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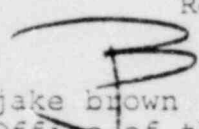
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June 10, 1981

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1. Transcript of: Discussion and Possible Vote on Full-Power License for Sequoyah-2, June 9, 1981. (1 copy)
 - a. Letter to Mr. H.G. Parris, Manager of Power, TVA from Darrell Eisenhut, Division of Licensing, NRR, undated, Docket No. 50-328. (1 copy)
 - b. Handout entitled: Sequoyah Unit No. 2, License Revisions. (1 copy)


jake brown
Office of the Secretary



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POOR QUALITY PAGES

NUCLEAR REGULATORY COMMISSION

ORIGINAL

COMMISSION MEETING

In the Matter of: DISCUSSION AND POSSIBLE VOTE ON FULL-POWER
LICENSE FOR SEQUOYAH-2
PUBLIC MEETING

DATE: June 9, 1981 PAGES: 1 - 19
AT: Washington, D. C.

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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

- - -

DISCUSSION AND POSSIBLE VOTE ON FULL-POWER
LICENSE FOR SEQUOYAH-2

- - -

PUBLIC MEETING

Nuclear Regulatory Commission
Room 1130
1717 H Street, N.W.
Washington, D.C.
Tuesday, June 9, 1981

The Commission met, pursuant to notice, at 2:15
p.m.

BEFORE:

JOSEPH M. HENDRIE, Chairman of the Commission
VICTOR GILINSKY, Commissioner
JOHN F. AHEARNE, Commissioner
PETER A. BRADFORD, Commissioner

1 ALSO PRESENT:

2 SAMUEL J. CHILK, Secretary

3 LEO SLAGGE, General Counsel's Office

4 CARL STAHL

5 BOB PURPLE

6 HAROLD DENTON

7 DON QUICK

8 ROGER MATTSON

9 ROBERT DEFAYETTE

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DISCLAIMER

This is an unofficial transcript of a meeting of the United States Nuclear Regulatory Commission held on June 9, 1981 in the Commission's offices at 1717 H Street, N. W., Washington, D. C. The meeting was open to public attendance and observation. This transcript has not been reviewed, corrected, or edited, and it may contain inaccuracies.

The transcript is intended solely for general informational purposes. As provided by 10 CFR 9.103, it is not part of the formal or informal record of decision of the matters discussed. Expressions of opinion in this transcript do not necessarily reflect final determinations or beliefs. No pleading or other paper may be filed with the Commission in any proceeding as the result of or addressed to any statement or argument contained herein, except as the Commission may authorize.

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P R O C E E D I N G S:

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CHAIRMAN HENDRIE: If we can come to order. The Commission meets this afternoon for discussion and, I hope, a vote on the operating license for Sequoyah Unit 2. We met last week and got this subject started.

7

Why don't I start out by asking the staff if they have anything to tell us in addition to what they have already said last week and if so, to please tell us and then let us turn to questions about license language or whatever other subjects may interest Commissioners.

12

MR. DENTON: Mr. Chairman, in connection with the budget I had an opportunity to look back at the Sequoyah exercise and have some numbers that might be of interest.

15

We spent 17 man years of reviewer time on Sequoyah-1 and 2 and had over a hundred individuals involved in the review; three national labs; ten other consultants, and we had a total of 13 meetings with the ACES or its subcommittees.

20

COMMISSIONER GILINSKY: This is the operating license?

22

MR. DENTON: For Sequoyah-1 and 2.

23

COMMISSIONER GILINSKY: And is that just the safety review?

25

MR. DENTON: Yes. What we have done today is

1 circulate a few pages that spell out changes we would
2 propose to make in the license for Sequoyah-2. These
3 changes reflect the guidance from the last meeting we had
4 with you, calls from some of your staff. They are attempts
5 to clarify those areas which were not clear last time.
6 There are a few areas we have extended - three or four areas
7 - the dates to the first refueling.

8 I do not think there has been any change of
9 substance from the license that we proposed the last time,
10 but these revisions do attempt to clarify those issues which
11 were troublesome previously, and we are prepared to discuss
12 any of these that are of special interest.

13 CHAIRMAN HENDRIE: Comments, questions?

14 COMMISSIONER AHEARNE: Well, I guess I would like
15 you to briefly review these changes you made.

16 MR. DENTON: Why don't I have the project manager
17 do that.

18 MR. STAHL: If you turn to the copy that I passed
19 out to you. What I have done is identify those revisions to
20 the license that you were reviewing last week, the items
21 identified as (16)E.

22 This is in addition to the words that are in your
23 license. We also identified here the fact that the need for
24 having an individual assigned from Unit 1, with prior
25 experience in the low power test program, should be

1 completed at some convenient time.

2 So, we have added this requirement that in essence
3 says, we will expect a report from TVA and our findings must
4 agree that there is an acceptable level of experience and
5 training, so that this item does not go on indefinitely as a
6 hardship to the TVA.

7 The second item identified as (16)I here is a
8 clarification.

9 The next three items, (16)N, O and P, simply add
10 the dates that were omitted in the last license, consistent
11 with the NUREG 0737.

12 The next items, (16)R and S, provide more
13 clarification than we had before, as well as hopefully clear
14 up the confusion.

15 COMMISSIONER AHEARNE: On (16)R, then, you are
16 firm that unlike what the SCR says, it can meet the 82 days.

17 MR. STAHL: Yes, sir.

18 COMMISSIONER AHEARNE: The SCR is not quite right
19 in that statement.

20 MR. STAHL: That's right. The SCR had some
21 confusion. The paragraph that you refer to was really TVA's
22 position - certainly not ours - and we tried to indicate
23 that, but not quite clearly.

24 MR. DENTON: I think it is fair to say, TVA would
25 like relaxation in a number of areas that they think are too

1 strenuous. We, in our rethinking of the problem, remembered
2 that 0737 was a relaxation of 0660 as a result of our
3 meeting with AIF. If we do not keep some of these dates
4 fairly firm, we will not ever get them in.

5 It may be that, as the dates come due, we may have
6 to provide a temporary relaxation or some compensating
7 means. I would propose to deal with those few examples if
8 they happen to occur.

9 COMMISSIONER AHEARNE: Fine.

10 CHAIRMAN HENDRIE: When you say under "Upgrade
11 emergency support facilities" that we will comply with the
12 guidance of 696, I thought we agreed to consider the TVA
13 emergency support facilities. They were outlined in their
14 plan, and whenever they came up here we had a briefing about
15 it. I thought we agreed to accept that with the provision
16 that they give us a plug-in trailer some place close to the
17 site.

18 MR. DENTON: I think that is what the Commission
19 did decide. Let me ask Mr. Van Niel what the specific
20 intent of this requirement was.

21 MR. DEFAYETTE: I am not Richard Van Niel, I am
22 Robert Defayette from the Emergency Preparedness Division.

23 On March 19th this year we sent a letter to TVA
24 with that position. We said, "We agree with the position
25 that you sent in before, however, here are some

1 conditions." We listed the conditions, some of which are
2 trailers.

3 To bring you up to date on that, we received a
4 response from TVA yesterday, proposing their eventual
5 concept, and we really have not had a chance to look at it
6 yet.

7 COMMISSIONER AHEARNE: I think Chairman Hendrie's
8 point is that what you can read this (16)P(3) as indicating,
9 that what you told TVA - which would track with what the
10 Commission decided - is no longer the case. Instead, TVA
11 must comply with 0696.

12 MR. DEFAYETTE: I think the wording on the paper
13 you are reading there is a little bit misleading, I agree on
14 that. We actually have granted some relief to the strict
15 criteria of 696; we have granted their concept.

16 MR. DENTON: Well, perhaps we ought to sharpen
17 that by going back to this letter, to be sure it reflects
18 the decision.

19 CHAIRMAN HENDRIE: Yes.

20 COMMISSIONER AHEARNE: It probably ought to.

21 CHAIRMAN HENDRIE: If this is the language which
22 would go into the license, then I just ask that you think
23 whether it in fact is what you mean.

24 COMMISSIONER AHEARNE: We could say, "As modified
25 by the letter of" - whatever the date was - "that you sent

1 the letter."

2 CHAIRMAN HENDRIE: If that is the appropriate
3 thing to say.

4 MR. STAHLER: On Item (4) we simply added the word
5 "interim" emergency support facilities. The "S" is
6 clarification.

7 Turning to page 3 of your handout, this is simply
8 a clarification of the understanding of what would be
9 included, but not necessarily limited to what would be in
10 the R&D program.

11 COMMISSIONER AHEARNE: Just asking a question
12 under Number (1) when you say and "Improved calculational
13 method," what do you have in mind?

14 MR. DENTON: There was that classic code which the
15 first time around did not include heat sinks. That is one
16 of the areas that we have been pushing to improve.

17 COMMISSIONER AHEARNE: I see Roger getting ready
18 to stand.

19 MR. MATTSON: Well, the revised calculational take
20 account for heat sinks and local temperature distributions
21 inside the containment rather than a conservative bulk
22 temperature for which one then calculates local temperatures.

23 COMMISSIONER AHEARNE: But you have in mind using
24 an improved version of classics.

25 MR. MATTSON: Yes. I believe that is due to be

1 submitted within a relatively short time. We are fairly up
2 to date on what they are doing and how it changes the
3 temperature, staying abreast of that, as we have told you on
4 a couple occasions, with regard to the interim rule.

5 COMMISSIONER AHEARNE: Thank you.

6 MR. STAHL: The next item, vents, previously the
7 July date of '82. TVA propose prior to startup after first
8 refueling. This is within the same time frame. I think
9 this is quite acceptable and we will make that change.

10 With regards to the non-TMI items identified, the
11 first one on masonry walls is new to the license. This is
12 to reflect the fact that the acceptability of masonry walls
13 was done on the basis of interim staff criteria, and
14 modifications may be necessary based on our final staff
15 criteria.

16 The next item on instrumentation and controls.
17 Simply, we had a date of 18 months. We have converted over,
18 based on TVA's request here, prior to startup after first
19 refueling; again within the same time frame as we had before.

20 Fire protection. On the ceiling panels we had
21 prior to acceding five percent of power. TVA's request
22 indicated because of procurement installation, September 1
23 is probably within a month or so of what would be the
24 anticipated date that they would reach the five-percent
25 power level. On that basis, that date of September is quite

1 acceptable to us.

2 MR. PURPLE: While we are on fire protection, not
3 highlighted on this handout, but it is included in the
4 revised license that was handed out on page 6. There are
5 some word changes there to accomodate, I believe, comments
6 since the last meeting.

7 The first item where it says, "TVA shall maintain
8 in effect and fully implement all provisions," the "maintain
9 in effect" is new from what was there last week.

10 COMMISSICNER BRADFORD: But it is the same as
11 McGuire?

12 MR. PURPLE: I can't answer that.

13 MR. STAHLE:" Yes, it is.

14 MR. DENTON: But we would propose to add (3)L.

15 MR. PURPLE: On Item "D" we would add Item (3)L
16 from the discussions this morning. It is not on the copy of
17 the license you have.

18 MR. STAHLE: That completes the list of the
19 revisions that we have made at this point.

20 COMMISSIONER AHEARNE: Again just a clarification
21 question. What is added by saying "maintain in effect" over
22 "fully implemented?"

23 MR. DENTON: I have to turn to the author of that,
24 if he is here.

25 COMMISSIONER AHEARNE: Author, author?

1 It was not a significant question.

2 COMMISSIONER BRADFORD: If I were advising TVA on
3 what the change meant, I think I would say that probably
4 while "fully implement" might cover it, "maintain in effect"
5 says not only will you do it at one point in time, but you
6 will also keep it that way.

7 COMMISSIONER AHEARNE: I would think "implement"
8 means that. It is a trivial question.

9 CHAIRMAN HENDRIE: Other questions, John?

10 COMMISSIONER AHEARNE: No.

11 CHAIRMAN HENDRIE: Peter?

12 COMMISSIONER BRADFORD: No.

13 CHAIRMAN HENDRIE: Vic?

14 COMMISSIONER GILINSKY: No.

15 CHAIRMAN HENDRIE: What do you recommend we do,
16 Harold?

17 MR. DENTON: We find that it satisfies regulations
18 for full power operation. They have a number of outstanding
19 issues to clean up before they could go very far in power.
20 Maybe IEE would like to just recount where that stands.

21 COMMISSIONER AHEARNE: That is the list?

22 MR. DENTON: Yes.

23 MR. QUICK: Basically, we were looking at this
24 list every day. We are receiving further information as far
25 as the completed packages are concerned on each of these

1 items each day. As the completed packages are received, we
2 are verifying that the modifications are complete and that
3 everything is in accordance with the requirements.

4 In most cases, or in all cases for the items prior
5 to fuel load, we have received the final reports on those
6 deficiencies that were identified.

7 As far as the pre-operational testing and so forth
8 is concerned, there are still some outstanding test results
9 to be submitted and evaluated. But we have no reason to
10 believe that there are any items on this list that TVA
11 cannot meet by the time frames indicated.

12 COMMISSIONER GILINKSY: Well, I for myself have a
13 feeling that they won't meet them. But given the large
14 number of items on that list and the fact that it will be
15 some time before they can get by the five-percent power
16 plant anyway, I would at this point go with a low power
17 approval.

18 MR. QUICK: I might point out that there are only
19 two items that exist on the list that are full power
20 conditions.

21 COMMISSIONER GILINSKY: I understand that, but I
22 guess I would like to hear about the resolution, at least
23 the bulk of the items on this list, before going farther.

24 COMMISSIONER AHEARNE: Well, I did not see
25 anything last week when we addressed it. I still do not see

1 any issues that are unusual in any way. So, I feel that we
2 could go ahead and authorize the full power.

3 CHAIRMAN HENDRIE: Peter?

4 COMMISSIONER BRADFORD: I have no reason to think
5 that we wouldn't and won't in fact authorize full power.
6 But I prefer the two-step process, even where - as here -
7 there does not seem to be any reason why we would not
8 authorize full power well before the September 1 date, by
9 which I think you would be able to use it.

10 So, I would join Victor in authorizing low power
11 at this time and would expect to authorize full power in any
12 case well in advance of the time it is needed.

13 CHAIRMAN HENDRIE: For myself, I don't find any
14 reason not to clear the decks and to authorize the director
15 of Reactor Regulation to issue a full power license when he
16 considers it appropriate to do so for the plant.

17 Since there are two votes for low power and two
18 votes for high power, we will not license the Sequoyah Plant
19 this asfternoon, or authorize the director to license it at
20 full power.

21 It remains, I guess, for John and me to consider
22 whether we are willing to go with a low power proposition in
23 this matter.

24 Now, how long is it going to take to resolve some
25 of these issues? Victor, are you in a position to enumerate

1 the ones which convince you that we ought not to clear this
2 matter from the Commission's table and leave it to the staff
3 to make the authorization at the appropriate time?

4 COMMISSIONER GILINSKY: I have not identified the
5 points in that way, but it does seem to me there is a fairly
6 large list and I would like to see it substantially reduced
7 before going farther.

8 I do not think this will impinge on the operation
9 of the plant or conduct of whatever tests remain to be
10 done. It seems to me the prudent thing to do.

11 COMMISSIONER BRADFORD: On their schedule, remind
12 me again, when had they planned to load fuel?

13 MR. QUICK: Sometime between June 16 and 20.

14 COMMISSIONER GILINSKY: With criticality about
15 when?

16 MR. QUICK: I don't have an accurate date for that
17 today, but I would expect that it would be probably the
18 first week in July, first or second week in July.

19 MR. STAHL: In their letter to us of yesterday,
20 TVA indicated they expected to be at five percent power by
21 15 July, assuming they had a license.

22 COMMISSIONER BRADFORD: But by the time they had
23 gone through the five-percent step, it would probably be
24 mid-August before they were ready to move beyond five
25 percent.

1 COMMISSIONER GILINSKY: Criticality comes well
2 before the five percent. I think we would be in a position
3 to move forward in such a way, assuming that all these
4 things --

5 COMMISSIONER AHEARNE: You are willing to
6 authorize five percent, is that correct?

7 COMMISSIONER GILINSKY: Yes.

8 COMMISSIONER AHEARNE: Which means that you are
9 willing to agree to all the items prior to fuel loading,
10 acceptable to resolution by the staff, and all the items
11 prior to initial criticality except for those staff
12 approved, which then leaves there only two items.

13 So, I guess what you are saying is that you are
14 unwilling to leave those two items.

15 COMMISSIONER GILINSKY: No, that isn't the point.
16 The point is, I would like to hear about the resolution of
17 these other items. I don't think we have to have a meeting
18 on it.

19 CHAIRMAN HENDRICK: But if you propose to go ahead
20 and authorize the fuel loading criticality and low power
21 operation which cannot take place until those items are
22 complete, you are apparently -- I don't know how to put it.
23 I guess you are not interested in all of those items for low
24 power purposes. Would that be a fair way to put it?

25 COMMISSIONER GILINSKY: No. For low power

1 purposes I am prepared to go forward on this basis, yes.

2 CHAIRMAN HENDRIE: Well, once the staff allows
3 them to put fuel into the machine, this list comes down to
4 -- what is it, John?

5 COMMISSIONER AHEARNE: Two items, once they get
6 criticality.

7 COMMISSIONER GILINSKY: well, it is a question of
8 how these matters are resolved, and I would like to hear
9 from it. I think it is a prudent and reasonable way for
10 this Commission to proceed.

11 CHAIRMAN HENDRIE: Well, I think I must say from
12 my side I think it is an irresponsible way for the
13 Commission to proceed, but individual Commissioners will
14 have to decide how they stand on the matter.

15 MR. QUICK: May I point out one thing here that
16 may help clarify the issue? We have received final reports
17 on 95 percent of these items that are on this list. The
18 only thing that remains to be done is some modification work
19 and verification that the modifications have been made in
20 accordance with the engineering design changes that were
21 authorized, for each one.

22 As of this time, we have no reason to believe that
23 there are any items on this list that we would not accept
24 the final resolution as proposed by TVA.

25 COMMISSIONER GILINSKY: Well, I don't have any

1 reason to think so, either.

2 COMMISSIONER BRADFORD: I am not taking issue with
3 anything that you all told us, and I am not for a minute
4 saying that I think those final two items are going to make
5 a big difference.

6 My point is that I think we have been pretty well
7 served by the low power-full power approach to licensing.
8 While in this particular case, taken alone, it might not
9 make a big difference if we did away with it and simply
10 authorized full power now, I think it makes sense to keep
11 that practice.

12 It is quite clear that it can be done in a way
13 that will not delay the startup with the plant at all. It
14 is the way that we have licensed the last four - plus maybe
15 McGuire - plants; plus, in all likelihood, McGuire plants
16 that we voted on this morning.

17 I just prefer that method. It has very little to
18 do with the specific aspects of this license.

19 MR. DENTON: I guess I would be hard pressed to
20 find on this list any really unique items. They seem to be
21 the types of items that were resolved on Unit 1.

22 COMMISSIONER BRADFORD: I am not disagreeing with
23 that, Harold. As I say, I am not saying that I think we
24 will be holding up the operation at all. We are clearly
25 prepared to authorize the fuel load and low power testing

1 before they need it, and full power, in all likelihood, well
2 before they need it.

3 CHAIRMAN HENDRIE: Further comments?

4 Well, the Commission is unable to agree and we
5 will simply have to take under further advisement the matter
6 of the Sequoyah operating license. When it appears that I
7 can reasonably schedule another meeting to take the matter
8 up, we will let you all know.

9 COMMISSIONER GILINSKY: Why do you hesitate to go
10 forward with the five percent?

11 CHAIRMAN HENDRIE: Because it seems to me
12 irresponsible for the Commission not to get on with the
13 licensing of this plant. It is getting very close to ready
14 to go. All but two of the items which would be required for
15 full power must in fact be resolved before fuel loading and
16 before low power operation.

17 COMMISSIONER GILINSKY: It seems to me it is the
18 opposite of irresponsible.

19 CHAIRMAN HENDRIE: I am unwilling to take the view
20 that the Commission has to sit upon each phase of the
21 operation of each of these plants in turn.

22 I think if you are willing to deal with the
23 Sequoyah license, that is fine. But I think in this case
24 the low power authorization simply is the wrong thing to do,
25 and it seems to me that we are going to have to consider

1 what we ought to do from here and how we ought to find a way
2 to resolve the current roadblock.

3 COMMISSIONER GILINSKY: Well, you are putting
4 yourself in the position of blocking further motion on this
5 plant.

6 CHAIRMAN HENDRIE: No, on the contrary. I am
7 putting myself in the position of saying that it is time for
8 this Commission to take a responsible action which the staff
9 recommends to it,; which logic calls for; for which there are
10 no very good reasons at all not to do it.

11 What I find is that your preference is to hold back
12 and to try to r aff out at this five-percent point. I do
13 not find it very useful in this case. I think it is
14 appropriate that we have some internal discussions about the
15 matter. I think before anything further can be laid out
16 here, we are going to have to have those discussions.

17 So, I see no purpose in continuing the meeting.
18 Thank you.

19 (Whereupon, at 2:40 p.m. the meeting of the
20 Commission was adjourned.)

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NUCLEAR REGULATORY COMMISSION

This is to certify that the attached proceedings before the
COMMISSION MEETING

in the matter of: Discussion and Possible Vote on Full-Power License
for Sequoyah-2

Date of Proceeding: June 9, 1981

Docket Number:

Place of Proceeding: Washington, D. C.

were held as herein appears, and that this is the original transcript
thereof for the file of the Commission.

M. E. Hansen

Official Reporter (Typed)

M.E. Hansen

Official Reporter (Signature)



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

Docket No. 50-328

Mr. H. G. Parris
Manager of Power
Tennessee Valley Authority
500A Chestnut Street Tower II
Chattanooga, Tennessee 37401

Dear Mr. Parris:

SUBJECT: SEQUOYAH NUCLEAR PLANT, UNIT 2 - ISSUANCE OF FACILITY OPERATING
LICENSE

The Nuclear Regulatory Commission has issued the enclosed Facility Operating License No. DPR-79 to the Tennessee Valley Authority for the Sequoyah Nuclear Plant, Unit 2, located in Hamilton County, Tennessee. License No. DPR-79 authorizes operation of the Sequoyah Nuclear Plant, Unit 2, at 100 percent power (3411 megawatts thermal) upon completion of certain related construction items.

Also enclosed is a copy of Supplement No. 5 to the Safety Evaluation Report, together with a related Federal Register notice which has been forwarded to the Office of the Federal Register for publication.

Two signed originals of Amendment No. 7 to Indemnity Agreement No. B-82 which covers the activities authorized under License No. DPR-79 are also enclosed. Please sign and return one copy to this office.

Sincerely,

Darrell G. Eisenhut, Director
Division of Licensing
Office of Nuclear Reactor Regulation

Enclosures:

1. Facility Operating License No. DPR-79
2. Federal Register Notice
3. SER Supplement 5
4. Amendment 7 to Indemnity Agreement B-82

cc w/enclosures:
See next page

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Hixson, Tennessee 37343

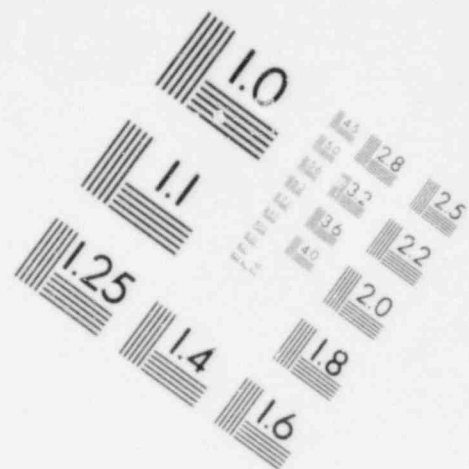
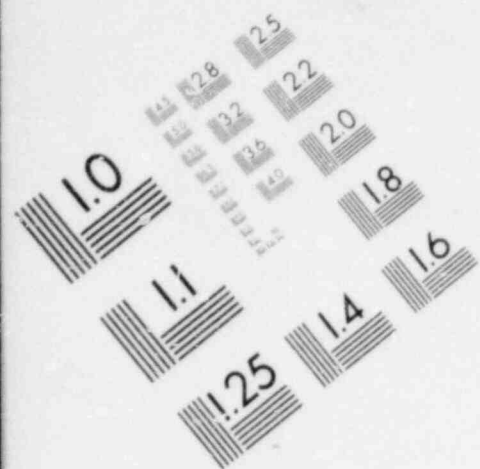
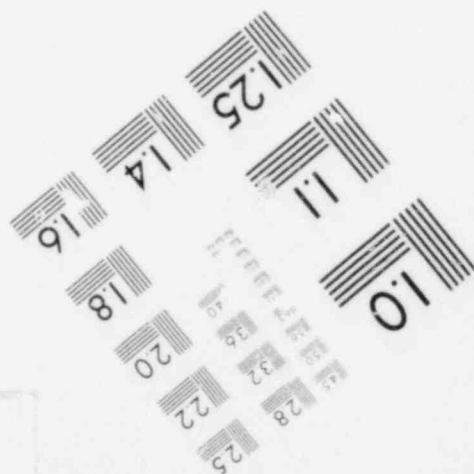
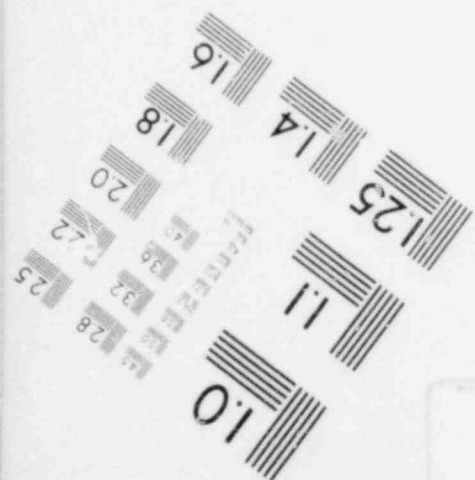
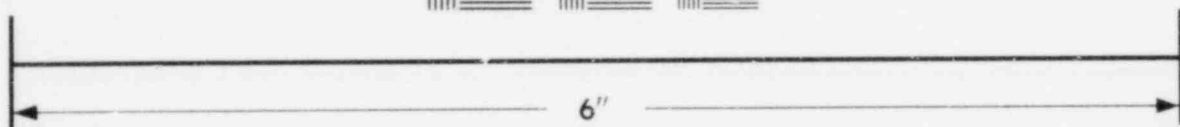
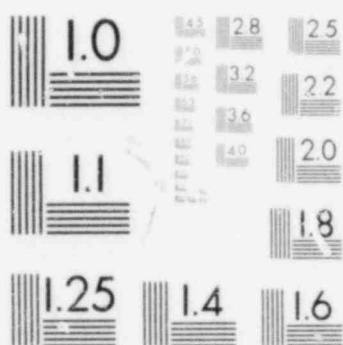


IMAGE EVALUATION
TEST TARGET (MT-3)



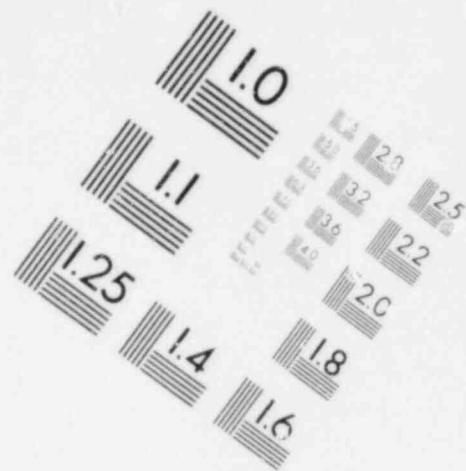
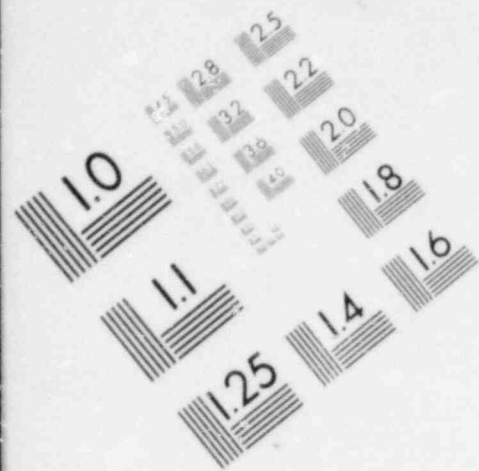
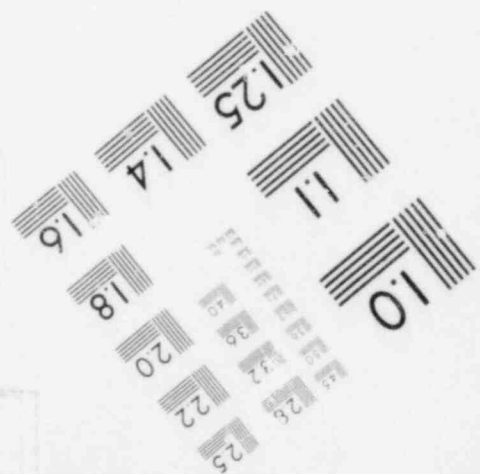
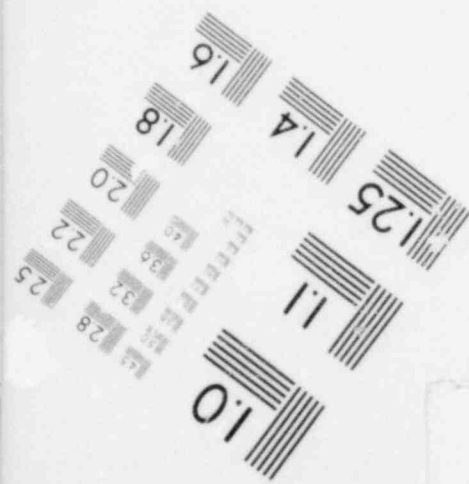
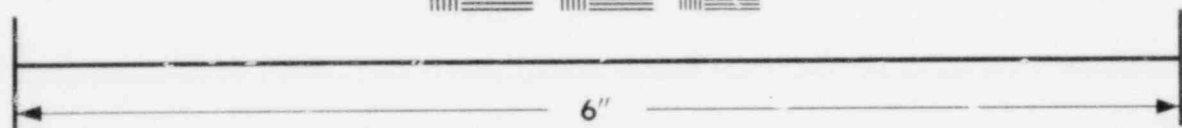
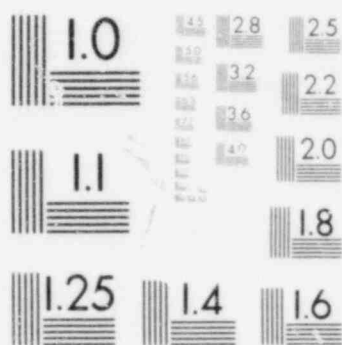


IMAGE EVALUATION
TEST TARGET (MT-3)



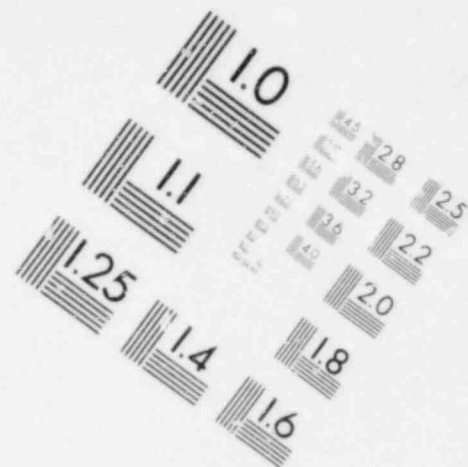
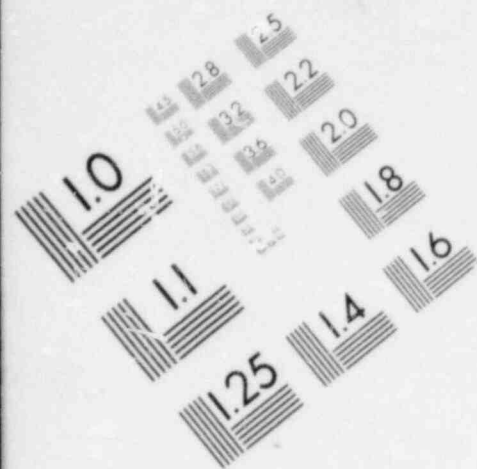
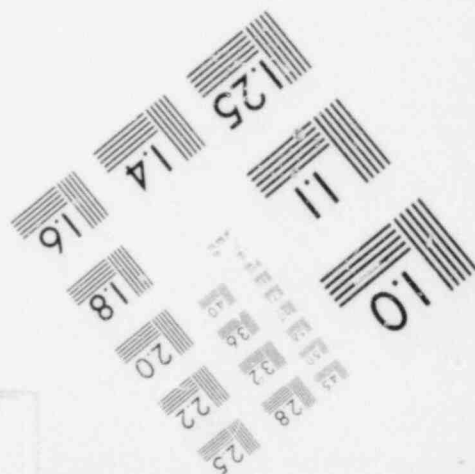
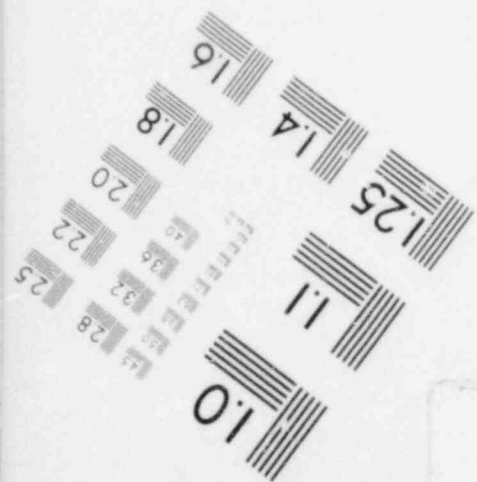
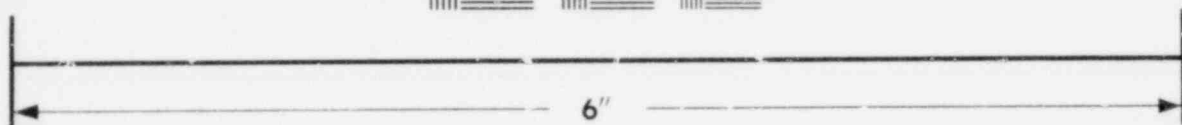
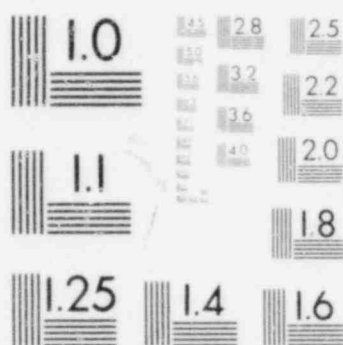


IMAGE EVALUATION
TEST TARGET (MT-3)





UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

TENNESSEE VALLEY AUTHORITY

DOCKET NO. 50-328

SEQUOYAH NUCLEAR PLANT, UNIT 2

FACILITY OPERATING LICENSE

License No. DPR-79

1. The Nuclear Regulatory Commission (the Commission) having found that:
 - A. The application for licenses filed by the Tennessee Valley Authority complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's regulations set forth in 10 CFR Chapter I, and all required notifications to other agencies or bodies have been duly made;
 - B. Construction of the Sequoyah Nuclear Plant, Unit 2 (the facility), has been substantially completed in conformity with Provisional Construction Permit No. CPPR-73 and the application, as amended, the provisions of the Act, and the regulations of the Commission;
 - C. The facility will operate in conformity with the application, as amended, the provisions of the Act, and the regulations of the Commission;
 - D. There is reasonable assurance: (i) that the activities authorized by this operating license can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the regulations of the Commission set forth in 10 CFR Chapter I;
 - E. The Tennessee Valley Authority is technically and financially qualified to engage in the activities authorized by this operating license in accordance with the Commission's regulations set forth in 10 CFR Chapter I;
 - F. The Tennessee Valley Authority has satisfied the applicable provisions of 10 CFR Part 140, "Financial Protection Requirements and Indemnity Agreements", of the Commission's regulations;
 - G. The issuance of this license will not be inimical to the common defense and security or to the health and safety of the public;

- H. After weighing the environmental, economic, technical, and other benefits of the facility against environmental and other costs and considering available alternatives, the issuance of Facility Operating License No. DPR-79, subject to the conditions for protection of the environment set forth herein, is in accordance with 10 CFR Part 50, Appendix D*, of the Commission's regulations and all applicable requirements have been satisfied; and
 - I. The receipt, possession, and use of source, byproduct, and special nuclear material as authorized by this license will be in accordance with the Commission's regulations in 10 CFR Parts 30, 40 and 70.
2. Pursuant to approval by the Nuclear Regulatory Commission at a meeting on June 9, 1981, Facility Operating License No. DPR-79 is hereby issued to the Tennessee Valley Authority to read as follows:
- A. This license applies to the Sequoyah Nuclear Plant, Unit 2, a pressurized water nuclear reactor and associated equipment (the facility), owned by the Tennessee Valley Authority. The facility is located in Hamilton County, Tennessee, about 9.5 miles northeast of Chattanooga, and is described in TVA's Final Safety Analysis Report as supplemented and amended, and the Final Environmental Statement prepared by the Tennessee Valley Authority.
 - B. Subject to the conditions and requirements incorporated herein, the Commission hereby licenses the Tennessee Valley Authority:
 - (1) Pursuant to Section 104(b) of the Act and 10 CFR Part 50, "Licensing of Production and Utilization Facilities", to possess, use, and operate the facility at the designated location in Hamilton County, Tennessee, in accordance with the procedures and limitations set forth in this license;
 - (2) Pursuant to the Act and 10 CFR Part 70, to receive, possess, and use at any time special nuclear material as reactor fuel, in accordance with the limitations for storage and amounts required for reactor operation, as described in the Final Safety Analysis Report, as supplemented and amended;
 - (3) Pursuant to the Act and 10 CFR Parts 30, 40, and 70, to receive, possess, and use at any time any byproduct, source and special nuclear material as sealed neutron sources for reactor startup, sealed sources for reactor instrumentation and radiation monitoring equipment calibration, and as fission detectors in amounts as required;

*See 10 CFR § 51.56

- d. Failure to complete any tests included in the described program (planned or scheduled for power levels up to the authorized power level).

(4) Monitoring Settlement Markers (Section 2.6.3)

TVA shall continue the monitoring of settlement markers along the ERCW conduit for the new ERCW intake structure for a period not less than three years from the date of this license. Any settlement greater than 0.5 inches that occurs during this period will be evaluated by TVA and a report on this matter will be submitted to the NRC.

(5) Design of Seismic Category Structures (Section 3.8)

Prior to startup following the first refueling, or as directed by the Commission, TVA shall evaluate all seismic Category I masonry walls to final staff criteria and implement required modifications that are indicated by that evaluation.

(6) Tornado Missiles (Section 3.5)

Prior to startup after the first refueling, TVA shall reconfirm to the satisfaction of the NRC that adequate tornado protection is provided for the 480 V transformer ventilation systems.

(7) Low Temperature Overpressure Protection (Section 5.2.2)

Prior to startup after the first refueling, TVA shall install an overpressure mitigation system which meets NRC requirements.

(8) Steam Generator Inspection (Section 5.3.1)

Prior to start-up after the first refueling, TVA must install inspection ports in each steam generator or have an acceptable alternative for inspection.

(9) Negative Pressure in the Auxiliary Building Secondary Containment Enclosure (ABSCE) (Section 6.2.3)

After the final ABSCE configuration is determined, TVA must demonstrate to the satisfaction of the NRC that a negative pressure of 0.25 inches of water gauge can be maintained in the spent fuel storage area and in the ESF pump room.

(10) Containment Isolation Systems (Section 6.2.4)

Prior to startup after the first refueling, TVA shall modify to the satisfaction of the NRC the one-inch chemical feed lines to the main and auxiliary feedwater lines for compliance with GDC 57.

- (4) Pursuant to the Act and 10 CFR Parts 30, 40, and 70, to receive, possess, and use in amounts as required any byproduct, source or special nuclear material without restriction to chemical or physical form, for sample analysis or instrument calibration or associated with radioactive apparatus or components; and
 - (5) Pursuant to the Act and 10 CFR Parts 30, 40, and 70, to possess, but not separate, such byproduct and special nuclear materials as may be produced by the operation of the facility.
- C. This license shall be deemed to contain and is subject to the conditions specified in the Commission's regulations set forth in 10 CFR Chapter I and is subject to all applicable provisions of the Act and to the rules, regulations, and orders of the Commission now or hereafter in effect; and is subject to the additional conditions specified or incorporated below:
- (1) Maximum Power Level

The Tennessee Valley Authority is authorized to operate the facility at reactor core power levels not in excess of 3411 megawatts thermal. Fuel loading and operation of the facility is subject to compliance with construction items listed in Attachment 1.
 - (2) Technical Specifications

The Technical Specifications contained in Appendices A and B attached hereto are hereby incorporated in this license. The Tennessee Valley Authority shall operate the facility in accordance with the Technical Specifications.
 - (3) Initial Test Program

The Tennessee Valley Authority shall conduct the post-fuel-loading initial test program (set forth in Section 14 of Tennessee Valley Authority's Final Safety Analysis Report, as amended), without making any major modifications of this program unless modifications have been identified and have received prior NRC approval. Major modifications are defined as:

 - a. Elimination of any test identified in Section 14 of TVA's Final Safety Analysis Report as amended as being essential;
 - b. Modification of test objectives, methods, or acceptance criteria for any test identified in Section 14 of TVA's Final Safety Analysis Report as amended as being essential;
 - c. Performance of any test at a power level different from that described in the program; and

(11) Environmental Qualification (Section 7.2.2)

- (a) No later than June 30, 1982, TVA shall be in compliance with the requirements of NUREG-0588, "Interim Staff Position on Environmental Qualification of Safety-Related Electrical Equipment," for safety-related equipment exposed to a harsh environment.
- (b) Complete and auditable records must be available and maintained at a central location which describe the environmental qualification method used for all safety-related electrical equipment in sufficient detail to document the degree of compliance with the DOR Guidelines or NUREG-0588. Such records should be updated and maintained current as equipment is replaced, further tested, or otherwise further qualified to document complete compliance by June 30, 1982.
- (c) Within 90 days of receipt of the equipment qualification safety evaluation, the licensee shall either (i) provide missing documentation identified in Sections 3 and 4 of the equipment qualification safety evaluation which will demonstrate compliance of the applicable equipment with NUREG-0588, or (ii) commit to corrective actions which will result in documentation of compliance of applicable equipment with NUREG-0588 no later than June 30, 1982.

(12) Requirements For Modification To Or Addition Of Instrumentation And Controls (7.3.2)

- (a) Prior to startup after first refueling, TVA shall have installed instrument downscale failure alarms for the effluent monitoring instrumentation channels for radioactive gaseous and radioactive liquid effluents. Also, appropriate modifications to procedures and Technical Specifications 3.3.3.9 and 3.3.3.10 shall have been completed.
- (b) Prior to startup after the first refueling, TVA shall have installed, demonstrated operable, proposed appropriate Technical Specifications, and received NRC approval for an additional level of over/undervoltage protection acceptable to the NRC staff. The level of protection from the effects of power transients on safety-related equipment provided by Part I of the staff's "Degraded Grid Voltage Position", or equivalent, is required.

(13) Diesel Generator Reliability (Section 8.3.1)

Prior to operation following the first refueling, TVA shall implement the following design and procedure modifications as outlined in Section 8.3.1 of SER Supplement No. 2. These include: (a) Moisture in Air Starting System; (b) Turbocharger Gear Drive Problem; and (c) Personnel Training.

(14) Fire Protection System (Section 9.5)

- a. TVA shall maintain in effect and fully implement all provisions of the approved fire protection plan and the NRC staff's Fire Protection Review in Supplements 1, 2 and 5 to the Sequoyah Safety Evaluation Report. By July 1981, TVA shall implement the following three items which deal with the ERCW supply: (a) enclose the necessary exposed conduit with a 1-1/2-hour fire barrier; (b) reroute train B ERCW pump and transformer power cables to obtain a minimum 20-foot separation from train A; and (c) enclose the ERCW junction box with a 1-1/2-hour fire barrier.
- b. After initial criticality of Unit 2 and prior to the completion of item (a) above, TVA shall provide:
 - 1) a continuous fire watch in the area of the ERCW junction box on elevation 690.0 of the auxiliary building.
 - 2) a roving fire watch in the area of conduits which exit the top of the junction box, pass through floor elevation 714.0, and terminate on floor elevation 734.0.
- c. TVA shall replace the control room ceiling panels with acceptable panels by September 1, 1981.
- d. By October 1, 1981, TVA shall submit a report that identifies and justifies differences between existing or proposed fire protection features and these features specified in Sections III.G, III.J, and III.O of Appendix R to 10 CFR Part 4. TVA shall implement any fire protection features found appropriate by the NRC on a schedule consistent with that required for other operating reactors.

(15) Mechanical and Hydraulic Snubbers

Prior to exceeding 5 percent power, TVA shall provide a listing of mechanical snubbers on safety-related systems. Functional testing of snubbers shall be carried out in accordance with the Technical Specifications.

(16) Compliance with Regulatory Guide 1.97

By June 30, 1981, TVA shall submit a proposal including a schedule for compliance with R.G. 1.97.

(17) NUREG-0737 Conditions (Section 22.2)

Each of the following conditions shall be completed to the satisfaction of the NRC by the times indicated:

a. Shift Technical Advisor (Section 22.2, I.A.1.1)

TVA shall continue to provide a fully-trained on-shift technical advisor to the shift supervisor.

b. Independent Safety Engineering Group (Section 22.2, I.B.1.2)

TVA shall continue to have an onsite Independent Safety Engineering Group.

c. Procedures for Verifying Correct Performance of Operating Activities (Section 22.2, I.C.6)

Procedures shall be available to verify the adequacy of the operating activities.

d. Control Room Design (Section 22.2, I.D.1)

Prior to start-up after first refueling of Unit 1, TVA shall complete the detailed Control Room Design Review. As part of this review, TVA shall consider benefits of installing data recording and logging equipment in the control room to correct the deficiencies associated with the trending of important parameters on strip chart recorders used in the control room. All corrective actions specified for Unit 1, shall be made on Unit 2.

e. Training During Low-Power Testing (Section 22.2, I.G.1)

Licensed operators shall complete simulator training for natural circulation conditions prior to exceeding 5 percent power level. One experienced operator trained on Unit 1 low power testing for natural circulation operation shall be assigned to each shift prior to exceeding 5 percent power level. Requirement remains in effect until TVA submits a report and NRC agrees with findings that an acceptable level of training and experience on Unit 2 has been attained.

f. Reactor Coolant System Vents (Section 22.2, II.B.1)

By July 1, 1982, TVA shall install reactor coolant system and reactor vessel head highpoint vents that are remotely operable from the control room.

g. Post Accident Sampling (Section 22.2, II.B.3)

By January 1, 1982, TVA shall complete corrective actions needed to provide the capability to promptly obtain and perform radioisotopic and chemical analyses of reactor coolant and containment atmosphere samples under degraded core conditions without excessive exposure.

h. Hydrogen Control Measures (Section 22.2, II.B.7)

- (1) For operation of the facility beyond January 31, 1982, the Commission must confirm that an adequate hydrogen control system for the plant is installed and will perform its intended function in a manner that provides adequate safety margins.
- (2) During the interim period of operation, TVA shall continue a research program on hydrogen control measures and the effects of hydrogen burns on safety functions and shall submit to the NRC quarterly reports on that research program.
 - (a) TVA shall amend its research program on hydrogen control measures to include, but not limited to, the following items:
 - 1) Improved calculational methods for containment temperature and ice condenser response to hydrogen combustion.
 - 2) Research to address the potential for local detonation.
 - 3) Confirmatory tests on selected equipment exposed to hydrogen burns.
 - 4) New calculations to predict differences between expected equipment temperature environments and containment temperatures.
 - 5) Evaluate and resolve any anomalous results occurring during the course of its ongoing test program.
 - (b) The results of these investigations will be provided to the staff for review in June 1981. A schedule for confirmatory tests beyond this date will be provided consistent with the requirement to meet the January 31, 1982 deadline, Section (16)h.(1) of the license.

i. Relief and Safety Valve Test Requirements (Section 22.2, II.D.1)

TVA is committed to conform to the results of the EPRI test program. Documentation for qualifying the reactor coolant system relief and safety valves under expected operating conditions for design basis transient accidents is to be completed by October 1981. Documentation on piping and supports is required by January 1982. Block valves are to be qualified by July 1982.

j. Auxiliary Feedwater (Section 22.2, II.E.1.1)

Prior to exceeding five percent power, auxiliary feedwater pump endurance tests will be completed and a report will be submitted to NRC within 30 days after all tests are completed.

k. Containment Radiation Dependability (Section 22.2, II.E.4.2)

l. Additional Accident Monitoring Instrumentation (Section 22.2, II.F.1)

By January 1, 1982, TVA shall install continuous indication in the control room of the following parameters:

- (1) Containment radiation monitors.
- (2) Noble gas effluent from each potential release point.

m. Instruments for Inadequate Core Cooling (Section 22.2, II.F.2)

- (1) TVA shall provide a reactor vessel water level instrumentation system by January 1, 1982.
- (2) TVA shall submit a proposal for upgrading the incore thermocouple system in June 1981. TVA shall upgrade the incore thermocouple system by January 1, 1982.

n. Voiding in Reactor Coolant System (Section 22.2, II.K.2.17)

TVA is participating in the Westinghouse owners group effort on this item and is committed to conform to the results of this effort. The analysis will be submitted by January 1, 1982.

o. Sequential Auxiliary Feedwater Flow Analysis (Section 22.2, II.K.2.19)

TVA is participating in the Westinghouse owners group effort on this item and is committed to conform to the results of this effort. The analysis will be submitted by July 1, 1982.

p. Calculations for Small-Break LOCAs (Section 22.2, II.K.3.30 and II.K.3.31)

TVA is participating in the Westinghouse owners group effort for this item and is committed to conform to the results of this effort. The analysis for model justification will be submitted by January 1, 1982.

TVA shall limit the purge valve openings to 50 degrees.

q. Upgrade Emergency Preparedness (Section 22.2, III.A.1.1)

TVA is required to have a prompt notification system installed and operational by July 1, 1981.

r. Upgrade Emergency Support Facilities (Section 22.2, III.A.1.2)

- (1) In accordance with the implementation schedule which the NRC will establish, TVA shall comply with the guidance of NUREG-0696, "Functional Criteria for Emergency Response Facilities."
- (2) TVA will provide a conceptual design of the emergency support facilities in June 1981.
- (3) TVA shall have in operation the upgraded emergency support facilities by October 1, 1982 that comply with the guidance of NUREG-0696.
- (4) TVA shall maintain interim emergency support facilities (Technical Support Center, Operations Support Center and the Emergency Operations Facility) until such time as the final facilities are complete.

s. Long-Term Emergency Preparedness (Section 22.2, III.A.2)

Additional implementation dates for the meteorological program are:

- (1) Prior to exceeding 5 percent power level of Unit 2, TVA will commit to providing for direct telephone access to the individual responsible for making off-site dose projections in the event of a radiological emergency.
- (2) Functional description of upgraded capabilities shall be provided by January 1, 1982. Installation of hardware and software shall be completed by July 1, 1982. Full operational capability is required by October 1, 1982.

t. Primary Coolant Outside Containment (Section 22.2, III.D.1.1)

Prior to exceeding 5 percent power level, TVA is required to submit the leak test results of Unit 2.

0. Exemptions from certain requirements of Appendices G, and J to 10 CFR Part 50 are described in the Office of Nuclear Reactor Regulation's Safety Evaluation Report, Supplements No. 1 and No. 5. These exemptions are authorized by law and will not endanger life or property or the common defense and security and are otherwise in the public interest. Therefore, these exemptions are

indicates that such activity may result in a significant adverse environmental impact that was not evaluated, or that is significantly greater than that evaluated in the Final Environmental Statement prepared by the Tennessee Valley Authority and the Environmental Impact Appraisal prepared by the Commission in May 1979, the Tennessee Valley Authority shall provide a written evaluation of such activities and obtain prior approval from the Director, Office of Nuclear Reactor Regulation.

- H. If TVA plans to remove or to make significant changes in the normal operation of equipment that controls the amount of radioactivity in effluents from the Sequoyah Nuclear Plant, the Commission shall be notified in writing regardless of whether the change affects the amount of radioactivity in the effluents.
- I. TVA shall report any violations of the requirements contained in Sections 2.C(3) through 2.C.(16), 2.E, 2.F, 2.G, and 2H of this license within 24 hours by telephone and confirmed by telegram, mailgram, or facsimile transmission to the Director of the Regional Office, or his designee, no later than the first working day following the violation with a written followup report within 14 days.
- J. TVA shall immediately notify the Commission of any accident at this facility which could result in an unplanned release of quantities of fission products in excess of allowable limits for normal operation established by the Commission.
- K. TVA shall have and maintain financial protection of such type and in such amounts as the Commission shall require in accordance with Section 170 of the Atomic Energy Act of 1954, as amended, to cover public liability claims.
- L. This license is effective as of the date of issuance and shall expire May 27, 2010.

FOR THE NUCLEAR REGULATORY COMMISSION

Harold R. Denton, Director
Office of Nuclear Reactor Regulation

Attachment:

- 1. Attachment 1
- 2. Appendices A and B Technical Specifications

Date of Issuance:

ATTACHMENT 1

CONSTRUCTION RELATED ITEMS TO BE COMPLETED

This attachment identifies certain items which must be completed to the satisfaction of the NRC Office of Inspection and Enforcement in accordance with the schedule listed below. Tennessee Valley Authority shall not proceed beyond the authorized events without prior written authorization from the Office of Inspection and Enforcement.

Prior to Fuel Loading

1. Complete a verification that preservice inspection data reveals no rejectable indications.
2. Complete all applicable preoperational testing, including the integrated test of the Engineered Safety Features Systems. As of May 22, 1981, three test procedures have not been started and twenty tests are in progress.
3. Evaluate adequacy of the hydrostatic test performed on safety-related systems and satisfactorily resolve deficiencies. (INF, 80-21-01, 80-21-02).
4. Determine that features not included in preoperational testing are appropriately tested. (UNR, 80-23-11).
5. Repair damaged fire barrier for pressurizer and steam generator instrumentation circuits. (UNR, 81-14-04).
6. Resolve construction deficiency NEB 8023, Boron Dilution. (LII, 81-02-07).
7. Resolve construction deficiency NCR 2398, Faulty Fillet Welds. (LII, 81-02-18).
8. Resolve construction deficiency SWP 8025, Fillet Weld Misspecification. (LII, 81-02-29).
9. Resolve construction deficiency NCR 2547, Reactor Vessel Field Welds. (LII, 81-20-06).
10. Fully implement security plan, in particular, consider the containment as a vital area and meet all requirements for alarming normally unoccupied vital areas. (Ref. 10 CFR §73.55(d)(7), §73.55(d)(8), §73.55(e)(1)).

Prior to Initial Criticality

1. Resolve construction deficiency EEB 8054, Failure of Generator to Supply Adequate Voltage to Safety-Related Boards. (LII, 81-02-37).
2. Resolve construction deficiency NEB 8013, Limit Switch Actuator for Masoneilan Air-Operated Valves. (LII, 81-20-05).

3. Resolve construction deficiency NEB 8110, Blown Fuse Alarm in Auxiliary Control Circuits. (LII, 81-20-09)
4. Resolve construction deficiency NEB 8122, Power Operated Relief Valve Operating Time. (LII, 81-20-19).
5. Resolve construction deficiency NCR 28P, Inadequate Cladding Thickness on the 28-B Centrifugal Charging Pump Casing. (LII, 81-02-21).
6. Complete applicable preoperational testing and resolve significant test deficiencies. As of May 22, 1981, seventeen test procedures have not been started and four tests are in progress.
7. Resolve IE Bulletin 79-14, Need for Seismic Reanalysis of As-built Safety-related Piping Systems.
8. Determine the repeatability of test W-6.2, UHI Preoperational Test, and conduct testing as necessary. (UNR, 80-23-08).
9. Verify adequacy of retest for adjusted Upper Head Injection flow control valves and perform further testing as necessary. (UNR, 80-23-09, 80-23-10).
10. Determine adequacy of specifications to ensure off-line sampling is effective for flushing. (UNR, 80-23-12).
11. Resolve construction deficiency CEB 79-19, Containment Piping Support Design Basis. (LII, 79-16-04).
12. Resolve construction deficiency CEB 79-36, Seismic Analysis of Upper Head Injection Piping. (LII, 79-35-06).
13. Resolve construction deficiency MEB 79-4, High Flow Alarm in Essential Raw Cooling Water Piping. (LII, 79-07-10).
14. Resolve construction deficiency CEB 8005, Valve Operator Weight. (LII, 80-09-04).
15. Resolve construction deficiency NCR 27P, SI Pump Breaker Lockout. (LII, 81-01-03).
16. Resolve construction deficiency NEB 8017, CBCS Centrifugal Charging Pumps. (LII, 81-02-06).
17. Resolve construction deficiency NEB 8026, Safety Injection Train B Flow Deficiency. (LII, 81-02-11).
18. Resolve construction deficiency SWP 8023, Seismic Analysis for As-Built Safety-Related Piping Systems. (LII, 81-02-25).

19. Resolve construction deficiency CEB 8037, 8101, Discrepancies in As-built Versus As-analyzed Piping Locations. (LII, 81-02-26).
20. Resolve construction deficiency CEB 8039, Non-conservative Loads on Pipe Support Design Modifications. (LII, 81-02-33).
21. Resolve construction deficiency NEB 8115, Possible Error in Safety Injection System Preoperational Test. (LII, 81-20-12).
22. Resolve construction deficiency SWP 8112, Spacial Separation for Conduit and Cable Trays. (LII, 81-20-15).
23. Resolve construction deficiency EEB 8111, relating to service rating for 460 Volt Motors. (LII, 81-20-21).
24. Resolve construction deficiency EEB 8115, 8034, Devised Voltage Requirements for 460 Volt Motors. (LII, 81-20-22, 81-02-17).
25. Resolve IE Bulletin 79-13, Cracking in Feedwater System Piping.
26. Resolve IE Bulletin 79-27, Loss of Non-class IE Instrumentation and Control Power System Bus.
27. Resolve IE Bulletin 80-05, Engineered Safety Features Reset Controls.
28. Resolve construction deficiency NEB 8123, Containment Hydrogen Analyzer, (LII, 81-20-20).
29. Evaluate correct inadequate circuit separation between the positive displacement charging pumps and charging pump A. (UNR, 81-14-02).
30. Evaluate/correct the lack of a provision for fire detection over the Essential Raw Cooling Water pumps. (UNR, 81-14-03).
31. Resolve IE Bulletin 81-02, Failure of Gate Valves to Close Against Differential Pressure.

Prior to Reaching Full Power

1. Resolve construction deficiency NEB 8035, Corrosion of Carbon Steel Piping. (LII, 81-02-35).
2. Resolve construction deficiency MEB 8006 R1, Excessive Pressure Drop Across Essential Raw Cooling Water Strainers. (LII, 81-20-07).

UNITED STATES NUCLEAR REGULATORY COMMISSION

DOCKET NO. 50-328

TENNESSEE VALLEY AUTHORITY

NOTICE OF ISSUANCE OF FACILITY OPERATING LICENSE

The U. S. Nuclear Regulatory Commission (the Commission) has issued Facility Operating License No. DPR-79, to Tennessee Valley Authority (licensee) which authorizes operation of the Sequoyah Nuclear Plant, Unit 2 (the facility), at reactor core power levels not in excess of 3411 megawatts thermal (100 percent power) in accordance with the provisions of the license and the Technical Specifications.

The Sequoyah Nuclear Plant, Unit 2, is a pressurized water nuclear reactor located at the licensee's site in Hamilton County, Tennessee, about 9.5 miles northeast of Chattanooga. The license is effective as of the date of issuance.

The application for the license complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's regulations. The Commission has made appropriate findings as required by the Act and the Commission's regulations in 10 CFR Chapter I, which are set forth in the license. Prior public notice of the overall action involving the proposed issuance of an operating license was published in the FEDERAL REGISTER on March 25, 1974 (39 FR 11131).

The Commission has determined that the issuance of this license will not result in any environmental impacts other than those evaluated in the Final Environmental Statement since the activity authorized by the license is encompassed by the overall action evaluated in the Final Environmental Statement.

For further details with respect to this action, see (1) Facility Operating License No. DPR-79, complete with Technical Specifications; (2) the reports of the Advisory Committee on Reactor Safeguards dated December 11, 1979, July 15, 1980, September 8, 1980, and January 31, 1981; (3) the Commission's Safety Evaluation Report (NUREG-0011) dated March 1979, Supplement No. 1 dated February 1980, Supplement No. 2 dated August, 1980, Supplement 3 dated September 1980, Supplement 4 dated January 1981, and Supplement 5 dated June 1981; (4) the Final Safety Analysis Report and amendments thereto; (5) the Final Environmental Statement prepared by Tennessee Valley Authority in July 1974; (6) the Commission's Environmental Impact Appraisal dated May 1979; (7) NRC Flood Plain Review of Sequoyah Nuclear Plant Site dated July 18, 1980; and (8) Discussion of the Environmental Effects of the Uranium Fuel Cycle dated September 3, 1980.

These items are available for public inspection at the Commission's Public Document Room, 1717 H Street, N. W., Washington, D. C., and the Chattanooga Hamilton County Bicentennial Library, 1001 Broad Street, Chattanooga, Tennessee 37402. A copy of Facility Operating License No. DPR-79 may be obtained upon request addressed to the U. S. Nuclear Regulatory Commission, Washington, D. C. 20555, Attention: Director, Division of Licensing. A copy of item (3) may be purchased at current rates from the National Technical Information Service, Department of Commerce, 5285 Port Royal Road, Springfield, Virginia 22161, and through the NRC GPO sales program by writing to U.S. Nuclear Regulatory Commission, Attention: Sales Manager, Washington, D. C. 20555. GPO deposit account holders can call 301-492-9530.

Dated at Bethesda, Maryland, this day of June, 1981.

FOR THE NUCLEAR REGULATORY COMMISSION

Elinor Adensam, Acting Chief
Licensing Branch No. 4
Division of Licensing

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SEQUOYAH UNIT NO. 2
LICENSE REVISIONS

TMI ITEMS

ITEM (16)e TRAINING DURING LOW-POWER TESTING

ADD: ONE EXPERIENCED OPERATOR TRAINED ON UNIT 1 LOW POWER TESTING FOR NATURAL CIRCULATION OPERATION SHALL BE ASSIGNED TO EACH SHIFT PRIOR TO EXCEEDING 5 PERCENT POWER LEVEL. THIS REQUIREMENT REMAINS IN EFFECT UNTIL TVA SUBMITS A REPORT AND NRC AGREES WITH FINDINGS THAT AN ACCEPTABLE LEVEL OF TRAINING AND EXPERIENCE ON UNIT 2 HAS BEEN ATTAINED.

ITEM(16)i RELIEF AND SAFETY VALVE TEST REQUIREMENTS

TVA IS COMMITTED TO CONFORM TO THE RESULTS OF THE EPRI TEST PROGRAM. DOCUMENTATION FOR QUALIFYING THE REACTOR COOLANT SYSTEM RELIEF AND SAFETY VALVES UNDER EXPECTED OPERATING CONDITIONS FOR DESIGN BASIS TRANSIENTS AND ACCIDENTS IS TO BE COMPLETED BY OCT. 1981. DOCUMENTATION ON PIPING AND SUPPORTS IS REQUESTED BY JANUARY 1982. BLOCK VALVES ARE TO BE QUALIFIED BY JULY 1982.

ITEM (16)n VOIDING IN REACTOR COOLANT SYSTEM

ADD: ANALYSIS WILL BE SUBMITTED BY JANUARY 1, 1982.

ITEM (16)o SEQUENTIAL AUXILIARY FEEDWATER FLOW ANALYSIS

ADD: ANALYSIS WILL BE SUBMITTED BY JULY 1, 1982.

ITEM (16)p CALCULATIONS FOR SMALL-BREAK LOCAs

ADD: ANALYSIS FOR MODEL JUSTIFICATION WILL BE SUBMITTED BY JANUARY 1, 1982.

ITEM (16)r UPGRADE EMERGENCY SUPPORT FACILITIES

(3) TVA SHALL HAVE IN OPERATION THE UPGRADED EMERGENCY SUPPORT FACILITIES BY OCTOBER 1, 1982, THAT COMPLY WITH THE GUIDANCE OF NUREG-0696.

ITEM (16)r UPGRADE EMERGENCY SUPPORT FACILITIES (CONTINUED)

- (4) TVA SHALL MAINTAIN INTERIM EMERGENCY SUPPORT FACILITIES (TECHNICAL SUPPORT CENTER, OPERATIONS SUPPORT CENTER AND EMERGENCY OPERATIONS FACILITY) UNTIL SUCH TIME AS THE FINAL FACILITIES ARE COMPLETE.

ITEM (16)s LONG-TERM EMERGENCY PREPAREDNESS

- (1) PRIOR TO EXCEEDING 5 PERCENT POWER LEVEL OF UNIT 2, TVA WILL COMMIT TO PROVIDING FOR DIRECT TELEPHONE ACCESS TO THE INDIVIDUAL RESPONSIBLE FOR MAKING OFF-SITE DOSE PROJECTIONS IN THE EVENT OF A RADIOLOGICAL EMERGENCY.
- (2) FUNCTIONAL DESCRIPTION OF UPGRADED CAPABILITIES SHALL BE PROVIDED BY JANUARY 1, 1982. INSTALLATION OF HARDWARE AND SOFTWARE SHALL BE COMPLETED BY JULY 1, 1982. FULL OPERATIONAL CAPABILITY IS REQUIRED BY OCTOBER 1, 1982.

ITEM (16)H(2)(A)

(A) TVA SHALL AMEND ITS RESEARCH PROGRAM ON HYDROGEN CONTROL MEASURES TO INCLUDE, BUT NOT LIMITED TO, THE FOLLOWING ITEMS:

- 1) IMPROVED CALCULATIONAL METHOD FOR CONTAINMENT TEMPERATURE AND ICE CONDENSER RESPONSE TO HYDROGEN COMBUSTION.
- 2) RESEARCH TO ADDRESS THE POTENTIAL FOR LOCAL DETONATION.
- 3) CONFIRMATORY TESTS ON SELECTED EQUIPMENT EXPOSED TO HYDROGEN BURNS.
- 4) NEW CALCULATIONS TO PREDICT DIFFERENCES BETWEEN EXPECTED EQUIPMENT TEMPERATURE ENVIRONMENTS AND CONTAINMENT TEMPERATURES.
- 5) EVALUATE AND RESOLVE ANY ANOMALOUS RESULTS OCCURRING DURING THE COURSE OF ITS ONGOING TEST PROGRAM.

* ITEM 2.C.(16)F REACTOR COOLANT SYSTEM VENTS

IMPLEMENTATION DATE WILL BE CHANGED FROM JULY 1982 TO PRIOR TO STARTUP AFTER FIRST REFUELING

SEQUOYAH UNIT NO. 2
LICENSE REVISIONS

NON-TMI ITEMS

DESIGN OF SEISMIC CATEGORY STRUCTURES (SECTION 3.8)

PRIOR TO STARTUP FOLLOWING THE FIRST REFUELING, OR AS DIRECTED BY THE COMMISSION, TVA SHALL EVALUATE ALL CATEGORY I MASONRY WALLS TO FINAL STAFF CRITERIA AND IMPLEMENT REQUIRED MODIFICATIONS THAT ARE INDICATED BY THAT EVALUATION (NEW ITEM)

*ITEM 2.C.(11) INSTRUMENTATION AND CONTROLS

- (A) PRIOR TO STARTUP AFTER FIRST REFUELING, TVA SHALL HAVE INSTALLED INSTRUMENT DOWNSCALE FAILURE ALARMS FOR THE EFFLUENT MONITORING INSTRUMENTATION CHANNELS FOR RADIOACTIVE GASEOUS AND RADIOACTIVE LIQUID EFFLUENTS.

*ITEM 2.C.(13) FIRE PROTECTION SYSTEM

- (C) TVA SHALL REPLACE THE CONTROL ROOM CEILING PANELS WITH ACCEPTABLE PANELS BY SEPTEMBER 1, 1981

*SCHEDULE CHANGES ACCEPTABLE TO STAFF (REFERENCE TVA LTR 06/08/81)

NOTE: (1) APPENDIX H EXEMPTION NOT REQUIRED