

**LOUISIANA
POWER & LIGHT**

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November 30, 1984

W3P84-3325
3-A1.01.04
Q-3-P43
A4.05

Director of Nuclear Reactor Regulation
Attention: Mr. G.W. Knighton, Chief
Licensing Branch No. 3
Division of Licensing
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

SUBJECT: Waterford SES Unit 3
Docket No. 50-382
ASSOCIATED CIRCUITS ANALYSIS

REFERENCES: (1) Letter W3P84-1412 from K.W. Cook (LP&L) to
G.W. Knighton (NRC) dated May 17, 1984
(2) I.E. Inspection 50-382/8420 dated July 9, 1984

Dear Mr. Knighton:

Attached please find the Associated Circuits Analysis for your review as committed to in Reference 1. This study addresses the spurious actuation concerns raised by NRC reviewers during the Fire Protection Special Safety Inspection (Reference 2) conducted April 9-13, 1984 at Waterford SES Unit Number 3.

This report evaluated the effect on safe shutdown of spurious actuation of essential and non-essential components caused by a fire condition in the Control Room/Cable Vault area, the Relay Room Isolation Panel, and individual plant fire areas. As a result, some isolation switches and cable rerouting as well as operator actions will be required to mitigate the effects of worst-case spurious actuations. Accordingly, these modifications including necessary procedure revisions will be completed prior to startup following the first refueling outage as previously agreed in Reference 1 and as required by Reference 2. The conservatism of the assumptions utilized in this analysis (i.e. loss of offsite power, total loss of all control room components, loss of all automatic functions and worst-case spurious signals) affirm that the schedule for completing modifications will not significantly impact the public health and safety beyond that level of protection provided by Waterford 3's current compliance with Appendix R and related fire

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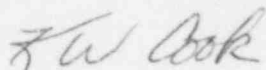
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W3P84-3325
Mr. G.W. Knighton
Page 2

protection regulatory requirements. Recently completed modifications which insure electrical independence from the control room for the Emergency Diesel Generator B, Pressurizer Proportional Heater Bank 2, process monitoring instrumentation and Atmospheric Steam Dump Valves in conjunction with procedure revisions assure the capability of Waterford 3 operators to safely bring the plant to cold shutdown conditions from outside the control room. In addition, in-depth fire protection features including extensive automatic suppression coverage outside the control room have been implemented to insure that at least one train of safe shutdown equipment will remain free of fire damage.

We trust that this report will satisfy the requirements of Open Item 382/8420-07 of Reference 1. Should you have any questions in regard to this analysis please contact our fire protection licensing engineer, Kevin Curley, at (504) 595-2845.

Very truly yours,



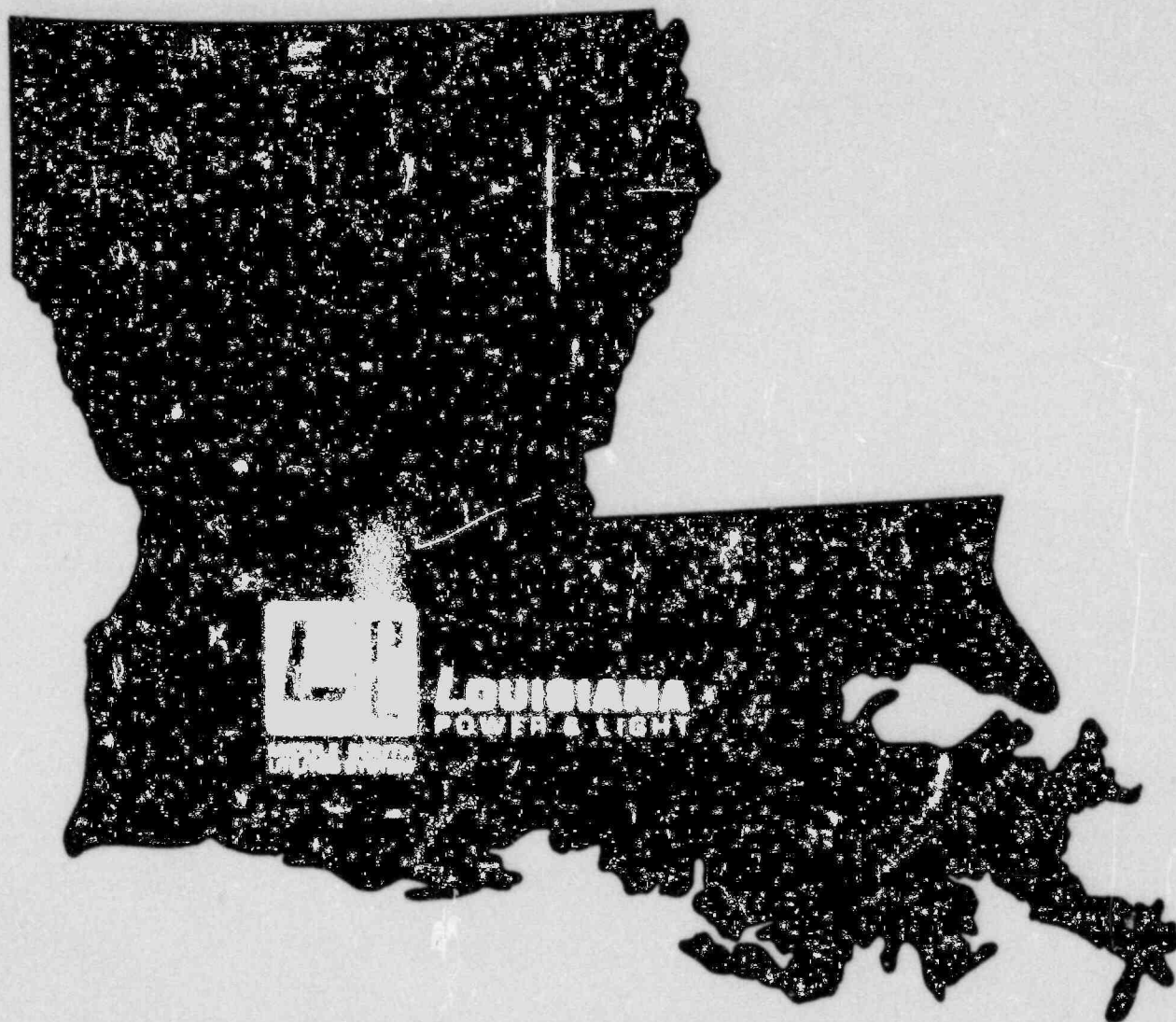
K. W. Cook
Nuclear Support & Licensing Manager

KWC/KNC/ch
Attachments

cc: E.L. Blake, W.M. Stevenson, D.M. Crutchfield, J. Wilson, J. Weirmiel,
R.D. Martin, G.L. Constable

LOUISIANA POWER & LIGHT

Associated Circuits Analysis



**WATERFORD STEAM ELECTRIC STATION
UNIT NO. 3**