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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

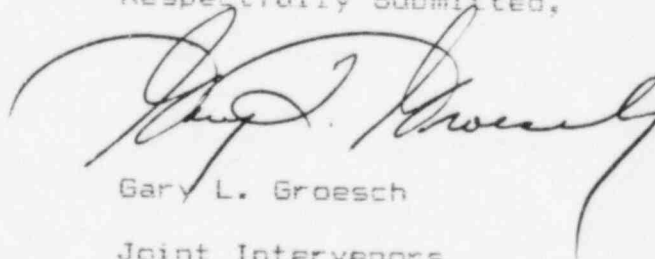
Before the Atomic Safety and Licensing Board

In the Matter of)
) Docket No. 50-382
LOUISIANA POWER & LIGHT CO.)
) April 1, 1983
(Waterford Steam Electric Station)
Unit 3)

EXPLANATION FOR LATE FILING

Joint Intervenors are filing the Findings of Fact and Conclusions of Law on Contention 17/26 (1)(a) on April 1, 1983 instead of March 30, 1983 because of difficulties in replacing a member of our volunteer secretarial staff. Joint Intervenors would not oppose reasonable extensions of time for Applicant or Staff to respond.

Respectfully Submitted,


Gary L. Groesch
Joint Intervenors

2803

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

Before the Atomic Safety and Licensing Board

In the Matter of)
) Docket No. 50-382
LOUISIANA POWER & LIGHT CO.)
) March 30, 1983.
(Waterford Steam Electric Station)
Unit 3)

JOINT INTERVENORS' PROPOSED FINDINGS OF FACT AND CONCLUSIONS OF
LAW ON
CONTENTION 17/26 (1) (a)

OPINION

1. THE DEVELOPMENT OF THE BROCHURE

The development of the second brochure (Applicant exhibit 13 and 14) was necessitated after the first brochure was extensively and thoroughly criticized by the Joint Intervenors' experts. Clearly, the first brochure (Applicant exhibit 11) was incomprehensible to the vast majority of people in the risk

parishes of St. John the Baptist and St. Charles. The Applicant hired a 'readability' expert, Dr. George Klare to rewrite the initial brochure down to a lower readability level.

The Staff and Federal Emergency Management Agency (FEMA) experts found little wrong with the first brochure (or the second). PF 5

Joint Intervenors have attempted to have the entire communication process - including the brochure - viewed as an integrated whole but have been prevented by Board order. PF 1

2. THE PURPOSE OF THE BROCHURE

The purpose of the brochure is a motivational and educational tool. It has a primary (not priming) function to inform people of the proper procedure in the event of evacuation.

Dr. Saundra Hunter, a social psychologist, places great weight on the communication process - the communicator, the message, and the target - in order to assess the effectiveness of the brochure. Dr. Hunter feels all three aspects of the communication process were lacking or unknown in this brochure. Dr. Hunter believes that a study of the communicator credibility should take place because there is no information presently on the credibility of either Louisiana Power & Light Co. (LP&L) or state and local governments.

She also feels that the brochure should give an optimal fear level - neither too high nor too low. Too high a fear level in the message would bring about a denial of the threat. Too low a level

would make it too easy to dismiss. Dr. Hunter feels that the threat in the brochure is too low.

The target of the brochure, according to Dr. Hunter, has to be finely discriminated because fear levels closest to the Waterford 3 facility would be high; farther away fear levels of the population would be lower. Thus a brochure would have to be designed for each group in order for the brochure to act as a motivational tool.

Dr. Hunter also believes a practice evacuation should take place in order to assist the people in taking the brochure seriously since they will soon have to act on it. A practice evacuation would also help those people with low self-esteem to respond effectively in a situation that requires action. PF 13-16

The Applicant's expert Dr. Denis Miletic feels that the brochure is not a motivational document but instead a 'priming' document. Dr. Miletic feels that the information available at the time of the accident is the most important. Dr. Miletic feels the primary function of this brochure is to inform people to turn to other sources of information, (the radio or television) upon hearing sirens. However, he believes they would do this in any event. According to Dr. Miletic, the brochure is good simply because it exists and if someone sees the brochure prior to an event, they will know someone in authority has thought about what to do and will be reassured. PF 17

3. THE CONTENT OF THE BROCHURE

The brochure contains inaccurate technical information about radioactivity and nuclear power plants in general. PF 6

Although the primary purpose of the brochure is to get people to turn to the media for information, this is given a secondary role to the large format design to accommodate a specific evacuation scheme. Ironically, too much specificity about what actions or routes to take in an emergency is bad, according to Dr. Mileti. However, since the brochure is not motivational (according to Dr. Mileti), specific evacuation procedures cannot hurt. PF 7

The part entitled 'What Radiation Is' only says one must be careful if the radiation in the air is 'large'. It makes no mention of cancer, mutations, or radiation sickness. Applicant assumes that the word 'Safety' in the title is sufficient incentive for people to be interested in the brochure and to know that radiation can harm humans. PF 6

The part entitled 'Radiation Emergencies' is confusing because the definition known by most fourth graders for 'emergency' as 'need for quick action' is contradicted by the definition of two of the four radiation emergencies, unusual event and alert. These two definitions end with the phrases "You will not have to do anything" and "It is not likely that you will have to do anything", respectively. PF 4

4. THE READABILITY OF THE BROCHURE

Dr. George Klare significantly reduced the readability level of the Applicant's brochure. However, 2909 adults (25 years or

older) in St. John the Baptist and St. Charles parishes could not comprehend the document. Similarly, 216 people (adults 18 years and older) who do not speak English at all or not well also would not have a brochure comprehensible to them since the brochure is written only in English. PF 9, PF 12

Dr. Klare asserts that friends and neighbors or family members would help people with low reading skills acquire the information. Dr. Klare bases this analysis on one study done in New England. No study has ever been done in rural southern Louisiana to give validity to this assertion. PF 3

5. CONCLUSION

Applicant does not believe the brochure is a matter of 'life and death' but only 'health and safety'. Joint Intervenors believe this is linguistic 'hair splitting'. The record is clear:

- (1) the brochure is not comprehensible to 2909 adults PF 9
- (2) the brochure is written in only one language leaving out 266 people who do not speak english well or at all PF 12
- (3) the brochure contains admitted technical inaccuracies about radiation and nuclear power PF 6
- (4) the opening sentence in the section entitled "A Message to our Friends and Neighbors" asserts that the brochure has been prepared by state and local governments is clearly misleading since no member of the state and local government even testified about the brochure PF 2; and
- (5) The single most important function of the brochure - to get

people to turn to the media upon hearing sirens - takes a secondary role to the large format design of a highly specific map
PF 11

(6) Confusing terminology was left in the brochure relating to the word 'emergency' and the federally mandated radiation action levels, unusual event and alert PF 4

(7) the attitude of the Applicant that the brochure is not a motivational tool allows any shortcoming to be dismissed as not important.

Accordingly, for the foregoing reasons, the Atomic Safety and Licensing Board orders the Applicant to produce a brochure (or series of brochures) worthy of distribution to the people in St. John and St. Charlie parishes.

PROPOSED FINDINGS OF FACT

Joint Intervenors concur in the Applicants' proposed Findings of Fact 1 - 5 only. All other Proposed Findings of Fact are in dispute.

1. Joint Intervenors were not allowed to crossexamine the witnesses on the communication process as an integrated whole even though Applicant's own expert agreed this is the way it should be done (Tr. 4160 - 20thru23). Even FEMA counsel Cassidy asserted that it is "rather difficult to assess a portion of the plan in a vacuum" (Tr. 4903 - 18and19). Applicant counsel Churchill admitted that an adjunct to the brochure - the Special Needs Information

Card - was rewritten to a lower readability level without input by the Joint Intervenors (Tr. 4569 - 21thru23) although Joint Intervenors specifically asked to criticize this document.

2. The original sentence in the brochure, "Your State and Parish governments have prepared this booklet to tell you what to do if there is an emergency at Waterford 3..." is misleading in the extreme. Perry admits that LP&L is responsible for the document (Tr. 4132 -11) (Tr. 4130 -7). Then Perry gives reasons why LP&L is not responsible for the document (Tr. 4134). Klare admits that the first draft was LP&L's document (Tr. 4105). He admits to meeting only LP&L's people in Washington concerning the second document (Tr. 4108 - 4) and not talking to state or parish people at all (Tr. 4104 - 25). Perry admits responsibility "in part" but not for the removal of the LP&L logo (Tr. 4129 -19) Applicant rebuttal witness Mileti says a lie would affect the credibility of the document and the people will not believe it (Tr. 16thru18).

3. Dr. Klare admits no pretesting to find out how people know words in St. John and St. Charles parishes (Tr. 4141). He also admits doing no tests on comprehension (Tr. 4156 -7). Dr. Klare predicts that the people who can not read the brochure will get the information from friends and relatives (Tr. 4164 - 15). He says later that no documents similar to the New England study exist for southern rural Louisiana (Tr. 4165 - 1and2). He also admits no pretesting for motivation, for interest, or for prior knowledge (Tr. 4192 - 16) (Tr. 4195 - 2).

4. Dr. Klare says that the word 'emergency' means "need for quick action" by most fourth graders (Tr. 4193 - 13 and 14). The section 'Radiation Emergencies' in the brochure has four categories: unusual event, alert, site emergency, and general emergency. The first two categories, unusual event and alert, end with the sentences "You will not have to do anything" and "It is not likely that you will have to do anything", respectively. Dr. Klare does not believe that the definition known for 'emergency' (need for quick action) will be confusing with the final sentence in the first two categories of events (Tr. 4193 thru 4203).

5. FEMA expert Lookabaugh says NUREG-0654 and commonsense are two criteria used to judge evacuation brochures (Tr. 4575 - 22). Lookabaugh admits that he didn't bother to count the words in making the statement that the second brochure had fewer words (Tr. 4573 - 17). Lookabaugh admits that neither common sense nor NUREG-0654 dictates a FEMA reviewer to check the educational attainment levels of the target population (Tr. 4577 - 11).

6. NRC expert Perrotti says the sentence, "If the amount of radiation in the air is large, you must protect yourself from it" is enough information to satisfy NUREG-0654 criteria "some information about radiation" (Tr. 4612 - 8). Perrotti admits that there are technical errors in the brochure concerning radiation and nuclear power (Tr. 4617 - 16) (Tr. 4620 - 8).

7. Applicant rebuttal witness Mileti does not know of any tendency of people in St. John the Baptist and St. Charles to turn on the radio or television (Tr. 4752 - 20 thru 24). He does not know how many people turn on the radio or any other media in an emergency (Tr. 4757 - 1 thru 8).

8. Although Mileti does not know what motivates people to read (Tr. 4795 - 7 and 8), he does not see the brochure as a motivational tool (Tr. 4807 - 1 thru 8).

9. Dr. Klare agrees that 2909 adults (25 years and older) in St. John the Baptist and St. Charles Parishes cannot comprehend the brochure according to the 1980 Census (Tr. 4258). He also does not know if there are discrepancies between educational attainment and reading level in the risk parishes (Tr. 4290 - 22).

10. Dr. Klare assumes that people are likely to know if their children's school is within the 10 mile radius without any testing of this assumption (Tr. 4325).

11. Dr. Klare says that the critical information that the brochure should convey - turning to television and radio stations - takes a secondary role to the large format accommodating a map specifying one evacuation procedure (Tr. 4361). Mileti does not know whether one map plan is enough or too much (Tr. 4772 - 5) nor does he believe it is a mistake to be too specific in outlining one evacuation plan (Tr. 4778).

12. Perry admits that 166 adults (18 years or older) in St. Charles parish and 100 adults in St. John the Baptist parish do not speak English well or not at all (Tr. 4280 - 24) (Tr. 4281 - 4). Perry admits that a decision to exclude all other languages was made by the local governments (Tr. 4265 - 24 and 25).

13. The purpose of the brochure is a motivational and educational tool. Its function is to inform people of the proper procedure in the event of evacuation. Hunter Direct Testimony p. 1

14. Dr. Saundra Hunter, a social psychologist, places great weight on the communication process - the communicator, the message, and the target - in order to assess the effectiveness of the brochure. Dr. Hunter feels all three aspects of the communication process was lacking or unknown in this brochure. Dr. Hunter believes that a study of the communicator credibility should take place in order because there is no information presently on the credibility of either Louisiana Power & Light Co. or state and local governments.

She also feels that the brochure should give an optimal fear level - neither too high nor too low. Too high a level would make it too easy to dismiss. Dr. Hunter feels that the threat in the brochure is probably too low. Hunter Direct Testimony

15. The target of the brochure, has to be finely discriminated because fear levels closest to the Waterford 3 facility would be

high; farther away fear levels of the population would be lower. Thus a brochure would have to be designed for each group in order for the brochure to act as a motivational tool. Hunter Direct Testimony.

16. Hunter also believes that a practice evacuation should take place in order to assist the people in taking the brochure seriously since they will soon have to act on it. A practice evacuation would also help those people with low self-esteem to respond effectively in a situation that requires action. Hunter Direct Testimony

17. Mileti believes that a pre-emergency brochure is not without some benefit. It has a positive effect that those who have read the brochure prior to an accident will recall in an emergency that public officials have planned for such emergencies (Tr. 4797-98).

CONCLUSIONS OF LAW

The Board has considered all of the evidence submitted by the parties and the entire record of this proceeding. Based on the Findings of Fact set forth herein, which are supported by reliable, probative and substantial evidence in the record, this Board finds that the emergency brochure of the Applicant has major deficiencies and this Board instructs the Applicant to generate another brochure in light of the following criticisms:

(1) Appendix E, Part 50 specifies "...general information as to the nature and effects of radiation..". This Board finds the

section on radiation to be inadequate in the extreme. There is no mention of the effects of radiation whatsoever. No one reading that section could possibly guess that radiation could threaten your life.

(2) In the Initial Decision in the Matter of Consumers Power Company for the Big Rock Point Reactor (Docket 50-155-OLA; August 6, 1982) states: "...One attribute of an effective pamphlet is accuracy. Important inaccuracies may become known and may detract from the credibility and the necessary acceptance of the pamphlet...". This Board does not feel that the technical inaccuracies found in the pamphlet could not be stated simply but correctly.

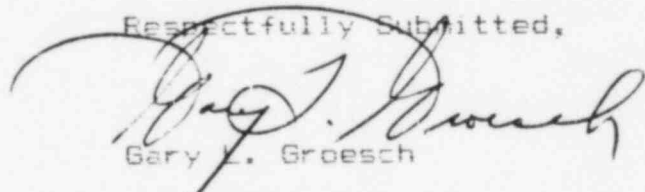
(3) The question raised by the ASLE in Big Rock concerning the radiation hazard "...After all, why respond when no harm could come to one anyway?.." parallels the question posed by Joint Intervenor's expert Hunter in her direct testimony, "Why should you protect yourself if there is no danger from radioactive material?" This Board finds the Applicant considerably underplaying the radiation hazard.

(4) In the Big Rock Point decision a number of changes were made from the original pamphlet in order to reflect the special situation of women and unborn children. This Board feels that a special section outlining the special sensitivity of women and unborn children would be appropriate.

(5) The most disturbing part of the pamphlet that this Board feels will seriously diminish the credibility of the brochure is the initial sentence in the section entitled "A Message to our friends

and neighbors". This sentence does not give the Applicant as a prime preparer of the document. It is our opinion that when the people see this document they will find out who prepared it (LP&L) and possibly not trust it.

Respectfully Submitted,



Gary L. Groesch

Joint Intervenors

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New Orleans, LA 70119

dated March 30, 1983

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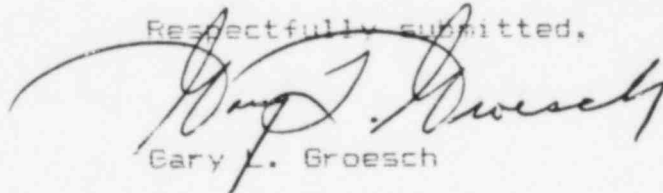
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CERTIFICATE OF SERVICE

I hereby assert that a copy of JOINT INTERVENORS FINDINGS OF FACT AND CONCLUSIONS OF LAW ON CONTENTION 17/26 (1)(a) , REQUEST FOR AND EXTENSION OF FILING DATE, EXPLANATION FOR LATE FILING has been placed into first class mail on this, the first day of April, 1983 to members of the enclosed service list.

Respectfully submitted,

A handwritten signature in cursive script, appearing to read "Gary L. Groesch". The signature is written in dark ink and is positioned above the printed name.

Gary L. Groesch

Joint Intervenors