August 8, 1980

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of	)	
	)	
HOUSTON LIGHTING & POWER COMPANY	)	Docket No. 50-466
	)	
(Allens Creek Nuclear Generating Station, Unit 1)	)	

NRC STAFF'S STATEMENT OF MATERIAL FACTS AS TO WHICH THERE IS NO GENUINE ISSUE TO BE HEARD

This annex to the Staff's Motion for Summary Disposition sets out those material facts concerning which the Staff contends there is no genuine issue to be heard. These material facts are listed below for each contention, *seriatim*, and constitute a summary of the discussion in the affidavits submitted for that contention.

DOHERTY CONTENTION 11 AND FRAMSON CONTENTION 11 - SPENT FUEL POOL

(WERMIEL AFFIDAVIT)

1. The spent fuel pool area need not be continuously attended during either normal operation or a design basis accident in order to monitor and control pool level and temperature and building temperature.

2. Continuous monitoring of spent fuel operations, and control of pool level and temperature and building temperature can be accomplished from the control room.

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3. The control room is required by General Design Criterion 19 to be occupied, and is designed for occupancy, during normal operation and all design basis accidents.

4. No design basis occurrence at another facility would necessitate the evacuation of Allens Creek.

5. The spent fuel design basis accident has been analyzed, and the results of that analysis reported in the Staff's Safety Evaluation Report and the Final Environmental Statement.

DOHERTY CONTENTION 35 - WELDER TRAINING

(LITTON AFFIDAVIT)

1. 10 C.F.R. Part 50, Appendix B requires that all welding be conducted by qualified personnel using procedures which conform to the applicable code, in this case Section IX of the ASME Boiler and Pressure Vessel Code.

2. Section IX of the ASME Boiler and Pressure Vessel Code specifies the tests which must be passed before an individual is qualified to perform production welding.

3. No individual may engage in welding activity at Allens Creek unless and until he is qualified pursuant to ASME test procedures.

4. The actual production welds are tested by the architect-engineer and the Applicant, and the test results audited by the Commission's Office of Inspection and Enforcement, to assure that production welds possess the necessary mechanical properties.

DOHERTY CONTENTION 45

(MEYER AFFIDAVIT)

1. The ACNGS has complied with all requirements relating to the ability of the core to withstand lateral seismic forces combined with lateral blowdown forces.

2. Lateral flashing loads which occur during a LOCA when a reactor operates in a subcooled regime. Only PWRs, not BWRs such as ACNGS, operate in a subcooled regime.

3. Lateral flashing loads result from cross core flows and impact fuel bundles in a core that allows a mixing of flows between bundles.

4. The BWR fuel bundles are encased in channel boxes to prevent cross flow and, hence, cross core flow is limited. Accordingly, flashing loads (if they could occur) would be lower than in a PWR.

DOHERTY CONTENTION 46

(BROOKS AFFIDAVIT)

1. The fuel enthalpy limit is 280 calories per gram at ACNGS.

2. A total rod worth greater than 0.013Δk/k must result from a control rod drop to result in a fuel enthalpy of 280 calories per gram.

3. The rod pattern control system at ACNGS will be designed to limit the maximum potential dropped rod worth to less than 0.010Δk/k.

4. Analyses show that under a wide variety of core conditions and drop distances, the rod worth increments range from a low of 0.005 k/k to a high of 0.0083Δk/k.

5. If further analysis shows that 0.010Δk/k will be exceeded, the Applicant is required to design the rod pattern control system to limit the maximum of worth to 0.01Δk/k.

6. Drastic patterns such as insertion of rods on the opposite side of the core from the most reactive rod cause an increase in worth of the maximum rod from 0.0083 to only 0.012Δk/k which is below the total rod worth of 0.013Δk/k allowable to not exceed the fuel enthalpy limit.

7. The presence of enhanced notch worths due to xenon in the core cause the total worth of the high worth rods to decrease, thus reducing the consequences of the rod drop accident.

8. The postulated thermal hydraulic condition in the core during heatup where moderator temperatures are near saturated conditions (220°F to 480°F) has been analyzed and shown to reduce the consequences of the design basis rod drop accident.

9. The presence of voids in the core reduces the effect of a particular rod motion (i.e., reduces the rod worth) and makes the Doppler coefficient more negative relative to no voids in the core.

10. Reducing the rod worth and making the Doppler coefficient more negative will reduce the consequences of the design basis rod drop accident.

TEXPIRG A-6

(FIELDS AFFIDAVIT)

1. In order for the ACNGS drywell to withstand the pressure generated during a LOCA, the water in the weir well will have to clear the first row of vents before the differential pressure exceeds 28 psig.

2. The Applicant's analytical model of vent clearing times which were developed in "The General Electric Mark III Pressure Suppression Containment System Analytical Model," NEDO-20533, June 1974, assumed that friction losses through the conduits were negligible.

3. The assumption of negligible friction losses has been verified by actual vent clearing times from experiments at General Electric Company's Suppression Test Facility (PSTF) and pressure suppression tests at Humboldt Bay.

4. Additional work at the Idaho Nuclear Corporation with the CONTEMPT-PS Code showed that the vent clearing transient is not affected by friction losses for reasonable values of vent roughness factors.

5. The assumption of negligible friction in the vent clearing model has been accepted by the Staff based on comparative calculations with and without friction losses and comparisons of experimental results with calculations.

6. To use the Manning equation properly for determining the vent clearing time, the channel (or closed conduit) must have a constant slope and flow must be steady and uniform with no pressure differential across the conduit.

7. At ACNGS, the vents have no slope, the flow is not constant, and the pressure differential in the drywell wall is the force that creates the fluid flow through the conduits during a LOCA.

TEXPIRG CONTENTION 34

(FIELDS AFFIDAVIT)

1. The ACNGS hydrogen monitoring system can be actuated from the control room shortly after an accident and will provide a continuous recording of the containment hydrogen concentration for the operators' use in the control room.

2. An alarm will actuate if the hydrogen analyzer detects a hydrogen concentration of 3.0 volume percent.

3. The ACNGS hydrogen monitoring system will have the ability to take samples from eight different points inside the drywell and containment and consists of two identical analyzer trains, each powered from a different emergency bus, and each having the ability to monitor any of the eight sampling points.

4. A Drywell Containment Hydrogen Mixing System will be activated so that hydrogen in the drywell will be dispersed throughout the containment volume.

5. Two redundant thermal recombiners will be used to remove hydrogen when concentration in the containment approaches four percent.

6. A Containment Hydrogen Purge Subsystem is provided as a further backup system to the redundant thermal recombiner system.

7. The ACNGS hydrogen monitoring system has a design criteria to limit hydrogen concentrations to less than flammable and explosive limits.

8. To obtain the hydrogen concentration inside the containment at TMI-2, personnel had to go to the sample room and manually open a line, draw a sample of the containment atmosphere into a container, take the container to another area, and insert the contents of the canister into a gas analyzer.

Respectfully submitted,

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Dated at Bethesda, Maryland,
this 8th day of August, 1980.