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UNITED STATES ATOMIC ENERGY COMMISSION

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IN THE MATTER OF:

TOLEDO INXSON COMPANY
and
THE CLEVELAND ELECTRIC
ILLUMINATING COMPANY

Docket No. 50-346

(Davis-Besse Nuclear Power
Station, Unit No. 1)



Place - Fort Clinton, Ohio

Date - 12 February 1971

Pages 2118 - 2227

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UNITED STATES OF AMERICA

ATOMIC ENERGY COMMISSION

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 In the matter of :
 :
 TOLEDO EDISON COMPANY :
 and : Docket No. 50-346
 THE CLEVELAND ELECTRIC :
 ILLUMINATING COMPANY :
 :
 (Davis-Besse Nuclear Power :
 Station, Unit No. 1) :
 :
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Trinity Methodist Church
 Conference Room
 Adams and Second Streets
 Port Clinton, Ohio

Thursday, 11 February 1971 .

The above-entitled matter came on for further
 hearing, pursuant to notice, at 9:30 a.m.

BEFORE:

WALTER SKALLERUP, JR., Esq., Chairman,
 Atomic Safety and Licensing Board.

DR. CHARLES E. WINTERS, Member.

DR. WALTER H. JORDAN, Member.

APPEARANCES:

(As heretofore noted.)

In

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C O N T E N T S

<u>WITNESSES:</u>	<u>DIRECT</u>	<u>CROSS</u>	<u>REDIRECT</u>	<u>RECROSS</u>
V. W. Wagner	2121			
John G. Papcun	2143	2149		
Lovell Poe	2182			
Morton Goldman	2185			
Robert L. Tedesco	2197	2200		

<u>EXHIBITS:</u>	<u>FOR IDENTIFICATION</u>	<u>IN EVIDENCE</u>
Applicant's Exhibit No. 15	2226	
Staff Exhibit No. 10	2227	

RMS/rmsl

P R O C E E D I N G S

1
2 CHAIRMAN SKALLERUP: Good morning. The hearing
3 will please come to order.

4 Mr. Lau, you wanted to proceed with certain
5 pictures.

6 MR. LAU: The gentleman is not here yet. He
7 should be here soon. He had to walk out because of the snow-
8 drifts. He is bringing them.

9 At this time I would like to bring up something
10 that we are going to argue today and that is on my motion
11 for a three-week delay because of my health. I would
12 like to ask the Board to accept my position.

13 To testify on my behalf of my health -- I went
14 through a very bad night last night. I have overextended
15 myself. And if you will accept that, I would appreciate it.

16 CHAIRMAN SKALLERUP Is your physician present?

17 MR. LAU: Yes, sir.

18 MR. LAU: Dr. Wagner.

19 DR. WAGNER: Any particular place you would like
20 me?

21 CHAIRMAN SKALLERUP: Yes, next to Mr. Lau will
22 be fine.

23 DR. WAGNER: I am Dr. Wagner, general practitioner.

24 CHAIRMAN SKALLERUP: Doctor, under the circumstances,
25 if you are going to provide testimony in support of Mr.
Lau's motion we should swear you in as a witness.

RMS/rms2

1 Whereupon,

2 DR. V. W. WAGNER

3 was called as a witness on behalf of Intervenor Lau and,
4 having been first duly sworn, was examined and testified as
5 follows:

6 DIRECT EXAMINATION

7 CHAIRMAN SKALLERUP: Will you state your name and
8 address, please?

9 THE WITNESS: Dr. V. W. Wagner, 2413 North
10 Carriage Lane, Port Clinton.

11 CHAIRMAN SKALLERUP: Proceed.

12 THE WITNESS: I am a general practitioner,
13 presently chief of staff of our local hospital in Port
14 Clinton and have been Mr. Lau's family doctor for a number
15 of years.

16 At the present time he is recovering from mumps.
17 And he should have been in bed at that time. He developed
18 the usual complications of that. But since then he has
19 developed an unusual complication of mumps. It is commonly
20 called Bell's Palsy. And it affects all the muscles of
21 expression on one side of the face, the sensation of taste,
22 and it causes pain and inability to close the eye properly
23 causes eye difficulty because the lid cannot cleanse the
24 eye properly.

25 As far as his continuing with this hearing, of
course, it is a personal decision on his part, but as his

1 doctor I have advised him that he should be in bed. His
2 only chance of good recovery from this is complete bed rest
3 and medication.

4 The increasing mental and physical strain of
5 being up and around jeopardizes the full recovery of the use
6 of his face and also increases the likelihood of damage,
7 which could be permanent, to his eye. The other thing,
8 speech is somewhat difficult. Clear thinking becomes an
9 extreme chore. And the emotional stress also contributes
10 to the complications of the disease.

11 He should have bed rest for two weeks. He has
12 already disobeyed by being up for these past three days,
13 but we cannot make patients go to bed. I would be glad to
14 answer any questions about this condition.

15 CHAIRMAN SKALLERUP: When would you anticipate an
16 indication of improvement in the event Mr. Lau follows your
17 directions?

18 THE WITNESS: Sometimes you see improvement within
19 this length of time. Actually he is worse, which is a bad
20 prognostic sign. Two weeks of bed rest minimum, usually
21 you see improvement within four or five days and you can
22 see definite improvement within two weeks. Two to four
23 weeks, statistically, again -- I mean you all are dealing with
24 statistics here -- you have a fair idea of the amount of
25 recovery. But full recovery can take as long as a year.

1 But the acute stage, two weeks.

RMS/rms4
2 CHAIRMAN SKALLERUP: Would he be in any condition
3 to undertake these responsibilities at the end of that
4 period?

5 THE WITNESS: As far as the acute phase of the
6 disease I would say in two to three weeks he could participate
7 in anything and it would no longer jeopardize his health.
8 He may not be recovered, but it wouldn't cause any further
9 jeopardy at that time.

10 DR. JORDAN: I would like to ask Mr. Lau if it
11 is his intention to accept the physician's advice in case
12 the hearing should be postponed? I recognize some traits
13 in Mr. Lau that I find for the most part very admirable,
14 but it is also very tough, Mr. Lau being an outdoorsman,
15 to go to bed.

16 MR. LAU: I do accept that, yes. And I have been
17 pushing myself for the simple reason that I had felt that
18 there were certain things that had to be done as far as
19 bringing witnesses before the Board. And I would say that yes
20 I would accept the fact that I do need bed rest. I know
21 that now. I have suffered some very bad complications last
22 night.

23 CHAIRMAN SKALLERUP: Any questions, Mr. Charnoff?

24 MR. CHARNOFF: May I have a moment?

25 (Pause.)

RMS/rms5

1 MR. CHARNOFF: We have no cross examination of
2 the Doctor.

3 MR. ENGELHARDT: The Staff has no cross examination.

4 CHAIRMAN SKALLERUP: Any further testimony, Doctor?

5 THE WITNESS: Not unless there is a question.

6 CHAIRMAN SKALLERUP: No questions.

7 THE WITNESS: If he doesn't listen to his wife,
8 he probably won't listen to me, but he should be home in
9 bed. Is that it?

10 CHAIRMAN SKALLERUP: Thank you.

11 Well, we have heard Mr. Lau's motion. We have
12 heard the testimony presented. Is there any argument on
13 the motion?

14 MR. CHARNOFF: Mr. Chairman, in responding to
15 Mr. Lau's motion, I think I would like to review the history
16 of Mr. Lau's participation in this proceeding. First I would
17 remind the Board that there was a late intervention by Mr.
18 Lau. He was admitted as an intervenor in December, was
19 represented at that time by Mr. Knight.

20 At the December hearing there was an agreement
21 by Mr. Knight on behalf of Mr. Lau that they would be ready
22 to proceed at the hearing commencing on January 5. That
23 agreement was reached at the December hearing, which as I
24 recall, was the week of December 8.

25 On December 29 a notice of appearance on behalf of

RMS/rms6

1 Mr. Lau was filed by Mr. Robert Hesser and Mr. Jerome
2 Kalur, together with a motion for a two-month delay. In
3 support of that motion the representation was made that Mr.
4 Knight had been retained only for the purpose of obtaining
5 leave to intervene for Mr. Lau. This was a surprising
6 statement and was contrary to every indication by Mr. Knight
7 during the course of the December hearing.

8 At the January 5 hearing Mr. Lau advised his new
9 counsel, Mr. Kalur, that he had six expert witnesses whom
10 he said had been contacted and indicated their desire to
11 testify on his behalf. That statement made on behalf of
12 Mr. Lau was clearly a fabrication at least with respect to
13 two of the six witnesses.

14 I would refer you there to transcript page 566
15 for the statement by Mr. Lau and his counsel. The Board
16 during the hearing of January 5 granted an extension to
17 Mr. Lau of three weeks.

18 On transcript page 629 the Board characterized
19 the extension given to Mr. Lau as an extraordinary extension
20 and as a stretching of the Board's discretion. Indeed, it was.

21 On January 21, 1971, Mr. Lau submitted a list of
22 his direct witnesses in partial compliance with the Board's
23 order. He failed to comply with the Board's order in that
24 such a list of witnesses was not accompanied by summaries
25 of the testimony of those witnesses or by their testimony.

FMS/rms7 1
2 Furthermore, it was no surprise that the January
3 21 list contained none of the six names of the experts
4 Mr. Lau and his then lawyer, Mr. Kalur, had advised at the
5 early January hearings were desirous of testifying on his
6 behalf.

7 Prior to the January 25th hearing Messrs. Kalur
8 and Hesser withdrew as attorneys for Lau. Of the five wit-
9 nesses on Mr. Lau's January 21 list of witnesses three
10 showed up, one to testify on matters not within the matters
11 in controversy by Mr. Lau. The second was not competent
12 to testify on any of Mr. Lau's matters in controversy. And
13 his testimony in effect was withdrawn by failing to send
14 to the Board, as it had requested by February 2, 1971, a
15 written copy of his testimony.

16 The third, of course, was the ubiquitous Dr.
17 Sternglass whose testimony was irrelevant to Mr. Lau's issues.
18 On Tuesday, January 26, 1971, the second day of the
19 hearing phase begun on January 25, Mr. Lau conducted cross
20 examination which appears on pages 1094 thru 1147, except
21 for an intervening five or six pages, which he thereupon
22 suspended, claiming he was not feeling well.

23 Without objection from him, and as I understand
24 it from the Chairman on the record at his request, at Mr.
25 Lau's request, the hearing proceeded to receive Mr. Lau's
direct case or whatever there was of it in the form of

1 testimony by Drs. Tamplin and Sternglass and Mr. Houston.

2 Last week on Wednesday or Thursday -- and I
3 believe that it was Wednesday -- in a conference called with
4 counsel for the Regulatory Staff Mr. Lau and myself, Mr.
5 Lau said his cross examination was all prepared and he was
6 ready to go.

7 That is a familiar phrase I might say in this
8 hearing by Mr. Lau -- but he couldn't give us any specific
9 questions so that we would know which witnesses we would
10 have to bring to the hearing this week.

11 Over the weekend, of course, Mr. Lau apparently
12 contracted Bell's Palsy. On Monday of this week he put off
13 the Board's suggestion that we bring the Applicant's and
14 the AEC's witnesses to his home to receive his cross
15 examination.

16 Last night, of course, he proceeded with his
17 direct case involving a number of local witnesses none of
18 which had been previously identified to us. And certainly
19 his performance last night was far from lacking in vigor.

20 Yesterday he requested at least a three-week
21 extension to allow him to recover from his current affliction,
22 alleging that he cannot proceed with his cross examination
23 because he cannot read and because his doctor told him
24 to rest.

25 In addition to sitting through most of yesterday

1 morning's session, Mr. Lau attended and addressed yesterday
2 a Kiwanis function. Thereafter, in the afternoon, he was
3 in the county courthouse sitting in and testifying at a
4 condemnation suit.

5 Members of the Board, schedules and delays in
6 proceeding with a hearing are peculiarly matters within the
7 discretion of the Board. In exercising such discretion the
8 Board must weigh all of the interests of all of the parties.
9 Further delay in this proceeding seriously prejudices the
10 Applicant and its customers:

11 I have elaborated on this on many occasions in
12 this hearing and I will not go into it further at this time.
13 Mr. Lau has had a number of bites at the apple and has been
14 the beneficiary of three hearing adjournments. And his
15 participation, though earnest, has certainly in some respects
16 not been honest.

17 This Board might wish to examine the decision
18 in the case entitled the National Labor Relations Board
19 versus the Summerville Cream Company, Inc., before the
20 United States Court of Appeals First Circuit cited at
21 199 F 2nd 257. And I will ask Mr. Churchill to hand copies
22 of this decision to the members of the Board and to the
23 parties in this case.

24 In that case the court held that the trial
25 examiner had not abused his discretion in denying the request

RMS/rms10

1 for further adjournment of the hearing because the respondent
2 president was suffering from a thrombosis which affected
3 his sense of balance and prevented him from walking alone.

4 In that case, interestingly, the respondent's
5 lawyer did not accept the suggestion that the hearing be
6 convened in the president's home, a remarkably similar pattern
7 to what we have here.

8 There has been no showing here that Mr. Lau
9 has exercised any good faith in having his wife or his
10 friends attempt to read to him during the last several days,
11 if that was his disability.

12 Now we heard the testimony of Dr. Wagner, and I
13 must say I am familiar with Bell's Palsy. My partner,
14 Mr. Trowbridge's daughter has it too. She came down with
15 it Christmas week. And it is not a pleasant experience,
16 certainly not a pleasant nervous experience nor a pleasant
17 emotional experience. And I sympathize with anybody who
18 is afflicted with it.

19 I am going to present to the Board photostats
20 from Black's Medical Dictionary by William A. R. Thompson,
21 M.D., in a 1967 publication, a photostat from the Modern
22 Physician and Home Medical Guide by G. M. Gilliam and L. W.
23 Gilliam, and a photostate from the New Illustrated Medical
24 Encyclopedia for Home Use, A Practical Guide to Good
25 Health by Dr. Rothenberg. These were photostated yesterday

RMS/rms11

1 from the public library here in Clinton. These describe
2 Bell's Palsy.

3 I am not a doctor and I don't intend to take issue
4 with Dr. Wagner's prescription. I would point out, however,
5 that while these documents show that maintaining the
6 patient's health is important, they do not say bedrest. My
7 partner's daughter has been allowed to ski during this
8 period of time.

9 I am going to ask Mr. Churchill to hand those
10 three documents to you.

11 We also discussed Bell's palsy yesterday and
12 Mr. Snyder is here to attest to that, that he talked directly
13 with Joseph McCarthy of Toledo, Ohio. And he described
14 Bell's Palsy as a paralysis of the muscles usually on one
15 side of the face. He says it is not debilitating and he
16 has treated about six cases recently. The patient can read
17 and write. It does not impair his thought processes. It
18 is not necessary to stay home from work except where the
19 embarrassment is such that it could cause emotional
20 strain.

21 Housewives can carry on their normal functions.
22 And he recommends the wearing of an eyepatch. It would not
23 impair an individual's health to attend and participate
24 in a hearing or account case. Generally, there is sometimes
25 no pain or only minor pain. The period of recovery varies

RMS/rms12

1 from several weeks up to two months. The encyclopedic
2 extracts given to you also talk in terms of two to three
3 months as a period for recovery. I think too that with all
4 due respect to Dr. Wagner Mr. Lau's energy as evidence
5 yesterday, not only by his participation in this hearing
6 but his appearance at the Kivani luncheon to make a
7 presentation and his attendance as a witness in the county
8 courthouse would suggest that he has not been debilitated.

9 I would reiterate, Mr. Chairman, that with all
10 due respect and sympathy to Mr. Lau that a balancing of
11 all the interests is involved here, and that one has to
12 evaluate this request by Mr. Lau both against his past
13 participation in the hearings, and after giving due weight
14 to all of the considerations and all of the interests of
15 all of the parties, including the public interest.

16 We believe that this motion should be denied,
17 and we urge that you deny it now. We also urge that if he
18 is to conduct any cross examination, or any further cross
19 examination, that he be ordered to do so today or otherwise
20 forfeit his right to conduct any further cross examination in
21 this case.

22 CHAIRMAN SKALLERUP: Mr. Engelhardt?

23 MR. ENGELHARDT: Mr. Chairman, the motion
24 presented by Mr. Lau presents this Board with a very diffi-
25 cult decision. And I am sure they will recognize it. There

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is no absolute right in the law for a party to a proceeding to obtain a continuance of such a proceeding because of ill health. The Commission Rules of Practice do not provide for continuance of AEC proceedings because of ill health as a matter of right.

The law does, however, grant the presiding officer in an administrative proceeding discretionary authority to grant continuances of such proceedings because of the ill health of a party.

In those cases where the matter of a continuance for ill health has been ruled upon by the courts the only test that has been applied has been whether the presiding officer in the administrative proceeding involved abused his discretionary authority in denying the request for a continuance.

Thus, it would appear that the facts of each situation, where in a public proceeding a party requests a continuance for ill health, are controlling with respect to whether the presiding officer exercises appropriate discretion in acting on a motion for a continuance.

The facts here have been essentially identified by Mr. Chanroff. And I will not repeat them. These facts, in my view, make it clear that Mr. Lau has been granted several opportunities by this Board to present his case prior to his illness. Each time Mr. Lau for various reasons

RMS/rms14 1 failed to go forward with that case. Mr. Lau has now
2 presented, as he said yesterday at the proceeding what would
3 appear to be matters of principal concern to him with
4 respect to this application. The cross examination which
5 he undertook at the preceding sessions of this hearing
6 and the direct case which he presented yesterday clearly
7 indicate that the emergency evacuation plan is a primary
8 concern. And he would appear to have made his case in this
9 regard.

10 At no time has Mr. Lau identified with any
11 degree of specificity what his other concerns are and how he
12 intends to raise them in this proceeding.

13 Even if the Board were to grant the continuance,
14 we have no assurance that Mr. Lau would have any more of a
15 case than already presented.

16 In reaching its decision on this motion, the Board
17 must, of course, take into account many factors. However,
18 in my view these factors should not be limited to matters
19 relating solely to Mr. Lau's situation but must include a
20 consideration of the effect of the requested delay on other
21 parties to this proceeding.

22 To be weighed by this Board must also be the
23 factors of whether a continuance will prejudice any other
24 party to this proceeding. These other parties have rights
25 in this proceeding also.

RMS/rms15

1 You have heard from the Applicant in this regard
2 as to how their interest would be adversely affected by the
3 granting of this motion. And those matters must be taken
4 into consideration.

5 In our view, after balancing the various factors
6 involved as we have discussed above in this statement, we
7 reach the conclusion that the motion should be denied.
8 And we believe that for this Board to deny the motion would
9 not, under the circumstances of this case, be considered an
10 abuse of discretion by this Board.

11 CHAIRMAN SKALLERUP: Do you care to reply, Mr.
12 Lau?

13 MR. LAU: I think that the description of my
14 backgroun in this hearing appears rather slanted in some
15 cases.

16 I won't go over this, because that is what is
17 before the Board. I would just like to point, Mr.Chairman,
18 that I think if any of you gentlemen were in my position
19 that you would not be here, that you would get somebody to
20 take your place.

21 I have nothing more to say.

22 CHAIRMAN SKALLERUP: The board will go off the
23 record.

24 (Recess.)
25

END RMS

DPL Inl 1

CHAIRMAN SKALLEPUP: The Board has considered Mr. Lau's motion to recess the hearings for three weeks and after careful consideration in its discretion denied the motion. The Board would set forth at this time the reasons for its conclusion.

This is not a trial, but an administrative proceeding. This is not a case where the liberty of an individual is being jeopardized by the possibility of a criminal conviction, and possible fine or imprisonment.

Here the Board is required to determine whether the data offered by the Applicant in the light of evidence offered by all parties to the proceeding warrant, among other things, the conclusion that there is a reasonable assurance that the plant can be constructed and operated at the proposed location without undue risk to the health and safety of the public.

Here there are a number of parties to the proceeding and many interests involved besides those of Intervenor Lau.

The Board is also aware that Mr. Lau has had numerous opportunities to prepare and to present his case and indeed Mr. Lau has presented a number of witnesses and has conducted some cross-examination.

Further, Mr. Lau was given the opportunity to state to the Official Recorder of these proceedings, at his home if he preferred, the further questions for cross-examination that he wanted to present to the Applicant, but this offer was

ln2 1 declined.

2 Mr. Lau has been represented by counsel at
3 several sessions of the hearing and it appears that Mr. Lau
4 is proceeding on his own behalf. Considering what has already
5 transpired in the course of the entire hearing, considering
6 Mr. Lau's illness, and the interests of other parties in the
7 proceeding, it is the Board's conclusion that the hearing not
8 be recessed for three weeks, but continue on.

9 The Board in coming to this conclusion did not
10 consider any of the information supplied by the Applicant this
11 morning relating to medical matters. The Board did read the
12 copy of the NLRB case which was offered by the Applicant.
13 The Board will submit this ruling to the Appeal Board at the
14 earliest opportunity.

15 We will return the other document to the Applicant
16 unread.

17 The Board is prepared to consider the motion of
18 LIPP setting forth the timetable for the submission of findings
19 of fact and conclusions.

20 Is there any further argument?

21 MR. CHARNOFF: No, sir.

22 -end 1
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1 CHAIRMAN SKALLERUP: The Board confirms its earlier
2 ruling with respect to the regular findings to be made
3 by the Applicant, that they be provided within 10 days after
4 the conclusion of this hearing, that the parties to the
5 proceeding have 10 days in which to submit findings and
6 conclusions in opposition to the Applicant's findings, and
7 that the Applicant would be provided 10 days from that date
8 within which to provide reply findings.

9 The Board confirms its earlier order that the
10 briefs regarding the legal issue of the National Environmental
11 Protection Act be provided within 10 days following the
12 conclusion of this hearing and that the parties have 10
13 days within which to file reply briefs. And that LIFE
14 would be permitted an additional 10 days to respond to the
15 reply briefs.

16 With respect to LIFE's contention regarding
17 Part 20, the Board grants LIFE 14 days from the close of
18 this hearing and sets forth the period of 10 days within
19 which to respond to LIFE's proposed findings and conclusions,
20 and allows a period of 10 days from the receipt of such
21 responses for LIFE to reply.

22 The dates which we set forth are dates on which
23 the materials being prepared should be in the hands of
24 other parties. These dates do not include and we do not
25 include mailing times.

1 Are there any questions with respect to the Board's
2 order in this matter?

3 MR. CHARNOFF: Yes, sir.

4 The different periods of time, 10 days in most
5 cases, 14 in one, you said, that is when the papers of
6 the various parties have to be in the hands of the other
7 parties. When you said it did not include mailing time, you
8 mean --

9 CHAIRMAN SKALLERUP: It excludes mailing time.

10 MR. CHARNOFF: Mailing time is not in addition
11 to that period of time?

12 CHAIRMAN SKALLERUP: That is right. Mailing
13 time is not in addition to it. And that is why we state
14 the materials should be in the hands of other parties on
15 those dates.

16 MR. ENGELHARDT: Mr. Chairman, because of the
17 vagaries of the mail system, I guess I have some difficulty
18 with regard to that last provision.

19 MR. CHARNOFF: Mr. Engelhardt, if I might
20 interrupt, we would be willing, as we have on a number of
21 occasions before, to provide the same mechanism for the
22 intervenors to file their papers with us in Toledo and fly
23 them into Washington, and similarly for the AEC to provide
24 them to me in Washington and we will fly them to the
25 intervenors, to overcome this mailing problem.

1 MR. ENGELHARDT: With that arrangement, we can
2 accommodate. But we have had very serious problems with
3 the mailing system in getting things out. Sometimes mail
4 even between Washington and the Midwest has taken an
5 inordinate amount of time.

6 MR. CHARNOFF: I would submit that to clarify
7 just what that arrangement ought to be, just as we did it
8 I believe with LIFE's interrogatories, it is that if the
9 Intervenors would provide the material they are supposed
10 to provide to Mr. Snyder at his office at 9 a.m. on the due
11 date, in Toledo, we will arrange for that material to be
12 delivered to the AEC later that date in Washington, and
13 similarly, if the AEC will provide its filings to me at my
14 office in Washington at 9 a.m. on the date that they are
15 to file it, we will in turn arrange for those materials
16 to get to the Intervenors on that same date, and of course
17 we would also arrange for the Intervenors' materials that
18 are flown into Washington to be delivered at least to
19 Messrs. Skallerup and Winters.

20 We have no arrangements for flying down to
21 Tennessee. However, I would think that mailing could be
22 handled in the regular course of mail to Dr. Jordan, unless --

23 Doctor, if you would like us to be sure to get it
24 to the office of the Licensing Board and let them take care
25 of it from there, that would be suitable, too.

1 DR. JORDAN: I think if mine were sent air mail
2 special delivery, I will absorb the mailing time in my
3 time.

4 MR. CHARNOFF: Very well.

5 Do you want the Intervenors who are doing the
6 filing to mail it directly to you air mail special? I
7 think that would be best.

8 DR. JORDAN: Yes.

9 MR. CHARNOFF: And similarly the AEC and we would
10 do the same thing. Very well.

11 We will take care of hand deliveries to the AEC
12 and to the two members of the Board located in Washington
13 and also hand deliveries to the Intervenors in Toledo and
14 Cleveland and Bowling Green. Except Bowling Green I guess
15 is represented by Mrs. Bleicher in Toledo and we will take
16 care of that, and Mr. Lau of course here.

17 MR. ENGELHARDT: Mr. Chairman, at yesterday's
18 session I believe you requested that I inform Mrs. Bleicher
19 of the time schedule for the filings. I note that Miss
20 Evans is here.

21 Would you still desire me to call Mrs. Bleicher,
22 or is a sufficient relay of this information through Miss
23 Evans?

24 CHAIRMAN SKALLERUP: Is sufficient notice your
25 being present, Miss Evans?

1 MISS EVANS: Yes, it is. However, I will note
2 that Mrs. Bleicher is out of town and it may be difficult
3 for me to reach her immediately following the session today.

4 MR. ENGELHARDT: Then I will rely on Miss Evans.

5 CHAIRMAN SKALLERUP: Your obligation is discharged.

6 MR. ENGELHARDT: Thank you.

7 With respect to this afternoon's session, there
8 are two matters. One left over from this morning, a
9 witness with respect to some pictures which Mr. Lau produced
10 last night. And second, the Ottawa County Commission.

11 MR. CHARNOFF: Yes, together with some rebuttal
12 testimony that we have to consider the materials presented
13 last night and I don't know if the Staff has any rebuttal.

14 CHAIRMAN SKALLERUP: When will he appear?

15 MR. CHARNOFF: 2 o'clock.

16 CHAIRMAN SKALLERUP: Mr. Lau, is your witness going
17 to be here? Or if the witness is here now, we could
18 take the witness now.

19 MR. LAU: I had thought before that I would like
20 to enter this as evidence, but I don't feel now that, because
21 of your decision, that it makes any difference whatsoever.
22 So I will withdraw.

23 CHAIRMAN SKALLERUP: Then we will adjourn for
24 lunch and resume at 2 o'clock.

25 (Whereupon, at 12 noon, the hearing was recessed,
to reconvene at 2:00 p.m., this same day.)

AFTERNOON SESSION

(2:00 p.m.)

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3 CHAIRMAN SKALLERUP: Will the hearing please come
4 to order?

5 Miss Evans this morning asked that she could be
6 taken out of turn to provide the summation for LIFE.
7 Accordingly at this time we will call on her.

8 MR. CHARNOFF: I understood Miss Evans wanted to
9 give her final argument today and that is fine.

10 Might I inquire, I understand Mr. Papcun is going
11 to be here at 2 o'clock, and I don't know what his time
12 schedule is going to be. May I inquire whether he is
13 here and what his time schedule may be?

14 CHAIRMAN SKALLERUP: Is Mr. Papcun present?

15 MR. CHARNOFF: Mr. Papcun, what is your time
16 schedul in terms of availability? The Board is apparently
17 suggesting the possibility of having a final statement by
18 one of the other Intervenors here. I had understood you
19 did want to be here at 2 o'clock and to accomplish your business
20 and then go back to your other functions?

21 MR. PAPCUN: Yes, I have been subpoenaed to appear
22 in another court this afternoon.

23 MR. CHARNOFF: So might we then, we have rebuttal
24 testimony, Mr. Chairman, which will include additional
25 testimony of Mr. Roe and Dr. Goldman which we will defer

1 until later, and perhaps take Mr. Papcun out of turn and have
2 him testify and available for questions and then excuse him,
3 so he might go back to his other official functions.

4 CHAIRMAN SKALLERUP: All right. Let's begin
5 with Mr. Papcun.

6 MR. CHARNOFF: Thank you.

7 Mr. Papcun, I wonder if you would be good enough
8 to come up to this table.

9 For this purpose, Mr. Chairman, I am going to
10 call on Mr. Wilson Snyder, who has made an appearance in
11 this proceeding to introduce Mr. Papcun and to ask him
12 several questions.

13 MR. SNYDER: I would like to ask that Mr. Papcun
14 be sworn, please.

15 XXX Whereupon,

16 JOHN G. PAPCUN

17 was called as a witness and, having been first duly sworn,
18 was examined and testified as follows:

19 DIRECT EXAMINATION

20 BY MR. SNYDER:

21 Q Would you state your name and residence address,
22 please?

23 A John G. Papcun, I live at 3664 North Dorco Drive
24 on Catawba Island, Port Clinton, Ohio.

25 Q Would you spell your last name, please?

ty 3

1 A P-a-p-c-u-n.

2 Q How long have you lived in the Port Clinton area?

3 A I lived inside of the city limits of Port Clinton
4 for 23 years and 9 years in the surrounding area for a total
5 of 32 years. One year on the West Coast.

6 Q What is your profession?

7 A I am a registered professional engineer and registered
8 surveyor, currently serving as the Ottawa County engineer.

9 Q When were you first elected?

10 A November 1964.

11 Q And have you been elected subsequent to that date?

12 A I was reelected in 1968.

13 Q How long have you worked in the county engineer's
14 office?

15 A I started working in June 1956 part time, and
16 started full time in June of 1962.

17 Q Is snow removal from county roads one of the
18 duties of your office?

19 A Yes, it is.

20 Q What snow removal equipment do you have?

21 A We have five snowplows that are on front of
22 trucks and we also have a large V-plow grader, a plow on a
23 grader. These are the six pieces of equipment that we use
24 most of the time.

25 Q When would you use a V-plow on the grader?

1 A . Usually for real deep snowdrifts, to break through
2 the large drifts, or to push back snow that is real deep
3 on one side of the road.

4 Q How high a drift, up to how high would you
5 estimate you could break through with that plow?

6 A My foreman has been working for us for 30 years
7 and the deepest drifts he encountered was the same height as
8 the top of the cab on the grader, which is 10 feet.

9 Q In your opinion, could it possibly even break
10 through a drift higher than that?

11 A I think it could break through anywhere from 12
12 to 15 feet, depending on the length of the drift. If it wasn't
13 too lengthy, maybe higher than that and make a tunnel right
14 through it.

15 Q Are you generally familiar with snowdrifting
16 conditions on Ottawa County roads?

17 A Yes.

18 Q Have you ridden snowplows as an employee of the
19 engineer's office?

20 A Yes.

21 Q Are there some locations where drifting is worse
22 than others?

23 A Yes. Depending on the direction of the wind.

24 Q Do you use snow fences in connection with some of
25 these areas that you know about?

1 A Yes, on the county roads.

2 Q Can you tell me of the worst snowdrifting conditions
3 on the roads in Ottawa County that you can remember since
4 you have been with the county engineers department or even
5 before that?

6 A On the public roads?

7 Q Yes, the county roads.

8 A In my 15 years experience with the county, the
9 worst storm I have been acquainted with was in January 1963,
10 on the county roads we had four and five foot drifts
11 throughout the county and some as long as a half mile long.

12 Q Now what was the condition in Sand Beach and
13 Long Beach at that time?

14 A Sand Beach, the drifts were 10 foot high. Those
15 were the drifts that were as high as the top of the can on
16 the grader.

17 Q Was the V-plow that you mentioned used on that
18 particular drift?

19 A Yes.

20 Q You have already described that your foreman had
21 performed that. Did he mention as to whether or not that
22 was the highest drift he had ever worked with?

23 A Yes, he told me that is the highest drift he went
24 through with the grader in his 30 years.

25 Q Now is it possible for the residents of the Sand

1 Beach and the Long Beach area to get out of the immediate
2 area on foot even though the high drifts are on their roads?

3 A If they are physically able to walk, I would say
4 yes.

5 Q What areas would likely be clear to walk on? The
6 beach?

7 A The worst area in question would be east of the
8 sandbar at Sand Beach. Those families would have to,
9 depending on whether the wind was coming from the north or
10 south, they would walk on the side that the wind was coming
11 from. If it was coming from the north, generally speaking,
12 they could walk along the beach or a little ways out on the
13 ice to get around the deep drift, if they are physically
14 able to walk. If it was coming from the south, they would
15 have to walk on the marsh side.

End #3

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1 Q How long is that area where the drifting is the
2 worst?

3 A About a thousand feet.

4 Q Is this same factor true, that any drifts that
5 you have known of one the Ottawa County roads that you can
6 walk around them?

7 A Yes. Either around the drift on the roadside or
8 in the field.

9 Q Now, Mr. Papcun, I would like to present the
10 following hypothetical question: Assume snow conditions which
11 you would expect in this area including the drifting in the
12 Sand Beach-Long Beach areas.

13 Also assume there has been a request in accordance
14 with a prearranged plan for the emergency evacuation of a
15 small segment of the Sand Beach-Long Beach area.

16 Also assume that the persons to be evacuated have
17 been given notice by alarms or otherwise of the need to
18 evacuate.

19 Now, my question is: Assuming these facts, in
20 your judgment is it feasible, without requiring the clearance
21 of all of the streets in the Sand Beach-Long Beach area to
22 remove people to be evacuated from the area concerned within
23 a matter of hours?

24 A In my opinion, I would say yes, as long as they
25 are notified.

ln2 1 Q Now, under the same assumptions, is it your judgment
2 that the people in the entire area within a two-mile radius
3 from the plant could be evacuated in a matter of days to a few
4 weeks.

5 A As long as they were properly notified, I would
6 say yes.

7 MR. SNYDER: That is all of the questions I have
8 on direct, Mr. Chairman.

9 CHAIRMAN SKALLFRUP: Mr. Engelhardt, do you have
10 any questions?

11 CROSS-EXAMINATION

12 BY MR. ENGELHARDT:

13 Q Mr. Papcun, we have a couple of questions we would
14 like to ask you.

15 Number one, is the Ottawa County Engineer's
16 Office prepared to enter into an agreement with the Toledo
17 Edison Company to make available this snow removal equipment
18 if the need arises?

19 A We have not entered into an agreement.

20 Q But could such an agreement be entered into?

21 In other words, does the Ottawa County Engineer's
22 Office enter into such agreements with other activities in this
23 area, in the Ottawa County area?

24 A Only with public agencies, such as Civil Defense.

25 Q So the arrangement could be through the Civil

ln3 1 Defense organization to provide this in the event of an
2 emergency, to provide some special services in the vicinity
3 of the Davis-Besse plant?

4 A When there is an emergency and the Sheriff or
5 Civil Defense calls us in for a heart attack or such an
6 emergency as that, we have gone in these places, even though
7 they provide roads, in an emergency and gotten the people out.

8 Q These roads we have been discussing in some
9 instances are private roads and not under the direct juris-
10 diction of your organization?

11 A That is correct.

12 Q Mr. Pancun, what type of communication system does
13 your office have with the operating equipment? You mentioned
14 you had the five employees and the one V-plow that was
15 available. How would you communicate normally with that
16 equipment.

17 A We have 12 mobile radio units and two base stations,
18 one in Port Clinton and one in Oak Harbor.

19 Q Are all of these pieces of equipment equipped with
20 that type of radio receiving equipment.

21 A All but the grader.

22 Q Is this equipment permanently installed, or is it
23 moved from piece to piece as necessary?

24 A It is permanently installed.

25 Q One last question. With regard to the grader,

ln4 1 which has the capability of clearing the large drifts, is that
2 cab on that grader covered?

3 A Yes, it is an enclosed cab.

4 Q Is there any capability for the installation of
5 portable communications equipment aboard that cab?

6 A Yes, there is room to put portable communications
7 in.

8 Q Mr. Pancun, using the hypothetical example which
9 you have just discussed, how long would you estimate it would
10 take your equipment in the event of such a large snow to
11 reach the area on Sand Beach which requires clearing?

12 In other words, normally how long would it take to
13 get from the garage to that area?

14 A Which side of the drift?

15 Q Would that be the determining factor? The drifting
16 in the Sand Beach area?

17 A Right.

18 Q How long would it take the plow to reach from the
19 garage to the area that is normally blocked by these drifts
20 in the Sand Beach area?

21 A From the garage, I would say it would take 45
22 minutes in a heavy storm. We usually have one plow operating
23 in that area all of the time.

24 So he would be there sooner. The ones that were
25 further away than the garage would be a little later.

ln5

1 MR. ENGELHARDT: I think that is sufficient.

2 We have no further questions of this witness.

3 CHAIRMAN SKALLEPUP: Mr. Lau?

4 BY MR. LAU:

5 Q John, bear with me a minute, I would like to read
6 you something. It says, "The Ottawa County Engineer has
7 stated it is feasible to evacuate the Sand Beach and Long
8 Beach areas within the low population zone under any weather
9 conditions within a two-hour period."

10 Did you make this statement?

11 A With the reservation that everyone has been properly
12 notified that there is an emergency and it is time to get out.
13 If they have not been notified, this statement is not correct.

14 Q You did not make that particular statement with
15 that meaning?

16 A No.

17 Q It goes on, "He has further stated that there is
18 sufficient equipment now available in Ottawa County to assure
19 this be accomplished. The County has a fleet of five trucks
20 equipped with snow blades that are capable of removing snow
21 drifts over 12 feet in height. These trucks are maintained
22 at a location five miles south of the station."

23 Did you make that statement?

24 A Except for the 12 feet in height. That pertains
25 to the grader with the V-plow.

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Q Do you know what an exclusion zone is, John?

No.

Q Do you know what a low population zone is?

A I don't know what the standards would be, but I would say a low population zone would be considered in a rural area.

Q Well, this statement says that you made the statement "to evacuate the Sand Beach and Long Beach area within the low population zone under any weather conditions within a two-hour period."

Wouldn't you say it is true that that also is meaningless if you do not know what the low population zone consists of?

A I did not ever use the words low population zone myself.

Q It was something that was supplemented?

A I said that area, whatever the population could be in the wintertime.

end 4

1 Q When you referred to that area, what area
2 in particular?

3 A The Sand Beach area, more in particular than
4 any place else, because that is where the biggest problem
5 would be, the east end of the Sand Beach area.

6 Q The problems would also, if all efforts were put
7 forth there, there is also the problem of course of the Long
8 Beach and the Locust Point Area. Is that true?

9 A That is not quite true, because the public
10 roads, we are working on those all of the time. They are
11 kept open, where this particular place, on a private road,
12 no effort is made to keep it open until an emergency
13 exists. If it were a public road, we would be in there
14 every three hours, whatever it takes to make the rounds
15 and cut that drift down.

16 Q During a bad snowstorm you are able to get into
17 the roads and maintain them every three hours, like the
18 snow you referred to in 1963?

19 A This would be an average on the routes. In 1963
20 we had extra help, we hired private contractors, bulldozers
21 and so forth, and some of the roads were not open in three
22 hours. But that again is opening up the roads to vehicle
23 traffic. Here we are talking about passengers, picking up a
24 certain point where they are able to walk out to a certain
25 point.

rms 2

1 That is the one point I wanted to make clear
2 here today that did not appear in the newspaper, that we are
3 talking about an adequate warning system, so people could
4 walk out to the road and be picked up.

5 Q Of course, there would be no consideration for
6 older people that couldn't make this walk, there would be
7 no consideration, like you talked about walking out on the
8 downwind side of the wind for the ice piles that sometimes
9 come up 20 feet and it is impossible to walk along the Beach.
10 Is that right?

11 A The physically handicapped people would have to
12 be carried out.

13 Q Do you have any idea in your own mind how
14 this could best be done to evacuate an area like that?

15 A It has been my experience with disasters such as
16 the July 4, 1969 disaster, that everyone gets involved, the
17 neighbors, the sheriff's department, the Coast Guard,
18 Civil Defense, the Engineers office, the townships,
19 fire departments, and all working together we have managed
20 to get everyone out so far.

21 Q Have you ever felt that you had to get them out
22 in a period of time of an hour or two hours?

23 A In a disaster, I don't think we think about time.
24 We just go in and do it as fast as we can.

25 Q You have had extensive experience with this, would

1 you please describe to me the incident that happened on
2 Bodi Road, where one woman was expecting a child and
3 a request came in and you had to go in and get her out,
4 how long it took?

5 A From the time that we got the call, this was in an
6 area that is not on our routes whatsoever, they requested our
7 help to get this lady out because she was expecting delivery.
8 We stayed in telephone conversation with her through the
9 Sheriff's department and it took three and a half
10 hours from the time we got the call to get her to the hospital.

11 But they wanted to take her out by vehicle. There
12 was no request to go in on foot and physically carry her
13 out. This was to open up the road completely to vehicle
14 traffic.

15 Q Now you have been down in the Sand Beach area
16 a number of times to help these people when it was absolutely
17 requested?

18 A Yes.

19 Q Have you ever been there during one of these storms?

20 A I have, yes.

21 Q Working in the Sand Beach area?

22 A Yes.

23 Q Has it ever happened that equipment broke down in
24 that area?

25 A I don't know if any of the trucks broke down, but

rms 4

1 the grader did not break down. We go where the easiest
2 route would be. Sometimes we went over lawns, around trees,
3 around the drifts, whatever we could do to get in and
4 out of there.

5 Q You have seen the snow drifts back there. Do
6 you think that there is a possibility that these people could
7 be snowed in, into their homes, so that they possibly
8 couldn't get out even during the best warning system?

9 A Well, the deepest drifts do not occur around their
10 houses. As long as they are able to physically get out of
11 the house and they are properly warned, I still believe that
12 we could get them out in two hours, when an emergency arises
13 and we put forth all of our effort, and every other depart-
14 ment's effort.

15 If they are not properly notified, I don't think
16 you could get them out in two hours on a summer afternoon.

17 Q Then I ask you, this is all considered during an
18 accident, where radiation would be involved. Would you
19 guarantee that your men would go in under these conditions --
20 in your opinion would your men go into this area and help
21 evacuate the people in case of an accident?

22 A Yes, I think they would. They always have
23 responded to emergency calls and disasters before.

24 Q Do you feel that they would with their knowingly
25 having to go into an area where radiation is involved.

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rms 5
2 MR. SNYDER: Mr. Chairman, I think the witness
3 has answered the question and he is now being asked to
4 speculate on human behavior. He has already expressed his
5 confidence in his men. And I think that should terminate this
6 line of questioning.

7
8 MR. LAU: Mr. Chairman, I might point out I feel
9 that the witness has speculated an awful lot up to this
10 point, assuming a lot of things and making decisions for a
11 lot of people, elderly people, pregnant women. I don't think
12 it is unfair in my line of questioning, because it is what
13 we are talking about, a hypothetical accident, where
14 radiation will be involved.

15
16 Now in talking with Mr. Papcun, my wife talked to
17 him on the phone, other people have talked to him. And he
18 said he could not guarantee that. And that it might cause
19 somewhat of a chain reaction.

20
21 Now what I would like to have, what I am trying to
22 get as is if he will answer this question and he has answered
23 up to this point, but I think we still should consider the
24 fact that there is a possibility, there are some human aspects
25 here, and I think we should know whether we are going to be
guaranteed that these people will come in and get us out.

26
27 MR. SNYDER: Mr. Chairman, I submit that the issue
28 here is not whether anybody can guarantee any other person's
29 human conduct, but rather if there is a feasibility of doing

1 it.

2 Now whether the people walk out for two miles or
3 are carried out for two miles by the residents in the area,
4 to ask a witness to speculate on people other than to say he
5 has confidence in them because they have always performed
6 seems to me out of order. If the witness wants to answer,
7 he has indicated he wants to answer it, which is all right
8 with me.

9 THE WITNESS: I think the wording that you used
10 on the guarantee is not correct. The word "chain reaction"
11 was never mentioned on the telephone. I said I could not
12 guarantee that they would show up. I think this is the true
13 statement by anybody in any fact of life.

14 You might not guarantee that they would show up
15 even in the summertime. But I would guarantee I would
16 order them to go out there. And they have always responded
17 in the past.

18 I think maybe they would -- I shouldn't use the
19 word "maybe." You talk about speculation. I think they
20 would show up. But I think one should still realize that
21 you cannot guarantee anyone would show up at any time on any
22 job. I cannot physically force and grab someone and take them
23 out there. The people that are in public office would show
24 up, all of the leaders in our department would show up. Some
25 of the lower echelon, if they didn't show up, we would have

1 to drive the equipment ourselves. I think the word "guarantee"
2 can be taken out of context one way or the other. But the
3 words "chain reaction" were never used.

4 BY MR. LAU:

5 Q I believe I asked you before, have you ever had
6 snow equipment broke down in the Sand Beach area? You said
7 you never had the big equipment, the snow blade --

8 A I said I didn't remember whether any of the trucks
9 had broken down. They break down periodically in different
10 areas. But I have never known more than one piece of equipment
11 to be out of commission at one time. You were speaking of
12 only the county-owned equipment now?

13 Q Yes.

14 Besides Sand Beach, let's talk about the three
15 places that would be affected at the same time, the Sand
16 Beach, Long Beach area, and the Locust Point area.

17 Do you feel that you could go in under any conditions
18 and evacuate all of these places, including up and down
19 both sides of Humphrey Road and Russell Road?

20 A I feel we would have all of the public roads open,
21 yes.

22 Q If they were -- well, the public roads open.

23 A Yes.

End #5

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2 The Locust Point, Humphrey, Long Beach, Pussell
3 Road and Sand Beach Road up to the end of its public limit.

4 Q If you had to undertake going back to get the
5 people out, because they couldn't come out, how long do you
6 feel it would take under the most severe conditions to get
7 down to the Sand Beach area?

8 A I think that is a hypothetical question.

9 Q All of this is hypothetical, John.

10 A Right. How long a drift are you talking about?

11 MR. SNYDER: Excuse me. Could you clarify, you
12 mean for these people to get out on foot or clear the roads
13 in the area?

14 MR. LAU: I am talking about clearing the roads.

15 THE WITNESS: How deep a drift?

16 BY MR. LAU:

17 Q During the worst conditions where you have, let's
18 say, 10-foot high drifts all of the way along the road.

19 MR. SNYDER: Mr. Chairman, I am going to have to
20 object to that question because the witness has already
21 testified that if you wanted rapid removal, you would have the
22 people walk out or have them carried out if they couldn't
23 walk to get to the area, the county road that was open.

24 And there is no relevancy here to cleaning up their
25 streets for their convenience to drive their car on Sunday.

This is a matter of convenience rather than

ln2 1 emergency evacuation.

2 MR. LAU: I will withdraw the question.

3 BY MR. LAU:

4 Q I would like to ask: If there is a blinding
5 snowstorm where you can't even possibly see to walk, and this
6 does happen, as testified yesterday evening, have you ever
7 been out there and walked during one of these storms?

8 A During the blinding snowstorm that happened during
9 those two periods, I was at Sand Beach, but I did not walk at
10 Sand Beach, but I did walk on the Benton Carl Road.

11 Our chains broke on the truck and I froze my little
12 finger that night. I did walk about 500 feet in a blinding
13 snowstorm. That is my own personal experience. Whether
14 anyone else can see in a blinding snowstorm I don't know.

15 Q You would have to admit women and children and
16 older people would have a much harder time than you would?

17 MR. SNYDER: There again I don't know that this
18 witness should be required to speculate on that sort of subject.

19 BY MR. LAU:

20 Q What I am getting at, if there is a blinding snow-
21 storm down there, and there is a possibility these people
22 couldn't find their way out, and you had to go in after them,
23 there is just no other way, they couldn't leave their homes
24 because they couldn't see, how long do you feel it would take
25 before you could reach them?

ln 3 1

MR. SNYDER: Objection.

2

THE WITNESS: On foot or by vehicle?

3

BY MR. LAU:

4

Q You have brought up the fact that these people could be brought out by foot. Okay, then I will relate my question to go in and get them by foot.

6

7

CHAIRMAN SKALLERUP: The time begins here from the notice of the warning?

8

9

MR. LAU: Yes.

10

THE WITNESS: From the notice of the warning. This would be an engineering judgment. I still believe we could make the two-hour limit on the five families east of the snow-drift at Sand Beach that would be walking a thousand feet, plus a couple of hundred feet to the residences.

11

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15

BY MR. LAU:

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Q Would your people go in and help them out by foot?

17

A I certainly would hope so if they are told to do so.

18

Q Is that part of their job?

19

A Yes, in an emergency all of it is part of the job.

20

Q John, would you also be responsible to evacuate these people during other similar or other circumstances where problems exist with storms other than snow?

21

22

23

A Our responsibility is to try to keep the roads open. If there is an emergency for evacuation, it is not our responsibility, but we would help in any type of emergency,

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1 whether it be flood, snowstorm, what-have-you. By law our
2 responsibility is to try to keep the roads open.

3 Q During a severe storm out there, a northeasterly
4 during floods, would this type of plan still prevail, where
5 the people could get out?

6 A When a disaster happens, actually the Civil Defense
7 takes over, and they coordinate all of the departments. Of
8 course, some work is already underway. But if you are talking
9 about flooding, then our particular department, unless it
10 isn't too severe a flood, would not handle the flood.

11 The fire departments, with their ducks, the
12 National Guard, people with boats and so forth, would step in
13 and we would assist them in any way we could, with radio
14 units, blankets, or transportation, whatever the case may be.

15 Q Do you feel all of these people could also be
16 evacuated during that period in two hours, considering they
17 had to use ducks?

18 A I can't answer that question, because that is not
19 in my scope. If the flooding occurs outside of the roads,
20 that is not my responsibility.

21 Q Are the ducks, what you consider ducks, part of
22 the County's equipment?

23 A Not in the Highway Department.

24 MR. LAU: That is all I have.

25 CHAIRMAN SKALLERUP: Any further direct?

In5

1 MISS EVANS: Mr. Chairman, are we allowed to ask
2 any questions?

3 MR. CHARNOFF: I believe it is totally outside the
4 scope of LIFF's area and LIFF did rest its cross yesterday.
5 It seems to me that would be objectionable now, Mr. Chairman.

6 CHAIRMAN SKALLFRUP: Dr. Winters has a question.

7 DR. WINTERS: You speak that the disaster network
8 here comes through Civil Defense.

9 THE WITNESS: Yes.

10 DR. WINTERS: Civil Defense would be the organization
11 who would request you to go out and give assistance?

12 THE WITNESS: They would coordinate the overall
13 plan. But before they even enter into the picture, we already
14 are working in conjunction with the Sheriff's Department.
15 They get on our bands of the radio and we are already working.

16 Later on, as soon as the Civil Defense, National
17 Guard and so forth step in, they coordinate the overall
18 picture for the whole area. We are already working by that
19 time. We are the first on the scene.

20 DR. WINTERS: Where is the Civil Defense located?

21 THE WITNESS: Oak Harbor. Mr. Brown is the Civil
22 Defense Director. A lot of the Civil Defense equipment is
23 handled by the Sheriff's Department, portable generators, this
24 type of thing.

25 DR. WINTERS: Does the Civil Defense Office in

ln6 1 Oak Harbor work on an around the clock basis?

2 THE WITNESS: No.

3 DR. WINTERS: How does it work during non-working
4 hours?

5 THE WITNESS: They are called.

6 DR. WINTERS: Who calls them, then?

7 THE WITNESS: The Sheriff's Department.

8 DR. WINTERS: Who also calls you?

9 THE WITNESS: Well, they could call me, but if the
10 weather conditions are already such, we are already out working
11 in the weather conditions. They might check and see if there
12 is a particular area problem, if we are near that area, something
13 of that nature, but we are already out working when the
14 weather conditions are bad.

15 DR. WINTERS: So you don't think the same kind of
16 thing that happened, let us say if Cleveland in the July, '69
17 storm could occur here, the incident involving Civil Defense?

18 THE WITNESS: I am not familiar with what happened
19 in Cleveland in '69.

20 DR. WINTERS: Thank you.

21 MR. SNYDER: We have no further direct, Mr. Chairman.

22 CHAIRMAN SKALLFRUP: The witness is excused.

23 (Witness Papcun excused.)

24 MR. CHARNOFF: Mr. Chairman, we have further rebuttal
25 testimony, but in deference to Miss Evans, we would be

ln7 1 happy to interrupt the agenda and let her present her final
2 argument and return to this later.

3 CHAIRMAN SKALLERUP: Let's take a five-minute
4 break.

5 (Recess.)

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1 CHAIRMAN SKALLERUP: The hearing will come to
2 order, please.

3 Mr. Engelhardt, Dr. Winters has a request to make
4 of the Commission Staff.

5 DR. WINTERS: The Board does not have its copy of
6 the PSAR present. We wonder if we could borrow the pages
7 from you that Mr. Tedesco referred to on pages 1713, 1714,
8 and 1715 of the transcript, Sections 12.4.1 and so forth,
9 wherein the Applicant has --

10 MR. CHARNOFF: We may have a copy here.

11 MR. ENGELHARDT: We have a copy of the PSAR that
12 we have been using that was provided to us by the Applicant,
13 since we didn't bring our copies from Washington, but they
14 are marked up.

15 DR. WINTERS: I would prefer not to have your
16 marked up copy.

17 MR. ENGELHARDT: We will get the copy and find the
18 equivalent pages in the PSAR and find it for you.

19 DR. WINTERS: Pages 1713, 1714, and 1715 of the
20 transcript.

21 MR. CHARNOFF: We will take care of that, sir.

22 MISS EVANS: First of all, I would like to make
23 a few comments before I go into closing arguments.

24 On behalf of LIFE and William E. Reany I would
25 like to make a few comments before I go into the context of

1 our contentions.

2 We had oral commitments from our witnesses much
3 before the actual deadline of January 20. And we had
4 expected these persons to appear on our behalf in these
5 hearings to offer testimony. But subsequent to the original
6 commitment, they have indicated a change in plan. All of
7 the out-of-town witnesses originally listed on the document
8 of January 20, 1971, except those that have provided written
9 statements, declined to appear on our behalf for a variety
10 of reasons, certain of these being reasons that are directly
11 related to the meaningfulness of these proceedings and
12 others not so directly related.

13 For instance --

14 CHAIRMAN SKALLERUP: Excuse me. You were given
15 an opportunity to make a summary statement. This doesn't
16 sound like one. This sounds as though you are arguing with
17 a ruling of the Board. If you are moving something be
18 reconsidered, state your motion. But if you are not, then
19 your present direction is out of order.

20 MISS EVANS: We believe there are two overwhelming
21 reasons that a construction permit should be denied to the
22 Applicant.

23 In the first place, there has been inadequate
24 assurance that the Davis-Besse environmental and health
25 consequences will not be adverse. It seems at least slightly

1 ludicrous to blatantly conclude that the operation of this
2 plant would not cause significant detrimental environmental
3 effects when in fact there is no specific definition of what
4 significant detrimental environmental effects actually
5 constitute.

6 Secondly, the National Environmental Policy Act
7 of 1969 was enacted to insure that adverse environmental
8 effects would be considered and avoided. These procedures
9 therefore violate the National Environmental Policy Act
10 because they have not considered environmental consequences.

11 This law became effective more than a year ago
12 and yet it is still not being implemented by the Atomic
13 Energy Commission's regulations. Among other things, the
14 law requires a detailed environmental statement, but there
15 is none here, merely a brief summary of the self-serving
16 environmental report of the Applicant. This is alleged to
17 be the compliance with the AEC interim regulatory procedures.

18 However, we contend it does not serve that purpose
19 at all. This issue will be written in a brief and submitted
20 to the hearing at a later date.

21 At this hearing we have presented evidence to
22 prove that even if the Davis-Besse nuclear power plant
23 meets the criteria set out by 10 CFR Part 20, it will not be
24 safe enough to build. The law requires that this Board
25 assure itself that the proposed facility will not be inimical

1 to the health and safety of the public.

2 This is an awesome responsibility. The plant is
3 a project of considerable magnitude, with far-reaching
4 effects. It has an expected life of 40 years.

5 We have contended and our evidence shows that the
6 Board cannot just rely upon the fact that Part 20 criteria
7 have been met. Compliance with Part 20 is not proof that
8 the plant will not be inimical to the health and safety of the
9 public.

10 10 CFR Part 20 is so outmoded and its provisions
11 have so distorted the proper functions of safety standards,
12 that Part 20 represents an abuse of the Atomic Energy Commission's
13 discretion.

14 For one thing, Part 20 is based upon a misconception
15 of the law.

16 In a proceeding like this, safety standards are
17 just one part of determining whether a plant should be built.
18 The first step should begin by deciding how much physical
19 danger and risk are we willing to accept. This is the
20 appropriate and authorized purpose of Part 20, to set safety
21 standards about risks and dangers.

22 The next step is to then determine the cost of
23 building and operating a plant that meets the safety standards
24 established by the Atomic Energy Commission in Part 20 of
25 Title X. It would then be up to private enterprise to decide

1 whether it is cheaper per kilowatt hour to build nuclear
2 power plants or to build a fossil fuel plant.

3 Congress has, to some extent, altered the usual
4 market mechanisms which private enterprise depends upon for
5 guidance in making the decision just described. Congress has
6 subsidized nuclear power by, number one, assuming risks
7 through the Price-Anderson Act and thereby lowering insurance
8 costs to the private enterprises involved in nuclear power
9 production.

10 Also the Federal Government subsidizes nuclear
11 power by financing the initial fuel supply, in these ways
12 giving nuclear power the help to make it more competitive
13 with other forms of electrical power production.

14 We are not arguing with these decisions made by
15 Congress. We would, however, like to point out that
16 Congress has not chosen to subsidize nuclear power by lowering
17 safety standards. Congress has not decided that safety
18 standards can be manipulated for the purpose of making
19 nuclear power competitive. Congress in the 1954 Atomic
20 Energy Act has clearly stated that a nuclear facility must
21 "provide adequate protection for the health and safety of
22 the public" and not be "inimical to the health and safety of
23 the public."

24 Surely safety can mean nothing less than involving
25 no increased dangers to the population. But the Atomic Energy

1 Commission has misinterpreted its responsibility. Instead
2 of establishing standards of teh safety that is necessary,
3 Part 20 is directed to how much safety we can afford. This
4 whole unauthorized approach is illustrated by 10 CFR 20.1(c),
5 which states the purpose of Part 20.

6 As witnesses for the Atomic Energy Commission have
7 admitted, and as the language of 20.1(3) itself shows, cost
8 is considered as a factor in determining whether a plant is
9 safe enough.

10 The Atomic Energy Commission requires that emissions
11 be "as low as practicable," which means that if a safety
12 feature is expensive, the AEC will not require it.

13 This is a distortion of the proper purpose of
14 safety standards, and by promulgating such regulations, the
15 AEC has abused its discretion.

16 Part 20 also violates the authority given to the
17 Atomic Energy Commission in that its specific exposure
18 limits are not based on the proven and most current information
19 and do not take certain very important factors into account.

20 The exorbitant dosage criteria in Part 20 hardly
21 reflects the most current and reliable scientific data
22 available. In the words of the AEC itself "Part 20 is a
23 living document." At least it is supposed to be.

24 The present Part 20, however, is outmoded and
25 represents thinking that is no longer accepted as accurate.

1 One of the Applicant's exhibits is a recent
2 report of the National Council on Radiation Protection
3 published January 15, 1971. But this document is obviously
4 based on data that has been known for some time. The report
5 itself states on page V that its recommendations have been
6 discussed for some three years outside of the Council.
7 Specifically, it proposes certain very important changes from
8 the existing Part 20 standards. Because of the dangers of
9 radiation to the fetus. A recommendation that the occupational
10 dose to the pregnant woman be established and lowered to
11 a dose under normal occupational exposure in Part 20.

12 As Dr. Sternglass points out, this represents a
13 recognition of the much greater sensitivity of the fetus
14 than originally thought at the time Part 20 standards were
15 established.

16 Another of the NCRP criterion changes was the
17 thyroid allowable dose for occupational workers. The sensitivity
18 of the thyroid has been established and recognized to be
19 at least as sensitive as other tissues to injury. As Dr.
20 Sternglass has pointed out in his testimony the present
21 Part 20 criterion for occupational workers in nuclear
22 facilities for this organ is two times that of the new NCRP
23 recommendation, allowing present workers to be exposed to
24 a dangerous double dose of radiation to the thyroid.

25 The occupational skin dose criterion for an unlimited

1 area of the body has also been cut in half. The present
2 allowable dosage of Part 20 is two times or 30 rems that
3 recommended by the NCRP according to the best scientific
4 data available at the present time.

5 The forearm dose criterion for occupational
6 workers was also changed to 30 rems per year by the National
7 Council on Radiation Protection. The present Part 20
8 standards allow 2-1/2 times this occupational dose to the
9 forearms of workers in nuclear facilities, thereby subjecting
10 workers to several times the hazards felt to be safe by the
11 scientific evidence currently available on the subject.

12 The feet and ankles dose criterion for occupational
13 workers in 10 CFR Part 20 is five times that recommended
14 by the NCRP. The hazards to the worker in a nuclear
15 facility at the present time thusly are five times the safe
16 level recommended by conclusive scientific data.

17 The NCRP of course represents only the opinions
18 of one group. Others such as the National Academy of Sciences
19 are still studying this matter and perhaps will come up with
20 some data that is more radical in change from the NCRP. In
21 part, it confirms the testimony given by our witnesses, who
22 have testified that the present standards are too high. Our
23 witnesses have reviewed certain studies done by researchers
24 and work which they have done themselves leading to that
25 conclusion that Part 20 standards should be lowered.

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2 Dr. Sternglass reviewed the studies on X-ray effects
3 on the embryo, which has led him to suggest a drastic lowering
4 of Part 20 standards with respect to pregnant women. At the
5 present time there is no provision for the greater sensitivity
6 of pregnant women and children to radiation in 10 CFR Part 20.

7 All dosages to the general population in 10 CFR
8 Part 20 relate only to the average human adult. He also
9 reviewed studies of the results of radioactivity caused by
10 weapons testing. In this connection he discussed the recon-
11 centration problem, that certain isotopes tend to reconcen-
12 trate in certain parts of the body.

13 This happens in certain organisms, such as fish,
14 as Dr. Tamplin pointed out, and these organisms are consumed
15 by individuals such as humans, which would allow these
16 individuals to be exposed to greater levels than Part 20.

17 Part 20 makes no provision for considering recon-
18 centration mechanisms until after the damage has been detected
19 and done, 10 CFR Section 20.106(e). Dr. Goldman, witness for
20 the Applicant, has pointed this out. Some of Dr. Sternglass'
21 studies are certainly unique and for this reason we look at
22 them carefully as they are the only ones in a field that is
23 admittedly important.

24 Since the animal exposures are difficult to do in
25 numbers that will be significant and are, besides, on animals
and not humans, it is important to evaluate what evidence we

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1 have about the effects of radiation on large populations.

2 Dr. Sternglass has explained that it is difficult
3 to tie any particular case of cancer to radiation and that we
4 need large-scale statistical evidence.

5 He has studied and shown correlations of infant
6 mortality rates to radioactivity in the environment. His
7 statistical groundwork is supported, as we indicated in cross-
8 examination on rebuttal, by an eminent Public Health Service
9 statistician. The reasons as he has explained is that babies
10 are weaker, less able to fight infection, immature and under-
11 developed; in other words, less resistant to the effects of
12 disease such as rubella.

13 The synergistic effects of radiation with other
14 chemicals, pollutants, and natural background radiation present
15 locally is not covered by Part 20. Geographic considerations
16 make no provision for the fact that what may be an acceptable
17 level of radiation emission in North Dakota may not be
18 acceptable in Ohio.

19 These additional factors enhance the genetic
20 effects of radiation on the local level. Also referred to is
21 the problem of multiple sources of radiation which is not
22 dealt with in Part 20. There must be some kind of total
23 scheme for apportioning radiation output from nuclear facilities.

24 In the absence of conclusive proof that low levels
25 of radiation have no harmful effect, we must strive for zero

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1 emission of radiation to the general public in the United
2 States. And in striving for zero emission, we will be safe-
3 guarding the public health and safety from these dangerous
4 radiation effects.

5 However, the decision is to be made in this hearing
6 and the decision made will significantly affect the future of
7 my children and all of the future children of my generation.
8 At this time we would like to thank the Board for its
9 indulgence in the consideration of our case.

10 And we ask if we may be excused at this time.

11 DR. JORDAN: That was a very nice statement. I
12 think it summed up your position very well. If you wrote it
13 yourself, I congratulate you.

14 If not, I congratulate you on getting someone to
15 help you that has done his homework right well. It has been
16 a pleasure to have you with us.

17 MR. CHARNOFF: I take it we are now to proceed with
18 the remainder of our rebuttal case, Mr. Chairman.

19 Mr. Chairman, before we begin --

20 DR. WINTERS: One moment, Mr. Charnoff. I seem to
21 have wound up with 12.3 and not 12.4.

22 MR. CHARNOFF: Do you have pages 12, 5, 6, 7 and 8,
23 sir?

24 DR. WINTERS: I have page 12.5, but not 6, 7 and 8.
25 And Section 12.4 does not start until the next page.

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1 MR. CHARNOFF: Give him the whole thing.

2 DR. WINTERS: It starts on page 12.6.

3 MR. CHARNOFF: You will have to excuse Mr. Wahl,
4 he is not used to functioning on Thursday afternoons. Just
5 before beginning with rebuttal, Mr. Chairman, and on a matter
6 somewhat independent of that, in connection with some of the
7 discussions last night and also in connection with this
8 request immediately by Dr. Winters, I notice that on page
9 1653 of the transcript, if I may call your attention to that,
10 there appears on that page a statement by Mr. Roe in response
11 to a question showing the response by the Applicant to the
12 new Appendix F of 10 CFR Part 50 with regard to emergency
13 procedures and it cites material in the PSAR, and supple-
14 ments such material.

15 With regard to each of the sections of the Appendix
16 E, II, which deals with the Preliminary Safety Analysis
17 Report, I noticed last night that as you look at the very
18 bottom of page 1653 and the top of 1654, that the Reporters
19 who have otherwise done an excellent job here, did omit about
20 six or seven lines from the transcript.

21 And that is evident from the fact that at the
22 bottom of 1653 there is the beginning of a quotation from
23 Item B, and then on 1654 what appears at the top of the page
24 is the response or part of the response to Item C.

25 For purposes of your consideration of this matter

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and the record, I should like to read in the statement read
by Mr. Roe starting on Line 23 and continuing up to -- on
page 1653 -- up to the point where Line 1 of page 1654 begins.

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1 Item b under Roman II of Appendix E says, " Contacts
2 and arrangements made or to be made with local, state and
3 federal governmental agencies with responsibility for coping
4 with emergencies including identification of the principal
5 agencies.

6 Mr. Roe's response to this Item b of Appendix E
7 was, "PSAR Section 12.4.1 states, 'Those agencies which might
8 be expected to have a role in the station emergency procedures.
9 The agencies listed might be involved in emergency evacuation,
10 radiation monitoring, decontamination and radiation exposure
11 treatment during emergency conditions.

12 "Initial contact has been made with a number of
13 these organizations including the Ottawa County Civil
14 Defense Corps, the Ottawa County Sheriff's office and the
15 Oak Harbor Fire Department in laying the groundwork for
16 detailed station emergency plans and procedures.

17 "Item c of Appendix E calls for measures to be
18 taken in the event of an accident within and outside the
19 site boundary to protect health and safety and prevent damage
20 to property and the expected response, in the event of an
21 emergency, of offsite agencies."

22 Mr. Roe's response to Item c of Appendix E was,
23 "PSAR sections 12.4.1.1 through 12.4.1.5 state the
24 anticipated measures that will be taken in the event of an
25 accident at the station to protection health, safety and

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1 property. It should be noted that there will be no private
2 property situation within the station exclusion area. The
3 radiation monitoring teams to be established in the emergency
4 procedures will also be capable of surveying outside the
5 site boundary in the event of an accident there, it..." --
6 and that begins the sentence which would continue on line
7 1 of page 1654.

8 Now, Mr. Roe, did I read correctly the statement
9 that is missing from the bottom of 1653 and the top of 1654
10 which you presented on February 8, 1971?

11 WITNESS ROE: Yes.

12 MR. CHARNOFF: Thank you.

13 NOW to continue with our rebuttal testimony,
14 Mr. Chairman, I have a number of questions for Mr. Roe and
15 for Dr. Goldman. And I might ask a number of questions of
16 Mr. Roe and interrupt for a moment with a question for
17 Dr. Goldman and then return to Mr. Roe.

18 BY MR. CHARNOFF:

19 Q Mr. Roe, what is the minimum distance of the
20 exclusion area surrounding the plant?

21 A 2400 feet from the reactor.

22 Q Mr. Roe, what is the radius of the low population
23 zone?

24 A Two miles from the reactor.

25 Q Do you reaffirm the commitment made by Mr. Novak

1 on transcript page 653 that before the Davis-Besse plant is
2 put into operation, the detailed emergency plan including
3 arrangements for evacuation of the low population zone, should
4 that be necessary, will be prepared and ready for implementation
5 prior to operation of the station?

6 A Yes.

7 Q Will that detailed plan also be submitted for
8 approval of the AEC prior to operation of the plant?

9 A Yes. The AEC would not issue an operating
10 license for the plant unless it was satisfied that the de-
11 tailed plans were acceptable and valid.

12 Q Mr. Roe, for purposes of the evacuation plan,
13 is it your intention to work with local governmental
14 authorities to the maximum extent practicable to involve
15 them in the formulation and implementation of the emergency
16 evacuation program?

17 A Yes.

18 Q Mr. Roe, to the extent that such organizations
19 are willing and capable of working with you which local
20 agencies do you hope to enlist in the formulation and imple-
21 mentation of the evacuation program?

22 A The Ottawa County Commissioners, the Ottawa
23 County Sheriff, the Ottawa County Engineer, the Ottawa
24 County Civil Defense Director, the Oak Harbor Fire Depart-
25 ment, the State Highway Department, the State Highway Patrol,

1 and the state Civil Defense organization.

2 Q Mr. Roe, have you or others in Toledo Edison
3 contacted some of such agencies to preliminarily determine
4 their interest in cooperating with you in formulating these
5 emergency plans?

6 A Yes.

7 Q Which agencies have been contacted so far for
8 this purpose?

9 A All of those that I previously named.

10 Q With whom were such contacts made?

11 A With the state Civil Defense office contact was
12 made with a Mr. Siler, Field Coordinator and Mr. Coneybeer,
13 state training office, a Mr. Williams of the State Radio-
14 logical Defense Office. Also contacted was a Mr. Howard
15 Brown, Ottawa County Civil Defense Director. The Ottawa
16 County Commissioners were contacted through Mr. Donald
17 Forman. The Ottawa County Sheriff, Lt. Stevens, was contacted.

18 The State Highway garage in Oak Harbor was
19 contacted, a Mr. Gaylen Moritz, who is acting superintendent.
20 The State Highway Patrol, the duty officer at the time was
21 contacted. The Ottawa County Engineer, Mr. John Papcun,

22 MR. CHARNOFF: I would like to address a question
23 to Dr. Goldman and then return to questions for Mr. Roe.

24 Dr. Goldman, have you considered the effects of
25 local conditions on possible radiological consequences and

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1 requirements for evacuation of local residents? And could
2 you please give us your opinion?

3 WITNESS MORTON GOLDMAN: Yes. Much of the testi-
4 mony by local residents brought out two points of consider-
5 able significance in considering the radiological aspects of
6 detailed plans for evacuation under the extremely remote
7 conditions which would require this action. The first point
8 was that individual movement during the severe storms was
9 inhibited or prevented entirely by blowing snow, reduced
10 visibility or by strong winds.

11 The second was that after such storms had passed,
12 although local roads might be blocked, telephone and
13 electrical service disrupted, individuals were able to leave
14 their homes on foot. The radiological significance of
15 these factors and others need to be clarified in relation
16 to emergency planning.

17 At the outset I should note that although
18 evacuation is normally and necessarily included as part
19 of any emergency plan, this is not considered as a routine,
20 first step procedure for any and all cases involving
21 abnormal releases of radioactive materials. For example,
22 in most, if not all cases, sufficient protection could be
23 achieved merely by remaining indoors in a closed house
24 for the first few hours following an accident. In this
25 case notification by broadcast or a messenger with a bullhorn

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would be possible. Evacuation of any individuals at all would most likely be indicated only in the extremely unlikely event of a major hypothetical accident when all of the many redundant safeguard systems failed to function. If the engineered safety systems were to function even partially, evacuation would probably not be necessary. And if it were to be carried out at all, several days to weeks, depending on distance, would be available to effect such a procedure before accumulated doses would approach a level even as great as those permitted every year to plant workers.

However, even assuming the hypothetical accident were to occur, actual conditions prevailing at the time must be considered in initiating emergency plans in order to make them effective. Obviously, one of the most important is which way the wind is carrying any material escaping from the double containment barriers and the atmospheric dispersion conditions at the particular time.

The meteorological information will be displayed in the plant control room area from site meteorological instruments so that the responsible plant supervisor will be able to use this in planning appropriate actions.

For example, specific notification of the need for a prompt evacuation procedure would be necessary only in the downwind sector. It would be useless and perhaps even harmful to unnecessarily alarm and move people

1 who could not be exposed to released material because the
2 wind was carrying it in another direction at that time.

3 Further, if the release were to occur during
4 the high windspeed, turbulent conditions accompanying storms
5 of the type described by Mr. Lau's witnesses no evacuation
6 would be ordered because none would be necessary. This is
7 because the doses projected by the Applicant and by the
8 Staff for this accident would be reduced by a factor of
9 between several hundred and a thousand by the greatly
10 enhanced atmospheric dispersion during such a storm.

11 However, even if the hypothetical accident were
12 to occur during an adverse condition following a storm --
13 and by adverse condition I mean a calm to low windspeed,
14 stable condition of the kind analyzed by the Staff and by the
15 Applicant, there would be sufficient time to assure that
16 people were evacuated in ample time.

17 For example, even in this hypothetical case about
18 four or five hours would be available to notify and remove
19 by foot, if necessary, to locations where vehicles were
20 available the few individuals who live within a few hundred
21 feet of the property line. They would need to move initially
22 only a few hundred feet crosswind, that is, perpendicular to
23 the plume travel, to be entirely out of the exposed area.

24 Under these post-storm low windspeed conditions
25 the movement of a few people a tenth of a mile or so in

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1 four to five hours does not seem to be overly difficult,
2 particularly in view of the testimony as to the egress by
3 foot of local residents after such storms. In fact, walking
4 the maximum 1 and 1/2 miles to the edge of the low population
5 zone in this time, while obviously not desirable and perhaps
6 not possible for all people, would certainly be possible for
7 most persons. If the plume carrying the radioactive material
8 were to cover a wider sector than that analyzed in the PSAR
9 and by the Staff, although more people would be potentially
10 affected, the doses would also be lower because of the
11 spread of the plume and more time would be available for
12 them to move.

13 Further, as the distance from the plant increases,
14 the time available for people to move also increase vary,
15 very rapidly. For example, again considering the extremely
16 unlikely hypothetical accident, the four to five hour time
17 period at the site boundary a half mile from the plant increases
18 to about one day at 3/4ths of a mile. And at 1 mile it
19 increases to several days to a week. Evacuation would not
20 be mandatory even under these extremely unlikely conditions
21 at distances greater than a mile and a half.

22 Looking at the site vicinity in detail and con-
23 sidering trajectories from the plant to the Sand Beach-
24 Long Beach area, as shown for example in Figure 2-8 of the
25 PSAR, it is obvious that any single wind direction could

RMS/rms9 1 not possibly include all or even most of both of these
2 areas and that therefore any plan for prompt evacuation would
3 have to deal with a relatively small number of residents
4 on an immediate basis.

5 This does not mean that plans would ignore means
6 for moving all of the residents, if necessary, within the
7 low population zone, including that south of the plant. It
8 does mean that under any conditions requiring people to move
9 sufficient time is available to do this in an orderly and
10 progressive manner which assures safety of individuals.

11 Everyone and every car is not required to leave
12 within two hours. Finally, I would like to repeat again
13 that although the ABC regulatory procedures require evacu-
14 ation plans to be developed in detail and the arrangements
15 for communication and coordination tested, the likelihood
16 of doing it is extremely remote.

17 MR. CHARNOFF: Thank you.

18 BY MR. CHARNOFF:

19 Q Mr. Roe, taking into account the scope of the
20 low population zone that might need to be evacuated and
21 the time periods during which such evacuation is required
22 to be accomplished, have you or other representatives of
23 Toledo discussed the feasibility of the required evacu-
24 ation with any local officials?

25 A (Witness Roe) Yes.

1 Q With whom were such discussions?

2 A The Ottawa County engineer.

3 Q Mr. Roe, if you find in developing the detailed
4 evacuation plan that the local officials do not have the
5 necessary all-weather vehicles to accomplish the required
6 evacuation, will Toledo Edison undertake to have available
7 at the plant site the necessary vehicles such as four-
8 wheel drive vehicles or all-terrain vehicles, tractors,
9 boats, etc.

10 A Yes.

11 Q Will your detailed evacuation plan take into
12 account the weather conditions described by Mr. Lau's
13 witnesses last night?

14 A Yes. I would like to state, however, that the
15 purpose of the evacuation plan is to remove the people in
16 the downwind direction of the radioactive plume release within
17 the time periods as outlined by Dr. Goldman. These time
18 periods allow for people to walk, to ride on general
19 purpose vehicles such as the all-terrain type or the four-
20 wheel drive vehicles as mentioned by one of Mr. Lau's
21 witnesses, or be carried over snow and ice or around drifts
22 to areas which are a few hundred feet crosswind and away
23 from the radioactive gas plume.

24 The testimony last evening verified that the
25 persons who were snowbound were able to egress from their

1 homes, if only by foot, to cleared roads where they could
2 be transported by normal vehicles. The evacuation plan
3 is not to assure clear roads for normal vehicular traffic.

4 Q Mr. Roe, considering that some persons may have
5 lost their telephone and electric communication in the rest
6 of the area due to adverse weather conditions, how could you
7 alert and advise the residents of the low population zone
8 of the need to evacuate the affected portion of the low
9 population zone?

10 A A number of possible means of alerting residents
11 are available and will be considered, such as sirens,
12 loudspeaker systems and portable hand or vehicle-mounted
13 loudspeakers. Radio announcements could also be used.

14 Q Mr. Roe, is it your judgment taking into account
15 the snow, sand and possible flood conditions described by
16 Mr. Lau's witnesses that a primary evacuation of the affected
17 area of the low population zone is feasible and can be
18 accomplished?

19 A Yes. With respect to the flooding conditions,
20 if an accident occurred before or during a flooding
21 condition which would be caused by strong northeasterly
22 winds, there would be no need for any evacuation because of
23 the windspeed and direction.

24 If it occurred after such a flooding condition,
25 the people would already be evacuated due to the flood, or

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2 the flood would have receded where normal evacuation would
3 be allowed.

4 MR. CHARNOFF: Thank you. That concludes our
5 rebuttal at this point, Mr. Chairman.

6 CHAIRMAN SKALLERUP: Does the staff have any
7 questions?

8 MR. ENGELHARDT: No. We have no questions.

9 CHAIRMAN SKALLERUP: Mr. Lau, any cross examin-
10 ation?

11 MR. LAU: No.

12 CHAIRMAN SKALLERUP: Off the record for a moment.

13 (Discussion off the record.)

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-CHAIRMAN SKALLERUP: On the record.

The Board has one question or one area of questions which it would direct to the Staff regarding the testimony we have just heard. We have asked Dr. Jordan to be our spokesman.

MR. ENGELHARDT: Mr. Chairman, may I just mention one thing? The Staff does have some rebuttal testimony as well on this point.

Would it be of any assistance to the Board if we were to give this rebuttal testimony first and then be prepared to respond to questions and then Applicant and Staff could both respond to questions on this particular point?

DR. JORDAN: We would prefer to ask the few questions we have at this time.

CHAIRMAN SKALLERUP: Because it relates to their testimony.

DR. JORDAN: That is right.

MR. ENGELHARDT: I am going to ask Mr. Tedesco who would be the appropriate witness to respond.

DR. JORDAN: Dr. Goldman has testified that in view of the, I presume, stack factor, the requirement for evacuation at the nearest point, at the edge of the exclusion area, would be perhaps something like four hours rather than two hours. I presume therefore he has calculated that under

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1 the maximum credible accident that the dose rate at the edge
2 of the exclusion zone is perhaps something like 12 rem per
3 hour rather than 25 rem per hour.

4 I recognize that the Staff has also made similar
5 calculations, and I first want to ask, does the Staff agree
6 with those numbers which I realize were in the PSAR?

7 And, secondly, do they agree that the relations
8 would allow, therefore, four hours for the evacuation,
9 rather than two, if that is the case?

10 MR. TEDESCO: Dr. Jordan, in our Safety Evaluation,
11 in Section 9, we describe the results of our calculated doses
12 that would result from a postulated accident; we report that
13 at the exclusion radius the two hours dose would be 140 rem
14 to the thyroid. If we just assume that there is no change
15 in conditions for the next several hours, it is 14 --

16 DR. JORDAN: So it is the thyroid dose that is
17 controlling rather than the whole body dose. It is 14,
18 rather than 300?

19 MR. TEDESCO: Yes, sir. So that would be at
20 least two mor hours, so you would have four hours at a
21 minimum, a ssuming no further effect.

22 Now Mr. Howe will go into further detail about
23 other areas of concer. But the four hours would be the
24 minimum.

25 DR. JORDAN: Do the Commission's regulations --
the second part of the question -- do the Commission's

1 regulations indeed allow for a longer period of evacuation
2 if the dose from the hypothetical accident is below the
3 maximum dose?

4 MR. TEDESCO: We would be guided by 10 CFR Part
5 100 on these matters, the criteria being 25 to 300 rem.
6 Every effort of course should be made to keep the doses
7 below this. We are going to discuss the conservatism in
8 this.

9 CHAIRMAN SKALLERUP: Were you planning to bring
10 that out on rebuttal?

11 MR. TEDESCO: No. We could go into it.

12 MR. HOWE: In calculating the consequences of the
13 DBA, the Staff's meteorological model for the first eight
14 hours was Pasquill Type F, with a wind speed of 1 meter per
15 second --

16 CHAIRMAN SKALLERUP: What is that in miles an hour?

17 MR. TEDESCO: About two miles an hour.

18 MR. HOWE: In a uniform direction, speaking of
19 the plume laying out in a straight line, which is meteorologically
20 an extreme condition, as you realize --

21 CHAIRMAN SKALLERUP: This is not a visible plume?

22 MR. HOWE: No, sir. The calculated dose of 140
23 rem at the exclusion radius would decrease proportionately,
24 inversely proportional, to increases in wind speed.

25 For example, if the wind were two meters per

1 second, the dose would be 70 rem; three meters a second and
2 so forth on down. If the only variable considered was wind
3 speed, you start to give credit for additional diffusion
4 within the sector, the doses would be even less.

5 Also as a factor of conservatism, is the credit
6 which we have given for the sequential filtration drain in
7 the annulus of this reactor. WE have used a combined
8 efficiency of 95 percent for these two filter units. A great
9 deal of evidence has been presented from National Laboratories
10 that a single unit of this type could have efficiencies as
11 high as 99.97 percent.

12 We have persisted in the use of conservative values
13 as an upper limit type of calculation. Additional iodine
14 removal and retention within the containment for which no
15 credit has been given in the Staff's calculations would be
16 recognized by the borated water containment spray system.
17 Recent evidence reported by Hilliard of Hanford on CSE runs
18 at that location has shown removal and retention of
19 elemental airborne iodine with borated water sprays.

20 The Applicant sought no credit for this removal
21 coefficient, thus the Staff gave none. In the real world,
22 however, there would be removal and retention of the iodine
23 by this borated spray.

24 I think it is important to bear in mind that as
25 indicated in the session I believe of January 25 with respect

1 to TID, that is a hypothetical calculation with extreme
2 conservatisms contained therein.

3 In the real world situation, the likelihood of
4 140 rem at that exclusion radius is extremely remot. That
5 calculation is done in accordance with 10 CFR Part 100 to
6 determine site acceptability. It is not in fact a projection
7 of anticipated exposure.

8 Does that answer your question, Dr. Jordan?

9 DR. JORDAN: That is helpful, thank you.

10 MR. ENGELHARDT: Shall we begin our rebuttal?

11 CHAIRMAN SKALLERUP: Please do.

12 MR. ENGELHARDT: Mr. Tedesco.

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13 DIRECT EXAMINATION

14 WITNESS TEDESCO: As stated previously in my
15 testimony, the information provided by the Applicant with
16 regard to their plan to develop an emergency plan for the
17 Davis-Besse plant meets the intent of Appendix E to 10 CFR
18 Part 50, dated December 24, 1970. This information has been
19 presented in Section 12.4.1 of the PSAR.

20 The elements of the Applicant's emergency plan
21 met our requirements for this, the construction permit stage
22 of the licensing procedure for this facility. In particular,
23 attention is given to the Applicant's commitment to include
24 outside agencies with which arrangements are to be made to
25 assure a suitable program for the conduct of offsite activity

1 in the unlikely event of an accident. These agencies include
2 the Coast Guard, the Ohio State Highway Patrol, the State of
3 Ohio Department of Health, the Ottawa County Civil Defense,
4 local police and fire departments.

5 We consider such action appropriate toward the
6 development of an emergency plan with regard to the conduct
7 of offsite activities.

8 We have heard further testimony from many local
9 citizens regarding the rather severe effects of snow and
10 sand that could affect the evacuation of residents in the
11 low population zone if such action became necessary during
12 a period of severe weather and a major reactor accident.

13 We consider such a simultaneous event extremely
14 unlikely. However, the ability to insure evacuation
15 capability is a requirement of Appendix E to 10 CFR Part 50.
16 Because of the weather effects described by Mr. Lau's witnesses
17 we will give particular attention to these matters during
18 our review of the Applicant's detailed emergency plan at the
19 operating license review stage.

20 If, at the operating license review stage, that
21 is, prior to the issuance of an operating license, we find
22 that the Applicant's emergency program is deficient, we would
23 require the Applicant to take appropriate corrective action
24 prior to authorization of plant operation.

25 The actions that would be taken of course would

1 depend upon the nature of any deficiency found during our
2 detailed review. However, examples of corrective action
3 that may be taken to assure adequate evacuation capability
4 in the low population zone -- and assuming that any deficiencies
5 could not be corrected otherwise -- could include operating
6 license restrictions to the effect that plant shutdown
7 would be required if the potential for evacuation is not
8 available due to severe weather effects.

9 Other possible correction actions that may be
10 taken would include provisions such as a reduction in the
11 allowable containment leak rate, or the installation of
12 additional filtration systems to reduce the radiological
13 effects off site in the unlikely event of an accident.

14 Another course of action could be the construction
15 of alternate routes to assure access of necessary equipment
16 to the Sand Beach area.

17 The foregoing describes the courses of action
18 that we will follow in assuring ourselves of the adequacy
19 of the emergency plan for the Davis-Besse station at the
20 operating license review stage.

21 Subsequently, during the operating history of
22 the plant, the procedures for the detailed emergency plan
23 would be reviewed by our Division of Compliance.

24 MR. ENGELHARDT: That completes our rebuttal
25 testimony.

1 CHAIRMAN SKALLERUP: Any cross, Mr. Lau? Any
2 questions?

3 MR. LAU: Yes, I have one or two.

4 CROSS-EXAMINATION

5 BY MR. LAU:

6 Q Are you saying then that you are not issuing the
7 license, the operating license if you feel that they do not
8 comply with the necessary equipment and means of evacuating
9 the people?

10 A Mr. Lau, we would not issue an operating license
11 until we are sure that the emergency plan in its total,
12 which would include evacuation from the low population
13 zone, is adequate to our satisfaction.

14 Q Then do you have in your mind a method of how
15 you would determine if it is adequate or not at this time?

16 A Mr. Lau, in Appendix B to 10 CFR Part 50 which
17 I referred to, in addition to the information required at
18 the construction permit stage, there is also similar
19 requirements established for information to be provided
20 at the operating license stage which of course must be
21 in greater detail, as they have several years to develop this
22 plan. So our review would be done on that basis.

23 Q Do you feel at this time that it might be important
24 to confront a situation during these bad conditions where
25 the people would be involved?

1 MR. ENGELHARDT: Mr. Lau, I don't think I understand
2 that question. Can you clarify that question?

3 MR. LAU: Yes.

4 BY MR. LAU:

5 Q What I am trying to say is that in your observation
6 of the Applicant's means of evacuating people and methods,
7 will you take into consideration during this three or four-year
8 period prior to the operating license, the possibility of
9 confronting a situation as it might happen? In other words,
10 to go in and evacuate the people?

11 A As I understand your question, Mr. Lau, it has
12 to do with the effects that your witnesses described last
13 night about severe weather conditions?

14 Q What I am speaking of is a simulated thing with
15 the people involved.

16 A The aspects of an emergency plan require
17 so-called dry runs to demonstrate the adequacy of the
18 procedures. Whether or not they include people offsite, I
19 couldn't say at this time. But the program that the Applicant
20 has to develop will include evacuation potentials and we
21 have to review it on that basis.

22 Q During the post-critical periods?

23 A It will include under any conditions that the plant
24 must operate under, we must consider all adverse conditions.

25 Q Have you had experience with this at other sites?

1 A Mr. Lau, I have been involved in the review of
2 emergency procedures in plants we have recently licensed,
3 and in particular I had responsibility on the Dresden Units
4 1 and 2 and the Millstone facilities, and at that time we had
5 received from the Applicant some rather substantial documents
6 describing their emergency plan.

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7 So I have had experience on this.
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Q May I ask you then, in monitoring the Applicant, during these snowstorms -- that is what we are talking about right now -- at that time do you, unbeknownst to the people, unprepared, like an accident would happen, do you say, all right, now, we have got, you know, we have a situation that is very bad, you push a button, everybody goes to their place, gets in line, gets in their trucks, starts out with a snowplow, goes out to their places, the necessary people go out with the megaphones.

Do you simulate this to the extent that you staff yourselves, the Atomic Energy Commission, that the Applicant has fulfilled these?

A We have a dry run. That means we talk about the plan, we take the plan and go through it step by step and the Applicant will describe his course of action.

Now, that is the extent that we in the Division of Reactor Licensing go. The Division of Compliance follows other aspects on the site. I am not in a position to say right now what would be done on Davis-Besse, whether or not there would be a physical implementation of the plan by the Applicant. I don't know.

Q Now, disregard the part I am saying about including the people in it. Do you know if they would -- is it generally accepted where there are some adverse conditions like we have brought out -- and I would consider them to be adverse -- that

ln2 1 it is a dry run done during a dry period or during the summer-
2 time, or is it done under the most adverse conditions?

3 Do you look for the most adverse conditions and
4 then try and fulfill the requirements?

5 A We do our review on the basis of dry run. Now we
6 do not require the Applicant to go out and demonstrate to us
7 physically, we say all right, we are starting our exercise,
8 see where the trucks and people go, and all that. But there
9 are echelons of action that we use that we review in the plant,
10 maintenance of communications equipment, maintenance of trucks
11 and so on.

12 But I am not in a position to say we would require
13 them to demonstrate to us physically the full implementation of
14 our plans. At this time I can't say that.

15 Q Do you feel if it has been proven, when you go
16 back in your reviews, it has been proven that this is an
17 unusual area and some unusual circumstances could prevail,
18 that a dry run wouldn't be sufficient, that it would have to
19 be reenacted, because in your own mind you might possibly think
20 that it couldn't be done?

21 Are there requirements by any of your governing
22 boards of the Atomic Energy Commission that would require
23 that?

24 A Mr. Lau, at this time we are still talking about
25 preliminary plans. I don't know what the final plans of the

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1 Applicant are going to look like. And I am unable to speculate
2 on the outcome of our review, whether or not we would require
3 anything further. I don't know right now. I have to wait until
4 we get the plan from the Applicant to do the review.

5 If there are deficiencies found, we must resolve
6 them.

7 So I don't know how to answer your question.

8 Q All right. I don't think you are getting my point,
9 either that or I am not getting it across. You accept the
10 plans from the Applicant --

11 A What plans is this?

12 Q The evacuation plan as the thing goes along, as the
13 bidding proceeds, as they get closer to the operation permit;
14 at what time they give you the final plans, I don't know.

15 They spell out for you what equipment they have
16 available, that they are going to put so many vehicles on the
17 site, they have the fire departments and the Highway Patrol,
18 this and that. Do you look at this material and then decide
19 well, this is enough, looks like enough people? Or is it in a
20 case where you have some adverse conditions, will you require
21 these people that are mentioned to go through the process of
22 evacuation?

23 A I have to fall back on what the results of our
24 review come out to be. Normally, we would not require Applicant
25 to physically demonstrate the implementation of his program.

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2 But I really have to say that such action can't be
3 completely ruled out if it was found there was a big question
4 in our minds about the adequacy of the program. There is that
5 possibility. There is also some alternate actions that I
6 talked about, which collectively all of these things will be put
7 together to give us a good basis that the Applicant's program
8 is adequate to assure the health and safety of the public.

9 Q You stated that the Applicant, you feel the
10 Applicant has fulfilled his duties up to this time?

11 A Yes, sir.

12 Q Do you feel that there are some adverse conditions
13 that prevail in this plant as opposed to the Dresden plant
14 and Millstone that you talked about?

15 A I won't say they are different. Snow occurs in both
16 places. We are talking about Illinois. Millstone, which is
17 the one in Connecticut, on the Sound, that has snow potential,
18 too.

19 Q I have to admit the conditions we saw last night
20 were quite dramatic, yes, it is a lot of snow we are concerned
21 with.

22 Q You would call that unusual?

23 A Well, I don't -- unusual for here or what?

24 Q Unusual circumstances for evacuation?

25 A They would have to be considered.

MR. LAU: That is all I have.

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1 CHAIRMAN SKALLERUP: I would like to pursue that
2 line a little. Reviewing plans is fine, making provisions for
3 testing is fine, and having dry runs is fine.

4 Why cannot -- put it this way: What we are really
5 asking I guess is a question of the credibility of the
6 Commission's compliance organization. So how can you get this
7 kind of information with respect to the reality, the reliability
8 of the actual evacuation organization.

9 MR. TFDESCO: Well, Mr. Skallerup, as I indicated
10 previously, I think the Commission's policy is on a routine
11 basis we would not require a physical demonstration of the
12 implementation of an emergency plan. There is no need to do
13 this really.

14 But we cannot preclude the possibility that it may
15 become necessary under certain unusual or strange conditions.

16 CHAIRMAN SKALLERUP: You had a number of items which
17 you said would be considered at the operating license stage
18 in your prepared rebuttal.

19 MR. TFDESCO: Yes, sir.

20 CHAIRMAN SKALLERUP: What degree of discretion do
21 you have to lengthen that list?

22 MR. TFDESCO: Mr. Skallerup, these were merely
23 examples that we came up with to illustrate alternate actions
24 that could be considered. We don't expect that this should
25 be necessary, but we do find that if some real problem came up

ln6 1 that we couldn't get resolved, alternate actions are possible.
2 These are merely examples of them. I am sure there are a lot
3 more.

4 CHAIRMAN SKALLERUP: When the time comes for you to
5 review the Applicant's evacuation procedures, emergency
6 procedures at the time of the operating license, is there any
7 reason why you couldn't pursue the possibility of having
8 realistic tests in view of the unusual weather conditions here?

9 MR. TEDESCO: No, no reason.

10 CHAIRMAN SKALLERUP: Is there any reason you can't
11 tell me you won't do this?

12 MR. TEDESCO: I can't project three or four years
13 ahead, you know. But we are not precluding that possibility.
14 But I think it would be hard to convince everyone that if you
15 went out on some day when you did have snow and you went
16 through the plan, and everything worked fine, would everyone
17 walk away 100 percent convinced that if you really needed it
18 at some other time, the conditions would be no worse than
19 what you already had at that time.

20 I think we put our confidence mostly in a good review
21 on the part of the Regulatory Staff. They go over it in great
22 detail.

23 CHAIRMAN SKALLERUP: If you were not asking a
24 rhetorical question, I would be glad to answer it. And that is
25 I think you would be one further step ahead than you would be

ln7 1 if you didn't try it.

2 MR. CHARNOFF: Mr. Chairman, may I refer the
3 Board to Appendix E -- that is the emergency plan regulation
4 that we referenced before -- IV, paragraph I.

5 CHAIRMAN SKALLERUP: That is what I based my questions
6 on. Do you want to read that?

7 MR. CHARNOFF: I was going to suggest that this,
8 of course, is a newly published regulation and it does require
9 that the emergency plan contain provisions for testing -- this
10 is the operating license detailed emergency plan, "must
11 contain provisions for testing by periodic drills of radiation
12 emergency plans to assure that employees of the licensee are
13 familiar with their specific duties and provisions for par-
14 ticipating in the drills by other persons whose assistance
15 may be needed in the event of a radiation emergency."

16 I have understood that to mean that we will have
17 to provide for testing of the adequacy of the, in effect, the
18 training and equipment we have for our people and to the extent
19 our program involves other organizations, the extent to which
20 they can respond promptly.

21 I think it just comes short of calling for a full
22 evacuation of the people in the neighborhood. But the suggestion
23 is, it seems to me, that the extents to which the other
24 organizations are going to be involved is to be tested at some
25 frequency.

ln8 1 that being the case, I think the only question is the extent
2 of the test, the frequency of the test, and so on. But I
3 think it specifically does not call for inconveniencing all of
4 the people in the area by actually walking them in that terrible
5 weather condition that we heard about last night, or picking
6 them up and moving them if they are elderly or pregnant or
7 otherwise.

8 But it does suggest that what is necessary is that
9 both the employees of the licensee, in this case ourselves,
10 and those other organizations that may be involved in our
11 program to the extent there are other organizations involved
12 in it, will have to in effect demonstrate their capability.

13 CHAIRMAN SKALLERUP: Any further testimony?

14 MR. ENGELHARDT: With respect to this rebuttal
15 testimony?

16 CHAIRMAN SKALLERUP: Yes.

17 MR. ENGELHARDT: No, none.

18 CHAIRMAN SKALLERUP: And you are finished with
19 rebuttal?

20 MR. CHARNOFF: That is right, sir.

21 CHAIRMAN SKALLERUP: Have you any additional evidence
22 to put in?

23 MR. ENGELHARDT: Mr. Chairman, we have a matter
24 which we would like to raise. It is in connection with some
25 testimony that was presented yesterday. In reviewing the

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1 transcript of yesterday's hearing session, we have discovered
2 that Dr. Nelson, Dr. Daniel Nelson, who appeared as a witness
3 for the Staff, appears to have made a mathematical error in
4 his calculations, with respect to the results of certain
5 work which he and some of his associates have underway regard-
6 ing dose estimates on an average man.

7 Dr. Nelson has since confirmed that indeed this
8 mathematical error had been made. Since Dr. Nelson is not
9 available to correct the mathematical error, and to correct
10 his testimony, we believe that the appropriate course of action
11 is to withdraw from the record of this proceeding the testimony
12 of Dr. Nelson which is based on the materials subject to the
13 mathematical error.

14 By so doing, we will avoid including in this
15 record testimony which is inaccurate and misleading.
16 Dr. Nelson has informed us that he would have no objection to
17 this course of action.

18 Therefore, I would move the Board for an order
19 permitting the AEC Regulatory Staff to withdraw from the
20 record of this hearing so much of Dr. Nelson's testimony as
21 begins with the words, "In my work" at Line 18 on page 1977
22 of this transcript and ends on Line 25 at page 1977 and then
23 all of his testimony that appears on pages 1979 through 1983
24 of the transcript.

25 CHAIRMAN SKALLEWUP: It is so ordered.

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2 MR. ENGLHARDT: Now, Mr. Chairman, the Staff has
3 some additional material that we have promised to provide to
4 this Board and we are now prepared to do so. I will briefly
5 describe what this is. You may recall that at the time of
6 discussion as to the responses to the interrogatories of
7 Intervenor LIFE, the Staff indicated that it could see no
8 relevancy of interrogatories 1 and 2, which were directed to
9 the AEC Regulatory Staff.

10 The Board, however, indicated that they would like
11 the answers to these two interrogatories, and Mr. Tedesco has
12 responses to those two interrogatories. I would ask him to read
13 the specific interrogatory and then give the response.

14 CHAIRMAN SKALLERUP: Mr. Tedesco, before you begin
15 would you give the Board an opportunity to go off the record.

16 We could take a ten-minute break at this time.

17 (Pecess.)

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1 CHAIRMAN SKALLERUP: On the record. In the
2 course of our conversation we discussed the agenda for the
3 balance of the afternoon, and beginning tomorrow, and the
4 first item would be a motion made by the Applicant and then
5 we will hear from Mr. Tedesco. Then we will receive the
6 prepared materials which responds to the point raised
7 by limited a-pearances. And I believe we would adjourn for
8 the day after that and convene tomorrow at 9:30, and Mr. Lau
9 will either appear himself as a witness or first conduct
10 cross examination. That is the planned agenda as of this
11 time.

12 MR. CHARNOFF: Mr. Chairman, on January 29,
13 1971, a gentleman by the name of Mr. Houston, Carl W. Houston,
14 appeared as a witness on behalf of the Intervenor Glenn
15 Lau. He was accompanied by Mr. Lau's attorney, Mr. Knight,
16 and the commencement of his testimony appears on pages
17 1567 through 1578.

18 If you will recall, because there was a serious
19 question as to whether that testimony related at all to the
20 issues put in contention by Mr. Lau, the Board had asked
21 Mr. Houston to submit a copy of his statement in writing on
22 the following Tuesday, which was February 2, to
23 the Board and to the parties.

24 That written statement to my knowledge was never
25 received by ourselves or the other parties, and I am not aware
that it was received by the Board. I think the material

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1 appearing on pages 1567 through 1578 representing the views
2 of Mr. Houston should be struck from the record on grounds
3 that it was irrelevant to the issues and that it was not
4 subject to cross examination and that the condition of
5 his testimony appearing in the record was the submission of
6 a document which would be found acceptable by the Board and
7 relevant to the issues on February 2. And that condition
8 was not met. Accordingly we move that material be struck.

9
10 CHAIRMAN SKALLERUP: Mr. Lau, any objection?

11 MR. LAU: No objection.

12 CHAIRMAN SKALLERUP: It is so ordered.

13 MR. ENGELHARDT: The Staff has no objection.

14 CHAIRMAN SKALLERUP: It is so ordered.

15 MR. LAU: Mr. Chairman, I do have a question
16 at this time. Something bothered me about Mr. Engelhardt.
17 He asked to omit certain parts of Mr. Nelson's testimony.
18 I am not sure -- I don't know if it is necessary that I should
19 be acquainted with the situation, what the testimony
20 consists of, or if it had anything to do with me or my
21 petition to intervene.

22 CHAIRMAN SKALLERUP: Let me suggest that Dr.
23 Jordan respond to your question, because Dr. Jordan
24 I believe caught the error before Mr. Nelson finished his
25 testimony. And I think he probably will be able to
provide all of us with as good an explanation as to what it

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1 was about as anyone present.

2 DR. JORDAN: The Staff will check me on this.
3 The testimony was not with respect to your witnesses I
4 believe. It was an attempt to put in evidence some new
5 calculations on the concentrations and the whole body
6 dose that would be received as a result of inhalation of air
7 or drinking of water at the 10 CFR concentration limits.
8 Whereas ordinarily one expects those numbers to come out
9 to be 500 millirem, Mr. Nelson's preliminary calculations
10 indicated that it would be perhaps a factor of 10 smaller
11 than that, whereas this would be a wonderful conservatism in
12 the figures if it were the case.

13 I expressed at the time some doubt about this.
14 He has recently checked his errors and therefore he can
15 no longer claim that the situation is really better than that
16 in 10 CFR Part 20, but the numbers in table 2, as far as
17 we know are still all right.

18 So I don't think it would prejudice you in any
19 way. And in fact I don't think it-- it has very little to
20 do with your testimony.

21 MR. ENGELHARDT: Dr. Nelson's testimony was directed
22 essentially to the testimony--it was rebuttal testimony to that
23 testimony presented by Dr. Tamplin. And the material
24 that has been deleted is descriptive of some work that
25 Dr. Nelson and some other associates have performed, and that

1 is all. It does not relate to issues that Mr. Lau is raising
2 in this proceeding.

3 DR. JORDAN: Well, insofar as it did rebut
4 Mr. Tamplin, which there is some question about, it
5 no longer stands to rebut, if we withdraw it.

6 MR. LAU: I would like to raise this question
7 as a party to these proceedings. Is it proper and acceptable
8 that you can delete this material without the man being
9 her personally or requesting it in letter form?

10 CHAIRMAN SKALLERUP: His counsel was the one that
11 was requested by Dr. Nelson. Dr. Nelson requested that
12 this be done.

13 MR. LAU: Is there proof of this?

14 CHAIRMAN SKALLERUP: We take the word of counsel.
15 It is an admission against his own interest.

16 MR. LAU: It seems to me it is changing the
17 testimony.

18 CHAIRMAN SKALLERUP: It is withdrawing the testimony
19 because of --

20 MR. LAU: Not all of it.

21 CHAIRMAN SKALLERUP: -- because of an obvious
22 arithmetical error. The testimony is in error. So rather than
23 leave it there to have someone make some potentially
24 misleading interpretations from it, they are withdrawing it.

25 MR. LAU: It just doesn't seem right that you

1 can delete a part, because if you delete a part of something,
2 you no longer have what you are originally trying to get
3 across. And it wouldn't matter who testified.

4 CHAIRMAN SKALLERUP: We will let the counsel
5 that presented that decide and we have no objection to
6 his withdrawing it.

7 MR. CHARNOFF: May I inquire, sir? As I under-
8 stand it, these are answers to two questions by
9 Mrs. Bleicher on the interrogatories addressed to the staff
10 which were not deemed relevant.

11 May I inquire therefore, as to whether the
12 responses that Mr. Tedesco is now going to introduce
13 into the record are in the form of testimony or is it in
14 the form, if you will, of just information provided to the
15 parties the way the other information was provided to Mrs.
16 Bleicher in the form of responses to the interrogatories
17 whether relevant or not?

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1 MR. ENGELHARDT: I believe that the Board con-
2 curred that the response to the two interrogatories was
3 irrelevant to the issues raised by the intervenor LIFE.
4 Hence the information is being provided at the specific
5 request of the Board. I don't believe at the time that we
6 discussed this matter that any decision was made as to the
7 status of these responses.

8 However, I believe that since they are not relevant to
9 the issues of LIFE and they are not matters which would be
10 subject to cross-examination by LIFE, that these materials
11 would be in substance supplemental information of a character
12 which would be similar to a limited appearance statement.

13 MR. CHARNOFF: On that basis, I have no objection
14 to this, Mr. Chairman.

15 CHAIRMAN SKALLERUP: The Board concurs.

16 MR. LAU: Mr. Chairman, may I ask to be excused
17 for the day?

18 CHAIRMAN SKALLERUP: Yes, Mr. Lau. We will see
19 you in the morning.

20 MR. TEDESCO: Interrogatory 1 by LIFE states, as
21 a question: "How long has SAC been using the area around
22 the Big Rock Point reactor in Michigan for making simulated
23 test runs in unarmed B-52s?"

24 Our response is that unarmed B-52s have been using the
25 air space in the vicinity of the Big Rock Point plant for

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1 simulated test runs since 1963.

2 Interrogatory number two raised by life as a question
3 is: "What assurance do we have that the area around the
4 proposed Davis-Besse plant will not be used in the future for
5 purposes similar to those described in question 1 above?"

6 Our response: On January 14, 1971 Mr. David Packard,
7 Deputy Secretary of Defense, wrote to Mr. John Davis, President
8 of Toledo Edison, regarding this matter. Mr. Packard's
9 letter indicates that air use from the Lockbourne Air Force
10 Base have been instructed not to fly within a circle of
11 six nautical miles of the Davis Besse site.

12 The letter further states that the Department of
13 Defense will exercise appropriate controls over all military
14 activities in the area to assure that the health and safety
15 of the public will not be jeopardized by any such military
16 activity.

17 MR. ENGELHARDT: That completes the responses.

18 DR. JORDAN: This reminds me of a question that
19 I was wanting to put to the Applicant because in response
20 again to LIFE's questions to the Applicant there were a few
21 response- that were put on the record, and in looking that
22 over -- I am sorry I don't have it with me -- Dr. Goldman, I
23 had a little trouble in converting from picocuries per liter
24 in some places with microcuries per cc in others, and I
25 think there is a discrepancy. I understand how to make the

B-3
1 conversion, but would you look at that and come back tomorrow?

2 MR. CHARNOFF: I would like to make a comment
3 with regard to the question, Dr. Jordan.

4 I am sure Dr. Goldman would like to clear that up
5 tonight, but my understanding is none of these answers are in
6 the record. These were answers provided to Mrs. Bleicher
7 in the form of responses to interrogatories, some which we
8 agreed were appropriate, and some which we did not agree to be
9 appropriate. But in any event, all of the answers to her
10 interrogatories were provided to her by us at the instruction
11 of the Board. But none of them appear in the record.

12 DR. JORDAN: All right.

13 MR. CHARNOFF: So if we are to engage Dr. Goldman
14 this evening in useful activities, and I think we should, I
15 think we would have to establish what it is that he is correcting
16 under those circumstances.

17 DR. JORDAN: If it is not in the record, I have
18 no problem.

19 CHAIRMAN SKALLERUP: Let me ask: Is Dr. Goldman
20 prepared to answer the question at this point?

21 DR. GOLDMAN: I am not certain which interrogatory
22 is being referred to.

23 DR. JORDAN: It had to do with the background
24 activity in microcuries per cc of tritium, I believe, in certain
25 rivers and it was expressed in different units on different
pages.

DB-4 1 MR. CHARNOFF: My difficulty is we have no problem
2 in clarifying this, but my difficulty is there is nothing in
3 the record to correct.

4 DR. JORDAN: All right.

5 DR. GOLDMAN: I have the interrogatory and it is
6 I think LIFE's interrogatory number 21, which deals with a
7 question as to the natural background levels.

8 DR. JORDAN: It could be I am mistaken even about
9 the units.

10 DR. GOLDMAN: In glancing at this now, Dr. Jordan,
11 I don't see any obvious discrepancy in terms of units.

12 The two units which are used are picocuries per liter
13 and picocuries per kilogram. Both of these are essentially
14 identical to each other.

15 DR. JORDAN: Yes, that is right, but there was
16 another place, on another page, which it was microcuries per
17 cc.

18 MR. CHARNOFF: I would like to submit, Mr. Chair-
19 man, that I think we are going to end up with a very confusing
20 set of transcript pages here.

21 DR. JORDAN: I withdraw it.

22 MR. CHARNOFF: I will see to it that Dr. Goldman
23 examines the document.

24 CHAIRMAN SKALLERUP: The next step would be --

25 MR. CHARNOFF: As I understand it, Mr. Chairman,

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1 the next step is responses to issues raised by limited
2 appearors.

3 Mr. Churchill is now distributing to the members of the
4 Board and to the Regulatory Staff and if Mr. Law is here
5 tomorrow we will give him a copy a document entitled "Applicant's
6 responses to issues raised by limited appearors."

7 This document bears numbers LAO-1 through LA-32-1.
8 I am informed that the code appearing at the bottom of the
9 pages means limited appearance, the zero means the first
10 question and dash one is the first page of the answer to that
11 question.

12 In effect therefore if we look at LA 32-1 that would be
13 the thirty-second question.

14 This document is in the form of questions addressed by
15 me to different persons representing the Applicant responding
16 to questions or issues or matters raised by various limited
17 appearors at various points in their statements during the
18 course of this hearing. In some cases a number of the limited
19 appearors were concerned or dealt with the same matter and
20 we have for convenience and in conformance with past practice
21 at other hearings grouped those questions for purposes of
22 the answer.

23 We have identified in the question the various persons
24 whose matters are being responded to and the page numbers of
25 the transcript where their questions were raised.

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I would propose, Mr. Chairman, that this document be incorporated in the record as if read. We are prepared to either furnish to the Board an adequate number of copies for the Board to arrange to be mailed to each of the limited appearors, or if you would like, we would be pleased to commit to mail a copy of this document to each of the limited appearors at your pleasure.

This procedure is in conformance with practice in other cases that I am familiar with, sir.

1 CHAIRMAN SKALLERUP: Before answering your question,
2 I would ask whether the Commission Staff has prepared a
3 comparable document?

4 MR. ENGEL RDT: Mr. Chairman, we have had an
5 opportunity to review the responses prepared by the Applicant
6 which are incorporated in the document that Applicant's
7 counsel just identified. As a result we have prepared a
8 document consisting of some nine pages which are comments
9 offered in response to questions raised by persons making
10 limited appearances at the Davis-Besse hearing.

11 The Regulatory Staff has reviewed the responses
12 of the Applicant to these questions and is offering comments
13 on those questions either not covered by the Applicant or
14 on which further comment by the Staff appeared appropriate.

15 This document consists of a response to three
16 groups of questions and we would propose to adopt the same
17 procedure that was suggested and would suggest that our
18 document accompany the Applicant's document with regard to
19 these responses and be dealt with in the same way.

20 The suggested approach which Mr. Charnoff has
21 proposed is indeed in accord with what has happened in other
22 proceedings, and we would have no objection to following the
23 same procedure here.

24 MR. CHARNOFF: I might note, I am sorry, Mr.
25 Chairman, I am told that extra copies of our document are
also in the rear of the room and available certainly to the

1 members of the public who are present here today.

2 CHAIRMAN SKALLERUP: Thank you.

3 The Board will go off the record a moment.

4 (Discussion off the record.)

5 CHAIRMAN SKALLERUP: On the record.

6 Mr. Charnoff, you heard Mr. Engelhardt. Would you
7 be willing to distribute not only your own response to these
8 questions but the response prepared by the Commission?

9 MR. CHARNOFF: I am just considering whether the
10 added postage will be reduced from our construction permit
11 fee which is in the exorbitant numbers. The answer to that
12 is yes.

13 MR. ENGELHARDT: We have extra copies, we are
14 not imposing upon the Applicant the burden of any additional
15 reproduction work. We have sufficient copies both to give
16 to the Applicant and provide to the Board of course, and
17 to make available here in the room for any member of the
18 public who would like to take a copy.

19 CHAIRMAN SKALLERUP: I am sure the content and
20 style of your document will look well when accompanying the
21 Applicant's document. Thank you.

22 MR. CHARNOFF: Mr. Chairman, we have provided
23 sufficient copies to the reporter to incorporate into the
24 record.

25 CHAIRMAN SKALLERUP: Any objection?

1 MR. ENGELHARDT: That may pose a problem. I will
2 have to check the total supply. It is customary to make
3 some 10 copies immediately available to the reporter
4 for binding in the current transcript and then make 30
5 copies additional available to the reporting service in
6 Washington for binding in the follow-on copies of the
7 transcript.

8 MR. CHARNOFF: Since we are committed to get this
9 out to all of the limited appearers I am satisfied to handle
10 this as an exhibit for purposes of this record.

11 MR. ENGELHARDT: I would agree with that.

12 CHAIRMAN SKALLERUP: Applicant's Exhibit 9?
13 Applicant's Exhibit 15?

14 MR. CHARNOFF: Applicant's Exhibit 15 we are not
15 offering for any purpose other than marking, it is not being
16 offered for evidence.

17 CHAIRMAN SKALLERUP: Any objection?

18 MR. ENGELHARDT: No objection.

19 CHAIRMAN SKALLERUP: It is so ordered.

XXXX 20 (The document referred to was marked
21 Applicant's Exhibit No. 15, for identi-
22 fication.)

23 MR. ENGELHARDT: I think our exhibit would probably
24 more appropriate be marked as a separate exhibit.

25 CHAIRMAN SKALLERUP: Number 10 for you.