

1 BEFORE THE
2 U.S. NUCLEAR REGULATORY COMMISSION
3

4 In the Matter of:)
5)
6 PUBLIC MEETING CONCERNING)
7 ENVIRONMENTAL IMPACT CONCERNS)
8 FOR SOUTH TEXAS UNITS 1 & 2)
9 LICENSE.)
10

Room 321
Matagorda County Courthouse
Bay City, Texas

Thursday,
May 2, 1985

14 The above-entitled matter came on for public
15 meeting, pursuant to notice, at 7:00 p.m.:

16 BEFORE: HON. BURT O'CONNELL
17 Moderator

18 REPRESENTING THE NUCLEAR REGULATORY COMMISSION:

19 George Knighton
20 Prasad Kadambi
21 Oreste Russ Pirfo
22 Claude Johnson
23 William Crossman
24 Clyde Wisner
25 L. M. Brauner
G. LaRouche
Warren Webb
C. W. Billups
C. L. Counts
R. O. Gonzales
Virginia Tolbert

P R O C E E D I N G S

JUDGE O'CONNELL: I think the proper hour has arrived. I would like to welcome all of the folks who have turned out tonight. This is a meeting under the auspices of the Nuclear Regulatory Commission of the United States. My name is Burt O'Connell, and I was asked to be the moderator here tonight.

And please don't ask me any questions because I don't think I can answer them. But tonight this meeting is being held for the public and for the purpose of asking questions from this group of experts up here. And I am sure there is someone here who can answer any questions you might propose.

At this time I would like to turn the meeting over to Dr. Kadambi, and he will instruct you. And of course, questions are welcome, and I encourage you to ask questions. And if you ask a question, please come to the mike at the front here so we can have a recording of the question and this answer.

MR. KADAMBI: Thank you, Judge O'Connell. I would like to begin by introducing the people from the Nuclear Regulatory Commission who participated in this site visit which we had today and who are also conducting most of the review in the environmental impact statement.

My name is Prasad Kadambi. I am the project manager in the division of licensing of the NRC, and I manage the

1 licensing process -- the licensing of the South Texas project
2 at -- in Washington.

3 I would like to introduce George Knighton, my boss.
4 He is the branch chief in the division of licensing, and the
5 technical reviewers who are expert in the field are seated
6 across from me. And I would invite you to each identify your-
7 self by name and perhaps the area in which you review.

8 Lou, would you like to start?

9 MR. BYKOSKI: My name is Louis Bykoski, and my area
10 of concern is social economics and community facility.

11 MR. BRAUNER: Al Brauner. I am interested in the
12 tomography -- current tomography of population in the area
13 and what it is expected to be during the life of the plant by
14 2030. Also interested in the hazards off-site from the plant
15 in any way that it might affect the plant -- the operation
16 of the plant.

17 MR. LAROCHE: I am Gerry LaRouche. I am interested
18 in the correct ecology and land use both of the plant and of
19 the plant/fishing corridors.

20 MR. WEBB: I am Warren Webb. Also ecology, espe-
21 cially terrestrial ecology and land use.

22 MS. TOLBERT: I am Virginia Tolbert. My specialty
23 is aquatic ecology.

24 MR. GONZALES: My name is Raymond Gonzales, and I
25 am looking at the hydrologic aspects of operation of the plant.

1 MR. COUNTS: I am Clement Counts, and my specialty
2 is biofowling and aquatic ecology.

3 MR. BILLUPS: I am Charles Billups, and I am also
4 an acquatic scientist.

5 MR. WISNER: I am Clyde Wisner. I am the public
6 affairs officer with the Nuclear Regulatory Commission in
7 Arlington, Texas.

8 MR. CROSSMAN: I am Bill Crossman, section chief in
9 Arlington, Texas.

10 MR. JOHNSON: My name is Claude Johnson. I am the
11 senior construction resident at the South Texas project.

12 MR. PIRFO: Good evening, ladies and gentlemen. I
13 am Russ Pirfo. I am a lawyer. Don't boo. I work for the NRC
14 staff, and I am lead counsel for the phase II hearings that
15 are going on for the atomic safety and licensing board.

16 MR. KADAMBI: Thank you very much. I would like to
17 begin this evening's program with a few introductory remarks
18 from George Knighton.

19 MR. KNIGHTON: I appreciate all of you coming out
20 tonight. It is quite a turn-out. I have been to quite a few
21 of these meetings, and I think this is one of the largest
22 turn-outs we have had.

23 One point I would like to make is that this is a
24 environmental review by the NRC. We have a two-stage process
25 of licensing. Back in the area of 1974, our staff did, in fact,

1 do a detailed environmental assessment of siting, constructing,
2 and operating units I and II of South Texas at the current site.
3 It was that analysis which made it possible for the NRC to
4 issue the construction permit.

5 Now, the applicant is in for his, what we call the
6 OL -- the operating license. This is his final stage of
7 construction and preparing himself to go ahead and load fuel
8 and operate the plant.

9 This group of people are here today because our
10 rules and regulations require that prior to issuing that
11 operating license we must again assure ourselves that the
12 environmental assessment that was done in the earlier stages
13 ten years ago is still applicable.

14 These people are here today to find out or try to
15 establish that it is still applicable or determine that there
16 are differences in what they previously assessed or to deter-
17 mine if there are some items which they did not assess which
18 should be assessed now.

19 The reason for this meeting is so that you the public
20 who live here, if you have concerns in these environmental
21 areas, we are here to hear your concerns. We would appreciate
22 it if you would come forward; give us your concerns.

23 We are making a verbatim transcript. The recorder
24 is over here. And this document will be available to these
25 people when they do their final assessment in preparation for

1 issuance in the July time frame of what we term a draft
2 environmental statement for the operating license stage.

3 That statement will be circulated to many federal
4 agencies, state agencies and to the public for comment. Then,
5 about 60 days after that is issued, we will then take those
6 comments, review them, address them, and finalize the
7 environmental statement which will be associated with the
8 operating license.

9 And then that would be issued in the October time
10 frame. Thank you.

11 MR. KADAMBI: Thank you, George. I will now take
12 a few minutes to describe as briefly as possible the scope of
13 the review that we at the Nuclear Regulatory Commission conduct
14 for all nuclear power plants, and, of course, South Texas is
15 among the many that are undergoing licensing review right now.

16 For each nuclear power plant there are actually
17 two separate reviews that are done. One is an environmental
18 review, and the second is a safety review. Each of these
19 reviews will result in documents which actually describe in
20 detail the staff's conclusions.

21 For the safety review, the document is called the
22 safety evaluation report, and for the environmental review
23 the document is called the final environmental statement.

24 The process to generate each of these documents
25 is long and thorough. Today our work focused on the

1 environmental impact statement.

2 I would like to give you folks a flavor for the
3 subjects that are covered in this review. I will read out to
4 you what is essentially a list of topics from the table of
5 contents from the final environmental statement associated
6 with the South Texas project at an earlier stage, the con-
7 struction permit stage which George described.

8 The subjects covered are effects on regional demo-
9 graphy; land use; water use; effects on historical landmarks
10 and archeological sites; studies on the geology, seismology,
11 hydrology, meteorology; the effects on the ecology of the area;
12 the external appearance of the site; studies on the radioactive,
13 chemical, biocide, and sanitary effluents; effects of the
14 transmission system.

15 We will list the unavoidable adverse impacts of the
16 project. The environmental impact statement, as George des-
17 cribed, is issued in two stages of the licensing processs.
18 At the construction permit stage, the environmental impact
19 was issued in March, 1975. That was ten years ago.

20 For the operating license stage, the review is now
21 being conducted, and as George said, we will examine what
22 changes might have taken place since the review was done ten
23 years ago.

24 It could -- our current review could result in the
25 applicant for the South Texas project having to make -- being

1 required to take certain extra measures to protect the
2 environment.

3 The documents which will describe our conclusions,
4 as George said, will be issued in the near future this year.

5 Thank you very much, and I invite all of you to
6 participate this evening by asking questions, voicing your
7 opinions, your views -- expressing your views as you wish.

8 JUDGE O'CONNELL: Give me some questions here. Does
9 anyone have a question? Would you raise your hand? Mr.
10 Johnson, would you approach the microphone?

11 MR. JOHNSON: Is there any time limit on this,
12 Judge?

13 JUDGE O'CONNELL: Not so far. We will evaluate that
14 as you go along.

15 MR. JOHNSON: Well, supposing I have more than one
16 question?

17 JUDGE O'CONNELL: Well, just go -- no hands were
18 raised other than yours, Mr. Johnson, so just proceed with
19 your questions.

20 VOICE: Ask him to identify himself.

21 JUDGE O'CONNELL: A. H. Johnson.

22 MR. JOHNSON: I live at Markham, Texas. I am a
23 retired farmer, and I don't own any generating stock. And I
24 am only interested in selling a field crop and raising grand-
25 children.

1 I have with me part 73 of the NRC's rules and
2 regulations that covers physical protection of plants and
3 materials. These regulations go into great detail about
4 security measures, chain link fences, guard dogs, training of
5 watchmen, automatic firearms and so forth.

6 I also have with me the Scandia report which covers
7 the transportation of spent reactor fuel. This reports covers
8 safety and engineering factors of the shipping casks.

9 Neither of these papers include any inkling of how
10 the plant and materials would be protected in the event of
11 a kamikaze attack; that is, an explosive laden aircraft with
12 a suicidal pilot at the controls instead of the dump truck
13 driver going into the embassy --

14 A nut with a cause or one who thinks he has a cause
15 similar to an aircraft hijacker or someone comparable to
16 Angela Davis's group.

17 All of us can remember the damage that this type
18 of attack caused on ships of the line in World War II in
19 spite of stringent security measures.

20 Three Mile Island was blamed on a malfunctioning
21 valve. Could this type of attack cause a valve malfunction?

22 MR. KNIGHTON: Let me try to put this into per-
23 spective. You are raising a question, of course, about
24 safety.

25 MR. JOHNSON: Sir?

1 MR. KNIGHTON: You are raising a question about
2 safety significance of the act.

3 MR. JOHNSON: Yes.

4 MR. KNIGHTON: This isn't quite the right group for
5 that. In any case, the Agency's position right now is that
6 we do not take into consideration acts of war, as a example.
7 It is not part of our responsibility.

8 We do provided detailed security. We do provide
9 exercises that test that security. There is no doubt that
10 what you say could happen. We do provide for some forms of
11 attack like that but not necessarily kamikaze planes. So
12 that is about my response right now.

13 If you would look at our systems we have out there,
14 you might be of interest to try to find out what degree an
15 act like that would affect the plant. But right now, the
16 answer to you is: we do not specifically address those acts
17 of war.

18 MR. JOHNSON: Well, terrorism is becoming awful
19 popular in the world. It is -- since this initial licensing
20 process started, terrorism has grown by leaps and bounds of
21 all types, and it -- I can understand why detailed information
22 on defensive structures, security equipment and security plans
23 should be withheld from the public in order to prevent
24 compromise of their effectiveness.

25 But I cannot see why the NRC does not recognize and

1 require protection against this threat.

2 MR. KNIGHTON: We have -- we appreciate your comments.

3 MR. JOHNSON: All right, sir.

4 MR. KNIGHTON: Thank you. Excuse me.

5 MR. JOHNSON: My other question is: what are the
6 limits of liability insurance that a generating plant must
7 carry and what are the limits on the federal share of the
8 insurance under the Price-Anderson Act?

9 MR. KNIGHTON: I don't have the actual values here
10 to recite.

11 MR. KADAMBI: The Price-Anderson Act is currently
12 being debated in Congress actually in order to -- whether
13 or not to renew it. But under the current legislation, the
14 coverage available is \$560,000,000 of what is equivalent to
15 no-fault insurance in case of an accident.

16 MR. JOHNSON: All right, sir. I am going to sit
17 down and shut up now with these two cliches. History records
18 madness, and then I can't help but let you have Murphy's Law.
19 Whatever is imaginable can happen.

20 JUDGE O'CONNELL: Thank you, Mr. Johnson. You may
21 think of another question before this over. Does anyone
22 else have a question now? Would you raise your hand?

23 VOICE: Turn the speakers on.

24 JUDGE O'CONNELL: Turn what speaker on? These
25 speakers are attached to the Court Reporter's recording

1 machine, and they are not PA's systems, Lamar.

2 Mrs.Sleba, did you want to ask a question? I believe
3 I was talking to you there earlier.

4 MRS.SLEBA: Yes. I want to ask some expert here
5 about water sands. We have a lot of irrigation wells north --
6 well, west of us. We are four or five miles from the reactor.
7 What will happen if that reactor gets a leak in it, and when
8 they pull those irrigation wells on, it pulls it into our water
9 sands?

10 We have deep wells around 480 feet deep. Is there
11 any danger? Now, we have heard that it is -- rumors.

12 MR. KADAMBI: Excuse me, but could you identify
13 yourself?

14 JUDGE O'CONNELL: This is Mrs. Sleba.

15 MRS.SLEBA: Yes.

16 JUDGE O'CONNELL: What is your first name or your
17 initial?

18 MRS. SLEBA: Dorothy.

19 JUDGE O'CONNELL: Dorothy Sleba.

20 MRS. SLEBA: Yes.

21 MR. KADAMBI: Thank you.

22 MRS. SLEBA: Can anyone answer that?

23 MR. GONZALES: I will take a stab at it. There are
24 two aquifers, what they call the shell aquifer that goes down
25 maybe a hundred feet or so. And then there is the deep aquifer

1 that is much deeper than that. There is about 150 feet of
2 dense clay that separate these two.

3 So it is highly unlikely that if you contaminate
4 the upper aquifer you get any contamination of the lower one.

5 So to respond to your question -- if there was to
6 be a leak from the reactor, and this would be highly unlikely
7 because it would have to melt through a six-inch steel reactor
8 vessel, then it would have to fall into the containment
9 building which has about a six-foot thick foundation mat.

10 So given that that happened, and it melted the
11 concrete, then it would enter the shell aquifer. From there
12 it would move in a southeast direction.

13 MRS. SLEBA: It would move southeast?

14 MR. GONZALES: Southeast. That is -- in the shallow
15 aquifer, it would move in a southeast direction towards the
16 bay. So if your wells are west of here, it is almost
17 impossible that you get any contamination.

18 MRS. SLEBA: Okay. Thank you, sir.

19 JUDGE O'CONNELL: For information to those that
20 came in late, this is a question and answer period. I think
21 quite a few folks have walked in since we started, and we are
22 asking the audience if they have any questions regarding the
23 operation, the safety or the environment connected with the
24 South Texas project.

25 Mr. Harrison, do you have a question?

1 MR. HARRISON: I am satisfied with the way it is
2 going.

3 JUDGE O'CONNELL: All right. Thank you, sir.

4 MR. KADAMBI: I would just like to take this pause
5 over here to respond to one point that Mr. Johnson had brought
6 up. I don't want the people over here to be left with the
7 impression that the NRC review does not consider the security
8 aspects of the plant.

9 The NRC staff review does include a detailed review
10 of security measures. All we are saying at this point is,
11 first of all, the review is not complete right now; and,
12 second of all, we do not take account of every conceivable
13 act of -- threat to security that someone might be able to
14 think about.

15 MR. PIRFO: Did you want to follow up on that, Mr.
16 Johnson, or does that address --

17 JUDGE O'CONNELL: Does anyone have a question?
18 There is bound to be some concern in someone's mind about
19 some questions relating to this plant. We hear various
20 conversations around, and people are wondering what is going
21 to happen this way and what is going to happen this way when
22 the plant opens, how it is going to affect the community and
23 the environment, the river -- all sorts of things.

24 And this is the time to ask it. These folks are
25 down here, and they are here as a team to answer any questions

1 that might come in your mind.

2 Mr. Johnson.

3 MR. JOHNSON: Well, I have one other question that
4 I would like to ask. I don't know whether this is the group
5 to put it to or not.

6 But after the passage of the Nuclear Waste Act which
7 was enacted after this first licensing process began, as I
8 understand, it allows storage of 1,900 metric tons of waste
9 on the generating plant site. Section 30 of it, I believe,
10 addresses interim storage which can go until 1990, I think.

11 I am not -- my memory is a little foggy on it, but
12 it goes a long time.

13 Since our governor and attorney general appears to
14 have this as a plank in their platform, he says we are not
15 going to put it out here in Hereford. We are not going to
16 put it in the state of Texas.

17 Does that mean that it will be left on the plant
18 site until somebody agrees to take the garbage, and is it
19 right that this waste from other plants in the same intercon-
20 nect can be stored there, and what is the percentage of the
21 participation of the federal government in erection this
22 interim storage?

23 MR. KNIGHTON: With respect to the eventual con-
24 struction of the interim and permanent disposal sites, that
25 is the responsibility, again, of the Department of Energy.

1 Where it is going to go, I haven't the slightest
2 idea. But they are, in fact, looking at several sites, and
3 it is -- there is requirements placed on them to complete
4 these facilities in a given time frame.

5 In the meantime, every licensee must have a signed
6 contract with the Department of Energy for eventual disposal
7 of high-level waste, which spent fuel is considered high-level
8 waste, before we can issue a license. So this -- yes. So
9 ahead.

10 MR. JOHNSON: The question I had pertained to the
11 construction of the interim storage. Under Section 30, interim
12 storage, the government participates in the cost of erecting
13 the storage on the plant site. I don't think it ever spells
14 out what the percentage of tax-payer's money goes into erecting
15 this storage on the plant site.

16 MR. KNIGHTON: I have to agree. If that is a fact,
17 I don't what the percentage is. I can't answer your question.

18 MR. JOHNSON: I wondered if there was any way you
19 could find this out.

20 MR. KNIGHTON: Well, I will tell you what; we have
21 your comment here, and we certainly will look at it with
22 respect to our environmental assessment.

23 JUDGE O'CONNELL: Yes, ma'am. Would you state your
24 name please?

25 MS. ALLEN: My name is Carol Allen. And what I

1 would like to say is I am hearing some comments, and I think
2 if the cameras were on everybody you would probably get more
3 questions. I think it is making you a little nervous.

4 I have some questions about the environment. My
5 husband was a retired military man, and I guess you are as
6 safe as any tanks that cross the streets. And nothing could
7 have scared you more than to be in a foreign country and
8 watch and hear some signals go off.

9 I want to say that I appreciate the fact that you
10 all are in the Bay City area because I feel like without
11 this plant being in the Bay City area, Bay City would not be
12 surviving right now.

13 I also feel like if anybody can send somebody to
14 the moon now-days as safe as it is, surely that with this
15 nuclear plant I am sure that these men in their studies will
16 do the best that they can to make sure it is safe.

17 I live southeast of the flow of where it is going to
18 go. Okay. But I would rather be near the plant than behind
19 a gasoline tank on the freeway.

20 And again, I want to say thank you for coming into
21 here. We lived in a country where the nuclear plant was built
22 in about four years, and, of course, there the nuclear plant
23 belonged to the government. I sort of wish the nuclear plant
24 belonged to the government over here so we could go ahead and
25 get it through with and lower our taxes.

1 Because, every time the people fight this, it is our
2 money and our taxes that are fighting the delay. So, you know,
3 we leave this to you, and I feel like it is as safe as anything
4 else. And I feel like that we need it. I also feel like we
5 need to use other country's resources and save our own until
6 which point in time we may need ours for our own defense.

7 Thank you.

8 JUDGE O'CONNELL: Thank you, ma'am.

9 (Applause)

10 JUDGE O'CONNELL: Are there other questions?

11 Mr. McWilliams,

12 MR. MCWILLIAMS: Perhaps this is premature, Judge,
13 but this has to do with operation. I think most of us are
14 well pleased with the construction progress and so on and
15 so forth.

16 Now, it is my understanding that the NRC prior to
17 Three Mile Island either did not monitor or did permit -- I
18 am not sure which -- subcontractors in terms of the operators
19 of whatever utility company was the managing partner of that
20 particular established or plant --

21 Conn-Edison, for example, up east, I understand,
22 had a number of subcontractor operators. I understand they
23 were not as well trained as they might have been -- maybe a
24 little lack of communication. Letting the right hand know
25 what the left hand was doing.

1 So I would well pleased -- perhaps there are others
2 here this evening who would also be well pleased and assured
3 it is operation -- I am assuming all the license thing --
4 all that goes -- what is the NRC position -- this, of course,
5 will be in terms of HL&P, the managing partner of this parti-
6 cular plant, on using contract laborers as operators?

7 I know they have had some modest training, but --
8 such as the Nukes in the Navy, for example. So that is my
9 question. Does NRC permit subcontractors not employed
10 directly by the utility company, who is designated the managing
11 partner? Is my question clear, sir?

12 MR. KADAMBI: Yes, it is. Thank you. Could you
13 state your name for the record?

14 MR. MCWILLIAMS: Reverend Milton McWilliams.

15 JUDGE O'CONNELL: Thank you, sir.

16 MR. KNIGHTON: Let me try to give you a little
17 summary of where we stand on the operator training. I do not
18 believe that we as an agency have any prohibition against
19 using contract personnel. We do, however, have to license
20 each and every one of them, and they must meet the current
21 standards that we have for operating personnel.

22 Post-TMI -- since TMI there had been a tremendous
23 amount of effort on the NRC's part to improve the operating
24 personnel -- their training -- to assure their training, to
25 provide good human engineering in designing the control rooms

1 and the instrumentation and controls so each of these indi-
2 viduals can readily perform whatever task is required.

3 And they require that these tasks be studied. We
4 monitor them. We watch them and make sure that the tasks
5 are certainly associated with the design of the control room.

6 In addition, the Commission has since TMI required
7 every plant we license have adequate number of people --
8 minimum of five shifts of operators. They must have their
9 training. They must have at least six-months hot operating
10 experience, not all cold operators.

11 There must be hot operating experience on each shift,
12 and we just won't license them anymore until they do.

13 We monitor the places where they send these operators
14 to train them prior to getting their license. We go, and we
15 check on what training they get. And we test them on their
16 training.

17 The point you raise is a good one, and we certainly
18 have put a tremendous amount of effort in that area. We
19 concern ourselves more today since TMI with the human and his
20 errors. So we do provide him considerable more training. We
21 look out for overtime -- that he doesn't have too much overtime
22 and is ill prepared to perform his tasks.

23 We concern ourselves with drug and alcohol abuse.
24 There is tremendous effort in that area. So I think my
25 answer to us is we feel that we have covered that particular

1 case -- that you shouldn't have that problem in the future.

2 MR. MCWILLIAMS: Thank you.

3 JUDGE O'CONNELL: Yes, ma'am. Would you come forward?
4 State your name please.

5 MS. BIRKNER: Okay. Sally Birkner.

6 JUDGE O'CONNELL: Sally Birkner, B-I-R-K-N-E-R,

7 MS. BIRKNER: Okay. A comment on the Johnson
8 question. The way I feel is that any attack on the plant or
9 anything that would happen to the plant safety-wise does
10 infect -- will infect our environment. That is just personal
11 opinion.

12 I would like to know -- I have been reading some
13 things that says that the crops within so many miles of the
14 plant will have to be checked. The livestock -- any milk
15 cows -- that the milk will have to be checked. And the
16 people -- I have heard that people will have to have certain
17 radiation checks and that this will be left up to the owner
18 of the crops.

19 I have heard that, like, the rice farmers within
20 so many mile radius will not be able to export their rice
21 without quality checks on the rice and things. I would like
22 to know if that is true.

23 MR. KADAMBI: Please tell me if I understand your
24 question correctly. I believe that your question has to do
25 with what are the measures that need to be taken subsequent

1 to an accident at the plant. Is that correct?

2 MS. BIRKNER: No. I am talking about in general.
3 My first comments was about -- that anything that would happen
4 to the plant is going to affect the environment. If there is
5 some sort of disaster out there, then the environment will be
6 affected. So safety does relate to your environment because --

7 MR. KADAMBI: Yes, certainly. That is the reason
8 why in the documentation of the environmental review we
9 specifically address the effects of accidents.

10 And not only that, we also address the measures
11 being taken to monitor the environment under normal operating
12 conditions. And this kind of monitoring which the NRC requires
13 from every licensee includes monitoring crops. Well, it may
14 not be specifically crops. Pardon me.

15 Correct me if I am wrong over here. But it does
16 require monitoring the water waste, for example, to determine
17 how much radioactivity is being put out into the environment.
18 It does include measuring the levels of radioactivity around
19 the plant sites to determine how much is being carried away
20 by the wind and deposited onto the ground.

21 And these kinds of monitoring is part of normal
22 operation.

23 MR. PIRFO: Let me follow up because I am not sure --
24 the way I heard the question is really in two parts. You
25 were saying that you are concerned about any kind of kamikaze

1 as Mr. Johnson said and maybe it wasn't -- well -- so that was
2 the first part of your question.

3 The second question really was in the event of a
4 radiological release what would be necessitated in terms of
5 checking on crops and livestock and various things like that.
6 So in a sense you had two questions. Is that true?

7 MS. BIRKNER: No, sir. My first part was a comment
8 strictly.

9 MR. PIRFO: Okay.

10 MS. BIRKNER: The second part is the question that I
11 have some reports --

12 MR. PIRFO: Okay. Let me address the first one first.

13 MS. BIRKNER: Okay.

14 MR. PIRFO: I think that maybe it wasn't clear
15 before, but there are NRC standards and things we can't go
16 into now providing for the security of the plant. And there
17 are -- we can't cover ever instance. I am not saying that
18 the case of a kamikaze attack could not, in fact, be repelled
19 by the plant, but everything is -- you know, there is limits
20 to everything. So there are provisions for that.

21 The second part of your question I misunderstood the
22 first time. So if you could just repeat that or give me an
23 idea.

24 MS. BIRKNER: I have -- and evidently I don't have
25 it with me right now. I thought I did -- reports that livestock

1 and crops within so many miles radius -- this is not an acci-
2 dent; this is every day when the plant is operating normally --
3 that they will have to have their livestock checked.

4 If you were to have milk cows there, before you
5 could take milk and sell it that the milk would have to be
6 checked -- have radiation checks done on it, and your rice and
7 whatever other kind of crops --

8 MR. PIRFO: I will have -- that sounds -- I will
9 have to turn to one of the technical people. I just --

10 MR. KNIGHTON: This, I believe, what you are referring
11 to is the fact that as we operate normally there is -- there
12 are some releases. And we, the NRC, do control those releases,
13 and we control the releases so they are not too great.

14 But in so doing, the applicant -- the licensee has
15 a monitoring program -- environmental monitoring program he
16 has to maintain. He does such things as check his releases
17 over the daily and monthly. He reports --

18 MS. BIRKNER: Daily or monthly?

19 MR. KNIGHTON: I don't know the exact details, but
20 they are periodic.

21 MS. BIRKNER: I have read that --

22 MR. KNIGHTON: They do have milk sampling. They
23 do it. We don't do it. They do it; that is part of their
24 responsibility. See, they are given the responsibility by
25 the NRC to provide information showing the fact that they are

1 not impacting your cows, your crops, and so on.

2 So that is usually in their monitoring programs. We
3 have --

4 MS. BIRKNER: They have to pay for it. The farmers
5 won't have to pay for it?

6 MR. KNIGHTON: They do it. Farmers do not pay for
7 it.

8 MS. BIRKNER: The rancher?

9 MR. KNIGHTON: That is correct.

10 MS. BIRKNER: The people?

11 MR. KNIGHTON: That is correct. On the normal
12 operating basis. That is part of --

13 MS. BIRKNER: If it was so safe, that wouldn't be
14 necessary, I don't believe.

15 MR. KNIGHTON: No. No. How do we make sure that
16 they are meeting the requirements we lay on them? The only
17 way we do that is by monitoring and them --

18 MS. BIRKNER: Well, I believe you need to.

19 MR. KNIGHTON: -- providing us the data to show it
20 to us.

21 MS. BIRKNER: Yes. I definitely want it monitored.

22 MR. KNIGHTON: Well, it is.

23 MS. BIRKNER: But -- and I have read that the
24 emissions will be monitored monthly. That is so to say that
25 you could go -- not you could. The plant could go, say, five

1 days without emitting a lot of gases or whatever, and then all
2 of a sudden -- boom -- they could let out however much they
3 wanted to.

4 MR. KNIGHTON: Okay. We might mention -- see, we
5 are talking right now -- we do have on the licensee what we
6 call technical specifications which they have to perform.
7 They have to operate the plant within those.

8 And these include limits that are set on release
9 points where they monitor. And they have actions take place
10 if they exceed those points. My friends over here from the
11 region, my resident, is there monitoring the results that they
12 post.

13 And if they violate these, there are actions taken
14 to correct that.

15 MR. PIRFO: See, if -- I can't explain how this
16 happens. But if there were a release at the plant, this would
17 be known immediately. And I will let somebody that knows what
18 they are talking about follow up on that.

19 MR. KNIGHTON: This is what I am trying to say.

20 MR. KADAMBI: That is right.

21 MR. CROSSMAN: Both gaseous effluent and liquid
22 are monitored -- monitor each sample before they are ever
23 released. They must be within regulatory requirements and
24 within their technical specification allowances before they
25 ever --

1 Are we still in service?

2 (Laughter)

3 MR. CROSSMAN: Okay. They must be sampled and must
4 be within limits before they are ever released. Once they
5 are determined to be releasable, they are monitored as they
6 are released also.

7 The regulations and the technical specifications are
8 very stringent in these areas. The follow-up sampling and
9 monitoring within the environmental boundaries that we -- where
10 the releases would go and so forth are included in milk
11 sampling, various samplings of the water and so forth.

12 And this is within our regulatory requirements.
13 The utility must conform to these particular limits, and they
14 are very stringent limits. There is -- they have practically --
15 well, they have every conceivable release that they can make
16 that they must monitor.

17 And they must be within these limits before they can.
18 Now, this is normal operation. Under accident conditions, we
19 have to go to an accident-based scenario. These gentlemen
20 over here have all studied these particular scenarios and are
21 better equipped to answer that than I am.

22 But the routine, every day releases are periodic
23 releases. I won't be trapped by routine, every day releases
24 because they are not necessarily every day. They can be
25 routine or periodic. Okay. Did --

1 MS. BIRKNER: Yes. That answers my question. We
2 all know what happened with Union Carbide, though. Somebody
3 forgot to release it, didn't they?

4 VOICE: Right.

5 JUDGE O'CONNELL: Thank you, ma'am. Are there other
6 questions? Mrs. Rosenthal.

7 MRS. ROSENTHAL: Yes. I understand that in France --

8 JUDGE O'CONNELL: We have to have you recorded,
9 Betty. State your name first.

10 MRS. ROSENTHAL: I am Betty Rosenthal, Bay City,
11 Texas. I understand that in France they have had nuclear
12 plants functioning for a very long time. I don't know of any
13 problems they have had with them.

14 How do ours differ in problems? It seems we have
15 been delayed, and the cost gets greater as we go along. And
16 obviously, the French are safe.

17 JUDGE O'CONNELL: Can anyone here speak on France's
18 nuclear system?

19 MRS. ROSENTHAL: Well, or is ours so much less?

20 JUDGE O'CONNELL: We have some experts up here.
21 Would you move right up here? We will give you a double shot
22 here.

23 MR. CROSSMAN: Okay. I won't go into a long dis-
24 sertation about how safe or unsafe the French facilities are.
25 But the United States has been in the business a considerable

1 length of time. Some of our first reactors, one particularly
2 that I can think of, was started in 1943 -- a whole series of
3 them which were production reactors and not power reactors
4 like we are looking at here.

5 Our old reactor technology, if you will -- the
6 reaction -- the particular group of reactors that we are
7 building now-days are very safe. The containment is approxi-
8 mately four feet thick on these reactors.

9 Mr. Johnson over there was talking about an aircraft
10 plowing into one, if you will, a kamikaze plane. He would
11 have to penetrate a four-foot thick reinforced concrete of
12 about 4,000 pound concrete plus its being post-tensioned, if
13 you will.

14 So the possibility of him going through that is
15 pretty remote.

16 So far as safety goes, we have taken scenarios
17 of accidents that alarm a lot of people because they are
18 extreme accidents. But in order to really make them safe,
19 you must take an extreme case and build it -- build a facility
20 to those extreme conditions or for those extreme requirements
21 in order to have an extremely safe reactor.

22 Do you follow me?

23 MS. ROSENTHAL: Yes, sir. The point I am trying
24 to make is I am surely concerned with safety. And the
25 European people have had wars on their continent with bombs

1 and many kinds of hazardous occurrences. And they are not
2 afraid of nuclear energy. They have been enjoying nuclear
3 energy at a lower cost than we because the cost continues to
4 proliferate while we wait and chat and worry.

5 MR. KADAMBI: Well, I think the thrust of your
6 question is basically a comparison between the European nuclear
7 program and the nuclear program we have in this country. Is
8 that correct?

9 MS. ROSENTHAL: Or rather the fact that they have
10 used it successfully, and meanwhile we are talking and worrying
11 and spending much more money. And having no results.

12 MR. KADAMBI: Well, I would like to point out that
13 today in this country nuclear power supplies enough electricity
14 to be the second most abundant source of electrical power. In
15 other words, next to coal, nuclear power is the main contri-
16 butor to the electrical power in the country.

17 So I think -- you know, we as a nation are using
18 nuclear power, but we as a nation have abundant resources
19 of coal which we have chosen to use.

20 Now, a country like France does not have the same
21 resource base and the alternative sources of energy. So they
22 have a much more ambitious nuclear power program. And as a
23 matter of fact, the reactors that they use are similar to the
24 reactor being constructed over here in the South Texas project
25 because their reactor design is based on the Westinghouse

1 reactor, and so is this one.

2 MR. CROSSMAN: I might add the French have come over
3 here to see some of our facilities.

4 VOICE: I think what the lady was trying to say
5 is Europe does not have any trouble with their nuclear plants.
6 Okay. Why can't we get on and build ours without any problems.

7 JUDGE O'CONNELL: Mayor Bell.

8 MR. BELL: I am Bill --

9 JUDGE O'CONNELL: The mayor of Bay City, Mayor Bell.

10 MR. BELL: Thank you. I think one thing you should
11 bring out is your visitors' center located at STP. I was out
12 there today for my first visit -- had a very good visit. They
13 answered -- almost all the questions that have been asked today
14 were answered for me today through a visit to the reactor
15 and down in the containment.

16 They explained to me that after Three Mile problems
17 that they have gone back and redesigned this unit out here
18 so that they have safeguards now that they didn't have at
19 Three Mile.

20 So I think if everyone would go out to South Texas
21 visitors' center, I think it would be a very enlightening visit
22 for them. That is all I have to say.

23 JUDGE O'CONNELL: Thank you, Mayor. Mr. Simon.
24 State your full name please.

25 MR. SIMON: All right, Maurice Simon. I am an

1 attorney here in Bay City. I have two strictly environmental
2 questions to post to the panel here.

3 I can remember some ten or twelve years ago when
4 this plant was in the process of being licensed to start
5 construction. There was quite a concern about the alligators
6 down there. If anybody else remembers that. Can anybody on
7 the panel -- has a head count been taken of the alligator
8 population down there on a recent basis?

9 JUDGE O'CONNELL: Mr. Simon's question was -- is
10 had anyone taken a current count of -- head count of the
11 alligators who reside on the South Texas project site?

12 MR. LAROCHE: The alligators are -- what is the
13 word I want?

14 (Laughter)

15 MR. LAROCHE: Are counted periodically and have
16 been since the CP stage. They now figure they have something
17 like 75 alligators out there. We saw three or four of them
18 today.

19 MR. BILLUPS: We saw 12 of them.

20 MR. LAROCHE: Twelve of them.

21 (Laughter)

22 JUDGE O'CONNELL: How many males and how many females?

23 MR. SIMON: Well, my question is how many did we
24 start with, and how many do we have today? Do you have any
25 idea?

1 JUDGE O'CONNELL: Maurice, I believe you are
2 asking a question that they can't answer.

3 MR. SIMON: Well, has it increased or decreased?

4 MR. LAROCHE: I don't remember any figure for the
5 original population. Do you remember?

6 MR. BILLUPS. There have been some relocations
7 of alligators during construction in order to protect the
8 alligators because --

9 (Laughter)

10 MR. BILLUPS: -- when you have a lot of heavy
11 equipment around and you have --

12 JUDGE O'CONNELL: Let me help answer the question.
13 We have a --

14 VOICE: Please use the mike.

15 JUDGE O'CONNELL: -- government trapper here in Matagorda
16 County. His name is Mr. J. C. (unintelligible), and I imagine
17 J. C. knows -- I think he works at the project part time, and
18 he will probably know more about the alligator population
19 than anyone here tonight. I can find out for you, Maurice.

20 MR. SIMON: All right. I sure would appreciate it,
21 Judge. I have one other question. I promised you two. Do --
22 is it within the knowledge of this panel -- what is the pro-
23 jected full force of permanent employment this plant will
24 generate for our county?

25 MR. BYKOSKI: The latest estimate we had was 1,334

1 permanent operating workers.

2 JUDGE O'CONNELL: Mr. Rosenthal. Stanley Rosenthal.

3 MR. ROSENTHAL: I was a little late so I wasn't
4 privileged for anything that took place prior to me getting
5 here or listening; however, I understand that this hearing is
6 to worry whether this environment would be safe from this
7 nuclear plant.

8 And there are -- it appears that we have people
9 going around the country trying to remove nuclear energy as
10 our main source of energy, which is ridiculous. Now, I have
11 been advocating nuclear energy since the early 50's. It is
12 the safest form of energy for generating electricity that man
13 has devised.

14 There have been no accidents. And due to the people
15 or their concern about the environment, 20 years ago they
16 didn't even know what those words were. Geologists and engi-
17 neers were using those words prior to the event of nuclear
18 energy.

19 Now, the point that I am getting at -- every time
20 they want to show a disaster, they try to show the bomb
21 exploding. There have been two bombs exploding: one in
22 Nagasaki and one at Hiroshima. If you have been there in the
23 last 15 or 20 years, you will find that those highlands of
24 Japan are green. There has been no permanent damage.

25 Now, I am not talking about the people that had

1 direct radiation from the bombs. They ran tests in the South
2 Pacific, and there is radiation. People have moved back after
3 a period of time, but those were direct bombs.

4 The radiation as I understand it that would be
5 released from this plant or any other nuclear plant is less
6 than being out in the sun for about five -- maybe ten minutes
7 whether it is in the Gulf Coast, Denver, Colorado, or any
8 other parts of the United States.

9 If we do not get rid of the constant fear, we will
10 become a third-rate nation because we need to run on energy.
11 Now, if we look at history, 1901 we had a blow-out called
12 Spindletop. If we had had all of these people of gloom, we
13 would have never had the great oil industry we had.

14 And they talk about the environmental being harmed
15 out there. At one time there was over a million barrels of
16 oil on the ground. You can go out to Spindletop. It is the
17 most lush growth you have ever seen.

18 Prior to that when the horseless carriage was
19 invented, it was such a way it was going to harm mankind that
20 when you ran into a city you had to have a man running in
21 front of this horseless carriage.

22 All of this is relating to the fact that we need
23 to have this nation get forward and get rid of these people
24 that only predict gloom and doom. You will never progress
25 if you do not take a chance.

1 And as far as the risks that are involved -- yes --
2 there are risks, but they are so minimal that the benefits will
3 overshadow those.

4 Now, I read in the newspaper that they were talking
5 about the tremendous loss of water from this lake that has
6 been set aside for the cooling of this plant. Has anyone
7 considered the evaporation? We are not losing as much water
8 as they are claiming from going into the subsurface and the
9 other aquifers.

10 But the loss of water will be greater from evapora-
11 tion.

12 And I think I have taken enough of this panel's time
13 to state my opinion. And I believe that the majority of the
14 people in this county feel that there are people trying to
15 prevent this plant and causing unavoidable delays and
16 unnecessary delays. Thank you.

17 JUDGE O'CONNELL: Thank you, Mr. Rosenthal. You
18 didn't have a question there, did you?

19 MR. ROSENTHAL: I had some, but I think I will keep
20 them to myself.

21 JUDGE O'CONNELL: Thank you. Questions? We have
22 a little thinking time. Anyone who has one. We have until
23 9:00 p.m. This meeting is live until 9:00 p.m. This is a
24 meeting. It is not a hearing now, Stanley. It is a meeting.

25 VOICE: What is the difference?

1 (Laughter)

2 JUDGE O'CONNELL: I have been told by this gentleman,
3 Mr. Knighton right here, that this is not a hearing; it is a
4 meeting. Mr. Mamoun. Mr. Nohad Mamoun. You spell that for --

5 MR. MAMOUN: Okay. It is N-O-H-A-D, M-A-M-O-U-N.

6 I have been -- some of my immediate family are nuclear
7 scientist, and I have been around nuclear talk for all my life.
8 I know a little about it, and some of the things I have
9 learned about nuclear energy and nuclear waste and nuclear
10 plants and so forth --

11 I have learned that those companies that construct
12 most nuclear plants -- they spend millions and millions of
13 dollars to come out with a plant that protects the environment,
14 that protects the ecological surrounding of the plant, and
15 all aspects that belongs to safety -- general safety of the
16 plant no matter what it is.

17 Millions of dollars are spent in very, extensive
18 detailed studies.

19 Now, let the lady panel and gentlemen panel here say
20 why this money is spent. I am sure this money is spent for
21 a worth cause to insure the safety of the public surrounding
22 the plant and to really insure that we have a safe and clean
23 environment as far as the vegetation, animation and population
24 above all.

25 So when I see somebody spending millions of dollars

1 in support of such a humongous project -- just for one aspect
2 of the project, man, I can't help but -- I have got to
3 applaud those people, and I have got to tell them, hey, I
4 appreciate you all for concerning my safety, my children's
5 safety and my land I am living in.

6 And I can't help but believe those people. I believe
7 in them. And the majority of us here believe in them. And
8 judging from the statement that nobody is asking anything, I
9 have the feeling that I am just talking myself of my person.
10 I have a feeling that the majority here agree that we need
11 the nuclear power in this town and this area.

12 We need it. Our survival depends on it. It is
13 clean. We feel it is clean. Like Mr. Rosenthal said, it has
14 its risks. Everything has its risks. I can walk down the
15 street; I can get killed by a car down here. But I can't
16 think about that.

17 I have got to prepare my mind and my conscious that
18 I have got to be careful to look out for the cars coming. I
19 have got to do that.

20 But we all need this power. We need the United
21 States of America today. And that is the cheapest power, I
22 believe, if it is not the cheapest. There is one thing it
23 is going to do for us; it is going to keep our electrical rate
24 down; it is not to be increased up. That is good for me.
25 Thank you.

1 JUDGE O'CONNELL: Thank you, Nohad. Mr. Mayfield.
2 All right. The mayor of Palacios is here, Mr. Leonard Lamar.
3 Do you have any questions, Leonard?

4 MR. LAMAR: No. Everything is fine.

5 (Pause)

6 MR. KINGTON: Judge Connelly [sic] asked me
7 earlier if I would make a statement about the emergency
8 planning aspects that we have to go through. It is not
9 associated with the environmental review, but it is, in fact,
10 associated with the eventual licensing of the plant.

11 And under our regulations, the applicant is required
12 to have very detailed plans of what could happen -- various
13 scenarios of what could happen in the plant -- accidents that
14 would happen, what procedures and actions they should take
15 to mitigate that accident, maintain it and to shut down the
16 reactor and maintain it in a cool and in a safe condition.

17 Obviously that also requires off-site emergency
18 planning. The off-site emergency planning is the responsi-
19 bility of FEMA, and it is the federal emergency management
20 group. We have to work with them. We have to have them
21 satisfactorily set up plans -- off-site plans, meaning working
22 with your people, the city here, the other cities around --
23 setting up emergency plans.

24 How are you going to take care of the situation if
25 and when it happens? This includes sirens or methodologies of

1 making everyone aware of what is going on. It also includes
2 what actions will be done, what medical facilities will be
3 available, how you will evacuate people if you feel it neces-
4 sary.

5 These plans must be tested. They are tested
6 including the state, local and plant personnel. They are done
7 within one year --

8 MR. CROSSMAN: Before licensing and then after
9 licensing also, and we carry on periodic --

10 MR. KNIGHTON: Each of those exercises are complete
11 exercises. They are evaluated and reported upon, and actions
12 have to be taken to take care of any deficiencies that could
13 happen.

14 The plants as a result of TMI have very significant
15 engineering support aspects which are now built into them,
16 having the proper people there at the right place to help them
17 take care of this accident. They have off-site facilities
18 which, again, make available for space communications and
19 information for state, local and other authorities that have
20 to be in on this particular episode.

21 So all of this is done. It is part of the cost that
22 someone was alluding to -- the cost of running a nuclear plant,
23 but they have to be done. You have to plan ahead. You can't
24 wait until you are in the middle of it as we were to some
25 extent at TMI.

1 And as a result of TMI, we learned a lot of lessons,
2 and those lessons have been fed back into the design and the
3 construction of this plant and the operation of it. It did
4 cost money; unfortunately, it did.

5 But it is there. It is a fact that you can be
6 protected, and these are lessons learned. I hope that helps
7 a little bit -- that there is a lot of effort goes into taking
8 care of that very low case that it is going to happen.

9 JUDGE O'CONNELL: Thank you, Mr. Knighton. I had
10 asked Mr. Knighton to expound on that particular subject
11 although it is not in the -- I don't guess under the umbrella
12 of this particular -- I started to say hearing, but this is
13 a meeting.

14 So we have the man that is responsible locally for
15 putting that emergency type planning, and he has been working
16 diligently on it for several year -- Mr. Norman Walker. I
17 see he is in the audience. Appreciate that, Norman.

18 Are there other questions? Any other people have
19 comments, Mr. Knighton?

20 MR. KNIGHTON: Do any of you all want to make
21 comments of any kind? Bill?

22 MR. CROSSMAN: In regard to emergency planning, as
23 Mr. Knighton was -- gave us a brief description of. The
24 facility has built as part of its construction an emergency
25 operating facility. You can see it just outside of the gate

1 on the east side.

2 The plant maintains a hot line, if you will, directly
3 to our emergency operating facility in Washington where there
4 is a duty officer on duty 24 hours a day. There are five
5 regions of regulating facilities. I am from Region IV in
6 Arlington, and we have under our surveillance the South Texas
7 project.

8 We have a hot line directly with our headquarters
9 group and are notified any time there is any semblance of
10 an emergency or an unusual event at the site. We keep very
11 close tabulation on operating facilities and are prepared at
12 any time to move in the event there is an emergency.

13 JUDGE O'CONNELL: Thank you. Does that cultivate
14 any questions in anyone's mind -- this last subject we are
15 talking about. That is the warning system around the plant.
16 You might -- of course, like I say, maybe that is not in the
17 business of this particular meeting to discuss those things.

18 But that is something that is on the minds of, I
19 am sure, of everyone that is in the room that lives within
20 close proximity of the plant. One lady there told me she
21 lived four miles from the plant, and I am sure there are
22 other people in that same vicinity.

23 Mr. Bobbick [phonetic], did you have a question?

24 MR. KADAMBI: I would like to suggest that if any
25 of you is kind of bothered by having to speak into a mike as

1 part of this meeting this evening, but if you still have
2 questions I would suggest that you can come up to us after
3 we have concluded the formal part of the meeting.

4 And we will be available to answer your questions.

5 JUDGE O'CONNELL: So if anyone has anything on
6 their mind relating to this -- if you have a hesitancy to
7 ask the question, then these folks will be available after
8 the conclusion of the formal part of the meeting.

9 Mr. O'Pella. Mr. O'Pella served many years on
10 the city council of Bay City and also as mayor. And state
11 your name again for the reporter, Mr. O'Pella.

12 MR. O'PELLA: My name is Ernest O'Pella, and I have
13 been a resident of Bay City since 1961. I would like to say
14 that the lack of question and that you are 45 minutes short
15 is indicative that the people in Matagorda County and also
16 the surrounding counties have full faith in the nuclear plant
17 that is being built out here in Matagorda County.

18 And the contractors are on the job now in the
19 engineering and that the job will be built in a safe -- in a
20 good manner, and this is needed.

21 JUDGE O'CONNELL: Thank you, Ernest.

22 (Pause)

23 MR. KADAMBI: Okay. We thank you very much for
24 everybody who has come out here and for your participation in
25 this evening's meeting.

1 JUDGE O'CONNELL: I would like to thank each of
2 you also. As I say, I wasn't any kind of an expert here. I
3 am just doing part of the talking here, but I want to stress
4 that these folks will talk to you individually if you have
5 a question on your mind and you don't care about being on
6 the record or whatever -- for any reason.

7 They are here available to you, and I appreciate
8 all of those that did come up and comment. And I thank the
9 people from the Nuclear Regulatory Commission.

10 (Whereupon, at 8:15 p.m., the meeting was concluded.)
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C E R T I F I C A T E

This is to certify that the attached proceedings
before U.S. Nuclear Regulatory Commission

In the Matter of:

Public Meeting Concerning Environmental Impact
Concerns for South Texas Units 1 & 2 License.

Date: May 2, 1985

Place: Bay City, TX

were had as therein appears, and that this is the original
transcript thereof for the files.

Cheryl Zedler

Official Reporter *gpr*