

The Light company

Houston Lighting & Power

South Texas Project Electric Generating Station P. O. Box 289 Wadsworth, Texas 77483

September 18, 1992

ST-HL-AE-4201

File No.: G09.10

10C.R50.71

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

South Texas Project
Units 1 and 2
Docket Nos. STN 50-498, STN 50-499
Operation of Reactor Containment Building
Carbon Filter Units Prior to Containment Purge

Houston Lighting & Power Company (HL&P) submits this letter to clarify the operation of reactor containment building carbon filter units prior to containment purge. The South Texas Project (STP) Safety Evaluation Report (SER) states in Section 11.3.1 that "before refueling, the containment atmosphere is recirculated for 16 hours through the containment cleanup system for airborne radioactivity removal."

Operation of the STP Reactor Containment Building (RCB) Heating, Ventilating and Air Conditioning (HVAC) System is described in Section 9.4.5.2.3 of the STP Updated Final Safety Analysis Report. The section states in part:

The Containment Carbon Units, designed as nonsafety and nonseismic, operate only during normal plant operating conditions. These units operate to reduce the radioactivity levels in the Containment atmosphere prior to personnel access and before Containment purging.

The Normal Containment Purge Subsystem operates during plant shutdown conditions. This subsystem is used to maintain a negative pressure on containment to reduce the potential for a release and to provide air circulation. The Supplementary Containment Purge Subsystem operates during normal plant operating conditions. This subsystem is designed for a smaller flowrate than the Normal Containment Purge Subsystem. This system is primarily used to control containment pressure and could be used to reduce airborne radioactivity if required. Two radiation monitors are installed to monitor the normal purge exhaust and the supplementary containment purge exhaust air.

9209290325 920918
PDR ADDCK 05000498
P PDR

A034 1/0

Tables 11.3-1.1 and 11.3-1.2 list the expected annual activity released per unit (curies/year) and expected annual site release concentrations, respectively, due to containment purging. The values listed were determined using the assumptions provided in Table 11.3-2. Included in the assumptions are the following:

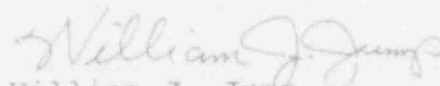
- Four purges/yr (two maintenance and two refueling) at 40,000 ft³/min and continuous purging during operation at 5,000 ft³/min were conservatively assumed.
- One 16-hour, 20,000 ft³/min interval charcoal filter Containment cleanup prior to initiation of Containment purge for maintenance.
- Primary coolant leakage into Containment is 1 percent per day for noble gases and 0.001 percent per day for iodines. Leakage is only assumed to stop during purge for refueling and maintenance outages (i.e., 40,000 ft³/min purge).

The SER statement was evidently based on the second assumption. This was not intended to be taken as a condition of operation.

The design of the Containment filtration system is primarily for particulate and iodine removal. Particulates and iodine concentrations have not been the limiting factors in the purge control program. Particulates and iodines in purges typically contribute less than 10% to the total particulate and iodine releases from the site. Annual offsite doses due to all gaseous effluents have been less than 1% of Technical Specification annual limits. There has been no need to use this system capability.

Based upon the design provisions and experience described above, HL&P requests that the SER be amended to delete the statement regarding recirculation for 16 hours through the containment cleanup system.

If there are any questions, please contact either Mr. P. L. Walker at (512) 972-8392 or me at (512) 972-7205.


William J. Jump
General Manager,
Nuclear Licensing

PLW/ag

Houston Lighting & Power Company
South Texas Project Electric Generating Station

ST-HL-AE-4201
File No.: G09.18
Page 3

cc:

Regional Administrator, Region IV
Nuclear Regulatory Commission
611 Ryan Plaza Drive, Suite 400
Arlington, TX 76011

George Dick, Project Manager
U.S. Nuclear Regulatory Commission
Washington, DC 20555

J. I. Tapia
Senior Resident Inspector
c/o U. S. Nuclear Regulatory
Commission
P. O. Box 910
Bay City, TX 77414

J. R. Newman, Esquire
Newman & Holtzinger, P.C.
1615 L Street, N.W.
Washington, DC 20036

D. E. Ward/T. M. Puckett
Central Power and Light Company
P. O. Box 2121
Corpus Christi, TX 78403

J. C. Lanier/M. B. Lee
City of Austin
Electric Utility Department
P.O. Box 1088
Austin, TX 78767

K. J. Fiedler/M. T. Hardt
City Public Service Board
P. O. Box 1771
San Antonio, TX 78296

Rufus S. Scott
Associate General Counsel
Houston Lighting & Power Company
P. O. Box 61867
Houston, TX 77208

INPO
Records Center
1100 Circle 75 Parkway
Atlanta, GA 30339-3064

Dr. Joseph M. Hendrie
50 Bellport Lane
Bellport, NY 11713

D. K. Lacker
Bureau of Radiation Control
Texas Department of Health
1100 West 49th Street
Austin, TX 78756-3189

Revised 10/11/91

L4/NRC/