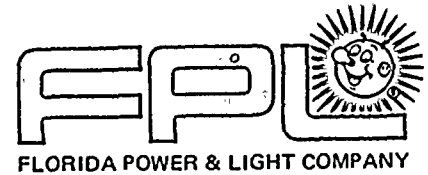
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September 26, 1983
L-83-497

Office of Nuclear Reactor Regulations
Attention: Mr. Darrell G. Eisenhut, Director
Division of Licensing
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Mr. Eisenhut:

Re: St. Lucie Unit No. 2
Docket No. 50-389
ESFAS Actuation Relay Testing

References: 1) NRC letter dated June 7, 1983 from G.W. Knighton (DL/LB3)
to Dr. R.E. Uhrig (FPL)

Per Reference 1, Florida Power & Light Co. (FPL) was requested to provide a list of specific ESFAS actuation devices (subgroup relays, initiation relays, etc.) that cannot be tested during plant power operation without jeopardizing plant safety or operability along with a justification why these devices cannot be tested. In addition, FPL was requested to provide information to verify that the actuated equipment assignments to each actuation device were made in a manner to minimize the number of components which cannot be tested at power.

Please find enclosed in Table 1 a list of the specific devices and their associated actuated equipment which cannot be tested at power. This list represents equipment not previously identified in Table 7.3-9 of the St. Lucie Unit 2 FSAR. This table also provides the justification why these devices cannot be tested.

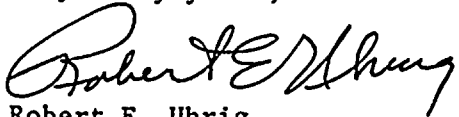
ESFAS testing is conducted periodically during normal plant operation in accordance with the St. Lucie Unit 2 Technical Specification to verify operability. With the exception of the equipment listed in Table 1, and in Table 7.3-9 of the FSAR, the ESFAS relays have been grouped to allow this verification test to be performed without interrupting normal plant operation. The actuated equipment assignment to each actuation device were made in such a fashion to; 1) allow for testing without interrupting normal plant operation, 2) minimize the number of components which cannot be tested at power, 3) ensure that testing in no way interferes with the protective function of the system. This was accomplished by using an overlapping test method. For example, when SIAS test group 1A is tested the LPSI 2A pump starts but the LPSI discharge valve remains shut. The LPSI 2A discharge valve is assigned a different test group. As an additional example, the HPSI 2A pump also starts on a 1A SIAS test signal but its discharge valve will also remain shut. The HPSI 2A discharge valve has also been assigned a different test group. In addition, the majority of the equipment which, if tested at power would jeopardize plant safety and operations, was assigned to a "no test" group.

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Should you have any questions concerning this letter, please do not hesitate to contact us.

Very truly yours,



Robert E. Uhrig
Vice President
Advanced Systems and Technology

REU/RJS/PPC/mp

Attachment

cc: J.P. O'Reilly, Region II
Harold F. Reis, Esquire

TABLE 1

<u>ESFAS TEST GROUP</u>	<u>ACTUATION DEVICES</u>	<u>COMPONENTS NOT TESTED</u>	<u>REASON NOT TESTED AT POWER</u>	<u>JUSTIFICATION FOR NOT TESTING</u>
SIAS OB	K-610-D	4160 pressurizer heater transformer	The OB test group contains equipment that should not be tested during operation of the plant. Testing may induce transients or equipment damage.	Cannot test without energizing the remainder of the relays in this test group. Testing OB group will cause plant transient.
SIAS 5A	K-505-A *	Intake cooling water pump 2A Component cooling water pump 2A	Equipment normally operating. Interlocks prevent more than two pumps operating at once.	Two pumps are required to be operating at full power. If A & C pumps were operating, 2B pump would not come on due to interlocks.
SIAS 5B	K-605-A *	Intake cooling water pump 2B Component cooling water pump 2B	(same as K-505-A)	(same as K-505-A)
SIAS 7A	K-507-A *	4160 Switchgear 2A3 UV Interlock	In order to verify operation of this component, an under voltage condition must exist concurrently with the test signal.	Plant does not normally have under voltage conditions.
SIAS 7B	K-607-A *	4160 Switchgear 2B3 UV interlock	(same as K-507-A)	(same as K-507-A)
SIAS 8A	K-508-A	(Start) containment fan cooler (2HVS-1A) (Start) containment fan cooler (2HVS-1B)	Energizing the SIAS Group 8A energizes the CIAS Group OA. Energizing the CIAS Group OA will isolate instrument air to containment therefore terminating air supply to many air operated valves and dampers causing them to assume their failed positions.	Testing will cause plant transient.

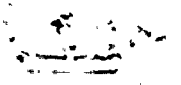
*Operation of this relay is verified by operation of other equipment.

<u>ESFAS TEST GROUP</u>	<u>ACTUATION DEVICES</u>	<u>COMPONENTS NOT TESTED</u>	<u>REASON NOT TESTED AT POWER</u>	<u>JUSTIFICATION FOR NOT TESTING</u>
CIAS 2A	K-512-A	RCB Purge (FCV-25-1) RCB Purge (FCV-25-3) RCB Purge (FCV-25-5) RCB Purge Fan (2-HVE-8A)	Plant Technical Specifications preclude opening these valves at power.	Valves must remain in their closed (safe) position during power operations. Since valves may not be opened at power testing for closure at power is not necessary.
CIAS 2B	K-612-A	RCB Purge (FCV-25-2) RCB Purge (FCV-25-4) RCB Purge (FCV-25-6) RCB Purge Fan (2-HVE-8B)	(same as K-512-A)	(same as K-512-A)
CSAS 3A	K-521-A *	Resequence load blocks 6 & 7 diesel generator 2A loading.	Diesel Generator loading sequence requires no voltage on the safety bus. This cannot be performed at power.	May induce plant transient.
CSAS 3B	K-621-A *	Resequence load block 6 & 7 diesel generator 2B loading	(same as K-521-A)	(same as K-521-A)
RAS 3A	K-524-A *	Alarm RWT discharge (not close) (MV-07-1A)	In order to test this failure to close alarm, the valve would have to be disabled while performing this test.	During the test, the valve is verified to have stroked to its safe (actuated) position.
RAS 3B	K-624-A *	Alarm RWT discharge valve (MV-07-1B)	(same as K-524-A)	(same as K-524-A)
RAS 4A	K-525-A *	Alarm Reactor sump (MV-07-2A)	In order to test this failure to open alarm, the valve would have to be disabled while performing this test.	(same as K-524-A)
RAS 4B	K-625-A *	Alarm Reactor sump (MV-07-2B)	(same as K-525-A)	(same as K-525-A)

*Operation of this relay is verified by operation of other equipment.

<u>ESFAS TEST GROUP</u>	<u>ACTUATION DEVICES</u>	<u>COMPONENTS NOT TESTED</u>	<u>REASON NOT TESTED AT POWER</u>	<u>JUSTIFICATION FOR NOT TESTING</u>
SIAS 8A (cont'd)	K-508-B	Trip DG Breaker for 1 sec., Diesel Generator 2A Close/open inhibit CCW to Fuel Pool Heat Exchanger (MV 14-18)	(same as K-508-A)	(same as K-508-A) (same as K-508-A)
SIAS 8B	K-608-A	Containment fan cooler (2-HVS-1C) Containment fan cooler (2HVS-1D)	Energizing SIAS group 8B will isolate the bleed off isolation valve V-2524 (see K-618-A). Closing this valve will increase the potential for damaging the RCP seals.	Damage to RCP seals would cause plant downtime.
	K-608-B	Trip D.G. breaker for 1 sec. Diesel generator 2B. Close/open inhibit CCW to fuel pool heat exchanger isolation valve (MV-14-17)	(same as K-608-A) (Same as K-608-A)	(same as K-608-A) (same as K-608-A)
SIAS 9A/B	K-509-A	Intake Cooling water pump 2C	(same as K-505-A)	(same as K-505-A)
	K-509-B *	Component cooling water pump 2C	(same as K-505-A)	(same as K-505-A)
	K-609-A	Intake cooling water pump 2C	(same as K-505-A)	(same as K-505-A)
	K-609-B *	Component Cooling Water Pump 2C	(same as K-505-A)	(same as K-505-A)
CIAS OA	K-518-B	Unit 1 Control Room Isolation	(same as K-508-A)	1) (same as K-505-A), Also, 2) Unit 1 control room has its own system for control

*Operation of this relay is verified by operation of
other equipment.



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