

# The Light company

Houston Lighting & Power P.O. Box 1700 Houston, Texas 77001 (713) 228-9211

May 17, 1984  
ST-HL-AE-1084  
File No.: G12.95



Mr. John T. Collins  
Regional Administrator, Region IV  
Nuclear Regulatory Commission  
611 Ryan Plaza Dr., Suite 1000  
Arlington, Texas 76012

Dear Mr. Collins:

South Texas Project  
Units 1 & 2  
Docket Nos. STN 50-498, STN 50-499  
Supplemental Report Concerning the  
Heating, Ventilation and Air Conditioning Design Deficiency

On May 8, 1981, pursuant to 10CFR50.55(e), Houston Lighting & Power Company (HL&P) notified your office of an item concerning the consideration of certain faulted condition heat loads in the design of portions of the Heating, Ventilation and Air Conditioning (HVAC) system. Based on an assessment of preliminary thermal environmental data, it was determined that certain spaces and cubicles within the Mechanical-Electrical Auxiliary Building (MEAB) and the Fuel Handling Building (FHB) would likely require additional HVAC capacity.

On July 6, 1982, HL&P expanded the scope of this item to include two additional items: use of fail open isolation dampers in the HVAC design and single failure criteria in the EAB supply air mixing box. There was a concern that the failure mode of isolation dampers had not been adequately assessed by Brown & Root, Inc. (B&R) in the HVAC design.

On October 20, 1982, HL&P submitted the Final Report on these items. The statement in the final report indicating that all safety-related equipment has safety-related cooling is incomplete. The design criteria is to qualify all safety-related equipment for the environmental conditions in which it must perform its safety function. Where controls, instrumentation, valves, etc., are not served by safety-related cooling, these components will be qualified to the most severe environmental conditions to which they may be exposed.

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Due to design changes made subsequent to the submittal of our Final Report, the information presented below modifies and updates that report.

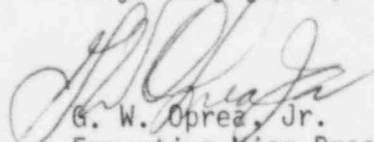
- (1) Paragraph 1(b) of Findings for Deficiency (A): The containment atmosphere hydrogen monitors are now being relocated outside the radwaste control room to reduce any unnecessary personnel exposure that might arise from the air sample filter and lines. Safety-related HVAC cooling will be provided to the hydrogen monitors in their new location on elevation 60 feet of the MEAB.
- (2) Corrective Action for Item A(b)2 of Deficiency B: Each makeup air pressurizer damper will be driven by an electro-hydraulic actuator which is controlled by a manual loading station within the main control room. The damper will automatically open to a preset position to permit pressurization of the control room envelope. During operation of the makeup air filtration system, the operator can maintain positive pressure by manually adjusting the damper to accommodate filter loading conditions.
- (3) Corrective Action for Deficiency C: As stated in the Final Report, this deficiency will now be resolved by deleting the EAB HVAC dual duct concept and providing a single cold supply air duct. This involves deleting the mixing boxes and hot duct in the existing design. With deletion of the mixing boxes there will be no active component to isolate in the supply duct distribution system downstream of the air handling unit safety isolation dampers, thus eliminating the possibility of the subject active failure.

The above corrective action involves complete revision of the existing duct layout in EAB and purchase of new reheat coils for certain areas requiring close temperature control. The reheat coils for the EAB (except 1E battery rooms) need not be safety-related; however, they will be provided with safety-related isolation controls. Reheat coils for 1E battery rooms will be safety-related to maintain battery room temperature conditions.

This information supplements the Final Report concerning this item.

If you should have any questions concerning this item, please contact Mr. Michael E. Powell at (713) 993-1328.

Very truly yours,

  
G. W. Oprea, Jr.  
Executive Vice President

MEP/mpg  
Attachment  
W2/NRC2/f

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cc:

Darrell G. Eisenhut, Director  
Division of Licensing  
Office of Nuclear Reactor Regulation  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555

Victor Nerses, Project Manager  
U.S. Nuclear Regulatory Commission  
7920 Norfolk Avenue  
Bethesda, MD 20016

D. P. Tomlinson  
Resident Inspector/South Texas Project  
c/o U.S. Nuclear Regulatory Commission  
P. O. Box 910  
Bay City, TX 77414

M. D. Schwarz, Jr., Esquire  
Baker & Botts  
One Shell Plaza  
Houston, TX 77002

J. R. Newman, Esquire  
Newman & Holtzinger, P.C.  
1025 Connecticut Avenue, N.W.  
Washington, DC 20036

Director, Office of Inspection  
and Enforcement  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555

E. R. Brooks/R. L. Range  
Central Power & Light Company  
P. O. Box 2121  
Corpus Christi, TX 78403

H. L. Peterson/G. Pokorny  
City of Austin  
P. O. Box 1088  
Austin, TX 78767

J. B. Poston/A. vonRosenberg  
City Public Service Board  
P. O. Box 1771  
San Antonio, TX 78296

Brian E. Berwick, Esquire  
Assistant Attorney General for  
the State of Texas  
P. O. Box 12548, Capitol Station  
Austin, TX 78711

Lanny Sinkin  
Citizens Concerned About Nuclear Power  
114 W. 7th, Suite 220  
Austin, TX 78701

Robert G. Perlis, Esquire  
Hearing Attorney  
Office of the Executive Legal Director  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555

Charles Bechhoefer, Esquire  
Chairman, Atomic Safety & Licensing Board  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555

Dr. James C. Lamb, III  
313 Woodhaven Road  
Chapel Hill, NC 27514

Judge Ernest E. Hill  
Hill Associates  
210 Montego Drive  
Danville, CA 94526

William S. Jordan, III, Esquire  
Harmon & Weiss  
1725 I Street, N.W.  
Suite 506  
Washington, DC 20006

Citizens for Equitable Utilities, Inc.  
c/o Ms. Peggy Buchorn  
Route 1, Box 1684  
Brazoria, TX 77422