



UNITED STATES NUCLEAR REGULATORY COMMISSION  
BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the matter of:

Houston Lighting & Power Co.,  
(Allens Creek Unit 1 )

Docket #50-466

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Texas Public Interest Research Group (TexPIRG) amendments and replies  
to Applicant and Staff to Contentions submitted pursuant to ALAB - 535.  
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INTRODUCTION

Pursuant to the Atomic Safety and Licensing Appeal Board Order (ALAB-535) TexPIRG, intervenor in these proceedings, filed 49 contentions with the Board on May 15, 1979. We are in receipt of Applicant's responses to those contentions dated May 31, 1979, and Staff's response to those contentions dated June 5, 1979. Using the numbering of contentions of the May 16 th submission, we have replied and in several cases amended some of those contentions. Those unamended or not the subject of a reply may be amended at a later date or be furnished with supporting replies at a later date. In order to produce this document as rapidly as possible we have been unable to treat the contentions in order, for which we apologize for inconvenience.

ALAB-535 permitted TexPIRG to file contentions which it believed it would have filed had it not been blocked by the limitations stated in the Federal Register notice of September 11, 1978. Also, contentions may be filed anytime up to the pre-hearing conference for good cause. We point out that the Board's interpretation of the September 11th notice and in its subsequent action plus the Staff's interpretation of the rules in the conferences with TexPIRG in the latter part of September were strict. Contentions were rejected or criticized on a scintilla of evidence that they might have been raised prior to November 11, 1975, the date of the Partial Initial Decision.

TexPIRG believes that it should be allowed to raise any contention without rejection on the basis of the previous limitations excluded by ALAB-535. We believe that for any of these contentions to be rejected on the basis of ALAB-535 timeliness, the burden is on others than TexPIRG to show that the contention could not have been possibly raised before the Partial Initial Decision. After this has been achieved, then the burden would shift for TexPIRG to show why the contention should be admitted under 10 CFR2.714 (a), the usual procedure in a construction license hearing.

RESPONSES AND AMENDMENTS

#29 - REPLY - Applicant's statement, "TexPIRG's contention is... understandably moot", is in error. The SER reviews the PSAR.

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Hence, the contention is litagable until an "Errata" is published showing Staff's position. TexPIRG seeks unamended admission of the contention unless an errata shows that Applicant will meet the request of "two redundant recombiners permanently installed inside containment."

#35 - REPLY- The contention is poorly worded, and Applicant and Staff may wish to rply to the below amended contention:

Applicant's relief valve protection agains overpressurization of the reactor vessel is based on an analysis that allows to little margin between the calculated value and the ASME Boiler and Pressure Vessel Code limits for public safety. Flux signals are plus or minus (+) 5.4% accurate in initiating SCRAM from the Local Power Range Monitor System (according to the PSAR, APP 4A, P 6A) and may thus fail to actuate relief valves and prevent exceeding of the ASME limits. Further, Applicant has not committed to a pressure signal to actuate relief valves acceptable to Staff (See 5.2.2 (2) Pg. 5-3 of Supp. #2 of the SER). Hence there is inadequate over-pressurization protection with the high flux signal due to their inaccuracy, and the high pressure signal system due to its unacceptability. Applicant should have a redundant high flux system or meet staff requirements with a pressure signal system here.

The contention should not be excluded on timliness, because Staff's finding that applicant has not confirmed that the initial operating pressure of 1045 psig results in the highest pressure transient if reactor SCRAM is initiated by a high pressure signal was not available to TexPIRG until receipt of the SER, has not been raised by others, covers the significant safety issue of overpressurization, will not delay these already delayed proceedings, and will protect TexPIRG's members interests.

#37 - REPLY - Applicant has equated this contention with hydrogen gas resulting from a LOCA. TexPIRG's contention is not raised by LOCA events, rather by the danger of a "temperature excursion" in a charcoal adsorber bed as reported in Nuclear Safety, 20(1), 1979, P. 78, (received in March, 1979). Staff cites the Sup#2 of the SER, published in march, 1979 as containing language by which TexPIRG could have been alerted to charcoal adsorber beds being installed due to the 2 to 1 change in number of nuclear plants for ACRS, that hence the contention should have been raised in response to the Board's september "1" ( was "11" meant, as we presume?) this would not be possible.

applicant modified the off-gas treatment system to reduce emissions as well as to accomodate the plant design changes, making it uncertain if the modification were for one or the other purpose. in addition, TexPIRG would call to the board's attention that this issue will not be addressed by any other party, cover's an issue related to the important Brown's Ferry, Unit #3, fire (not the fire of 1975) and hence contributes to a sound record, will not waste time and is not a part of other Commission action.

#38 AMENDMENT TO CONTENTION:

TexPIRG contends that individuals who had radiation treatment for diseases such as asthma, pneumonia, tonsillitis, adenoid conditions, acne, urticaria, exuma, thymus conditions or any other benign conditions of the head and shoulders have been shown to have increased cancer risk as a result of such treatment. [See: Journal of the National Cancer Society, 62(5), 1979 (May), p. 1137-41; New England Journal of Medicine, 294:1019-25, 1976; New England Journal of Medicine, 292:171-5, 1975; Journal of National Cancer Society, 55:519-30, 1975.] and that such persons should not be additionally exposed to radiation in Applicants atomic facility through employment. Applicants license should be contingent on an agreement to take reasonable steps to prevent such persons from working in areas where there is exposure to radiation.

(Note: This is now the text of Contention #38)

Response to previous replies to Contention #38:

TexPIRG does not contend Applicant's plan violates regulations or rules. TexPIRG believes the contention is in the spirit of 10 CFR 20.103 (a) (1), while utilizing these recent findings. That is, it does not permit individuals to receive more than the dose previously received (most of these persons were irradiated in the 1940 to 1960 period). Of course that radioactivity dose was not due to applicant. The contention is also within the spirit of 10 CFR 20.104 as it too recognizes there are individuals who should receive some less than the 10 CFR20 regulations due to special physical conditions. Where recently it has been shown there is a tendency for occupational exposure to increase in nuclear plants ( Nuclear Engineering International, Feb. 1979, 36-41, "Radiation exposure in LWR'S higher than predicted"), and where ACNGS will be the largest Boiling Water Reactor licensed to date, justifies a screening procedure, such as a questionnaire or the like.

#40 AMENDMENT TO CONTENTION:

During an Anticipated Transient without scram (ATWS) accident, the Rasmussen Report assumed a reactor coolant pipe would burst at its design pressure of 1,250 psi, causing a LOCA and decreasing the transient severity before there was any fuel melting. NEDO-10349 at P.42, calculated 1,535 psi for the Main Steam Isolation Valve Closure ATWS, and there is currently a 2,700 psi rupture limit in both the piping and the reactor vessel in ACNGS, due to a 2.25 safety factor. TexPIRG contends that danger to its safety interests can be greatly reduced if piping is less strong against pressure transients following ATWS than the reactor vessel, because:

- a. The ECCS is designed to cope effectively with a large pipe break, but not the breaking of the reactor vessel, and
- b. a lower pipe break pressure will prevent fuel melt due to the transient which results due to increased moderation of the coolant due to the greater pressure which increases coolant density.

Further, TexPIRG bases this on the higher power core density of ACNGS than any operating or licensed facility making a transient of this type more rapid in appearance, more difficult to control with reactivity control systems, and more likely to result in fuel melt with consequent danger to Intervenor's members.

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TexPIRG contends Applicant and Staff have not considered adequately the use of natural gas for fuel in a generating station. On Page 1 of the April 2, 1979 "Energy Insider" a Department of Energy Publication, Deputy Administrator Hazel Rollins, of the Economic Regulatory Administration, indicated, "...a DOE task force identified over a half trillion cubic feet of natural gas last month (March) for possible use by utilities and industrial plants capable of switching from oil to natural gas." Further that exploration techniques using seismic and hologram methods have made discovery of natural gas much easier than was evidently known by the Staff when it created the Final Supplement to the Final Environmental Statement. Another reason for the increased availability of natural gas is deregulation of inter-state shipment. Further, the Texas Public Utilities Commission has withdrawn its "Docket 600" which ordered that utilities switch from natural gas and oil to other fuels. TexPIRG contends the use of natural gas will have less severe environmental consequences (particularly thermal pollution) and hence a natural gas fueled generating facility is required under National Environmental Policy Act mandate for the Allens Creek site.

#45 REPLY

In the Detroit News, Jan. 9, 1971, P. 3, a Gruman Aircraft executive stated the crash of the military plane may have been caused by the "latching" phenomenon. The issue does not have to meet 10 CFR 2.714, as it would have been excluded under the pre-ALAB-535 rules. The phenomenon is not "mysterious" as Applicant suggests, and at this licensing should be argued because a large major airport to serve Southwest Houston (the population center of the city) is to be constructed and operated near enough to ACONGS to make flight paths from the West pass over. A large plane crashing into the plant complex could destroy all power sources for the plant safety systems, endangering TexPIRG member's health and safety interests.

#50 REPLY Staff's reply that since Applicant's "fast" SCRAM system was introduced in a May 1977 Amendment, so that TexPIRG could have raised this in response to the September 11, Board Order, does not take into account the fact that information on the rapidity of the SCRAM was proprietary according to the PSAR at the Houston Public Library. According to 10 CFR 2.740 (a) (2) such information was not available to TexPIRG until they became a party. This would have required filing this contention and arguing its validity at the special prehearing conference with no basis to assert the SCRAM system was too slow to remediate a transient as is now contended. In addition, the issue to our knowledge was raised in 1975 (in Accident Hazards of Nuclear Power Plants, by Richard E. Webb). Staff at its September 1978 conferences with this and other intervenors expressed the idea that contentions based on evidence from 1975 probably would not survive the pre-ALAB-535 "new evidence" rules. AMENDMENT TO CONTENTION #50.

TexPIRG contends in event of steam-line break or recirculation pipe break, depressurization of the reactor core would take place resulting in sweeping out the core steam bubbles (upward) by the lower plenum water and drawing of coolant water into the reactor. The replacement of steam bubbles with water will increase reactivity before the SCRAM

system has functioned fully. The National Reactor Testing Station (See: IN-1370, 1970, p. 104) states a blowdown in a BWR LOCA "could cause the water moderator level in the core region to rise. An increase in water level in the core region would result in a reactivity accident." Reactivity insertion constitutes a danger to petitioner's health and safety because of the danger of fuel melt following such a power excursion. TexPIRG contends the high power core density of the reactor to be licensed in this proceeding increases the danger of this accident, hence Applicant must demonstrate its SCRAM system capable of preventing this accident.

#28 REPLY--On Staff's citation of Partial Initial Decision, TexPIRG would point out that parts 124-9 give no decision on the effect of the weight of the ACNGS cooling lake on underlying faults or other geological features.

AMENDMENT TO CONTENTION #28

(Place at end of the Contention text but before the footnote)

TexPIRG contends the Allens Creek cooling lake and the dammed lake used for cooling the North Anna atomic plants are similar sufficiently to present an earthquake stimulating situation which endangers its members due to the multiple failure of several systems likely to occur in the event of earthquakes.

CERTIFICATE OF SERVICE

Copies of TexPIRG amendments and replies to Applicant and Staff to Contentions submitted pursuant to ALAB-535 were served via first class mail on the persons listed below at their usual addresses on this 15<sup>th</sup> day of June, 1979.

John F. Doherty  
Wayne Rentfro  
Brenda McCorkle, Esq.  
Carro Hinderstein, Esq.  
Sheldon J. Wolfe, Esq. (NRC)  
Gustave A. Linenberg (NRC)  
Dr. E. Leonard Cheatum (NRC)  
Docketing & Service Section (NRC)\*

*James Morgan Scott Jr*  
Respectfully Submitted  
Attorney for TexPIRG  
Stephen Schinki, Esq. (Staff)  
Richard A. Lowerre, Esq. (Texas)  
R. Gordon Gooch, Esq. (Applicant)  
J. Gregory Copeland, Esq. (Applicant)

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