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 FLOYD, S.D. Carolina Power & Light Co.
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SUBJECT: Forwards 910513 application for amend to NPDES Permit
 NC0039586, reflecting addl source of hydrazine discharge.

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NOTES: Application for permit renewal filed. 05000400

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Carolina Power & Light Company

JUN 10 1991

SERIAL: NLS-91-147

United States Nuclear Regulatory Commission
ATTENTION: Document Control Desk
Washington, DC 20555

SHEARON HARRIS NUCLEAR POWER PLANT
DOCKET NO. 50-400/LICENSE NO. NPF-63
NPDES PERMIT RENEWAL AMENDMENT

Gentlemen:

Carolina Power & Light Company (CP&L) hereby transmits a copy of an amendment to the application for renewal of the Shearon Harris Nuclear Power Plant (SHNPP) National Pollutant Discharge Elimination System (NPDES) Permit. The renewal request was transmitted to NRC by CP&L letter dated September 28, 1990. As required in Section 3.2 of Appendix B to the SHNPP Operating License, a copy of the new permit will be transmitted to the NRC within 30 days of its renewal.

Please refer any questions regarding this submittal to Mr. Steven Chaplin at (919) 546-6623.

Yours very truly,

S. D. Floyd
Manager
Nuclear Licensing Section

SDF/SDC

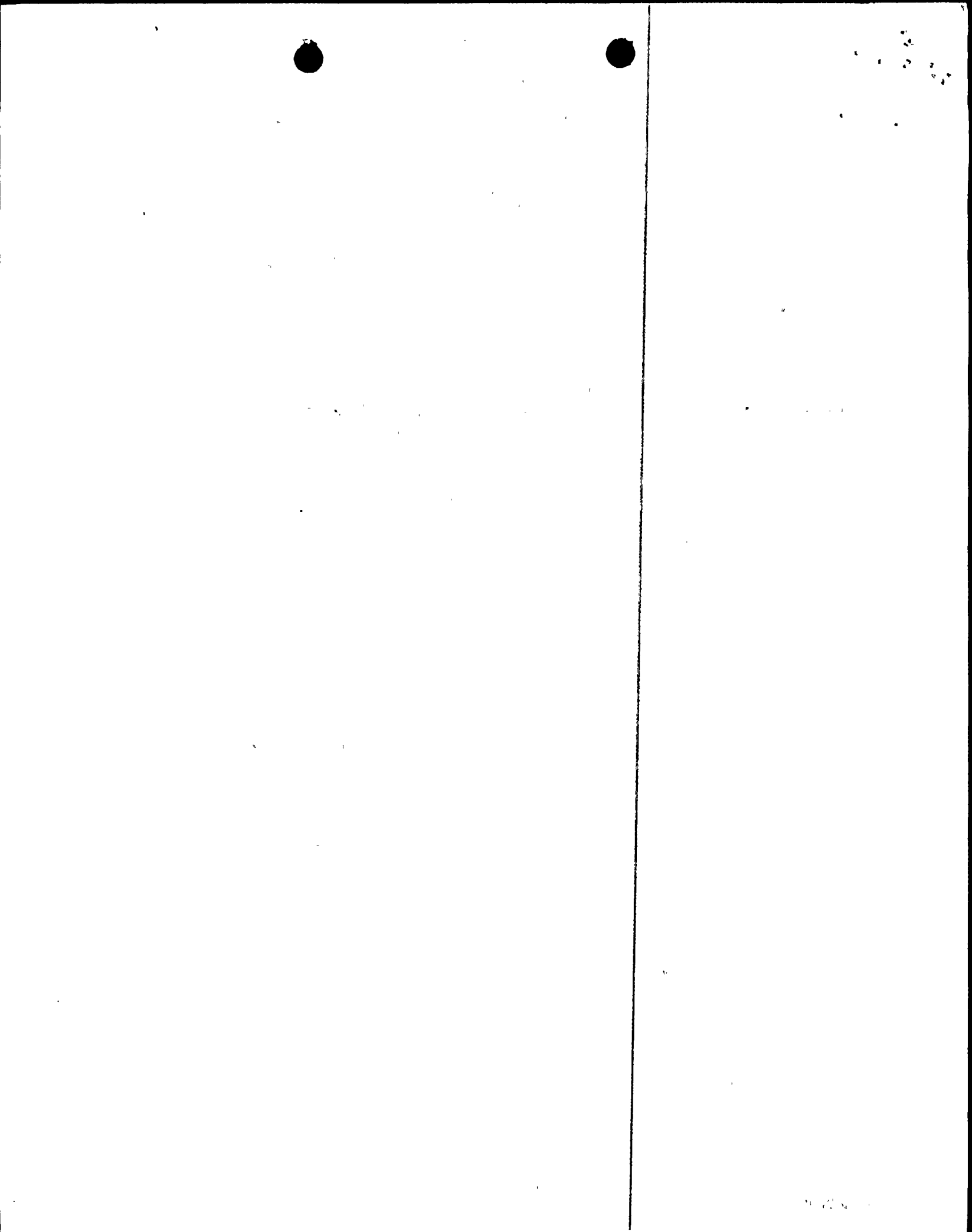
Enclosure

cc: Mr. S. D. Ebnetter
Ms. B. L. Mozafari
Mr. J. E. Tedrow

411 Fayetteville Street • P. O. Box 1551 • Raleigh, N. C. 27602

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Carolina Power & Light Company

MAY 13 1991

Mr. Dale Overcash, P.E.
N.C. Division of Environmental Management
P.O. Box 27687
Raleigh, N.C. 27611-7687

RE: Shearon Harris Nuclear Power Plant
NPDES Permit No. NC0039586
Amendment to Permit Application

Dear Mr. Overcash:

On September 27, 1990, Carolina Power & Light Company (CP&L) submitted a request for the Shearon Harris Nuclear Power Plant (SHNPP) permit to be renewed. Currently, the existing permit and permit renewal application only address hydrazine discharges through low volume waste. Because of changing plant conditions since submittal of the application, wastewater containing hydrazine may occasionally need to be discharged through the radwaste system, as well as the low-volume waste system. Therefore, this is intended to amend the application to reflect this additional source of hydrazine discharge..

Additionally, CP&L is respectfully requesting modifications to the current hydrazine discharge period and the notification requirements. A description of the alternate routing of hydrazine and the requested permit changes are included in the enclosure.

Thank you for your cooperation. Should you have any questions or require further information, please call Mr. Cam Wheeler at 546-6725 or Ms. Barbara Stephens at 546-7777.

Yours very truly,

George J. Oliver, Ph.D.
Manager
Environmental Services

Enclosure

cc: Mr. A. Mouberry, Raleigh Regional Office, DEM
bcc: Mr. R. M. Coats (w/out enclosure)
Mr. S. D. Floyd
Mr. M. R. Greeson
Mr. D. E. Hollar
Mr. C. S. Hinnant (w/out enclosure)
Mr. J. M. McDowell
Mr. B. A. Meyer



AMENDMENT TO SHEARON HARRIS NUCLEAR POWER PLANT
NPDES PERMIT APPLICATION

CHANGES IN PLANT OPERATION - HYDRAZINE DISCHARGES

The present NPDES permit allows for low volume wastes to be routed to either of two systems, the low-volume waste system (Serial No. 004) for non-radioactive wastes or the radwaste system (Serial No. 005) for radioactive wastes. (Flow diagrams submitted previously to the Division of Environmental Management (DEM) indicate both of these flow paths.) One component of low volume waste is secondary waste, which consists of water from the secondary cooling system (the normally non-contaminated steam component in this nuclear power plant). The secondary cooling system contains hydrazine as an oxygen scavenger for corrosion control.

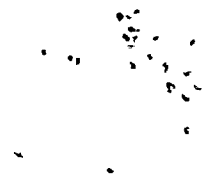
The "Summary Description of Hydrazine Wastes" submitted to DEM in February of 1989 stated that "all wastes that might contain hydrazine flow via plant drains to the low volume waste treatment system." This statement is no longer valid. Within the past year, there has been an occurrence of a steam generator (primary system) tube leak, causing the secondary waste to become radioactively contaminated for a brief period. During this incident, secondary waste was routed to the radwaste system (Serial No. 005) for treatment rather than through the low-volume waste system (Serial No. 004). The plant promptly corrected the leaks, treated the contaminated wastewater, and resumed the routing of secondary waste to the regular low volume waste treatment system. Such incidents are expected to occur infrequently.

REQUEST FOR PERMIT MODIFICATIONS OF HYDRAZINE REQUIREMENTS

CP&L requests two changes to the current hydrazine requirements:

1. . RELEASE PERIOD

The permit currently allows the discharge of hydrazine at a concentration above 60 $\mu\text{g}/\text{l}$ and no greater than 2 mg/l for a period of no more than 24 hours. It is requested that this be changed from a 24-hour to a 48-hour total period. The additional time is needed primarily due to the extra time required to treat and release water through the radwaste system, in the event that secondary waste is routed through this system. Following wet layup, if the steam generators contained radioactivity, the water would be drained from the generators and batch-treated for removal of radioactivity. Only 25,000



gallons can be treated at the time in the radwaste tanks, and the discharge rate from radwaste, based on NRC requirements, is limited to 34-90 gpm according to the activity level. A minimum of six hours processing time is needed between releases.

Normally, secondary waste containing hydrazine is routed through low volume waste rather than radwaste. Normal low volume wastes typically can be released in a 24-hour total period; however, there could be instances in which a longer time may be needed.

2. NOTIFICATION PERIOD

The current permit requires that CP&L "shall notify the DEM Raleigh Regional Office at least one week prior to the conclusion of any wet layup period and shall specify if there will be a 24 hour period in which hydrazine will be discharged at a level greater than 60.0 $\mu\text{g}/\text{l}$." CP&L requests that the notification requirement be dropped. This change is requested because it would be impractical to provide prior notification since hydrazine-containing equipment may be needed at a moment's notice during normal plant operation and since plant outage schedules are often subject to change.

Alternatively, the permit could be changed to require notification within one working day after a release of hydrazine at a concentration exceeding 60 $\mu\text{g}/\text{l}$.

Per recent conversation between Mr. Tim Donnelly of DEM's Raleigh Regional Office and Mr. Cam Wheeler of CP&L, it is our understanding that this notification is not necessary.



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