

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of
HOUSTON LIGHTING & POWER COMPANY
(Allens Creek Nuclear Generating
Station, Unit 1)

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Docket No. 50-466

NRC STAFF'S MOTION FOR SUMMARY DISPOSITION

Stephen M. Sohinki
Counsel for NRC Staff

Richard L. Black
Counsel for NRC Staff

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I.

THE MOTION

Pursuant to 10 C.F.R. § 2.749 of the Commission's Rules of Practice, the NRC Staff moves the Atomic Safety and Licensing Board for an order granting summary disposition of Doherty Contention 11 and Framson Contention 1 (which have been consolidated), Doherty Contentions 35, 45, 46 and TEXPIRG Contentions A6 and A34. In support of its motion, the Staff will demonstrate by affidavit and discussion that no material issue of fact exists which would require litigation of the named contentions and that summary disposition should be granted as a matter of law.^{1/}

^{1/} The Staff has included the portion of the deposition relevant to each contention following the affidavit which addresses that contention.

II.

DISCUSSION

A. LEGAL STANDARDS FOR SUMMARY DISPOSITION

The Commission's Rules of Practice provide for summary disposition of certain issues on the pleadings where the filings in the proceeding show that there is no genuine issue as to any material fact and that the movant is entitled to a decision as a matter of law. 10 C.F.R. § 2.749(d).

Use of summary disposition has been encouraged by the Commission and the Appeal Board to resolve contentions where the intervenor has failed to establish that a genuine issue exists. Northern States Power Co. (Prairie Island Nuclear Generating Plant, Units 1 & 2), CLI-73-12, 6 AEC 241 (1973) aff'd sub nom BPI v. Atomic Energy Commission, 502 F.2d 424 (D.C. Cir. 1974); Houston Lighting and Power Co. (Allens Creek Nuclear Generating Station, Unit 1), ALAB-590, 11 NRC 542, 550-551 (1980); Mississippi Power & Light Co. (Grand Gulf Nuclear Station, Units 1 & 2), ALAB-130, 6 AEC 423, 424-25 (1973); Duquesne Light Co. (Beaver Valley Power Station, Unit 1), ALAB-109, 6 AEC 243, 245 (1973).

The Commission's rule authorizing summary disposition is analagous to Rule 56 of the Federal Rules of Civil Procedure. Alabama Power Co. (Joseph M. Farley Nuclear Plant, Units 1 & 2), ALAB-182, 7 AEC 210, 217 (1974); Gulf States Utilities Co. (River Bend Station, Units 1 & 2), LBP-75-10, 1 NRC 246, 247 (1975); Public Service Co. of New Hampshire (Seabrook Station, Units 1 & 2), LBP-74-36, 7 AEC 877, 878 (1974), Cleveland Electric Illuminating Co. et al. (Perry Nuclear Power Plant, Units 1 & 2), ALAB-443, 6 NRC 741, 753-54 (1977). 6 Moore's Federal Practice, p. 56-21 (2d ed. 1976).

In Federal practice, Rule 56 authorizes summary judgment only where it is quite clear what the truth is and where no genuine issues remain for trial. Sartor v. Arkansas Natural Gas Corp., 321 U.S. 626, 627 (1944); Poller v. Columbia Broadcasting Systems, Inc., 368 U.S. 464, 467 (1962). And the record will be viewed in the light most favorable to the party opposing the motion. Poller v. CBS, supra, at 473; Crest Auto Supplies, Inc. v. Ero Manufacturing Co., 360 F.2d 896, 89 (7th Cir. 1966); United Mine Workers of America, Dist. 22 v. Roncco, 314 F.2d 186, 188 (10th Cir. 1963). The Commission follows these same standards in considering summary disposition motions. Perry, ALAB-443, supra at 754; Public Service Co. of New Hampshire (Seabrook Station, Units 1 & 2), LBP-74-36, 7 AEC 877, 879 (1974). And the burden of proof lies upon the movant for summary disposition who must demonstrate the absence of any genuine issue of material fact. Adickes v. Kress and Co., 398 U.S. 144, 157 (1970); Perry, ALAB-443, supra, at 753; 10 C.F.R. § 2.732.

However, where no evidence exists to support a claim asserted, it is appropriate to promptly dispose of a case without a formal hearing. The Commission has made clear that intervenors must show that a genuine issue exists prior to hearing, and if none is shown to exist, the Board may summarily dispose of the contentions on the basis of the pleadings. Prairie Island, CLI-73-12, supra at 242. This obligation of intervenors is reflected in 10 C.F.P. § 2.749(b) which states therein:

When a motion for summary disposition is made and supported as provided in this section, a party opposing the motion may not rest upon the mere allegations or denials of his answer; his answer by

affidavits or as otherwise provided in this section must set forth specific facts showing that there is a genuine issue of fact. If no such answer is filed, the decision sought, if appropriate, shall be rendered.

As the Supreme Court has pointed out, Rule 56 does not permit plaintiffs to get to a jury on the basis of the allegations in the complaints coupled with the hope that something can be developed at trial in the way of evidence to support the allegations. First National Bank of Arizona v. Cities Service Co., 391 U.S. 253, 289-290 (1968). Additionally, as stated by another court, a plaintiff is not allowed to defeat a motion for summary disposition on the hope that on cross-examination the defendants will contradict their respective affidavits. This is purely speculative and to permit trial would nullify the purpose of Rule 56 which provides summary judgment as a means of putting an end to useless and expensive litigation where no genuine issues exist. Orvis v. Brickman, 95 F.Supp. 605, 607 (1951) aff'd 196 F.2d 762 (D.C. Cir. 1952).

To defeat summary disposition an opposing party must present material, substantial facts to show that an issue exists. Virginia Electric and Power Co. (North Anna Nuclear Power Station, Units 1 and 2), ALAB-584, 11 NRC 451, 453 (1980). Conclusions alone will not suffice. River Bend, LBP-75-10, supra at 248. Perry, ALAB-443, supra, at 754. Further, if the statement of material facts required by 10 C.F.R. § 2.749(a) is unopposed, the uncontroverted facts are deemed to be admitted. Pacific Gas and Electric Co. (Stanislaus Nuclear Project, Unit No. 1), LBP-77-45, 6 NRC 159, 163 (1977).

The Staff believes that even when the following affidavits and discussions concerning each contention are viewed in a light most favorable to the Intervenor, it is nevertheless clear that no genuine issue of material fact exists to warrant litigation of any contention, and that summary disposition should be granted on the basis of the pleadings.

III.

B. THE CONTENTIONS

DOHERTY CONTENTION 11
FRAMSON CONTENTION 1

The Applicant has not provided adequate design characteristics and operating safeguards to protect the integrity of stored spent fuel during unattended operation of the spent fuel pool. In addition, the Final Environmental Statement is inadequate in failing to consider the consequences of a spent fuel pool design basis accident.

Since Mr. Doherty is the lead party with regard to this contention, his deposition was taken on June 16, 1980. It is apparent from a reading of that deposition that he has no basis whatever for the assertion that "adequate design characteristics and operating safeguards" have not been provided to protect the integrity of the spent fuel. He testified that he was concerned about the scenario in which the entire Allens Creek facility would have to be evacuated because of an accident at the South Texas facility or a nuclear attack, against which he believes the facility should be designed (Doherty, Tr. 185). He also testified that, in his view, unattended operation of

the spent fuel pool is hazardous because of the danger of evaporation of the pool water. (Doherty, Tr. 186). Mr. Doherty doesn't know the volume of the pool (Tr. 186) and couldn't respond as to the time it would take for evaporation to occur (Doherty, Tr. 184). Mr. Doherty stated that if sufficient water could be maintained in the spent fuel pool to cover the fuel, then there would be no problem (Doherty, Tr. 193-194).

As Mr. Wermiel's attached affidavit demonstrates, this contention, as discussed by Mr. Doherty during his deposition, rests upon a fundamental misconception concerning the design of the Allens Creek facility. Mr. Wermiel indicates that continuous attendance in the spent fuel area is not required in order to maintain and monitor satisfactory pool water level and temperature. Monitoring of these fuel pool parameters is accomplished from the control room, and operator action is not required to maintain facility operation. Likewise, the functioning of the systems necessary to maintain the pool level and temperature within design ranges is monitored and controlled from the control room (Affidavit, pp. 2-3). The monitoring and control capability in the control room are redundant and are all that is necessary to assure safe spent fuel storage (Affidavit, p. 3).

Further water loss in the spent fuel pool cannot only be monitored from the control room but the level controlled by redundant provisions for make-up water, the systems for which are also activated from the control room. (Affidavit, pp. 3-4, 6-7).

As a consequence, it is of concern only that the control room be continuously attended during plant operation, which, of course, is required by General Design Criterion 19; control room habitability must be maintained for all design basis events, and the capability to monitor and control the spent fuel operations will be maintained during all design basis accidents (Affidavit, pp. 4-5).^{2/}

In addition, as Mr. Wermiel indicates, the design basis accident for the spent fuel pool has been considered in both the Final Environmental Statement and Safety Evaluation Report but is actually unrelated to this contention, since it cannot occur unless the pool is attended (Affidavit, p. 2).

Finally, with regard to Mr. Doherty's suggestion that the facility should be designed to withstand nuclear attack, an affidavit is not required to dispose of that assertion since 10 C.F.R. § 50.13 makes clear that design features need not be provided for protection of the facility against such an attack.

DOHERTY CONTENTION 35

Applicant will be unable to provide safe welding of piping at ACNGS without costly repairs to such welding or danger to petitioners health and economic interests in the event of pipe break as a result of such welding not being rewelded when it should have been. Welding at Comanche Peak Nuclear Steam Station, Units 1 & 2 in Somerville County, Texas, has been done frequently by persons being trained to be welders prompting large frequency of rewelding and seven meetings between NRC officials and the utility representatives. This Intervenor says the same situation is likely to occur here due

^{2/} It is therefore axiomatic that if spent fuel operations can be monitored during all design basis accidents at Allens Creek, design basis accidents at other facilities would have no effect on control room habitability and monitoring capability (Affidavit, p. 5).

- to a shortage of trained employees and less than union wages from Applicant's constructor, Ebasco. Intervenor contends Applicant should be required to present a program for training persons before they weld at the ACNGS site and to require a pay scale for employees of all contractors for welding and welders equal to union wages for welders at similar construction conditions, in order to assure continued employment of such welders.

During Mr. Doherty's deposition taken on June 16, 1980, he withdrew the portion of this contention which deals with union pay scales for welders (Tr. 197). Mr. Doherty's sole remaining concern is that since there was alleged rewelding necessary at Comanche Peak and South Texas, there will probably be inadequate welding done at Allens Creek due to inadequate welder training and a shortage of trained welders (Tr. 196-198).

However, as is clear from the deposition, Mr. Doherty has no knowledge of procedures used by the Applicant or Ebasco, its architect-engineer for Allens Creek, nor does he have any basis, as he admits, for alleging that the welding to be done by Ebasco will be inadequate (Tr. 198).^{3/}

As Mr. Litton's attached affidavit demonstrates, the use of properly trained welders at Allens Creek is assured by (1) the requirements of Appendix B to 10 C.F.R. Part 50, which mandate the use of approved codes to govern welding operations, (2) the tests specified in Section IX of the ASME Boiler and

^{3/} Mr. Doherty raised several matters relating to the quality assurance (QA) program of the Applicant which are irrelevant to this contention, which deals solely with whether welders will be trained properly. QA matters are the subject of other contentions admitted as issues in controversy in this proceeding.

Pressure Vessel Code and those of the Applicant,^{4/} which each individual who performs production welding at a nuclear facility must pass in order to be qualified, (3) the examination done by the architect-engineer and Applicant of production welds to ensure that they possess the necessary mechanical properties, and (4) the continuing audit by the Commission's Office of Inspection and Enforcement of the production weld testing done by the architect-engineer and Applicant.

Thus there is no basis for Mr. Doherty's concern regarding unsafe welding, since it is clear that individuals who perform welding operations will be properly qualified and their work subjected to rigorous examination to verify its soundness. For these reasons, the contention should be summarily dismissed.

DOHERTY CONTENTION 45

Intervenor contends that lateral support of the ACNGS reactor core is not sufficient to withstand the lateral force applied to the core due to flashing which occurs near the end of the subcooled blowdown portion of the LOCA transient. Further, that such a lateral force has not been considered in Applicant's NSSS vendor's analysis and may result in a 10 - 15% change in maximum calculated impact load for a given spacer grid, and a 30% increase in impact load is likely if two fuel assemblies interact at the periphery of the core. Following the recommendation of NUREG/CR-1018, "Review of LWR Fuel System Mechanical Response with Recommendations for Component Acceptance Criteria", Applicant's fuel assembly support against lateral LOCA forces should be increased by:

1. additional lateral support equal to 30% of the support against the Safe Shutdown Earthquake, or

^{4/} The Applicant requires, as Mr. Litton indicates, that tests in addition to ASME Code requirements be performed as a part of welder qualification tests.

2. a factor for the LOCA or Safe Shutdown Earthquake - LOCA analysis of 1.3.

This contention basically alleges that the lateral support of the ACNGS reactor core is not sufficient to withstand lateral blowdown forces because it has not considered flashing loads which occur during a LOCA. Intervenor's basis for this contention stems from the NRC Staff's generic review of this matter set forth in "Review of LWR Fuel System Mechanical Response with Recommendations for Component Acceptance Criteria," NUREG/CR-1018, published September 1979.

The attached affidavit of Ralph O. Meyer Concerning Doherty Contention 45 indicates that ACNGS has complied with all requirements related to the ability of the core to withstand lateral seismic forces combined with lateral blowdown forces and that the particular concern regarding flashing loads, which allegedly provides the sole support for this contention, is not relevant to BWRs. Accordingly, since the basis for this contention is not applicable to BWRs such as ACNGS, there is no factual support for this contention. Therefore, we submit that it should be dismissed because there is no genuine issue of material fact to be heard.

DOHERTY CONTENTION 46

This Intervenor contends control rods capable of causing a five second period on being withdrawn one notch, if uncoupled from their drives and stuck in the core could, by falling several notches moments later cause a significantly shorter period leading to fuel damage. The core conditions necessary for fuel damaging short periods such as these are three:

1. when there is high xenon concentration in the reactor core (high xenon concentration magnifies the worth of certain central control rods until burned off),
2. moderator temperatures are high (200°F - 480°F), and
3. the percentage of voids in the coolant was greatly reduced.

Several of Mr. Doherty's statements made during his deposition of June 16, 1980, demonstrate that this contention is based totally on speculation as to what conditions are assumed for the design basis rod drop accident. The contention is bottomed on the assertion that the design basis rod drop accident does not consider the three factors listed in the contention, and therefore that a more serious rod drop accident than that postulated could occur, resulting in fuel damage. However, he admitted (Tr. 135) that he doesn't know what the postulated conditions are for the design basis rod drop. Without that knowledge, his assumption that the design basis event does not consider the three conditions he sets forth in the contention is nothing more than conjecture.

However, as the attached affidavit of Mr. Brooks demonstrates, the rod worth assumptions and analyses done by GE and approved by the Staff bound rod drop scenarios in which there would be a high xenon concentration in the core, as well as high moderator temperatures and a low percentage of voids. Those analyses show that the $\Delta k/k$ (reactivity change) necessary for the peak fuel enthalpy to exceed 280 calories per gram^{5/} is 0.013, compared to a 0.01 $\Delta k/k$ design limit for the rod pattern control system, and a 0.0083 $\Delta k/k$ maximum

^{5/} The peak fuel enthalpy limit of 280 calories/gm is a criterion applied to BWR rod drop accidents to assure that gross fuel failure and rapid dispersal of fuel into the moderator do not occur.

rod worth identified in the GE analyses. (Affidavit, pp. 2-3). That 0.0083 $\Delta k/k$ maximum was reached after analysis of a wide variety of core conditions and drop distances (Affidavit, p. 4). Indeed, when drastic patterns of insertion were analyzed, such as insertion of rods on the opposite side of the core from the most reactive rod, the increase in worth of the maximum rod was from 0.0083 only to 0.012 $\Delta k/k$, which would still not cause the peak fuel enthalpy to exceed 280 calories per gram (Affidavit, pp. 5,8).

Further, contrary to Mr. Doherty's assumption, Mr. Brooks points out that the "peak xenon condition" does not impact the consequences of the design basis accident. This is because while the total worth of some rods would be increased during peak xenon conditions, those of other higher worth rods would decrease (Affidavit, pp. 4-5). With regard to the high moderator temperature effect, Mr. Doherty's concern is already enveloped by the design basis calculation, which assumes a fuel temperature of 480°F and therefore predicts more serious consequences than those anticipated at moderator temperatures of 200° - 480°F. (Affidavit, pp. 5-6). Finally, the condition where there is a low percentage of voids postulated by Mr. Doherty is also enveloped by the design basis calculation, which assumes a "no voids" core condition and thus maximizes rod worths and represents a "worst case." (Affidavit, pp. 6-7).

Therefore, the analyses done by GE and approved by the Staff predict rod worths and rod drop consequences which envelope Mr. Doherty's postulated conditions and demonstrate that the peak fuel enthalpy limit will not be

exceeded. Accordingly, there is no genuine issue of material fact remaining, and the contention should be summarily dismissed.

TEXPIRG A-6

Petitioner contends that the drywell planned for Allens' Creek Unit 1 will not withstand the pressure generated in a LOCA. The water within the weir well will not clear the first row of vents before the differential pressure exceeds 28 psi. This is due to failure to properly account for the Mannings roughness factor within the weir wall and the vent pipe. By delaying the time to clear the first row of vents by only 0.5 second the drywell will be damaged allowing the escape of high pressure steam into the containment without being condensed. This will lead to the containment vessel pressure exceeding 15 psig so that it will crack allowing the escape of radioactive gases above the limits allowed by 10 C.F.R. 100.

TEXPIRG contends that the drywell will not withstand the pressure generated during a LOCA because water will not pass through the vents into the suppression pool fast enough resulting in the release of high pressure steam into the containment without being condensed. This, in turn, will result in containment pressure exceeding its design basis of 15 psig. TEXPIRG asserts that its basis for this contention is the failure to properly account for the Mannings roughness factor or to properly calculate the friction losses in the vent clearing time. (See also TEXPIRG's Further Responses to Interrogatories Directed by the Board's Order of July 12, 1979, dated July 27, 1979, pp. 11, 12.)

The NRC Staff submits that this contention should be summarily dismissed by the Licensing Board because it has no basis in fact. As indicated in the

attached affidavit of M. B. Fields Concerning Contention TP A-6, the Intervenor's reliance on the Manning equation is misplaced and incorrect for calculating the vent clearing time. The misapplication of the Manning equation has also been conceded to by the Intervenor where it admitted that the equation would only apply if the channel for the water would have a slope. See Deposition of Clarence Johnson, Volume I, Tr. 44. Since the alleged basis for this contention is conceded to be incorrect because the vents have no slope, there is no genuine issue of fact to be heard.

In addition, the affidavit of Mr. Fields indicates that friction losses have been considered and determined to be negligible in the calculation of vent clearing times. The analytical model used by General Electric has been verified by actual test results. The Staff submits that these facts refute the alleged factual bases for this contention and that TEXPIRG has not offered or referenced any facts that would show otherwise or indicated that they would sponsor any expert testimony on this matter.^{6/} Accordingly, this contention should be dismissed.

TEX PIRG CONTENTION 34

TEXPIRG contends that the Applicant monitoring of in containment building events during LOCA or similar events is not adequate to detect immediately the occurrences of hydrogen explosions. That the recent Three Mile Island incident shows that current approved

^{6/} The deposition of James M. Scott, Jr. dated September 12, 1979, indicates that he intends to be the expert witness on overpressurization contentions. Tr. 55. Since Mr. Scott is the attorney of record for TEXPIRG, the Staff is of the opinion that Mr. Scott cannot offer testimony in this proceeding.

- containment building monitoring apparatus did not bring such an event to the attention of operators immediately, and that therefore the strong possibility existed that actions which would prevent a second hydrogen explosion were not taken. There is danger that hydrogen explosions will endanger TEXPIRG members because the containment building during a LOCA is likely to contain radioactive gases which would be released from the building damaged even lightly by the explosion and in excess of 40 C.F.R. 190 or 10 C.F.R. 20. -

This contention basically alleges that the hydrogen monitoring system in the containment at Allens Creek is not adequate to detect the presence of hydrogen or to indicate hydrogen explosions. The basis for the contention apparently stems from the accident at TMI-2 where the hydrogen monitoring system at that facility did not bring a hydrogen explosion to the immediate attention of the operators so that they could take appropriate corrective actions. See also TEXPIRG's Answers to HL&P's Fourth Set of Interrogatories, dated January 25, 1980, p. 13, Answer #34-2: "We are stating that under current plans one cannot ascertain how much hydrogen is in the building, if it is evenly distributed (uniform concentration) and that there is not sufficient way to bring to attention of operating personnel the fact of hydrogen explosion in the building."

The attached affidavit of M. B. Fields Concerning Contention TP A-34 indicates that TEXPIRG has no knowledge of the hydrogen monitoring system to be installed at Allens Creek. The proposed system at Allens Creek will provide immediate and sufficient information to the operators of the plant so that they can maintain the concentration of hydrogen inside the containment below the flammability limit and the explosive limit by judicious use of the hydrogen

recombiners and, if needed, a purge system. The monitoring system will be actuated from the control room and provide a continuous reading of the hydrogen concentration from eight different sampling stations inside the containment and drywell. In addition, an alarm will actuate if the hydrogen analyzer detects a hydrogen concentration of 3.0 volume percent. Thus, after an accident the operators will be able to have immediate information on hydrogen concentrations throughout the containment.

The Allens Creek hydrogen monitoring system is completely different from the system at TMI-2. There, the personnel had to obtain a sample from a penetration line into containment and then the sample had to be taken to another area to be analyzed. As is obvious from Mr. Fields' affidavit, the Allens Creek system is significantly different from the hydrogen sampling system in use at TMI in that it can provide immediate and complete hydrogen concentration information for operators use in the control room. It is the Staff's opinion that the Allens Creek system will provide the operators with sufficient information on the hydrogen concentration to prevent a flammable and an explosive mixture from occurring inside the containment. (Fields Affidavit, p. 3)

Based on the foregoing facts, the NRC Staff submits that there is no genuine issue to be heard with respect to this contention. The foundation for this contention is based upon the hydrogen monitoring system at TMI-2 which has been shown to be significantly different from the proposed system at Allens

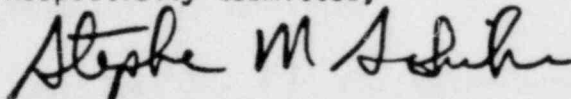
Creek. TEXPIRG has no knowledge of these differences (see TEXPIRG's Answers to HL&P's Fourth Set of Interrogatories, supra at 14, Answer 5) and has identified no expert witnesses to offer testimony with respect to this contention (Id., p. 15, Answer 15-16). In addition, TEXPIRG has not identified any deficiencies in the hydrogen monitoring system designed for Allens Creek--it has merely identified the deficiencies in the TMI-2 system which has no relevancy to this proceeding. Accordingly, since the unrebutted facts set forth in the Staff's affidavit indicated that this contention has no basis in fact, we submit that it should be summarily dismissed as a matter of law because there is no genuine issue in controversy.

III.

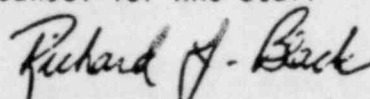
CONCLUSION

For the reasons set forth above with regard to each contention, the Staff believes that the pleadings and discovery documents filed in this proceeding as well as the affidavits submitted with this motion demonstrate that there is no genuine issue of material fact concerning any of the contentions listed in Section I of this motion. Consequently, the Staff believes that the Board should summarily dismiss Doherty Contention 11 and Framson Contention 1, Doherty Contentions 35 and 45, and TEXPIRG Contentions A-6 and 34.

Respectfully submitted,



Stephen M. Sohinki
Counsel for NRC Staff



Richard L. Black
Counsel for NRC Staff

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