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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BROWNS FERRY UNIT 1 INFORMAL HEARING
(ON 2.206 PETITION) PER MGT. DIRECTIVE 8.11

Browns Ferry Nuclear Plant
Training Center
Shaw Rd. & Nuclear Plant Rd.
Athens, Alabama

Monday, October 26, 1998

The above-entitled hearing commenced, pursuant to
notice, at 1:00 p.m.

PARTICIPANTS:

- JOHN ZWOLINSKI
- ANN HARRIS
- DAVID LOCHBAUM
- JIM RICCIO
- CHRIS CHRISTENSEN
- FRED HEBDON

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1 PARTICIPANTS: [Continued]

2 AL DEAGAZIO

3 JON RUPERT

4 KARL SINGER

5 TIM ABNEY

6 EDWARD J. VIGLUICCI

7 MIKE MORRIS

8 MARK ROZINSKI

9 TERRY SCHLESSEL

10 JIM LITTLE

11 STEVEN STUTZ

12 CHARLES BOYD

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P R O C E E D I N G S

[1:00 p.m.]

1
2
3 MR. ZWOLINSKI: Good afternoon. My name is John,
4 Zwolinski. I am the Acting Director, Division of Reactor
5 Projects, Region I and II, Office of Nuclear Office
6 Regulation.

7 Our offices are located in Rockville, Maryland.
8 We also have offices in Atlanta, Georgia and we have
9 resident inspectors located on site.

10 We are meeting this afternoon to conduct an
11 informal hearing on the 10 CFR 2.206 petition submitted by
12 the Union of Concerned Scientists concerning the Browns
13 Ferry Nuclear Plant Unit 1. The purpose of this hearing is
14 to obtain additional information related to the UCS
15 petition. The petitioner, the licensee and the public will
16 be afforded an opportunity to speak.

17 The information provided today will be considered
18 by the NRC Staff in its evaluation of the petition.

19 I have been designated by the Director of the
20 Office of Nuclear Reactor Regulation to chair this meeting.
21 I apologize in advance for sometimes calling this a meeting
22 and at other times calling it an informal hearing. Our
23 procedures are very clear. It is an informal hearing.

24 This hearing is being transcribed to produce a
25 formal record for anyone that would like to review the

1 record. That record is also going to be made publicly
2 available as soon as possible.

3 At this time I would ask the NRC Staff to
4 introduce themselves, beginning on my left.

5 MR. HEBDON: Fred Hebdon from NRR Projects in
6 Washington.

7 MR. DeAGAZIO: Al DeAgazio, NRR Projects,
8 Washington.

9 MR. CHRISTENSEN: My name is Chris Christensen. I
10 am the Branch Chief, Division of Reactor Projects in Region
11 II, Atlanta.

12 MR. ZWOLINSKI: Thank you. If I could ask the
13 petitioners to introduce themselves, please.

14 MR. LOCHBAUM: I am David Lochbaum, Nuclear Safety
15 Engineer for the Union of Concerned Scientists.

16 MS. HARRIS: I am Ann Harris. I am the Director
17 of the Organization "We the People" in the state of
18 Tennessee and I am a member and spokesperson for the
19 National Nuclear Safety Network.

20 MR. ZWOLINSKI: Thank you.

21 MR. SINGER: I am Karl Singer. I am the Site Vice
22 President here at Browns Ferry.

23 To my right is Jon Rupert, our Chief Nuclear
24 Engineer. To my left is Tim Abney, our Site Licensing and
25 Industry Affairs Manager, and behind me, if you will



1 introduce yourselves --

2 MR. MORRIS: I am Mike Morris, Site Licensing.

3 MR. VIGLUICCI: Ed Vigluicci. I am with the
4 Office of General Counsel.

5 MR. ROZINSKI: Mark Rozinski, TVA Licensing

6 MR. SCHLESSEL: Terry Schlessel, Browns Ferry,
7 Maintenance and Modifications Manager.

8 MR. LITTLE: Jim Little. I am the Operations
9 Manager for Browns Ferry.

10 MR. ZWOLINSKI: Thank you. As a reminder I do
11 welcome all of you to this meeting and ask that you do
12 please sign in on the registration sheet located in the back
13 of the room this afternoon.

14 I would like to thank each of you in advance for
15 your willingness to participate in the Commission's
16 decision-making process.

17 Before we get started on the presentations, I
18 would like to provide some information on the 2.206 process,
19 a summary of the petition and an overview of today's
20 proceedings.

21 10 CFR 2.206 was established by the Commission to
22 provide a formal procedure that allows any person to file a
23 request to institute a proceeding to take enforcement action
24 against an NRC-regulated facility. The law requires that
25 the petition be submitted in writing. The petition must



1 request that a license be modified, suspended, or revoked,
2 or that other appropriate enforcement be taken and it must
3 provide sufficient facts that constitute the basis for
4 taking the particular action.

5 In addition, the 2.206 review process provides
6 under certain circumstances the opportunity for an informal
7 hearing.

8 With respect to the petition, on April 5th, 1998,
9 the Union of Concerned Scientists submitted a 2.206 petition
10 to the NRC. The petition requested that NRC revoke the
11 operating license for Browns Ferry Unit 1 and required TVA
12 to submit a decommissioning plan or layout plan for Browns
13 Ferry Nuclear Plant, Unit 1.

14 The petition from the Union of Concerned
15 Scientists was submitted because Unit 1 has been shut down
16 since March of 1985 and TVA has no announced plans for
17 restarting the unit. TVA refers to the unit as being "on
18 administrative hold." Because of the status of Unit 1, TVA
19 has not taken many of the actions requested of other holders
20 of facility operating licenses for a number of the NRC
21 Bulletins, Generic Letters, and Information Notices.

22 Instead, TVA has generally deferred the actions
23 until a decision is made to return the unit to service.

24 Furthermore, the UCS believes that the revocation
25 of the operating license and requiring licensing of TVA at a



1 later date is a better mechanism to follow in lieu of the
2 0350 restart process that the agency makes use of.

3 Further, UCS asserts that requiring a
4 decommissioning plan would provide assurance that irradiated
5 fuel is stored safely and that Unit 2 and 3 are sufficiently
6 independent of Unit 1 for safe operation.

7 The petition requested a public hearing on the
8 issues to be held in the Washington, D.C. area. The NRC has
9 granted the request for this hearing, but the hearing is
10 being held at Browns Ferry so that interested members of the
11 public from the plant locale will have the opportunity to
12 participate, thus the sign-up sheet in the back of the room.

13 I do want to keep this meeting on track and on
14 focus. The nature of the informal hearing is to address the
15 petition itself as submitted by UCS. The Staff is seeking
16 information and clarifying remarks on the petition and to
17 ultimately render a Director's decision.

18 Following the presentation by the petitioner and
19 the licensee, we will take a short break and then I will
20 work from the sign-up sheet to afford members of the public
21 opportunity to speak. With that as an abbreviated overview,
22 I would like to turn this over to Mr. Dave Lochbaum.

23 MR. LOCHBAUM: Thank you.

24 Good afternoon. My name is David Lochbaum. I
25 have been the Nuclear Safety Engineer for the Union of

1 Concerned Scientists for the past two years. Prior to
2 joining the UCS, I worked for over 17 years in the commercial
3 nuclear power industry. From January, 1980 until August of
4 1983 I worked for Tennessee Valley Authority as a Reactor
5 Engineer and Shift Technical Advisor here at Browns Ferry.

6 When I left, all three units were running and all
7 six cooling towers were available. I have read that since
8 then one of the units has been shut down and two of the
9 cooling towers burned down.

10 Because of the big fire that occurred in March of
11 1975, before I arrived, and the shutdown occurred after I
12 left, I seem to have been here for Browns Ferry's golden
13 years.

14 I am very pleased to have Ann Harris with me
15 today. Ann directs "We the People of Tennessee," the
16 Southern chapter of a prominent national organization that
17 supports nuclear workers who have raised safety concerns.
18 Ann is also a spokesperson for the National Nuclear Safety
19 Network, a coalition of nuclear workers who have raised
20 safety concerns and also it includes safety advocates.

21 Ann is also a former TVA employee. Ann worked for
22 14 years at the Watts Bar Nuclear Plant in jobs such as
23 electrical engineering assistant unit supervisor, training
24 specialist, and peer reviewer for safety issues handled by
25 the employee concerns program.

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1 I will provide the first portion of today's
2 presentation and then Ann will step in, hopefully before you
3 tire of hearing my voice, and then I will return for a few
4 closing remarks. There are some presentation packages on
5 the back table. I didn't make enough for everybody. I
6 didn't expect such a large turnout, but I will be speaking
7 basically from the slides that are included in that package.

8 We are here today to explain why UCS petitioned
9 the NRC to revoke the operating license for Browns Ferry
10 Unit 1. TVA voluntarily shut down Unit 1 in March of 1985
11 and has considered it to be on "administrative hold" since
12 June of 1985. In January of this year I sent an E-mail
13 message to the NRC Public Affairs Office asking if TVA was
14 paying the NRC a full license fee for Unit 1. By law the
15 NRC must collect virtually its entire budget from licensee
16 fees. An owner of an operating nuclear power plant must pay
17 the NRC nearly \$3 million a year for this privilege. Owners
18 of plants that have been permanently shut down do not have
19 to pay anything. I simply wanted to know whether the NRC
20 was handling a plant with an operating license that's not
21 using it the same as it handles operating plants.

22 The NRC Project Manager for Browns Ferry responded
23 to my inquiry with a letter indicating that TVA did pay full
24 fare for Unit 1. He also told me that Unit 1 was inspected,
25 "inspected by NRC inspectors as is any other operating



1 nuclear power station."

2 . . . If the response I received to my question had
3 simply answered the question about the fees, the matter
4 would have been closed from our standpoint, but we had
5 information showing that NRC inspectors do not inspect Unit
6 1 like every other nuclear power plant. In fact, we had
7 information showing that NRC inspectors do not look at
8 Browns Ferry Unit 1 at all.

9 I spent some time in the NRC's public document
10 room and discovered that NRC inspectors could not
11 meaningfully inspect Browns Ferry Nuclear Unit 1 because the
12 NRC's regulations contain only two categories of power
13 plants, operating plants and permanently closed plants. The
14 NRC has no regulations covering "administrative hold"
15 plants.

16 Since Unit 1 does not conform to the regulations
17 for an operating plant, UCS submitted a petition in April
18 asking that its operating license be revoked. Our request,
19 if it was granted, would compel TVA to place Unit 1 into the
20 permanently closed category and conform to the regulations
21 that apply for that category.

22 In August of this year, the NRC granted our
23 request for an informal hearing for our petition and so here
24 we are today.

25 Why did TVA shut down Unit 1 in March of 1985?



1 I'll let TVA answer this one. Under oath TVA informed the
2 NRC in February of 1997 that, "TVA identified a failure at
3 Browns Ferry Nuclear Plant to consistently maintain and
4 document design basis and to control the plant's
5 configuration in accordance with that basis." In plainer
6 English, that meant problems like the drawings used to
7 operate the plant had components shown on them that didn't
8 exist out in the field, and conversely, there were things in
9 stalled in the plant that didn't show up in the drawings.

10 As you can imagine, guessing is not the safest way
11 to operate a nuclear power plant, so TVA elected to shut
12 down all three units of Browns Ferry in March of 1985 and
13 fix things. Units 2 and 3 restarted years later, after all
14 of these corrections had been made.

15 1985 was a long time ago. To help you pinpoint
16 that moment in time, Slide 4 indicates some things that
17 happened that year. Ronald Reagan began his second term as
18 President. Pop singer Billy Joel married supermodel
19 Christie Brinkley. A team led by Robert Ballard found the
20 wreck of the Titanic off the coast of Newfoundland, and
21 "Back to the Future," the original, not the two sequels, was
22 the top grossing film that year.

23 1985 was a long time ago. In the 13 years since
24 then, the NRC has issued nearly 1300 generic communications
25 to licensees. That is about 100 documents each and every



1 year. Not all of these documents apply to Unit 1 but many
2 of them do. NRC Bulletins and Generic Letters typically
3 require the licensees to analyze, inspect, verify and/or
4 test something. NRC Information Notices typically warn the
5 licensees about some problem encountered at a facility so
6 that they can fix similar problems if they exist in their
7 own plants.

8 How did TVA respond to all this NRC
9 correspondence? To be perfectly frank, I didn't review each
10 and every TVA response to those 1300 documents. Of the
11 dozen or so that I did check, TVA's response in every single
12 case was something like, quote, "Unit 1 is shut down,
13 defueled and under administrative hold. The conditions
14 described by this generic letter will be addressed prior to
15 its return to service."

16 In other words, TVA said "not now, later."

17 In addition, in those last 13 years the NRC has
18 introduced new regulations, revised many other regulations
19 and specified numerous requirements for its licensees. For
20 example, in October of 1996 the NRC sent a letter to every
21 nuclear plant owner except Millstone requesting them to
22 review the adequacy, availability, and control of design
23 basis information at their plants.

24 As you recall, TVA told the NRC that it shut down
25 Browns Ferry Unit 1 in March of 1985 due to design basis



1 control problems. I trust you will believe me when I say
2 that it is highly unlikely that the design basis control
3 problems which were serious enough to shut down the plant
4 have not been magically healed during the 13 years
5 administrative hold.

6 In any event, TVA responded to the NRC's request
7 by saying, quote; "In accordance with TVA's prior
8 commitments, TVA will implement the design basis
9 verification project on Unit 1 prior to its return to
10 service."

11 In other words, TVA will perform the extensive
12 reviews, inspections, and tests required to restart Units 2
13 and 3 at some future date. Once again they said "not now,
14 later."

15 As another example the NRC's maintenance rule went
16 into effect in July of 1996 or at least it went into effect
17 for all operating nuclear plants except Browns Ferry Unit 1.
18 In an inspection report dated May 21st, 1997, the NRC
19 identified a problem with the maintenance rule for Unit 1.
20 There was a public meeting scheduled at the NRC's
21 Headquarters this summer to discuss that problem. I had
22 planned to attend that meeting, but it was cancelled and has
23 not been rescheduled. Once again they said, "not now,
24 later."

25 The reason I am interested in that particular NRC



1 inspection finding is because I received an anonymous
2 package in the mail, right here, from somebody I don't know
3 suggesting I review this inspection report. On September
4 3rd, 1998, shortly after I received this package, I
5 requested the material under the Freedom of Information Act,
6 only to get an unprecedented run-around from the NRC. The
7 Freedom of Information Act specifies a 30-day response time.
8 As of today it's been 53 days but I have not yet received
9 the documents, so TVA is not the only Federal agency saying,
10 "not now, later."

11 In our considered opinion TVA's recurrent "not
12 now" theme disqualifies Unit 1 from an operating license.
13 Unit 1 began commercial operation in August of 1974. It
14 shut down nearly 11 years later. It has been on
15 administrative hold longer than it operated.

16 Operating nuclear plants get inspected by the NRC.
17 According to data obtained from the NRC, Browns Ferry Unit 1
18 received a grand total of zero inspection hours by NRC
19 Headquarters and Regional staff between October 1st, 1995
20 and September 30th, 1996. That data is contained in Figure
21 1 of the presentation package.

22 Please note that this is a breakdown of inspection
23 of individual plants, not multiple unit sites. The other
24 sites with three operating plants, Oconee and Palo Verde,
25 have all three power plants listed on Figure 1. Browns



1 Ferry Unit 2 is on the list with 4100 hours. Browns Ferry
2 Unit 3 is on the list with about 8900 hours. Browns Ferry
3 Unit 1 is not. Mere oversight? I don't think so.

4 If you look at Figure 2, it's again more data
5 obtained from the Nuclear Regulatory Commission. The NRC
6 classifies Browns Ferry as a two unit site or dual unit site
7 in their terminology. It reports a grand total of about
8 13,000 inspection hours by NRC Headquarters and Regional
9 Staff between October 1st, 1995 and September 30th, 1996.
10 I'll point out the inspection hours for Browns Ferry Units 2
11 and 3 from the previous figure add up about 13,000. Once
12 again, nothing is left over for Unit 1.

13 Remember that the NRC Project Manager for Browns
14 Ferry told me in writing that Unit 1 was, quote, "Inspected
15 by NRC inspectors as is any other nuclear power station."

16 The NRC data is contradictory so I have asked the
17 NRC Inspector General to investigate. I spoke with the
18 Assistant Inspector General just last week on the results of
19 their investigation which is now complete, and he said that
20 our understanding is correct and the NRC statement is
21 incorrect, though not intentionally incorrect, it is
22 incorrect nonetheless.

23 Slide 7 -- Why didn't the NRC inspectors spend any
24 time looking at Unit 1? I don't know. In some ways I am
25 glad that they didn't because it would have been a waste of



1 their time and somebody's money. Unit 1 is frozen in its
2 1985 noncompliance state. TVA shut the plant down in 1985
3 because it had design basis control problems. Since that
4 time the number of problems could only have grown because
5 TVA is not fixing any of the problems and more problems were
6 created as the NRC issued new regulations and new
7 requirements.

8 So what would the NRC inspectors have evaluated
9 Unit 1 against? The plant is at least 13 years behind
10 today's regulatory requirements. Would the NRC inspectors
11 evaluate Unit 1 against 1985 standards, today's standards or
12 some hodge-podge mixture? The answer is simple. The NRC
13 cannot conduct inspections at a plant frozen in 1985 time.

14 I think it is important to review the process used
15 by the NRC when it issues an operating license to a plant in
16 the first place. The NRC reviews the safety analyses
17 prepared by the plant owner. It conducts inspections of the
18 facility to make sure that things match. The NRC issues an
19 operating license when and only when it makes two
20 determinations -- first, that it has reasonable assurance
21 that the facility was designed and built in accordance with
22 applicable Federal safety regulations, and second, that it
23 has reasonable assurance that the facility will be operated
24 and maintained in accordance with those regulations.

25 Those are the top two criteria for getting an



1 operating licence. Everything else, the number of safety
2 pumps, the quality assurance program, et cetera, are only
3 discrete components of these two upper tier criteria.

4 It seems reasonable to us that if these are the
5 central criteria for getting an operating license, then they
6 are also the essential criteria for keeping that license.
7 As we have learned, TVA voluntarily shut down Unit 1 in
8 March, 1985 because of design basis control problems. The
9 Federal safety regulations, specifically Appendix B to 10
10 CFR Part 50, requires plant owners to maintain adequate
11 control of the design basis. TVA actions and words
12 implicitly state that they failed to comply with this
13 regulation.

14 Unit 1 was not in compliance in March of 1985 and
15 it has drifted even further away since then. Therefore, no
16 reasonable person can conclude that Unit 1 satisfies the
17 second of the NRC's two criteria for an operating license.
18 Thus, TVA does not have a legal right to retain an operating
19 license for Unit 1.

20 Let's now look at the criteria applied by the NRC
21 when regulating permanently closed plants.

22 The NRC Staff recently updated, the NRC Chairman
23 and the Commissioners, on the status of the permanently
24 closed plants. The NRC Staff's report covered 13 facilities
25 that have been permanently shut down. Every single one of



1 these plants is covered by the NRC's Integrated
2 Decommissioning Inspection Program and decommissioning
3 guidance. In other words, NRC inspectors have specific
4 safety standards in hand when they go out to examine these
5 plants. The NRC inspectors have the ability to determine if
6 these plants have adequate safety margins to protect the
7 public and plant workers.

8 In addition, every single one of these plants has
9 submitted a post-shutdown decommissioning activities report
10 or is scheduled to do so in the near future. This report
11 describes the plant equipment, structures and processes
12 needed to protect the public and plant workers until the
13 plant is completely decommissioned. Browns Ferry Unit 1 is
14 not mentioned in the NRC Staff report, nor can any
15 reasonable person conclude that Unit 1 satisfies either of
16 the two criteria for permanently shut down plants.

17 Figure 2(A) in the presentation package is a copy
18 of a letter submitted by Northeast Nuclear Energy Company
19 dated July 21st, 1998, for its Millstone Unit 1 plant.
20 Millstone is a three unit facility similar to Browns Ferry.
21 Unit 1 was shut down two years ago by the plant owner. The
22 plant owner subsequently decided it wasn't going to restart
23 that plant, so it submitted a letter saying "we're done" --
24 telling the NRC it's done and submitted the -- went into the
25 decommissioning process. It did not create an



1 "administrative hold" category for that plant.

2 I think that is important because these are
3 precedents that provide valuable insights.

4 Indian Point, Dresden and San Onofre are sites
5 with three nuclear power plants, just like Browns Ferry.
6 Indian Point Unit 1 and Dresden Unit 1 shut down well before
7 Browns Ferry Unit 2, while San Onofre Unit 1 shut down a few
8 years ago. At all three of these sites, Units 2 and 3
9 continued to run, again, just like Browns Ferry. The owners
10 of the three unit Millstone plant in Connecticut notified
11 that its Unit 1 would be permanently closed. Millstone Unit
12 3 is operating and Millstone Unit 2 is the process of being
13 restarted. The owners of these shut down plants did not
14 place them in the "administrative hold" -- not even for a
15 day or two. Browns Ferry's condition is unique.

16 Slide 11 asks the question what is an
17 administrative hold plant? It's blank because we don't
18 know.

19 What are the regulations applicable to plant on
20 administrative hold? I haven't found a single one. I have
21 used the computer to text search through Federal safety
22 regulations and didn't find any references. I also searched
23 through the NRC's inspection manual. This is the bible used
24 by NRC inspectors when they conduct inspections out in the
25 field. I didn't find any reference to administrative hold.



1 I have also searched 40 bulletins, 140 Generic
2 Letters and 1100 Information Notices issued by the NRC since
3 March of 1985, but none of them were addressed to plants on
4 administrative hold.

5 Figure 3 shows a breakdown of the nuclear power
6 plants in the United States. There are 103 nuclear plants
7 with operating licenses and 13 permanently closed facilities
8 and of course there is Browns Ferry's Unit 1 on
9 administrative hold.

10 I have purposefully drawn a dotted line around
11 that box because it appears that that category exists only
12 in TVA's imagination. The other two boxes have solid lines
13 because these categories have clear, tangible provisions
14 within NRC's regulations and regulatory policies.

15 The next two documents, Figures 4, 5, and 6, show
16 that TVA is even making stuff up for "administrative
17 hold" as it goes.

18 The Figure 4 is the Operating Data Report
19 submitted by TVA to NRC on Browns Ferry Unit 1 for the month
20 of January, 1993. Recall that the plant had been under
21 "administrative hold" since June of 1985. The unit service
22 factor for Unit 1 is 35.9 percent. In other words, Unit 1
23 had operated for about 36 percent of the time since it went
24 in service in 1974.

25 Figure 5 is the Operating Data Report submitted by



1 TVA for the month of February, 1993, the very next month.
2 The unit did not operate during that -- during the interim,
3 yet its service factor soared to 60.9 percent, one of the
4 best improvements in nuclear history. How is that possible?
5 Well, TVA waved a magic wand and tossed out all the plant's
6 down time dating back to June of 1985. By ignoring nearly
7 eight years of down time, TVA was able to upgrade Unit 1
8 from a dismal performer to a slightly below average
9 performer. If I was in school and they always through out
10 the answers I got wrong or left blank, I would have been a
11 Straight A student but it didn't work out that way.

12 Figure 6 shows the Operating Data Report submitted
13 by TVA for Browns Ferry Unit 1 in August of this year. The
14 unit service factor is still 60.9 percent, even though the
15 unit has not generated a watt of electricity since June --
16 March of 1985, really.

17 I don't really care what TVA reports about the
18 unit service factor. I am not concerned about this data at
19 all. I am concerned, however, that TVA has placed Unit 1
20 into a status that is not defined by the NRC's regulations
21 and regulatory policies.

22 Slide 12 -- why did TVA carve out this special
23 niche for Unit 1? I don't feel that we have an obligation
24 to demonstrate motive, but I feel confident that we can
25 suggest the most likely motive -- money.



1 According to the United States General Accounting
2 Office, TVA is snug up against its debt ceiling. TVA's debt
3 is somewhere in the ball park of \$29.8 billion, or \$4,257
4 for every person living in the service area. This year
5 TVA's sale of electricity is expected to bring in, the gross
6 sales are expected to bring in \$6.3 billion. If TVA was
7 able to sustain this level of income and all of that money
8 went to paying off debt, it would take five years to
9 eliminate the debt, but not all of the money goes to paying
10 off the debt and the debt is going to be around for a long,
11 long time.

12 From my own experience, TVA considers the NRC to
13 be more like an uncle who must be treated politely than a
14 parent who must be minded. When I arrived at Browns Ferry
15 in early 1980 the NRC announced that it was fining TVA for a
16 violation at Browns Ferry. This would have been the first
17 violation that TVA ever received. TVA's lawyers responded
18 by pointing out that because both the NRC and TVA are
19 Federal agencies, the NRC did not have the statutory
20 authority to impose a fine. The NRC's lawyers looked at
21 that and agreed, so the NRC sent TVA a letter putting the
22 Browns Ferry fine on the shelf and also indicating that it
23 wouldn't be able to issue an operating license for the
24 Sequoyah Nuclear Plant until it figured out how to take some
25 kind of enforcement action against TVA.



1 TVA, faced with winning a battle at Browns Ferry
2 but losing the war at Sequoyah caved in and "allowed" NRC to
3 fine it -- I think the fine was like \$29,000 in 1980.

4 That episode is not the only indication. In those
5 days TVA's Nuclear Operations organization had offices in
6 Chattanooga. There was a meeting room in the Edney Building
7 where TVA staffers would go for conference calls with the
8 NRC. Before the call started, the TVA staffers would open a
9 drawer in the conference table and get out special gear.
10 Each staffer would put on a pair of big black glasses with
11 fake noses and moustache. That lack of respect was the TVA
12 attitude toward the NRC in those days. While I do not
13 suggest that the glasses are still being used, I look at how
14 TVA is doing its own thing on Browns Ferry Unit 1 and can
15 only conclude that TVA still does not have any respect for
16 the NRC as a regulator.

17 For more details on the TVA's motives, I would
18 like to turn over the presentation to Ann Harris.

19 MS. HARRIS: The Nuclear Regulatory Commission,
20 Region II, Tennessee Valley Authority, members of the
21 public, nuclear safety advocates, good afternoon.

22 Looking around this room, I am reminded of some
23 guidance that came from my grandmother: "Some people handle
24 the truth carelessly and others never touch it at all."

25 NRC, you have handled the truth carelessly, and



1 TVA, you have never even touched it.

2 When the Union of Concerned Scientists asked me if
3 I had information on the state of affairs at Browns Ferry
4 Nuclear Plant, I was hesitant to respond. The people that
5 have come to me from the Ferry have come with fear and
6 distrust but obviously with the truth. It's very hard to
7 argue with paper that is produced by the very people that
8 choose to lie about the state of affairs of Unit 1.

9 Configuration of the plant as a whole is a massive
10 problem. Configuration of Unit 1 is shameful. All three
11 Browns Ferry units were shut down because the plant did not
12 match the blueprints. Unit 1 still doesn't match the
13 blueprints. Now I recognize that moral issues do not faze
14 you, NRC, but Federal regulations require you, TVA, to, at
15 the very least, attempt to have this plant close to the
16 drawings, and NRC Region II, where are you?

17 It is just too convenient for you boys to come out
18 and give us the great news that TVA has one of the best
19 nuclear programs in the nation. According to my sources,
20 INPO did not give 100 percent blessings to this plant. If
21 you think that using those boys at INPO that hide behind
22 closed doors is going to impress me, then think again. INPO
23 is a secret organization and secrecy breeds distrust.

24 NRC, Region II -- when you rely on INPO to do your
25 work and then plagiarize it to the public as your work, that



1 does not give me a warm fuzzy feeling. As a member of the
2 public now, I can truthfully state that neither of you, NRC
3 or TVA, have extended full disclosure of the state of TVA's
4 nuclear plants to the public. I am sure that both of you
5 are grateful for INPO and all of its secrets about each of
6 you. For those of you who have not seen the media on how
7 TVA gave away approximately \$1.5 million of decommissioning
8 funds to college students to find out if the college
9 students could make more money, permit me to enlighten you.

10 TVA, did you give away that money that you had
11 collected from ratepayers and was designated as the
12 decommissioning funds as a joke or just pure arrogance?
13 Does that constitute taking money under false pretenses or
14 is it fraud?

15 In banking circles this is called commingling of
16 Government funds and is a violation of the law. Now TVA,
17 your breaking the law is like me taking a drink of water and
18 therefore it doesn't bother you. NRC, it's obvious that you
19 think it's okay for TVA to break the law. It must be so
20 since you have not taken any opportunities to curtail their
21 lawlessness.

22 Don't misunderstand. I am not against education,
23 but perhaps that money would have been better spent if it
24 had been spent making a plant on "administrative hold"
25 safer. During the licensing of Watts Bar, one of the boys



1 from NRR told us that TVA's finances were not a problem --
2 anyone that can maintain their checkbook could okay TVA's
3 financial picture and approve of it -- and Fred Hebdon, if I
4 had known that you were going to be present today, I would
5 have directed it straight to you, because GAO wants you to
6 apply to them with your background.

7 TVA finances are a disaster and are in desperate
8 need of cleanup. In 1994 when I learned that TVA had sold
9 off its decommissioning funds I went to the NRC Commission.
10 During that time a very public meeting was held where TVA
11 Chairman Craven Crowell told the Commission in no uncertain
12 terms that TVA had the funds and were available for use when
13 they were needed. Now the Chairman lied to the Commission.
14 Chairman Jackson knew it. The media knew it. Congress knew
15 it. The NRC knew it -- and so did the NRC's Inspector
16 General. Nothing was ever done to TVA for lying to the
17 Commission.

18 Earlier this year I met with the new head of NRR,
19 Sam Collins. He had told me still earlier in a private
20 meeting with whistle-blowers that I should have a really
21 good feeling about the management of Region II now --
22 "Region II is our top priority and we are sending our top
23 guns to begin turning things around for us. You" --
24 speak-ing to me, Ann Harris -- "should see some changes very
25 shortly."



1 NRC, go back and tell Sam more training time is
2 needed on how to deal with management problems because now
3 we are seeing the problems become worse than ever in Region
4 II.

5 In 1993, when I learned that the NRC was turning
6 TVA employees' names back over to TVA when TVA employees
7 went to the NRC in confidence it made me understand that
8 neither of you two agencies or your managers can be trusted.
9 I realize that telling the truth is beyond your abilities.
10 Therefore, I must conclude that public health and safety is
11 not your priority.

12 Let me remember some of the notable events of
13 1985. Dave has given us some. Let me go to my list:

- 14 1. TVA was forced to withdraw the application
15 for licensing for Watts Bar;
- 16 2. Three NRC Commissioners had approved and
17 signed off on the permission to license Watts
18 Bar. Watts Bar was within hours of starting
19 up.
- 20 3. Sequoyah was shut down due to a breakdown in
21 the configuration controls and the Quality
22 Assurance Program.
- 23 4. In December I was given the task of planning
24 for the recovery of electrical issues. I
25 have paid a heavy price for doing my job



1 surrounding the electrical problems at Watts
2 Bar, but in December of 1990 I was given
3 vindication when you boys in Region II were
4 forced to take action and force TVA to stop
5 work.

6 5. TVA began receiving the first of 8,000
7 employee concerns at Watts Bar Nuclear Plant.

8 How all these things relate to the subject at hand
9 here today -- well, let me count the ways for you.

10 TVA, you have constantly and consistently misled
11 everyone you talked to about the condition of your finances.
12 You still refuse to talk about the short-term debt and the
13 deferred debt that we, the ratepayers, are responsible for
14 and which pushes your debt over the Congressional mandated
15 ceiling of \$30 billion. You have used every trick in your
16 bag to hide your blatant disregard for the law. You refuse
17 to stop abusing employees that raise safety issues about
18 these plants.

19 You use the ratepayers of this Valley for your own
20 personal gain and openly flaunt abuses of the law. You
21 openly disregard your Congressionally mandated
22 responsibilities. Your arrogance is now forcing the
23 ratepayers each time you sell them more bonds and make more
24 debt.

25 NRC, Region II, we have open and compelling



1 evidence that you treat TVA differently than other
2 utilities. Why? You are either too lazy or too incompetent
3 to force TVA to adhere to the rules.

4 The memorandum of understanding was rescinded in
5 August of 1995 and you still practice what was laid out in
6 that document. Why?

7 You must begin the task of forcing TVA to abide by
8 the same rules as other utilities, so why should we believe
9 or trust either of you with the safety of these plants or
10 our communities, because neither of you are performing your
11 duty.

12 It is still the money, stupid. Those famous words
13 come from the last election, still haunt those that chose to
14 ignore them. TVA, for all of your bravado, it is painfully
15 obvious that you do not have the money to decommission or
16 maintain Unit 1 of Browns Ferry, and NRC, you continue to
17 perform your regulatory obligations to regulate or address
18 the issues at this plant.

19 Will the two of you continue to ignore reality and
20 do nothing until neither of you exist? Probably so, since
21 neither of you have the ability to make you into something
22 other than a very bad joke.

23 Trust and truth come with practice, not denial.
24 Somewhere you two agencies must begin to practice.

25 Thank you.

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1 MR. LOCHBAUM: Thank you, Ann.

2 TVA may lack the money needed to put Browns Ferry
3 Unit 1 into either the operating plant category or the
4 permanently closed plant category. It will cost a lot to do
5 the work necessary to bring Unit 1 back into the 1990s and
6 back into compliance with the requirements of its operating
7 license. It will also cost a lot of money to develop the
8 post-shutdown decommissioning activities report, so instead
9 TVA created a category it called "administrative hold."
10 That was cheap. Didn't cost any money whatsoever.

11 Even though that plant status is not covered by
12 any of its regulations or policies, the NRC let TVA do it.

13 Why do we care? After all, Unit 1 has been shut
14 down since March of 1985. Its reactor has long since been
15 emptied of fuel. Why should anyone care about the safety
16 performance of a plant that has been shut down for so long?

17 For one thing, the irradiated fuel which in Unit
18 1's case is stored in its spent fuel pool continues to
19 represent a threat to public health for many years. Just
20 last year the NRC issued a report prepared by the Brookhaven
21 National Laboratory of the risk to the public from nuclear
22 plants that have been shutdown and all their fuel moved to
23 the spent fuel pool -- plants just like Browns Ferry Unit 1.

24 According to this NRC document, an accident could
25 expose the surrounding population to radiation exposure of



1 38 million rem. To put that number into context, Federal
2 regulations limit the radiation exposure to nuclear plant
3 workers to less than 5 rem each year. This radiation
4 exposure was projected to result in 15,300 additional deaths
5 due to cancer and other radiation-related illnesses.

6 Like the isolation zone around the Chernobyl
7 Nuclear Plant in Russia, -140 square miles in Alabama would
8 have to be abandoned due to the radioactive contamination,
9 and Brookhaven estimated that the accident could cost \$48
10 billion.

11 Now please note that the folks at Brookhaven did
12 not recommend that the people living around permanently
13 closed plants immediately pack their bags and head up-wind.
14 They concluded that the probability of a potential accident
15 was sufficiently small to make the overall risk acceptable.
16 How was that probability kept small? The NRC's regulations
17 for design features and administrative controls at
18 permanently closed plants minimized the chances of an
19 accident. Likewise, the NRC's regulations for operating
20 plants minimizes the chances of an accident during plant
21 operation.

22 But the NRC has no regulations for plants on
23 "administrative hold" -- thus, Browns Ferry Unit 1, which
24 has the potential consequences of an accident as calculated
25 by Brookhaven, is not protected by regulations that minimize



1 the chances of that accident. Because there are no
2 regulations that apply to Unit 1 at this time, I cannot
3 honestly tell you that that plant is unsafe, but more
4 importantly neither TVA nor the NRC can honestly tell you
5 that that plant is safe. In other words, the NRC is not
6 adequately protecting the public from its risk.

7 UCS is advocating as usual simply that the NRC do
8 its job of providing adequate protection for the public.
9 The situation at Browns Ferry Unit 1 demands that the NRC
10 immediately do one of the following three things:

- 11 1. Compel TVA to bring Unit 1 into compliance
12 with the requirements of its operating
13 license. Unit 1 has a tall stack, perhaps
14 many stacks, of NRC requirements that it has
15 been ignoring. TVA would have to implement
16 all of those requirements which are
17 applicable as well as fix all of the problems
18 that caused Unit 1 to be shut down in the
19 first place;
- 20 2. Compel TVA to place Unit 1 into the
21 permanently closed category. TVA would have
22 to do some work, such as preparing and
23 submitting a post-shutdown decommissioning
24 activities report in order to fit into that
25 category.



1 3. Issue regulations and/or regulatory policies
2 that apply to nuclear plants on
3 "administrative hold." NRC cannot convince
4 anyone that it is doing a good job of
5 regulation when it has no regulation that
6 apply to Unit 1.

7 The NRC's obligations under the Atomic Energy Act
8 of 1954 as amended requires that it end the regulatory limbo
9 status on Unit 1. Therefore, you must take one of these
10 three actions. Thank you.

11 MR. ZWOLINSKI: I know I have a couple questions
12 before we move on to the licensee.

13 One of the things that strikes me, and you mention
14 it again towards the end, I am concerned with the impression
15 you are leaving not just the agency but the public regarding
16 the safety of this facility.

17 We have inspectors that have looked at shared
18 systems between Unit 1 and Unit 2, have looked at the spent
19 fuel pool arrangement with 2 and 3, and I am not aware there
20 is any safety concerns at all in those areas, and this was
21 in regards to the maintenance rule, so I would be -- I am
22 very sensitive, I guess, to safety concerns at this site
23 vice some of the equipment that you refer to as being on
24 administrative hold.

25 You reference the Brookhaven Report, which the



1 Staff has not adopted. The Staff does rely on NUREG 1353
2 generated in 1989. The numbers are significantly different
3 as far as offsite exposures and we'll certainly continue to
4 look at the Brookhaven work but I will say that is not fully
5 mature.

6 MR. LOCHBAUM: As I recall, NUREG 1353 was also
7 prepared by Brookhaven National Lab.

8 MR. ZWOLINSKI: Actually, much of 1353 was
9 generated by the Staff.

10 MR. LOCHBAUM: I think Sandia and Brookhaven were
11 also involved.

12 MR. ZWOLINSKI: They were involved.

13 If I could, I would like to go back into some of
14 your remarks.

15 MR. LOCHBAUM: Sure.

16 MR. ZWOLINSKI: At the bottom of page 1 of your
17 remarks, it says Unit 1 does not conform to the
18 regulations -- UCS so on and so forth. I am not sure I
19 understand the point that you are trying to make with
20 respect to having Units 2 and 3 conform to their license.

21 MR. LOCHBAUM: On the bottom of page 1?

22 MR. ZWOLINSKI: Yes, on the bottom.

23 MR. LOCHBAUM: Where I talk about Units 2 and 3?

24 MR. ZWOLINSKI: That may have occurred later. Let
25 me see what the issue was. Okay. The sentence goes on to



1 say "and conform to those regulations." Is the point -- are
2 you making the point that because the licensee may not
3 conform to a regulation that there is something inherently
4 unsavory?

5 MR. LOCHBAUM: Depending on the regulation.
6 Without knowing which regulations this plant complies with
7 and doesn't comply with -- I mean the stack of regulations
8 this plant doesn't comply with is as tall as the tall stack
9 out there, so it would be -- the point I made later in my
10 presentation is I can't specifically say this plant is
11 unsafe but this plant condition is so far afield from its
12 safety analysis that nobody can sit down and call it safe or
13 unsafe based on where it is and the safety analysis.

14 There is no safety analysis. There is no
15 regulations that apply to the plant in that condition, so
16 you can't call it safe; you can't call it unsafe. You can
17 call it unregulated, which in our definition is potentially
18 unsafe.

19 MR. ZWOLINSKI: I guess I was focusing on the
20 equipment that was operational, shared between Unit 1 and
21 Unit 2 is the spent fuel pool.

22 At the bottom of page 2, that nexus was unclear to
23 me.

24 MR. LOCHBAUM: I think the point I was trying to
25 make there was there were a number of bulletins that went



1 out to permanently closed plants --

2 MR. ZWOLINSKI: Yes.

3 MR. LOCHBAUM: Correspondence, not necessarily
4 bulletins. They were not addressed to Unit 1 because Unit 1
5 is not a permanently shut down plant so TVA may or may not
6 have evaluated those, like Bulletin 9403 on the Dresden
7 event.

8 MR. ZWOLINSKI: Yes, sir.

9 MR. LOCHBAUM: So is the status of Unit 1 as fully
10 protected as the status of San Onofre Unit 1, Dresden Unit
11 1, et cetera, the plants that are really in that category,
12 that are really responsive to it.

13 MR. ZWOLINSKI: I have a better context for your
14 comment then.

15 MR. LOCHBAUM: Okay, thank you.

16 MR. ZWOLINSKI: In the middle of page 4 on Slide
17 9, the discussion, in my notes I came back to safety again
18 because I guess if I understand correctly you are making a
19 number of points that are -- that go beyond safety -- some
20 of these economic issues.

21 There's a variety of concerns in your petition and
22 the Staff is obviously required to address those. I was
23 sensitive to the safety nexus being drawn and were you
24 trying to draw a safety nexus here -- "Therefore, no
25 reasonable person can conclude" -- that this has to do with



1 the various criteria that you are using?

2 MR. LOCHBAUM: I was using the NRC's criteria. I
3 just -- I am not very creative. I just use the ones that
4 are on the books.

5 MR. ZWOLINSKI: So it's kind of like the safety
6 point?

7 I guess I am a little unsure, and perhaps TVA can
8 help me on this.

9 You do have on page 5 a lot of discussion on
10 economic activity which the agency is not well-versed in,
11 and I think you were trying to make a couple of points
12 leading to the future of this particular unit.

13 Is that a reasonable context?

14 MR. LOCHBAUM: What I was trying to do was show
15 that why would it have ended up in administrative hold? It
16 seemed to be, from what we looked at, tied back to money,
17 the debt ceiling and some other things that related to the
18 debt ceiling.

19 Without that problem, it's conceivable that the
20 plant would be either in the operating plant category and
21 meeting the regulations of that category or permanently
22 closed down category and meeting the requirements of that
23 category.

24 TVA created this new category that is unique to
25 itself and we are just trying to explain why it would have



1 done that. It's hard to figure out why someone doesn't
2 follow the regulations on the books, so we were just trying
3 to figure out, to explore why that might have happened.

4 MR. ZWOLINSKI: I think I understand your answer.
5 Fred, did you have any questions?

6 MR. HEBDON: Yes, I have one question.

7 You make a point about the idea that TVA has
8 deferred a lot of things on Browns Ferry 1 and of course
9 Browns Ferry 2 and Browns Ferry 3 had similar problems
10 initially. Browns Ferry 2 ultimately restarted after a
11 shutdown of about six years and Browns Ferry 3 ultimately
12 restarted after a shutdown of about 10 years.

13 Could you discuss for a minute why you believe
14 that the procedures that were used both by TVA and by the
15 NRC to recover Unit 2 and Unit 3 wouldn't work if TVA
16 ultimately decided to try to recover Unit 1?

17 MR. LOCHBAUM: Let's understand that the process
18 for Browns Ferry restart of 2 and 3 predated the Manual 0350
19 process.

20 MR. HEBDON: Yes, but Unit 3 did not. I was on
21 the restart panel for Unit 3 and the procedures were
22 certainly used in the work associated with recovery of
23 Browns Ferry Unit 3.

24 MR. LOCHBAUM: Would the Manual 0350 process be
25 used if Browns Ferry Unit 1 were to restart?



1 MR. HEBDON: I would anticipate that it would,
2 yes.

3 MR. LOCHBAUM: Then our concern was based on the
4 Millstone experience this past year. That process is not --
5 not very objective and it's basically up to the whims of the
6 restart team as to what is safe, where the lines are drawn.

7 In the Millstone case -- I don't know if you
8 remember the testimony before the Commission -- there were
9 some clear standards established by the NRC for acceptable
10 performance. The licensee didn't meet those standards so
11 the NRC just ignored them. They gave the plant the
12 permission to restart, so when you have an objective process
13 and then when it turns out the NRC doesn't like you, you
14 just go around it. We don't -- we can't endorse a process
15 like that, so we have problems with 0350.

16 MR. HEBDON: Okay. Now I wasn't involved with the
17 Millstone process, but do you have reason to believe that
18 the process wasn't successful at Unit 3 for example where it
19 was applied?

20 MR. LOCHBAUM: It's hard for me to -- I couldn't
21 answer that question because Unit 3 was back up, 2 and 3
22 were back up before I joined UCS and I haven't gone back and
23 looked at it so I don't know enough to answer that.

24 MR. HEBDON: Okay. Thank you.

25 MR. ZWOLINSKI: On Manual Chapter 0350 I think



1 your comment, if I understand correctly, is if it's applied
2 correctly with the openness, the public involvement, so on
3 and so forth, do you have an issue with it in that light
4 or --

5 MR. LOCHBAUM: No -- it's a good process. It just
6 wasn't followed and it's just like the regulations on the
7 books for operating plants and permanently shut down plants.
8 They are good regulations. They are just not being followed
9 so again it is an implementation process. It is not a
10 standards issue.

11 MR. ZWOLINSKI: I just wanted to clarify that,
12 because I think we feel as an agency 0350 is a good process.
13 If there is a way to make it better -- I think your point is
14 the implementation and don't take any shortcuts.

15 MR. LOCHBAUM: For example, it is being used at
16 D.C. Cook right now.

17 MR. ZWOLINSKI: Yes.

18 MR. LOCHBAUM: And I think that process, our role
19 in D.C. Cook is to stay out of the way because the process
20 is working very good. The inspections are going down
21 correctly. It is a very rigorous process and we just need
22 to stay out of the way. It's a very good process.

23 It's using the same procedures that was used at
24 Millstone but the outcome is totally different because of
25 the way it's implemented.



1 So a long-winded answer to your question -- it's a
2 good process if it is used.

3 MR. HEBDON: So then if it were used with Unit 1
4 as it is now being used at D.C. Cook then I guess it would
5 be fair to say that there would be reasonable expectation
6 that it would arrive at a good product?

7 MR. LOCHBAUM: That's true. If it were used in
8 the same way, that would be a reasonable conclusion.

9 MR. HEBDON: Okay.

10 MR. ZWOLINSKI: Just taking a couple, few minutes,
11 Ms. Harris, coming to you, you made a number of assertions
12 on how the Staff has performed in its oversight of these
13 units, in particular Region II.

14 To the extent you have additional information that
15 you would like to share with the agency, this type of
16 assertion is typically forwarded to our Inspector General
17 and I'll be more than happy to facilitate and ensure the
18 transcription is provided and they will also contact you if
19 they feel there is sufficient evidence in the transcription,
20 and if you have additional information that you would like
21 to supply them directly, you can.

22 MS. HARRIS: The information that I referred to
23 has been sent to Region II. They did not respond. It did
24 not come from me, but I do know that it went. Region II
25 chose not to do anything with it. That did go on to the



1 Inspector General, so no, I do not need you to facilitate me
2 contacting them, but thank you very much.

3 MR. ZWOLINSKI: If I understood the thrust of your
4 comments, the big picture, you have a lot of evidence that
5 you characterized in the context of the financial community
6 also, and you took the financial discussion to closure in
7 your presentation.

8 Could you summarize again for me, so I understand
9 your views specifically, on how that affects this
10 proceeding?

11 MS. HARRIS: Being two Federal agencies, TVA and
12 the NRC, at least in my opinion, are at loggerheads over who
13 is on top and the TVA does not necessarily abide by your
14 rules as evidenced here by administrative hold.

15 In this particular issue, TVA has been treated
16 differently because they were a Federal agency, because they
17 did not have the money. The Chairman, Chairman Crowell, in
18 1995 I believe, did make the statement that Unit 1 would not
19 be started back up unless somebody came in to help TVA --
20 unless they had a partner. Every time they ask for a
21 partner that tells me that we have a money problem.

22 Now GAO has been in on several occasions. In
23 fact, they contacted me this past Friday and said that TVA
24 is no longer subject to the letter of intent.

25 Now that disturbs me because that means that



1 decommissioning funds must come forward quickly.

2 I am a ratepayer in this Valley so anything that
3 affects Browns Ferry affects me, and when decommissioning
4 funds have to be put into place, then that means I hear
5 rates going up.

6 The letter of intent is the letter that Mr. Hebdon
7 and NRR and the Commission accepted as the basis for TVA to
8 not have decommissioning funds, as you all are aware, that
9 at the time that they were needed that TVA would provide
10 them. Well, now you are saying that that is not adequate
11 because that is treating TVA differently from other
12 utilities, and TVA and myself have been banking on the fact
13 that we would not have to have decommissioning funds until
14 such time as we could pay our debt down.

15 I don't see that happening. I see rates going up.
16 I see money going into decommissioning funds and I see
17 maintenance and safety of these plants being in question --
18 and if you are not aware of it, this is published in the
19 Federal Register, September the 22nd, 1998, and I can give
20 you the pages and the volumes and all the other things.
21 I've got you a copy if you would like to have it.

22 MR. HEBDON: We are aware of that, but thank you.

23 MR. ZWOLINSKI: Thank you.

24 Did you have any follow-up comments? Okay. Thank
25 you.



1 MR. SINGER: Good afternoon. We would like to
2 welcome you, Mr. Zwolinski, and the NRC Staff, Mr. Lochbaum,
3 Ms. Harris, the press, and members of the public who are
4 here today.

5 I appreciate the opportunity to respond to the
6 petition filed by UCS. I share your concern for nuclear
7 safety because, after all, I work here and I live close by,
8 so I am here to tell you that plant is safe.

9 I assure you that TVA will continue to take
10 actions ensuring that Unit 1 is maintained in a safe
11 condition in accordance with regulations. The unit is also
12 being physically maintained in a manner that will support
13 recovery and restart.

14 TVA has a proven blueprint for Unit 1 restart
15 using the experience of the Unit 2, Unit 3 recovery
16 projects. As a result, we feel that the petition filed by
17 UCS has no merit. TVA has done all that is required to
18 obtain and maintain a very valuable asset to the TVA power
19 system -- that is the Browns Ferry Unit 1 operating license.

20 Further, TVA has done absolutely nothing to
21 warrant the unprecedented revoking of the Unit 1 license.
22 There is no basis for concluding that the condition of Unit
23 1 has led directly or indirectly to inadequate protection of
24 the public health and safety.

25 Likewise, there is no reason to conclude that it



1 has been maintained outside NRC regulations.

2 Quite to the contrary, there is ample evidence
3 that TVA is actively protecting public health and safety
4 through specific Unit 1 actions. Granting the Unit 1
5 petition would unfairly take away a most valuable asset that
6 has been maintained under NRC regulations. Such an action
7 would also foreclose an important electricity generation
8 option that TVA must be permitted to retain for the benefit
9 of its customers.

10 Today I will further discuss each of these points
11 by giving you a brief description of the Browns Ferry plant,
12 the recent performance history of the units, the status of
13 Unit 1, the reason for our conclusion that relicensing Unit
14 1 would in fact be more difficult and confusing than
15 recovering the unit under its current status, and the need
16 for maintaining that option of Unit 1 restart open.

17 Browns Ferry is a three unit boiling water reactor
18 site. The units were licensed in 1973, 1974 and 1976. The
19 units are identical General Electric BWR IV reactor designs
20 with Mark I containments.

21 They were all three originally licensed for 3,293
22 megawatts thermal. Unit 3 was recently uprated by 5 percent
23 power and Unit 2 will be uprated in its next refueling
24 outage. The licensing basis and design basis of all three
25 reactors is essentially the same.



1 Some plant systems such as Residual Heat Removal
2 Service Water, Control Bay Ventilation, and Emergency Diesel
3 Generators are shared by all three units. The systems and
4 equipment of all three units are similarly located in the
5 same reactor building structure.

6 The three spent fuel pools of the units are
7 located on a common refuel floor structure. You may have
8 seen the model of the refuel floor on the wall to my left.
9 This is an accurate presentation of the layout of the refuel
10 floor.

11 Units 1 and 2 share a common control room. This
12 arrangement results in regular attention to Unit 1 equipment
13 much like the operating units.

14 As you are aware, Browns Ferry Unit 1 and 3 were
15 voluntarily shut down in March of 1985. Unit 2 was in a
16 refueling outage at that time. Questions were subsequently
17 raised by the NRC regarding the overall adequacy of TVA's
18 nuclear program.

19 TVA responded for Browns Ferry with the Browns
20 Ferry Nuclear Performance Plan. This plan addressed a
21 number of actions to be taken to resolve management,
22 equipment and regulatory issues prior to the restart of Unit
23 2.

24 The plan included a Design Baseline Verification
25 Program to recapture the design basis, numerous design



1 changes, upgrade of procedures and processes and resolution
2 of regulatory commitments. Recovery activities for Unit 2
3 were completed to resolve the problems identified by the NRC
4 and TVA. Unit 2 was subsequently restarted in 1991, over
5 six years after its shutdown.

6 In 1991 TVA submitted its proposed regulatory
7 framework for the restarts of Units 1 and 3. TVA outlined a
8 broad scope of programs designed to meet regulatory
9 requirements, implement commitments, improve technical
10 specifications, address open corrective actions and resolve
11 internally identified problems prior to the restarts of
12 Units 1 and 3. The NRC Staff concurred with the scope of
13 the plans provide by TVA.

14 Using this very same regulatory framework as a
15 basis, Unit 3 was recovered and restarted in 1995, more than
16 10 years after its shutdown.

17 Unit 1 was defueled in late 1985 and remains in a
18 defueled condition. The unit has been placed on
19 administrative hold, and while there are currently no plans
20 to restart it, prudent planning dictates that TVA must
21 maintain this option open. In a defueled condition, some
22 Unit 1 systems perform a required function for Unit 1.
23 Other Unit 1 systems directly support Unit 2 or Unit 3
24 operation. These Unit 1 systems are being operated and
25 maintained under applicable technical specifications and



1 plant programs. In all cases these systems are maintained
2 under the same programs and processes that control Units 2
3 and 3.

4 The Unit 1 control room is continually manned,
5 operator rounds are routinely performed, status control is
6 maintained, periodic surveillances are performed, design and
7 configuration control is maintained and temporary
8 alterations are evaluated and documented.

9 The Unit 1 systems and components which are not
10 required to be operational have typically been drained,
11 de-energized, disassembled or placed in a dry lay-up under a
12 formal lay-up program. The purpose of this program is to
13 preserve TVA's considerable investment if recovery of Unit 1
14 is pursued as an option.

15 The lay-up program is described in plant
16 procedures and includes regular monitoring of equipment
17 conditions. Both safety-related and non-safety-related
18 systems are included in the lay-up program. Where
19 applicable the lay-up program also includes use of forced
20 air drying, desiccants, nitrogen blankets, periodic motor
21 rotations and motor insulation resistance testing to ensure
22 that the equipment is adequately preserved.

23 The lay-up program requires periodic visual
24 corrosion inspections, relative humidity checks, desiccant
25 inspections and oil analysis to monitor program



1 effectiveness. Actions are also specified to assess the
2 effectiveness of lay-up prior to return to service.

3 The NRC has periodically reviewed the lay-up
4 program implementation. The most recent inspection was
5 conducted in December, 1996. The NRC concluded that the
6 lay-up program and its implementation were acceptable.

7 Mr. Lochbaum refers to the Browns Ferry golden
8 years as before he left in 1983. I invite him to review our
9 record since restart.

10 Both Units 2 and 3 have achieved excellent
11 performance since restart and have progressively improved in
12 both NRC and nuclear industry performance ratings. Both
13 units have operated safely and reliably with availability
14 factors and capacity factors well above the industry median.
15 The composite and performance indicators such as safety
16 system availability, thermal performance, fuel reliability,
17 radiation exposure, chemistry performance, and unplanned
18 automatic scrams places Browns Ferry in the top quartile of
19 the nuclear power plants in this country.

20 The NRC's systematic assessment of licensee
21 performance, SALP, ratings for Browns Ferry have shown
22 consistent improvement since restart of Unit 2 in 1991. The
23 SALP ratings for the period ending just before the restart
24 of Unit 2 averaged 2.1 on a scale of 1 to 3, with 1 being
25 the best. Subsequent SALP scores have improved, with the



1 most recent SALP report, dated May 21st of this year,
2 showing an average rating of 1.25. Operations, maintenance,
3 and plant support were all rated "Superior" -- engineering
4 was rated "Good." There are currently only four plants in
5 the United States with SALP ratings higher than Browns
6 Ferry.

7 Browns Ferry's continued improvement was recently
8 recognized by the Institute of Nuclear Power Operations,
9 INPO. Browns Ferry was recognized as one of the top
10 performing plants in the country and received INPO's highest
11 grade. This excellent performance, coupled with our
12 previous recovery experience, clearly shows that TVA has the
13 expertise to recover nuclear units that had been idle for
14 several years. It also shows that Browns Ferry is being
15 operated in compliance with regulatory requirements. There
16 are absolutely no deficiencies in performance that would
17 impact the health and safety of the public and warrant
18 revoking the Unit 1 license.

19 This performance since recovery is due to a
20 dedicated, highly competent, safety conscious workforce that
21 believes in doing what is right. In fact, our performance
22 is rooted in the recovery activities that established the
23 design and licensing basis of the plant, put in place high
24 quality programs and procedures, upgraded plant equipment,
25 and ensured compliance with regulatory requirements.



1 The transition from recovery to top industry
2 performance further attests to our ability to meet any
3 challenge associated with Unit 1 recovery should TVA decide
4 to execute that option. Our excellence in performance
5 argues quite convincingly against the notion that TVA would
6 be unable to achieve the same success with the restart of
7 Unit 1.

8 The cornerstone of the recovery of Units 2 and 3
9 was the Design Baseline Verification Program. The Design
10 Baseline Verification Program reconstituted the design and
11 licensing basis of Units 2 and 3. Of course, any Unit 1
12 systems required to support operation of Units 2 and 3 were
13 also part of that process. As a result of this program,
14 calculations were completed or confirmed and necessary
15 modifications were implemented to ensure that regulatory
16 requirements were met.

17 Because of the similarity of the units, as I
18 previously described, and our experience at recovering Units
19 2 and 3, the design and licensing basis of Unit 1 is better
20 understood than Units 2 and 3 before their recovery.

21 As a result, the groundwork for the Unit 1 Design
22 Baseline Verification Program has been done. This means
23 that the Unit 1 design and licensing basis can be
24 accurately, effectively and efficiently reconstituted.

25 The UCS asserts that TVA has not been addressing



1 NRC generic correspondence for Unit 1 since it placed Unit 1
2 on administrative hold. This is not the case. In fact,
3 generic communications are being evaluated for applicability
4 to Unit 1 in its current status.

5 For example, NRC Bulletin 88-10 identified
6 potentially defective molded case circuit breakers. TVA
7 identified two of the potentially defective circuit breakers
8 on Unit 1 and replaced them. Generic communications which
9 do not apply to the current status are answered with a
10 commitment to address the subject matter as part of TVA's
11 recovery should the effort to restart commence. These
12 commitments are placed in TVA's commitment tracking program
13 to provide another level of assurance that these items will
14 be addressed as part of the Unit 1 recovery program.

15 In its letter of June 5th, 1998, UCS goes into
16 considerable detail to raise the applicability of NRC
17 Generic Bulletin 94-01, "Potential Fuel Pool Draindown
18 Caused by Inadequate Maintenance Practices as Dresden Unit
19 1." In its prior April 5th, 1998 petition UCS stated that
20 revoking the operating license for Unit 1 would force Browns
21 Ferry to follow the precedent of Dresden and other
22 permanently shut down plants.

23 There is some confusion here since the UCS
24 petition would place Unit 1 in the same condition that led
25 to the problems described in that NRC Bulletin.

1 The events described in NRC Bulletin 94-01 were
2 caused primarily by the plant being permanently shut down,
3 which led to a lack of attention to the unit. The Bulletin
4 was appropriately not addressed to Browns Ferry for action
5 since it still has an operating license. The fact that Unit
6 1 has an operating license requires us to maintain the plant
7 in accordance with applicable requirements as I previously
8 described.

9 The Unit 1 spent fuel was being maintained in
10 accordance with technical specifications. It is now being
11 maintained as specified by technical specifications and the
12 Technical Requirements Manual as part of our recent
13 conversion to Improved Standard Technical Specifications.
14 This requires the level, temperature and chemistry of the
15 Unit 1 spent fuel pool to be monitored and maintained within
16 acceptable limits. The limits and surveillance frequencies
17 for Unit 1 are the same as they are for Units 2 and 3 fuel
18 pools.

19 Further, as you can see by the model on the wall,
20 the Unit 1 spent fuel pool is located in the same structure
21 that houses the Unit 2 and Unit 3 spent fuel pools. This
22 structure is routinely toured by operators and engineers.
23 Support systems and structures are operated, tested and
24 maintained in a manner to perform their required functions.

25 As a result, the concerns raised by the NRC



1 Bulletin 94-01 are just not applicable to Browns Ferry Unit
2 1 and the NRC appropriately addressed the Bulletin to Browns
3 Ferry for information vice action.

4 In summary, Unit 1 fuel is being stored safely.
5 The systems required to maintain Unit 1 in the current
6 defueled condition are being operated and maintained to the
7 same standards as Units 2 and 3 and in accordance with
8 applicable regulations.

9 Other Unit 1 systems, structures, and components
10 have been effectively laid up to preserve TVA's investment
11 pending the
12 TVA Board of Directors' decision to restart the unit.

13 I would also like to address the UCS's contention
14 that NRC is wasting inspecting efforts on Unit 1 as well as
15 its contradictory contention that NRC is not inspecting Unit
16 1. Let me assure you from my past positions as Maintenance
17 Manager and Plant Manager that the NRC residents have
18 diligently inspected Unit 1.

19 They have reviewed system status control, material
20 condition, and as I previously stated, the lay-up program'
21 has been inspected. These inspections confirm that the
22 health and safety of the public is being adequately
23 protected.

24 The UCS also contends that material condition or
25 configuration management has worsened since Unit 1 was shut



1 down in 1985, but it has presented no evidence to support
2 this unfounded claim.

3 Quite to the contrary, as I have explained, there
4 are controls and programs in place to maintain the material
5 condition as well as maintaining configuration control of
6 Unit 1. Inspection to the current regulations has shown to
7 be effective in monitoring the maintenance of Unit 1 in a
8 safe condition.

9 The UCS asserts that revoking the operating
10 license would facilitate the process of restarting Unit 1 or
11 somehow make the process safer. It further contends that
12 there is a, quote, "regulatory mess" caused by more than a
13 decade of, quote, "licensing limbo."

14 Let me first state that there is no regulatory
15 mess associated with Unit 1, nor is there any licensing
16 limbo that would result in a restart process that is
17 undefined or vulnerable to mistakes. The fact of the matter
18 is that TVA has established very successful precedents for
19 restarting plants with outages lasting several years.

20 TVA has developed and implemented a proven restart
21 strategy that can be followed for Unit 1. Just as lessons
22 from Unit 2 restart made Unit 3 restart more efficient, the
23 cumulative lessons learned can make Unit 1 restart even more
24 so.

25 Opposing the conjecture of a regulatory mess is



1 the reality of a proven track record. UCS's contention that
2 relicensing Unit 1 would facilitate the restart process is
3 also without merit. The regulatory mess that UCS cites is
4 more likely to result from having to obtain a new license
5 for a unit that was originally constructed and licensed in
6 the early '70s.

7 While starting from scratch appeals to UCS, such a
8 simplistic approach does not stand up under close scrutiny.
9 In fact, such an approach would require a mass retrofitting
10 of all current regulatory requirements at an indeterminate
11 cost of time, money and resources and with questionable
12 safety benefit.

13 Moreover, pursuing such an uncharted course could
14 actually detract from performing the necessary tasks which
15 are required to safely and efficiently recover the unit.

16 The best proof of our ability to successfully
17 restart Unit 1 after several years is our proven experience
18 and success at recovering two identical units.

19 The future of Browns Ferry Unit 1 depends on a
20 consideration of a variety of energy resource options that
21 TVA has and will continue to evaluate. In accordance with
22 the requirements of the Energy Policy Act of 1992, TVA
23 conducted a least-cost integrated energy resource planning
24 program entitled, "Energy Vision 2020" that identified a
25 viable mix of customer service options and supply-side



1 options for future potential power system use.

2 TVA conducted this energy resource planning
3 program and prepared an integrated resource plan, IRP,
4 environmental impact statement which was issued in December
5 of 1995. As part of the IRP process TVA developed and
6 evaluated 2000 energy resource strategies for more than 100
7 supply side and 60 customer side options.

8 In doing so, TVA obtained public input through
9 surveys of local opinion leaders, numerous public meetings
10 and months of public review and comment. As a result of
11 this extensive effort, TVA's IRP identified a portfolio of
12 energy resource options in order to respond to a variety of
13 energy uncertainties. This was done in recognition that
14 future events will likely require changes in our energy
15 strategy.

16 The IRP concluded that the decision on Unit 1
17 should be deferred for the near term. This maximizes
18 flexibility to adapt to future conditions. This also allows
19 TVA to gain additional information about such important
20 factors as future load growth, nuclear performance, long and
21 short term costs, the cost of operating and performance of
22 other generation options, and the environmental effects of
23 various resource options.

24 It is clear from the decision reached by TVA
25 through the IRP process that any decision to revoke Unit 1's



1 operating license or require a decommissioning plan for the
2 Unit would be entirely premature and wholly inappropriate
3 for TVA and its customers.

4 In summary, TVA believes that the UCS petition to
5 revoke the operating license of Unit 1 is without merit.
6 From a health and safety standpoint, Unit 1 spent fuel is
7 being maintained in a safe condition and in compliance with
8 regulatory requirements. Unit 1 systems which are not
9 required to operate in the current defueled status are being
10 maintained and support the future restart option.

11 There is no impending or near-term event or
12 condition that warrants revoking Unit 1's license. Doing so
13 would deprive TVA and its ratepayers of the Tennessee Valley
14 of hard-earned and very valuable assets.

15 Further, revoking the license would unfairly
16 burden the selection of Unit 1 as an energy resource option
17 under the Energy Vision 2020 Plan.

18 Finally, and very importantly, TVA has proven
19 experience and expertise to restart and successfully operate
20 nuclear units after extended shutdowns.

21 Therefore, the UCS petition to revoke the Unit 1
22 operating license should be denied. The NRC should also
23 deny UCS's request that TVA be required to file a
24 decommissioning plan or submit a lay-up plan.

25 This concludes my remarks. Thank you.



1 MR. ZWOLINSKI: Just so I am clear on your IRP,
2 when was that study performed?

3 MR. SINGER: '95, I believe. December '95.

4 MR. ZWOLINSKI: Is that a study that will be
5 recurring and revisited every number of years?

6 MR. SINGER: It would certainly be revisited
7 before we would execute a restart option.

8 MR. ZWOLINSKI: Do you folks have an Employee
9 Concerns Program.

10 MR. SINGER: We certainly do.

11 MR. ZWOLINSKI: And is it independently evaluated
12 or do you have some metrics or measures?

13 MR. SINGER: We certainly do and it is reviewed by
14 our NSRB -- Nuclear Safety Review Board.

15 MR. ZWOLINSKI: Yes.

16 Does anyone have an idea of how it's performing
17 today?

18 MR. SINGER: Well, we have a -- we track the total
19 number of allegations that are reported anonymously to me.

20 We are very much in tune with the number of
21 allegations but we are much more concerned about the safety
22 significance.

23 We know that over the years they have come down --
24 I think they plateau'd right now and the numbering -- I am
25 not sure of the number.



1 I may be off by one or two but I believe the
2 number outstanding right now is in the teens and it's
3 plateau'd at that point.

4 That's where we are at.

5 MR. ZWOLINSKI: Okay. For clarification, does
6 each unit have its own technical specifications?

7 MR. SINGER: Yes, they do. We are under Improved
8 Technical Specifications, so each unit has its own technical
9 specifications, technical requirements manual, and bases
10 manual, so there are three sets of books.

11 MR. ZWOLINSKI: Okay -- and for those systems
12 required operable between Unit 1 and Unit 2, and shared
13 systems --

14 MR. SINGER: Maintained in an operable status.

15 MR. ZWOLINSKI: Okay.

16 MR. SINGER: According to those technical
17 specifications and the technical requirements manuals.

18 MR. ZWOLINSKI: So you are following your
19 technical specifications --

20 MR. SINGER: Yes, sir.

21 MR. ZWOLINSKI: -- in all matters?

22 MR. HEBDON: Let me -- correct me if I am wrong.
23 The improved technical specifications to the degree that
24 they apply to equipment that is required for Unit 1 in its
25 shut down condition or that apply to the operation of the



1 spent fuel pool, you are applying the approved standard tech
2 specs to those -- or -- rephrase it -- you are applying that
3 portion of the Improved Standard Tech Specs now?

4 MR. SINGER: Absolutely. Yes, sir.

5 MR. ZWOLINSKI: The petitioners use this term of
6 art, "administrative hold" -- and you have commented on that
7 to some extent.

8 Could you give us your snapshot of where you see
9 the plant today, Unit 1, and is the petitioner using the
10 wrong word here?

11 MR. SINGER: Frankly, I don't have a firm
12 connotation of what the "administrative hold" term is from
13 UCS's perspective.

14 I can tell you the way that we operate and
15 maintain Unit 1 is essentially you had systems that are
16 specifically designated to support the other two operating
17 units, and those are maintained and operated to the same
18 standards as Units 2 and 3 are maintained and operated.

19 MR. ZWOLINSKI: So those would conform with
20 technical specifications --

21 MR. SINGER: Everything we do. I ought to be
22 clear about that. Everything we do in Unit 1 conforms to
23 technical specifications.

24 MR. ZWOLINSKI: Okay.

25 MR. SINGER: Everything. There's no known



1 violations of tech specs on Unit 1. I don't know how else
2 to say it.

3 Unit 1 systems that are required to support Units
4 2 and 3 are very clearly laid out in those technical
5 specifications as well as other things such as the spent
6 fuel pool, so everything we do is in compliance with those
7 things.

8 MR. ZWOLINSKI: But the petitioner asserts that
9 there are on the order of maybe 1000 different Information
10 Notices, Generic Bulletins, what have you, which I guess I
11 am under the impression that some of the plant may not
12 conform to but the part of the plant that you rely on for
13 the safe operation of Unit 2 and 3, those do -- you have
14 looked at those?

15 MR. SINGER: Yes, sir. We are in total
16 compliance.

17 MR. ZWOLINSKI: So when a Generic Letter is
18 issued, you assure that the systems that are supporting Unit
19 2 and 3 operation, shared systems, or spent fuel decks or
20 what have you, those are all in conformance with agency
21 rules and regulations?

22 MR. SINGER: Yes, sir, and that receives the same
23 level of scrutiny as it does on Units 2 and 3.

24 MR. ZWOLINSKI: How about Generic letter 89-10 on
25 MOVs?



1 MR. ABNEY: There are no valves on Unit 1 that are
2 affected by 89-10.

3 MR. ZWOLINSKI: Okay.

4 MR. ABNEY: That equipment, as we said, is in
5 lay-up.

6 MR. SINGER: So I think the short answer to that
7 would be no. The systems -- there are no MOVs required that
8 support Units 2 and 3. Had there been, we would
9 have made --

10 MR. ZWOLINSKI: The ISI program, IST program? The
11 common programs that you will find in Part 50 you are saying
12 without equivocation you are in conformance with those?

13 MR. SINGER: Yes, sir.

14 MR. ZWOLINSKI: Could you enlighten me just a
15 little bit on decommissioning in general for this site?

16 MR. SINGER: On the funding?

17 MR. ZWOLINSKI: Yes.

18 MR. SINGER: I would have to get back to you on
19 that. I don't want to misrepresent where we are on that.

20 After reading this note, I might be a little bit
21 smarter.

22 [Laughter.]

23 MR. ZWOLINSKI: Okay. Who wrote this note?

24 MR. SINGER: Why don't you answer the question.

25 MR. ZWOLINSKI: Could you speak into the



1 microphone, please and identify yourself -- also make sure
2 you get the transcript microphone.

3 MR. VIGLUICCI: Thank you, Karl. My name is Ed
4 Vigluicci. I am with the Office of General Counsel.

5 TVA does have a decommissioning fund. We are
6 aware of the recent NRC rule changes affecting financial
7 assurance for decommissioning. TVA in the past had relied
8 upon the statements or letters of intent to have
9 decommissioning funding available, however we also have in
10 place -- had in place and do presently have in place
11 external trust fund arrangements. They are administered by
12 several financial institutions.

13 Those decommissioning amounts exceed several
14 hundred millions of dollars and we will be in full
15 compliance with the NRC rules for financial assurance of
16 decommissioning when it becomes effective on November 23rd
17 of this year.

18 MR. ZWOLINSKI: Thank you. That goes a long way
19 to answer my question.

20 Is that information publicly available through
21 your annual reports or only on the docket with the agency?

22 MR. VIGLUICCI: Our decommissioning fund is --
23 those amounts are in our annual reports, TVA's annual
24 reports.

25 MR. ZWOLINSKI: Okay.



1 MR. VIGLUICCI: And we have put forth -- those
2 very statements I have just made have been responded to NRC
3 in response to its advance notice of proposed rulemaking on
4 the decommissioning rule as well as the proposed, the notice
5 of proposed rulemaking on the decommissioning rule.

6 We have made public the fact that we do have
7 external trust funds already set up and fully funded.

8 MR. ZWOLINSKI: Thank you. Then I guess my
9 summary thought is maybe somewhat repetitive but I think I
10 have heard that there are absolutely no safety concerns from
11 your perspective in the current operation of the three
12 units?

13 MR. SINGER: That's correct.

14 MR. ZWOLINSKI: Dave, you have got about five
15 minutes to wrap up a little bit.

16 MR. LOCHBAUM: Okay, thank you.

17 Firstly, there was some discussion of the glowing
18 SALP reports that Browns Ferry has received in recent years.
19 I don't want to be accused of baffling or confusing TVA
20 anymore, but I do wish to point out that the SALP process
21 has been discontinued because it was a virtually meaningless
22 process that provided no valuable information to anybody
23 whatsoever, so I think using SALP as either a good or a bad
24 indicator is something we wouldn't do because it -- even
25 people getting bad SALP scores, the SALP process was so



1 flawed we couldn't use it, and conversely, very few people
2 getting good SALP scores would rely on that, so I was a
3 little surprised by that action.

4 Second, with respect to safety issues at the
5 plant, since we haven't received the documents we requested
6 more than 30 days ago under FOIA on the maintenance rule
7 violations, it is difficult for us to, say, put the
8 information on the table.

9 If we had received the information in a timely
10 manner like we are supposed to, then we would have possibly
11 had such information today, so it is -- I think it is
12 somewhat unfair to hold UCS to a standard because the NRC
13 refused to give us the documents that we requested under a
14 lawful manner.

15 There was also some discussion about revoking the
16 license would remove a valuable asset from the TVA ratepayer
17 library of assets. It will also save the TVA ratepayers
18 roughly \$3 million a year starting immediately. The plant
19 has been on hold for 13 years, so if that had been the same
20 rate that would have been \$39 million that the ratepayers
21 would have saved.

22 The Three Mile Island plant was recently sold for
23 \$23 million so that gives you the current market value for a
24 nuclear power plant that is newer, bigger and better than
25 Browns Ferry Unit 1, so I don't know how much of an asset yo



1 you have got listed on the books, but the current market
2 shows that it is not that much. You can get 12 McDonald's
3 franchises for about that same amount of money.

4 There was also some discussion about Improved Tech
5 Specs and reliance upon Improved Tech Specs. If Millstone
6 taught us anything, it's the regulations and the governing
7 controls over irradiated fuel are not in tech specs. They
8 are in the FSAR and the associated document safety analyses.

9 It's great that the Improved Tech Specs have been
10 applied and are being followed on Unit 1, but very little of
11 the equipment on Unit 1 is covered under tech specs. Most
12 of it is covered under the FSAR, which by TVA's own
13 admission, took six years to fix on Unit 2 and over 10 years
14 to fix on Unit 3 -- and Unit 1 is not down that process, so
15 I don't know how an NRC inspector or a conscientious
16 engineer on Unit 1 could do a 50.59 evaluation on a
17 procedure change or system change on Unit 1, go to the FSAR
18 that is somewhat out of date, and come up with a meaningful
19 conclusion under the 50.59 process, and that is the process
20 that is used to control changes to the procedure, the system
21 and its procedures.

22 I don't know how anybody could do that process
23 with the unit in its current situation.

24 There was also some discussion of how the INPO
25 reports have been very glowing on Browns Ferry Unit 1. I am



1 sure that people in this room are aware that when Public
2 Citizen compared INPO reports to the NRC reports they were
3 sued by INPO because those are very secret and they are not
4 to be seen in the light of day, so I have no way to confirm
5 or refute that statement. I assume it's true. I have no
6 reason to doubt that that is a true statement, but from our
7 perspective it's meaningless.

8 There are no NRC reports that we can look at to
9 show that this plant is in a good, safe condition.

10 With that, I haven't heard anything today that
11 would lead me to believe that our request for revoking the
12 Unit 1 license is not -- the basis for that has changed, and
13 we still think that is the proper action that needs to be
14 done right now.

15 We think the NRC's function must be oversight --
16 not overlook. Thank you.

17 MR. ZWOLINSKI: We would like to respond on this
18 FOIA question. Fred has researched that for us.

19 MR. HEBDON: Yes. I just wanted to make sure that
20 we understand what happened there:

21 You sent in a request under FOIA and normally we
22 do try to respond to those within 30 days.

23 There was a question initially about whether or
24 not the fee that we customarily charge for FOIA research and
25 processing would be waived in the case of UCS. I think our



1 original determination was that the fee would not be waived.
2 You subsequently then appealed that decision, and I believe
3 we have subsequently determined that we will in fact waive
4 the fee, and so that was what resulted in the delay --

5 MR. LOCHBAUM: But --

6 MR. HEBDON: Now that that has been resolved, we
7 are in the process of developing the material that you had
8 requested and determining whether or not it can be released
9 in accordance with the requirements of the FOIA.

10 MR. LOCHBAUM: If you go back and look at the
11 history of the fee waiver, UCS was instrumental back in the
12 mid-'80s at getting that part of the regulation revised. We
13 worked with Representative Markey's office, so that fee
14 waiver was created for UCS and organizations like UCS, so we
15 turn around in 1998 and request a fee waiver under a rule
16 that was created for us using a letter that was used by Jim
17 Riccio, who is not here today but who has used it for many
18 years and never had his fee waiver challenged or questioned
19 in any way -- we used the form letter, just changed "Public
20 Citizen" to "UCS" and ours was questioned.

21 When we appealed it, we appealed it with Jim
22 Riccio's advice. He talked to the FOIA folks and we
23 explained what we needed -- what word language we needed to
24 do -- and it was rejected again, so we appealed that thing
25 twice before we finally got the right "pretty please" or the



1 right jargon in there in order to get the request, and I am
2 convinced that those documents will arrive on my desk
3 tomorrow, which is too late for the purposes of this
4 hearing.

5 So I don't know what game was played there --

6 MR. HEBDON: I can tell you there was no game
7 played. You submitted it. We used our process to make a
8 determination, and you appealed it and in accordance with
9 our procedures and we have accepted your appeal and we'll
10 now in fact waive the fee, as you had requested --

11 MR. LOCHBAUM: But why --

12 MR. HEBDON: -- and we will provide the
13 information that you have requested.

14 MR. LOCHBAUM: Why was none -- I have talked to
15 several public interest groups -- Public Citizen, Nuclear
16 Information Resource Service, the Whistle-Blower Center.
17 The letters used are basically the same, because it's been a
18 tried-and-true method. None of theirs have ever been
19 challenged.

20 Why was the UCS FOIA request on this document
21 challenged twice?

22 MR. HEBDON: Well, I am certainly not an expert on
23 FOIA recovery but I can tell you that the determination has
24 been made that the material will be provided, and to the
25 extent that it can be provided within the requirements of



1 the FOIA it will be made available to you and you will have
2 that information and you can then review it and draw
3 whatever conclusions you consider to be appropriate and
4 provide that information.

5 If necessary, you could provide it to us as an
6 amendment to the presentation that you have given today.

7 MR. LOCHBAUM: We are not shy about submitting
8 supplements to our petitions. That is not a problem.

9 MR. ZWOLINSKI: I wanted you to be aware that we
10 have been working on that and to your specific question I do
11 not have an answer. I know we looked into the matter and
12 that did break things loose eventually but you are correct.
13 It did take a long time and that was peculiar.

14 MR. LOCHBAUM: Well, we are going to be working
15 with Representative Markey's office because they created
16 that rule for us and it seemed to be then used against us,
17 so he's very interested in --

18 MR. ZWOLINSKI: We did not mean for that to occur,
19 and I know that we have gone through documents to be sure
20 you get those.

21 Okay, thank you.

22 MR. LOCHBAUM: Sure.

23 MR. ZWOLINSKI: Any final comments?

24 MR. SINGER: Yes. Thank you.

25 TVA's ability to successfully restart Browns Ferry



1 reactors after long shutdowns has been undeniably
2 demonstrated.

3 The successful restart of two reactors and
4 excellent performance after restart is proof that the
5 process works. It is also proof that NRC oversight of the
6 process is effective.

7 Regulations also adequately cover Unit 1 in its
8 current status to protect the health and safety of the
9 public.

10 The UCS has presented no information to show that
11 the regulations failed to adequately address the current
12 status of Unit 1 or the TVA has in any way acted in
13 violation of NRC regulations.

14 Further, it has in no way demonstrated that the
15 health and safety of the public is at risk now or in the
16 future due to the status of Unit 1. The Unit 1 license has
17 been lawfully obtained and maintained by TVA and TVA has
18 done nothing that would warrant revoking the license. To do
19 so would create a considerable regulatory burden which could
20 unfairly deprive TVA and its customers of an asset and
21 eliminate an option in TVA's future generation planning.

22 Any decision to permanently shut down Unit 1
23 lawfully belongs to TVA. Given these facts, it is
24 inappropriate for this decision to be made based on anything
25 other than what is best for TVA and its customers.

1 I therefore urge the NRC to deny the UCS petition
2 and allow TVA with NRC oversight to maintain the Unit 1
3 license. Thank you.

4 MR. ZWOLINSKI: Thank you, Mr. Singer.

5 We are at a point in time where I would like to
6 take a very short five-minute break and we will then have at
7 least three individuals of the public provide comment.

8 If any other individuals of the public would like
9 to comment, you could sign up on the sheet at my desk and we
10 will reconvene, as I said, in five minutes.

11 [Recess.]

12 MR. ZWOLINSKI: Steven Stutz.

13 MR. STUTZ: Yes. Thank you.

14 To the NRC, TVA official personnel, and to the
15 other participants, I want to thank you for this opportunity
16 to speak to this issue today.

17 My name is Steven Stutz. I am the International
18 Union Representative of the International Union of Operating
19 Engineers. We make up one of the six of the annual craft
20 and one of the 15 of the hourly craft which represents the
21 union craftsmen who not only build but maintains this and
22 other TVA facilities.

23 My assignment and travels take me throughout all
24 of the Southeastern states which now include Texas,
25 Arkansas, and Kentucky, and the reason I mention that in



1 passing is I have an opportunity, an exposure to other power
2 companies to hear and to view and sometimes to respond on
3 issues like this one today.

4 Let me just simply say that Unit 1 is maintained
5 in a condition that protects the health and safety of the
6 public and employees, and these employees are some very
7 proud and dedicated, experienced union craftpersons. We
8 rebuilt Unit 2 and 3 and are maintaining and operating them
9 today. They did the job right and the performance of these
10 units shows just that.

11 The craftspeople and expertise that they have are
12 available to build and maintain Unit 1 if the need is ever
13 there and they are ever called upon.

14 As a personal note, with the steel industry moving
15 to Decatur with the Boeing plant adjacent to that, with
16 Chesapeake a strong possibility to our west and other
17 industries expanding, I think that need will be in a very
18 short time.

19 An issue was mentioned earlier about some TVA
20 employees not participating or somehow restrained on safety.
21 Let me just say in my opinion and the people that I have
22 spoke with, TVA has not prevented employees at Browns Ferry
23 from expressing any concerns, safety or otherwise, and in
24 fact, the people that I represent say that TVA wants full
25 participation in any matter in the plant.



1 The Unit 1 license is a valuable asset for the
2 Tennessee Valley, and if I can change hats just for a minute
3 on a personal note, as a consumer of TVA power this may well
4 be the lowest cost option for the future generation, and if
5 a higher cost option is mandated we the public, we the
6 consumer end up paying a higher cost for no good common
7 sense reason, and they just won't get it anymore.

8 In closing, let me say on behalf of the 15 crafts
9 that make up the Council that we support the license which
10 allows TVA to maintain the Unit 1 option. Thank you.

11 MR. ZWOLINSKI: Thank you. David Olson.

12 [No response.]

13 MR. ZWOLINSKI: David White.

14 MR. WHITE: I didn't intend to be on that list.

15 [Laughter.]

16 MR. ZWOLINSKI: Are you Mr. White?

17 MR. WHITE: Yes, I am.

18 MR. ZWOLINSKI: Okay.

19 MR. OLSON: And I am Donald Olson, and I didn't
20 intend to be on that list either.

21 MR. ZWOLINSKI: Our sign-up sheet and our
22 speakers' sheet look very much the same.

23 Charles Boyd.

24 MR. BOYD: Thank you. I had a prepared statement
25 to make but I agree with Mr. Stutz and TVA -- they pretty



1 well covered the things I had to say -- I'm from the union
2 local and I represent about 1000 members who helped build
3 this plant and know this plant inside and out, who works at
4 this plant on a regular basis, both annual and hourly.

5 If there was an employee concern -- I believe most
6 of our people feel that they are free to go to Employee
7 Concerns without retribution.

8 The management and staff they have assembled here
9 is the best management and staff I believe that they could
10 have found. Unit 1 is a vital part of Browns Ferry and I
11 speak for the 1000 members that I represent. We need to
12 keep the license here.

13 We feel that this plant is safe. Our members have
14 complete confidence in both the NRC and Browns Ferry
15 management, so we feel that the license needs to be left
16 here. I have been laid off at Browns Ferry too but I didn't
17 get mad -- so I do appreciate your time. Thank you.

18 MR. ZWOLINSKI: Thank you.

19 Are there any other members of the public that
20 wish to speak?

21 [No response.]

22 MR. ZWOLINSKI: Seeing no hands, thank you. I
23 would like to thank all the participants. I appreciate the
24 travel that many of you took to participate and the time
25 invested by all. It is important for us to have these



1 interactions. The information presented here today is
2 worthwhile information. It is information that we will
3 consider in our decision-making process and responding to
4 the Director's decision itself.

5 We will do everything we can to ensure that Mr.
6 Lochbaum receives certain information that has not been
7 transmitted formally but I understand will be in the near
8 term.

9 This concludes the informal hearing. Thank you so
10 very much.

11 [Whereupon, at 2:48 p.m., the hearing was
12 concluded.]

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CERTIFICATE OF NOTARY PUBLIC

I, STEPHEN P. ANDERSON, the officer before whom the foregoing deposition was taken, do hereby certify that the witness whose testimony appears in the foregoing deposition was duly sworn by a notary public; that the testimony of said witness was taken by me and thereafter reduced to typewriting by me or under my direction; that said deposition is a true record of the testimony given by the witness; that I am neither counsel for, related to, nor employed by any of the parties to the action in which this deposition was taken; and further, that I am not a relative or employee of any attorney or counsel employed by the parties hereto, nor financially or otherwise interested in the outcome of the action.



STEPHEN P. ANDERSON

Notary Public, State of Tennessee at Large

My Commission expires: April 18, 2000



By ^o ANN HARRIS

October 26, 1998

Browns Ferry Nuclear Plant
Athens, Ala.

Dave Lochbaum
Nuclear Regulatory Commission, Region II
Tennessee Valley Authority

Members of the Public and Nuclear Safety Advocates
Good afternoon.

Looking around this room, I am reminded of some guidance that came from my grandmother:

"Some people handle the truth carelessly;
Others never touch it at all."

NRC you have handled the truth carelessly and TVA you have never touched it at all.

When the Union of Concerned Scientist asked me if I had information on the state of affairs at Browns Ferry Nuclear Plant, I was hesitant to respond. The people that have come to me from "the ferry" have come with fear and distrust but obviously with the truth. It is very hard to argue with paper that is produced by the very people that choose to lie about the state of affairs at unit one (1).

Configuration of the plant as a whole is a massive problem. Configuration of Unit One is shameful. All three Browns Ferry units were shutdown because the plant did not match the blueprints. Unit one still doesn't match. Now I recognize that moral issues do not faze you NRC. BUT federal regulations require you TVA to at the very least attempt to have this plant close to the drawings. And NRC RII where are you?

It is just too convenient for you boys to come out and give us the great news that TVA has one of the best nuclear programs in the nation. According to my sources INPO did not give 100% blessings to this plant. If you think that using those boys at INPO, that hide behind closed doors, is going to impress me then think again. INPO is a secret organization and secrecy breeds distrust.

NRC RII when you rely on INPO to do your work and then plagiarize it to the public as your work that does not give me a warm fuzzy feeling. As a member of the public now, I can truthfully state that neither of you, NRC or TVA, have extended full disclosure of the state of TVA's nuclear plants to the public. I am sure that both of you are grateful for INPO and all of its secrets about each of you.

For those of you that have not seen the media on how TVA gave away approximately \$1.5 MILLION dollars of decommissioning funds to college students to find out if the college students could make more money, permit me to enlighten you. TVA did you give away that money that you had collected from rate payers and was designated as decommissioning funds as a joke or just pure arrogance? Does that constitute taking money under false pretenses. Or is it fraud?

Page 2

In banking circles this is called commingling of government funds and is a violation of the law. Now TVA you breaking the law is like me taking a drink of water and therefore it does not bother you. And NRC it is obvious that you think it is OK for TVA to break the law. It must be so since you have not taken any opportunities to curtail their lawlessness.

Don't misunderstand, I am not against education. But perhaps that money would have been better spent if it had been spent making a plant in "administrative hold" safer. During the licensing of Watts Bar one of the boys from NRR told us that TVA's finances were not a problem. Anyone that can maintain their check book could OK TVA's financial picture and approve of it. If that is true then GAO wants Fred Hebdum to come by for an interview at his earliest convenience. TVA finances are a disaster and are in desperate need of clean up.

In 1994 when I learned that TVA had sold off its decommissioning funds I went to the NRC Commissioners. During that time a very public meeting was held where TVA Chairman Craven Crowell told the commission, in no uncertain terms, that TVA had the funds and were available for use when they are needed. Now the Chairman lied to the commission. Chairman Jackson knew it, the media knew it, congress knew it, the NRC knew and so did the NRC's Inspector General. Nothing was ever done to TVA for lying to the commission.

Earlier this year I met with the new head of NRR Sam Collins. He had told me still earlier in a private meeting with whistleblowers that I should have a really good feeling about the management of Region II now. "RII is our top priority and we are sending out top guns to begin turning things around for us. You (Ann Harris) should see some changes very shortly". NRC go back and tell Sam that more training time is needed on how to deal with management problems because now we are seeing the problems become worse than ever in RII.

In 1993 when I learned that the NRC was turning TVA employees names back over to TVA, when TVA employees went to the NRC in confidence, made me understand that neither of you two agencies or your managers can be trusted. I realized that telling the truth is beyond your abilities. Therefore I must conclude that Public Health and Safety is not your priority.

Mr. Lochbaum has given us some notable events of 1985. Let me remember some for you:

1. TVA was forced to withdraw the application for licensing of Watts Bar.
2. Three NRC commissioners had approved and signed off on the permission to license Watts Bar. Watts Bar was within hours of starting up.
3. Sequoyah was shut down due to a break down in the configuration controls and the Quality Assurance program.
4. In December I was given the task of planning for the recovery of electrical issues I have paid a heavy price for doing my job surrounding the electrical problems at Watts Bar. (BUT in December of 1990 I was given vindication when you boys in RII were forced to take action and force TVA to STOP WORK.)
5. TVA began receiving the first of 8000 employee concerns at Watts Bar Nuclear Plant

: things relate to the subject at hand here today. Well let me count the

ntly and consistently misled everyone you talk to about the
r finances. You still refuse to talk about the short term debt and the
at we the rate payers are responsible for and which pushes your debt
sional mandated ceiling of \$30 Billion dollars.

very trick in your bag to hide your blatant disregard for the law.
p abusing employees that raise safety issues about these plants.
payers of this valley for your own personnel gain and openly
the law.

regard your congressionally mandated responsibilities.
is now costing the rate payers each time you sell more bonds and

nd compelling evidence that you treat TVA differently than other
????

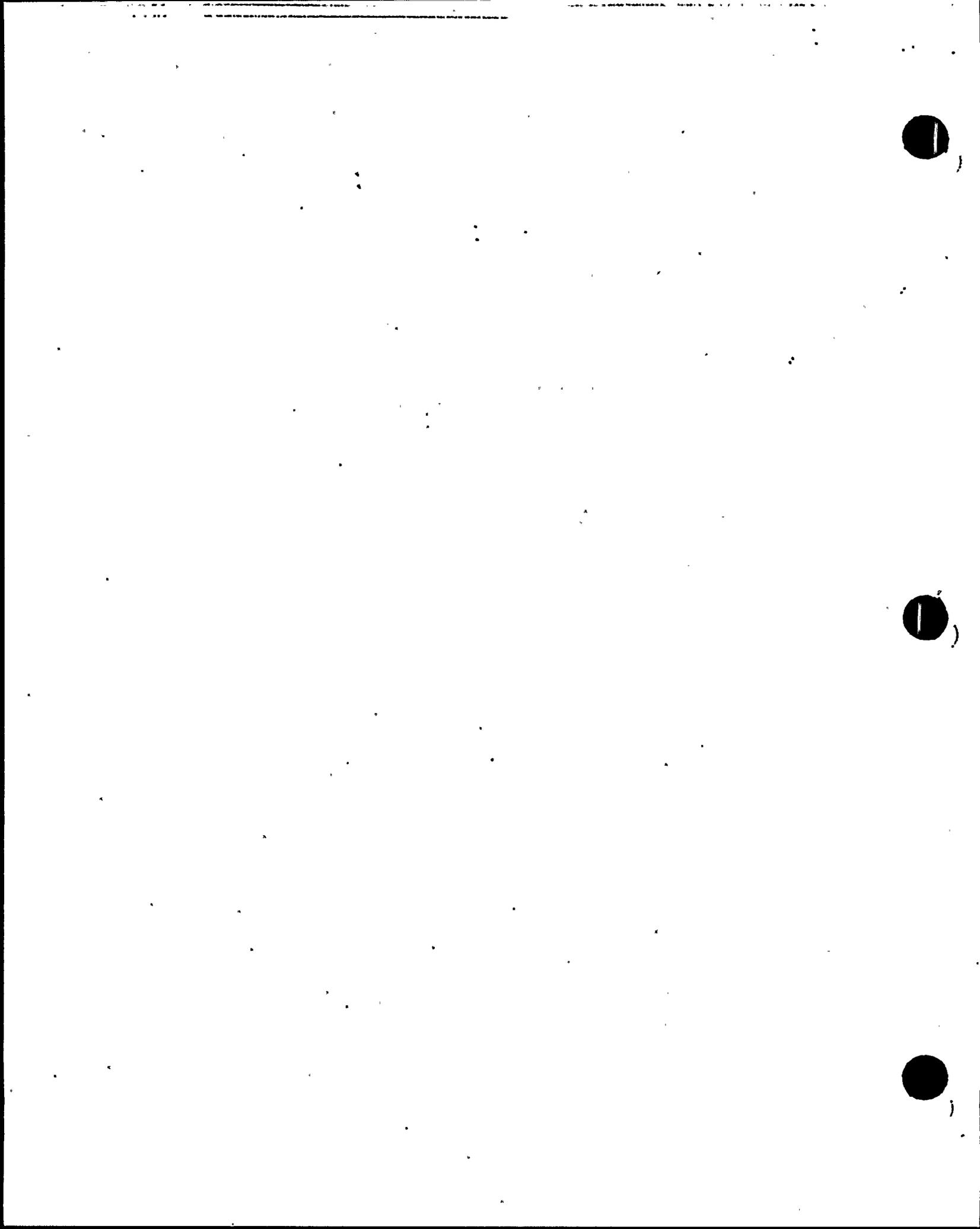
oo lazy or too incompetent to force TVA adhere to the rules.
um of Understanding was rescinded in August of 1995 and you
hat was laid out in that document. Why?
if forcing TVA to abide by the same rules as other utilities.

elieve or trust either of you with the safety of these plants or our
use neither of you are performing your duty. "It is still the money ,
as words from the last election still haunt those that chose to ignore

r bravado, it is painfully obvious that you do not have the money to
untain unit one of Browns Ferry. And NRC you continue to refuse
ory obligations. regulate or address the issues of this plant
continue to ignore reality until neither of you exist? Probably so
have the ability to make you into something other than a very bad
th come with practice not denial. Somewhere you too agencies must

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fety Network



By: KAN Singer

SCRIPT FOR PRESENTATION
UNIT 1 2.206 PETITION HEARING

Introduction

Good Afternoon. I would like to welcome you, Mr. Zwolinski, the NRC staff, Mr. Lochbaum, Ms. Harris, Mr. Riccio, and others who are here today.

I appreciate the opportunity to respond to the petition filed by UCS. I share your concern for nuclear safety because after all, I work here and live close by. I assure you that TVA will continue to take actions ensuring that Unit 1 is maintained in a safe condition in accordance with the regulations and Technical Specification requirements.

The unit is also being physically maintained in a manner that will support recovery and restart. TVA has a proven blueprint for Unit 1 restart using the experience of the Unit 2 and Unit 3 recovery projects.

As a result, we feel that the petition filed by UCS has no merit. TVA has done all that is required to obtain and maintain a very valuable asset to the TVA power system, that is, the Browns Ferry Unit 1 operating license.

Further, TVA has done absolutely nothing to warrant the unprecedented revoking of the Unit 1 license. There is no basis for concluding that the condition of Unit 1 has led directly or indirectly to inadequate protection of the public health and safety.

Likewise, there's no reason to conclude that it has been maintained outside of the NRC regulations. Quite the contrary, there is ample evidence that TVA is actively protecting public health and safety through specific Unit 1 actions.

Granting the Unit 1 petition would unfairly take away a most valuable possession that has been maintained under NRC's regulations. Such an action would also foreclose an important electricity generation option that TVA must be permitted to retain for the benefit of its customers.

Today, I will further discuss each of these points by giving you:

- A brief description of Browns Ferry plant
- The recent performance history of the units
- The status of Unit 1
- The reasons for our conclusion that re-licensing Unit 1 would in fact be much more difficult and confusing than recovering the unit under the current license, and
- The need for maintaining the option of Unit 1 restart

BFN PLANT DESCRIPTION

Browns Ferry is a 3 unit Boiling Water Reactor (BWR) site. The units were licensed in 1973, 1974, and 1976. The units are identical General Electric BWR IV reactor designs with Mark I containments.

They were all 3 originally licensed for 3293 MW_e. Unit 3 was recently uprated by 5% power and Unit 2 will be uprated by 5% at the next refueling outage. The licensing basis and design for all three reactors is essentially the same.

Some plant systems such as Residual Heat Removal Service Water, Control Bay Ventilation, and Emergency Diesel Generators are shared by the units. The systems and equipment of all 3 units are similarly located in the same reactor building structure.

The 3 spent fuel pools of the units are located in a common refuel floor structure. You may have seen the model of the refuel floor on the wall to my left. This is an accurate representation of the layout of the refuel floor.

Units 1 and 2 share a common control room. This arrangement results in regular attention to Unit 1 equipment much like the operating units.

BFN RECENT HISTORY

As you are aware, Browns Ferry Units 1 and 3 were voluntarily shut down by TVA in March 1985. Unit 2 was in a refueling outage at that time. Questions were subsequently raised by the NRC regarding the overall adequacy of TVA's nuclear program.

TVA responded for Browns Ferry with the Browns Ferry Nuclear Performance Plan. This plan addressed a number of actions to be

taken to resolve management, equipment and regulatory issues prior to restart of Unit 2.

The plan included an extensive Design Baseline Verification Program to recapture the design basis, numerous design changes, upgrade of procedures and processes, and resolution of regulatory commitments. Recovery activities for Unit 2 were completed to resolve the problems identified by NRC and TVA. Unit 2 was subsequently restarted in 1991, over 6 years after its shutdown.

In 1991, TVA submitted its proposed regulatory framework for the restart of Units 1 and 3. TVA outlined a broad scope of programs designed to meet regulatory requirements, implement commitments, improve technical specifications, address open corrective actions, and resolve internally identified problems prior to the restart of Units 1 and 3. The NRC staff concurred with the scope of the plans provided by TVA.

Using this very same regulatory framework as a basis, Unit 3 was recovered and restarted in 1995 more than 10 years after its shutdown.

UNIT 1 STATUS

Unit 1 was defueled in late 1985 and remains in a defueled condition. The unit has been placed on administrative hold and while there are currently no plans to restart it, prudent planning dictates that TVA must maintain this option.

In the defueled condition, some Unit 1 systems perform a required function for Unit 1. Other Unit 1 systems directly support Unit 2 or Unit 3 operation. These Unit 1 systems are being operated and maintained under applicable Technical Specifications and plant programs. In all cases these systems are maintained under the same programs and processes that control Units 2 and 3.

The Unit 1 control room is continually manned, operator rounds are routinely performed, status control is maintained, periodic surveillances are performed, design and configuration control is maintained, and temporary alterations are evaluated and documented.

The Unit 1 systems and components which are not required to be operational have typically been drained, deenergized, disassembled, or placed in dry lay-up under a formal lay-up program. The purpose of this program is to preserve TVA's considerable investment if recovery of Unit 1 is pursued in the future. The lay-up program is described in plant procedures and includes regular monitoring of equipment conditions. Both safety

related and non-safety related systems are included in the lay-up program.

Where applicable, the lay-up program also includes use of forced air drying, desiccants, nitrogen blankets, periodic motor rotations, and motor insulation resistance testing to ensure that equipment is adequately preserved. The lay-up program requires periodic visual corrosion inspections, relative humidity checks, desiccant inspections, and oil analyses to monitor program effectiveness. Actions are also specified (for example, eddy current testing of heat exchangers) to assess the effectiveness of lay-up prior to return to service.

The NRC has periodically reviewed the layup program implementation. The most recent inspection was conducted in December 1996. The NRC concluded that the lay-up program and its implementation were acceptable.

PLANT PERFORMANCE

Both Units 2 and 3 have achieved excellent performance since restart and have progressively improved in both NRC and nuclear industry performance ratings.

Both units have operated safely and reliably with availability factors and capacity factors well above the industry median. A composite of performance indicators such as safety system availability, thermal performance, fuel reliability, radiation exposure, chemistry performance, and unplanned automatic scrams places Browns Ferry in the top quartile of nuclear power plants in the country.

The NRC's Systematic Assessment of Licensee Performance (SALP) ratings for Browns Ferry have shown consistent improvement since restart of Unit 2 in 1991. The SALP ratings for the period ending just before the restart of Unit 2 averaged 2.1 on a scale of 1 to 3, with 1 being the best. Subsequent SALP scores have improved, with the most recent SALP report dated May 21 of this year showing an average rating of 1.25. Operations, Maintenance, and Plant Support were all rated "Superior" and Engineering was rated "Good."

There are currently only 4 plants in the United States with SALP ratings higher than Browns Ferry.

Browns Ferry's continued improvement was recently recognized by the Institute of Nuclear Power Operations (INPO).

Browns Ferry was recognized as one of the top performing plants in the country and received INPO's highest grade.

This excellent performance, coupled with our previous recovery experience, clearly shows that TVA has the expertise to recover nuclear units that have been idled for several years.

It also shows that Browns Ferry is being operated in compliance with regulatory requirements. There are absolutely no deficiencies in performance that would impact the health and safety of the public and warrant revoking the Unit 1 license.

This performance since recovery is due to a dedicated, highly competent, safety conscious work force that believes in doing things right. In fact, our performance is rooted in the recovery activities that reestablished the design and licensing basis of the plant, put in place high quality programs and procedures, upgraded plant equipment, and ensured compliance with regulatory requirements.

The transition from recovery to top industry performance further attests to our ability to meet any challenge associated with Unit 1 recovery should TVA decide to execute that option. Our excellence in performance argues, quite convincingly, against the notion that TVA would be unable to achieve the same successful result for Unit 1.

The cornerstone of the recovery of Units 2 and 3 was the Design Baseline Verification Program. The Design Baseline Verification Program reconstituted the design and licensing basis of Browns Ferry Units 2 and 3. Of course any Unit 1 systems required to support operation of Units 2 and 3 were also a part of this process. As a result of this program, calculations were completed or confirmed and necessary modifications were implemented to ensure that regulatory requirements were met.

Because of the similarity of the units as I previously described, and our experience at recovering Units 2 and 3, the design and licensing basis of Unit 1 is better understood than Units 2 or 3 before their recovery.

As a result, the ground work for the Unit 1 Design Baseline Verification Program has been done. This means that the Unit 1 design and licensing basis can be accurately, effectively and efficiently reconstituted.

APPLICABILITY OF NRC GENERIC CORRESPONDENCE TO UNIT 1

The UCS asserts that TVA has not been addressing NRC generic correspondence for Unit 1 since it placed Unit 1 on administrative hold. This is not the case. In fact, generic communications are being evaluated for applicability to Unit 1 in its current status.

For example, NRC Bulletin 88-10 identified potentially defective molded case circuit breakers. TVA identified two of the potentially defective circuit breakers on Unit 1 and replaced them.

Generic communications which do not apply in the current status are answered with a commitment to address the subject matter as part of TVA's recovery effort to restart the unit. These commitments are placed in TVA's commitment tracking program to provide another level of assurance that these items will be addressed as part of the Unit 1 recovery program.

In its letter of June 5, 1998, UCS goes into considerable detail to raise the applicability of NRC Bulletin 94-01, "Potential Fuel Pool Draindown Caused by Inadequate Maintenance Practices at Dresden Unit 1." In its prior April 5, 1998 petition, UCS also stated that revoking the operating license for Unit 1 would force Browns Ferry to follow the precedent of Dresden and other permanently shut down units.

There is some confusion here since the UCS petition would place Unit 1 in the same condition that led to the problems described in the NRC Bulletin.

The event described in Bulletin 94-01 was caused primarily by the plant being permanently shut down which led to a lack of attention to the unit. The Bulletin was appropriately not addressed to Browns Ferry for action since it still has an operating license. The fact that Unit 1 has an operating license requires us to maintain the plant in accordance with applicable requirements as I previously described.

The Unit 1 Spent Fuel Pool was being maintained in accordance with Technical Specifications and is now being maintained as specified by the Technical Specifications and the Technical Requirements Manual as part of our recent conversion to Improved Standard Technical Specifications.

This requires the level, temperature, and chemistry, of the Unit 1 Spent Fuel Pool to be monitored and maintained within acceptable limits. The limits and surveillance frequencies for Unit 1 are the same as those for Units 2 and 3 Spent Fuel Pools.

Further, as you can see from the model by the wall, the Unit 1 Spent Fuel Pool is located in the same structure that houses both the Unit 2 and the Unit 3 Spent Fuel Pools. This structure is routinely toured by operators and engineers.

Support systems and structures are operated, tested and maintained in a manner to perform their required functions. As a result, the concerns raised by NRC Bulletin 94-01 are just not applicable to Browns Ferry Unit 1 and the NRC appropriately addressed the Bulletin to Browns Ferry for information vice action.

In summary, the Unit 1 fuel is being safety stored. The systems required to maintain Unit 1 in the current defueled condition are being operated and maintained to the same standards as Units 2 and 3 and in accordance with applicable regulations.

Other Unit 1 systems, structures, and components have been effectively laid up to preserve TVA's investment pending the TVA Board of Director's decision to restart the unit.

NRC INSPECTION OF UNIT 1

I would also like to address UCS's contention that NRC is wasting inspection efforts on Unit 1 as well as it's contradictory contention that NRC is not inspecting Unit 1.

Let me assure you from my past positions as Maintenance Manager and Plant Manager that the NRC residents have diligently inspected Unit 1. They have reviewed system status control, materiel condition, and, as I previously stated, the lay-up program has been inspected. These inspections confirm that the health and safety of the public is being adequately protected.

The UCS also contends that materiel condition or configuration management has worsened since Unit 1 was shutdown in 1985, but it has presented no evidence to support this unfounded claim. Quite the contrary, as I have explained, there are controls and programs in place to maintain materiel condition as well as maintain configuration control of Unit 1.

Inspection to the current regulations has shown to be effective in monitoring the maintenance of Unit 1 in a safe condition.

PITFALLS OF RELICENSING VS THE KNOWN PATH OF RECOVERY

The UCS asserts that revoking the operating license would facilitate the process of restarting Unit 1 or somehow make the process safer. It further contends that there is a "regulatory mess" caused by more than a decade of "licensing limbo".

Let me first state that there is no "regulatory mess" associated with Unit 1 nor is there any "licensing limbo" that would result in a restart process that is undefined or vulnerable to mistakes. The fact of the matter is that TVA has established very successful precedents for restarting plants with outages lasting several years (6 years for Unit 2 and 10 years for Unit 3).

TVA has developed and implemented a proven restart strategy that can be followed for Unit 1. Just as lessons learned from Unit 2 restart made Unit 3 restart more efficient, the cumulative lessons learned can make Unit 1 restart even more so. Opposing the conjecture of a "regulatory mess" is the reality of a proven track record.

UCS's contention that relicensing Unit 1 would facilitate the restart process is also without merit.

The regulatory mess that UCS cites is more likely to result from having to obtain a new license for a unit that was originally constructed and licensed in early 1970's. While "starting from scratch" appeals to UCS, such a simplistic approach does not stand up under close scrutiny.

In fact, such an approach would require a mass retrofitting of all current regulatory requirements at an indeterminate cost of time, money and resources, and with questionable safety benefit. Moreover, pursuing such an uncharted course could actually detract from performing the necessary tasks which are required to safely and efficiently restart a unit.

The best proof of our ability to successfully restart Unit 1 after several years is our proven experience and success at recovering two nearly identical units.

TVA MUST MAINTAIN THE UNIT 1 RESTART OPTION

The future of Browns Ferry Unit 1 depends upon the consideration of a variety of energy resource options that TVA has and will continue to evaluate.

In accordance with the requirements of the Energy Policy Act of 1992, TVA conducted a least-cost, integrated energy resource planning program entitled, "Energy Vision 2020." It identified a viable mix of customer service options and supply-side options for future potential power system use. TVA conducted this energy resource planning program and prepared an Integrated Resource Plan (IRP) Environmental Impact Statement which it issued in December 1995.

As part of the IRP process, TVA developed and evaluated 2,000 energy resource strategies from more than 100 supply-side and 60 customer service options. In doing so, TVA obtained public input through surveys of local opinion leaders, numerous public meetings, and months of public review and comment. As a result of this extensive effort, TVA's IRP identified a portfolio of energy resource options in order to respond to a variety of energy uncertainties.

This was done in recognition that future events will likely require changes in any energy strategy. The IRP concluded that the decision on Unit 1 should be deferred for the near term. This maximizes flexibility to adapt to future conditions.

This also allows TVA to gain additional information about important factors such as: future load growth, nuclear performance, long and short-term costs, the cost and operating performance of other generation options, and the environmental effects of various resource options:

It is clear from the decisions reached by TVA through the IRP process that any decision to revoke the Unit 1 operating license or require a decommissioning plan for the unit, would be entirely premature and wholly inappropriate for TVA and its customers.

SUMMARY

In summary, TVA believes that the UCS petition to revoke the operating license of Unit 1 is without merit.

From a health and safety standpoint, Unit 1 spent fuel is being maintained in a safe condition in compliance with regulatory requirements. Unit 1 systems which are not

required to operate in the current defueled status are being maintained to support the future restart option.

There is no impending or near-term event or condition that warrants revoking the Unit 1 license. Doing so would deprive TVA and the ratepayers of the Tennessee Valley of a hard-earned and very valuable asset.

Further, revoking the license would unfairly burden the selection of Unit 1 as an energy resource option under the Energy Vision 2020 plan.

Finally, and very importantly, TVA has proven experience and expertise to restart and successfully operate nuclear units after extended shutdowns.

Therefore, the UCS petition to revoke the Unit 1 operating license should be denied. The NRC should also deny UCS's request that TVA be required to file a decommissioning plan or submit a lay-up plan.

<TITLE SLIDE>

Good afternoon. My name is David Lochbaum. I have been the Nuclear Safety Engineer for the Union of Concerned Scientists for the past two years. Prior to joining UCS, I worked for over seventeen years in the commercial nuclear power industry. From January 1980 until August 1983, I worked for the Tennessee Valley Authority as a Reactor Engineer and Shift Technical Advisor here at Browns Ferry. When I left, all three units were running and all six cooling towers were available. I read that one of the units has been shut down and two of the cooling towers have burned down. Because the big fire occurred in March 1975 before I arrived and the shut down after I left, I seem to have been here for Browns Ferry's golden years.

I am very pleased to have Ann Harris with me today. Ann directs We The People of Tennessee, the Southern chapter of a prominent national organization that supports nuclear workers who have been abused because they raised safety concerns. Ann is a spokesperson for the National Nuclear Safety Network, a coalition of nuclear workers who have raised safety concerns and safety advocates. Ann is also a former TVA employee. Ann worked for 14 years at the Watts Bar Nuclear Plant in jobs such as electrical engineering assistant unit supervisor, training specialist, and peer reviewer for safety issues handled by the employee concerns program. I will provide the first portion of today's presentation, then Ann will step in – hopefully before you tire of hearing my voice – and then I'll return for a few closing remarks.

<SLIDE 2>

We are here today to explain why UCS petitioned the NRC to revoke the operating license for Browns Ferry Unit 1. TVA voluntarily shut Unit 1 down in March 1985 and has considered it to be in "administrative hold" since June 1985. In January of this year, I sent an e-mail message to the NRC's Public Affairs staff asking if TVA was paying the NRC a full license fee for Unit 1. By law, the NRC must collect virtually all of its budget from its licensees. An owner of an operating nuclear power plant must pay the NRC nearly \$3 million each year. Owners of plants which have been permanently closed do not have to pay anything. I wanted to know how the NRC handled a plant with an operating license, but which had not operated in over a decade.

The NRC Project Manager for Browns Ferry responded to my inquiry with a letter indicating that TVA indeed paid full fare for Unit 1. He also told me that Unit 1 was "inspected by NRC inspectors as is any other operating nuclear power station." If that response had simply answered the question I asked about fees, the matter would have been closed from our standpoint. But we had information showing that the NRC inspectors do not inspect Browns Ferry Unit 1 at all. I spent some time in the NRC's Public Document Room and discovered that NRC inspectors could not meaningfully inspect Browns Ferry Unit 1 because the NRC's regulations contain only two categories of nuclear plants – operating plants and permanently closed plants. Browns Ferry Unit 1, in what TVA calls "administrative hold," fits neither category. The NRC has no regulations covering "administrative hold." Since Unit 1 does not conform to the regulations for an operating plant, UCS submitted a petition to the NRC in April asking that its operating license be revoked. Our request, if granted, would compel TVA to place Unit 1 into the permanently closed plant category and conform to those regulations. In August, the NRC granted our request for a hearing for our petition. And so, here we are.

<SLIDE 3>

Why did TVA shut down Unit 1 in March 1985? I'll let TVA answer this one. Under oath, TVA informed the NRC in February 1997 that "TVA identified a failure at [Browns Ferry Nuclear Plant] to consistently maintain a document design basis and to control the plant's configuration in accordance with that basis." In plainer English, that meant problems like the drawings used to operate the plant had components shown on them that didn't exist out in the field and, conversely, there were things installed in the plant that did not appear on the drawings. As you can imagine, guessing is not the safest way to run a nuclear plant. So, TVA elected to shut down all three units at Browns Ferry in 1985 and fix things. Units 2 and 3 restarted years later after all of the corrections had been made.

<SLIDE 4>

1985 was a long time ago. To help you pinpoint that moment in time, here are some things that happened that year. Ronald Reagan began his second term as President. Pop singer Billy Joel married super model Christie Brinkley. A team led by Robert Ballard found the wreck of the *Titanic* off the coast of Newfoundland. And *Back to the Future*, the original – not either of the two sequels to it – was the top grossing film.

<SLIDE 5>

1985 was a long time ago. In the thirteen years since then, the NRC has issued nearly thirteen hundred generic communications to licensees. That's about one hundred documents each year. Not all of these documents apply to Unit 1, but many of them do. NRC bulletins and generic letters typically require the licensees to analyze, inspect, verify, and/or test something. NRC information notices typically warn the licensees about some problem encountered at a facility so that they can fix similar problems in their plants.

How did TVA respond to all this NRC correspondence? To be perfectly candid, I did not check each and every TVA response. Of the dozen or so that I did check, TVA's response, in every case, was something like, "Unit 1 is shutdown, defueled, and under administrative hold, The conditions described by this [generic letter] will be addressed prior to its return to service." In other words, TVA said, "not now, later."

<SLIDE 6>

In addition, the NRC has introduced new regulations, upgraded many other regulations, and specified numerous requirements for its licensees. For example, in October 1996, the NRC sent a letter to every nuclear plant owner, except the Millstone owner, requesting them to review the adequacy, availability, and control of design basis information. As you recall, TVA told the NRC that it shut down Browns Ferry Unit 1 in March 1985 due to design basis control problems. I trust that you'll believe me when I say that it is highly unlikely that the design basis control problems which were serious enough to shut down the plant, have been magically healed during thirteen years of "administrative hold." In any event, TVA responded to the NRC's request by saying, "In accordance with TVA's prior commitments, TVA will implement the [design basis verification project] on Unit 1 prior to its return to service." In other words, TVA will perform the extensive reviews, inspections, and tests needed to restart Units 2 and 3 at some future date. Once again, they said, "not now, later."

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Browns Ferry Unit 1 Operating or Permanently Closed? NRC Must Compel TVA to Chose

As an another example, the NRC's Maintenance Rule went into effect in July 1996. Or at least, it went into ewffect for all operating nuclear plants except Browns Ferry Unit 1. In am Inspection Report dated May 21, 1997, the NRC identified a problem with the Maintenance Rule for Unit 1. There was a public meeting scheduled at the NRC's headquarters this summer to discuss that problem. I planned to attend that meeting, but it was cancelled and has not been re-scheduled. Once again, they said, "not now, later."

I am interested in that particular NRC inspection finding because I received an anonymous package in the mail suggesting that I review it. On September 3, 1998, I requested the material under the Freedom of Information Act, only to get an unprecedented runaround from the NRC. The Freedom of Information Act specifies a 30 day response time. It's been 53 days, but I have not yet received the documents. So, TVA is not the only federal agency saying, "not now, later."
<SLIDE 7>

In our considered opinion, TVA's recurrent "not now" theme disqualifies Unit 1 from its operating license. Unit 1 began commercial operation in August 1974. It shut down nearly eleven years later. It has been on "administrative hold" longer than it operated.

<FIGURE 1>

Operating nuclear plants get inspected by the NRC. According to data obtained from the NRC, Browns Ferry Unit 1 received a grand total of zero inspection hours by NRC headquarters and regional staff between October 1, 1995 and September 30, 1996. Please note that this is a breakdown of inspection hours for individual plants. The other sites with three operating plants, Oconee and Palo Verde, have all three units listed separately. Browns Ferry Unit 2 is on the list with about 4,100 hours. Browns Ferry Unit 3 is on the list with about 8,900 hours. Browns Ferry Unit 1 is not. Mere oversight. I think not.

<FIGURE 2>

This is more data obtained from the NRC. The NRC classifies Browns Ferry as a dual unit site and reports a grand total of about thirteen thousand inspection hours by NRC headquarters and regional staff between October 1, 1995 and September 30, 1996. I'll point out that the inspection hours for Browns Ferry Units 2 and 3 from the previous figure add up to about 13,000. Once again, nothing for Unit 1.

Remember that the NRC Project Manager for Browns Ferry told me, in writing, that Unit 1 was "inspected by NRC inspectors as is any other operating nuclear power station." The NRC data is contradictory, so I have formally asked the NRC Inspector General to investigate.

<SLIDE 7>

Why didn't NRC inspectors spend any time looking at Unit 1? I don't know. In some ways, I'm glad that they did not. It would have been a waste of their time and some body's money. Unit 1 is "frozen" in its 1985 non-compliance condition. TVA shut the plant down in 1985 because it had design basis control problems. Since that time, the number of problems can only have grown because TVA was not fixing any and more problems were created as the NRC issued new regulations, revised regulations, and required additional work. So, what would NRC inspectors evaluate Unit 1 against? The plant is at least thirteen years behind today's regulatory requirements. Would the NRC inspectors evaluate Unit 1 against 1985's standards, today's

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standards, or some hodge-podge mixture? The answer is simple – the NRC cannot conduct inspections at a plant frozen in 1985.

<SLIDE 8>

I think it's important to review the process used by the NRC in issuing an operating license to a nuclear plant. The NRC reviewed the safety analyses for the plant and conducted inspections of the facility. The NRC issued an operating license when, and only when, it made two determinations: first, that it had reasonable assurance the facility was designed and built in accordance with federal safety regulations; and second, that it had reasonable assurance that the facility will be operated and maintained in accordance with federal safety regulations. Those are the top two criteria for getting an operating license. Everything else – the number of safety pumps, the qualify assurance program, etc. – are only discrete components of these two criteria.

<SLIDE 9>

It seems reasonable to me that if these are the essential criteria for getting an operating license, then they are also the essential criteria for keeping that license. As we have learned, TVA voluntarily shut down Unit 1 in March 1985 because of design basis control problems. A federal safety regulation – specifically Appendix B to 10 CFR Part 50 – requires plant owners to maintain adequate control of the design bases. TVA's actions and words implicitly state that they failed to comply with this regulation. Unit 1 was not in compliance in March 1985 and it has drifted even farther away since then. Therefore, no reasonable person can conclude that Unit 1 satisfies the second of the NRC's two criteria. Thus, TVA does not have a legal right to retain an operating license for Unit 1.

<SLIDE 10>

Let's now look at the criteria applied by the NRC when regulating permanently closed plants. The NRC staff recently updated the NRC Chairman and Commissioners on the status of the permanently closed plants. The NRC staff's report covered thirteen facilities. Every single one of these plants is covered by the NRC's Integrated Decommissioning Inspection Program and decommissioning guidance. In other words, NRC inspectors have specific safety standards in hand when they examine these plants. The NRC inspectors have the ability to determine if the plants have adequate safety margins to protect the public and plant workers. In addition, every single one of the plants has submitted a post-shutdown decommissioning activities report. This report describes the plant equipment, structures, and processes needed to protect the public and plant workers until the facility is completely decommissioned. Browns Ferry Unit 1 is not mentioned in this NRC staff report. Nor can any reasonable person conclude that Unit 1 satisfies either of the two criteria for permanently closed plants.

<FIGURE 2A>

There are precedents that provide valuable insights. Indian Point, Dresden, and San Onofre are sites with three nuclear power plants just like Browns Ferry. Indian Point Unit 1 and Dresden Unit 1 shut down before Browns Ferry Unit 1, while San Onofre Unit 1 shut down just a few years ago. Units 2 and 3 continue to run – again, just like Browns Ferry. The owners of the three-unit Millstone nuclear plant in Connecticut notified the NRC on July 21, 1998, that Unit 1 would be permanently closed. Millstone Unit 3 is operating and Millstone Unit 2 is being prepared for restart. The owners of these shut down plants did not place them into the "administrative hold" category, not even for a day or two. Browns Ferry's condition is unique.

<SLIDE 11>

What are the NRC's regulations applicable to a nuclear plant in "administrative hold." I have not found any. I used the computer to text search through federal safety regulations, but didn't find any references. I also searched through the NRC's Inspection Manual – the Bible used by NRC inspectors – and didn't find any references. I also searched the 40 bulletins, 140 generic letters, and 1,100 information notices issued by the NRC since March 1985, but none of them were addressed to plants in "administrative hold."

<FIGURE 3>

This figure shows the categories for the nuclear plants in the United States. There are 103 nuclear plants with operating licenses and thirteen permanently closed plants. And, of course, there's Browns Ferry Unit 1 in "administrative hold." I have purposefully drawn a dotted line around that box because it appears that such a category exists only in TVA's imagination. The other two boxes have solid lines because these categories have clear, tangible provisions within NRC's regulations and regulatory policies.

<FIGURE 4>

The next three documents show that even TVA is making up stuff for "administrative hold" on the fly. This is the Operating Data Report submitted by TVA to NRC on Browns Ferry Unit 1 for the month of January 1993. Recall that the facility had been under "administrative hold" since June 1985. The Unit Service Factor is 35.9 percent. In other words, Unit 1 had operated about 36 percent of the time since it went into service in 1974.

<FIGURE 5>

Here's the Operating Data Report submitted by TVA to NRC on Browns Ferry Unit 1 for the next month, February 1993. The unit did not operate, yet its service factor soared to 60.9 percent. How is that possible? Well, TVA waved a magic wand and tossed out of the plant's down time dating back to June 1985. By ignoring nearly eight years of down time, TVA was able to upgrade Unit 1 from a dismal performer into a slightly below average performer.

<FIGURE 6>

Here's the Operating Data Report submitted by TVA to NRC on Browns Ferry Unit 1 for August 1998. Viola – the unit service factor is still 60.9 percent even though the unit has not generated a watt of electricity. Now, I really don't care what TVA reports for unit service factor. I'm not concerned about this data. I am, however, concerned that TVA has placed Unit 1 into a status that is not defined by NRC's regulations and regulatory policies.

<SLIDE 12>

Why did TVA carve out this special niche for Unit 1? I don't feel that we have an obligation to demonstrate motive, but I feel confident that we can suggest the most likely motive – MONEY. According to the United States General Accounting Office, TVA is snug up against its debt ceiling. TVA's debt is somewhere in the ballpark of \$29.8 billion, or \$4,257 for every person living in its service area. This year, TVA's sale of electricity is expected to bring in \$6.3 billion. If TVA could sustain this level of income and all of that money went to paying off debt, it would take five years to eliminate the debt. But, not all of the money will go to the debt. The debt will be around for a long, long time.

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**Browns Ferry Unit 1
Operating or Permanently Closed?
NRC Must Compel TVA to Chose**

From my own experience, TVA considers the NRC to be more like an uncle who must be treated politely than a parent who must be minded. When I arrived at Browns Ferry in early 1980, the NRC announced that it was fining TVA for a violation at Browns Ferry. TVA's lawyers responded by pointing out that because both the NRC and TVA are federal agencies, the NRC did not have statutory authority to impose such a fine. The NRC's lawyers agreed. So, NRC sent TVA a letter putting the Browns Ferry fine on the shelf. The NRC also told TVA that it would not be able to issue an operating license for the Sequoyah Nuclear Plant until it figured out how to take enforcement actions when required. TVA, faced with winning a battle at Browns Ferry and losing the war at Sequoyah, caved in and "allowed" NRC to fine it.

That episode is not the only indication. In those days, TVA's Nuclear Operations organization had offices in Chattanooga. There was a meeting room in the Edney Building where TVA staffers would go for conference calls with the NRC. Before the call started, the TVA staffers would open a drawer in the conference table and get out special gear. Each staffer would put on a pair of big, black glasses with fake nose and mustache. That lack of respect was the TVA attitude towards the NRC in those days. While I do not suggest that those glasses are still being used, I look at how TVA is doing its own thing on Browns Ferry Unit 1 and can only conclude that TVA still does not respect NRC as a regulator.

For more details on TVA's motives, I'd like to turn the presentation over to Ann Harris.

<PRESENTATION BY ANN HARRIS>

TVA may lack the money needed to make Browns Ferry Unit 1 fit into either the operating plant or permanently closed plant categories. It will cost a lot to do the work necessary to bring Unit 1 into the 1990's and back into compliance with the requirements of its operating license. It will also cost a lot to develop the post-shutdown decommissioning activities report. So, TVA created a category and called it "administrative hold." And even though that plant status is not covered by any of its regulations or policies, the NRC let TVA do it.

<SLIDE 13>

Why do we care? After all, Unit 1 has been shut down since March 1985. Its reactor has long since been emptied of fuel. Why should anyone care about the safety performance of a plant that has been shut down for so long? For one thing, their irradiated fuel, which in Unit 1's case is stored in its spent fuel pool, continues to represent a threat to public health for many years. Just last year, the NRC released a report prepared by Brookhaven National Laboratory of the risks to the public from nuclear plants that have shut down and moved all of their fuel to their spent fuel pools - plants like Browns Ferry Unit 1. According to that NRC document, an accident could expose the surrounding population to a radiation exposure of 38 million rem. To put that number in context, federal regulations limit the radiation exposure to nuclear plant workers to less than five rem each year. The radiation exposure was projected to result in 15,300 additional deaths due to cancer and other radiation-related illnesses. Like the isolation zone around the Chernobyl plant, 140 square miles in Alabama would have to be abandoned due to radioactive contamination. The accident would cost \$48 billion dollars.

Now, please note that the folks at Brookhaven did not recommend that the people living around permanently closed plants immediately pack their bags and head upwind. They concluded that the probability of the potential accident were sufficiently small as to make the overall risk acceptable. How is the probability kept small? The NRC's regulations for design features and administrative controls at permanently closed plants minimize the chances of an accident. Likewise, the NRC's regulations for operating plants minimize the chances of an accident.

But the NRC has no regulations for nuclear plants in "administrative hold." Thus, Browns Ferry Unit 1, which has the potential consequences from an accident as calculated by Brookhaven, is not protected by regulations that minimize the chances of such an accident. Because there are no regulations that apply to Unit 1 at this time, I cannot honestly tell you that the plant is unsafe. More importantly, neither TVA nor NRC can honestly tell you that the plant is safe. In other words, the NRC is not adequately protecting the public from its risk.

<SLIDE 14>

We are advocating, as usual, simply that the NRC do its job of providing adequate protection for the public. The situation at Browns Ferry Unit 1 demands that the NRC immediately do one of the following three things:

1. Compel TVA to bring Unit 1 into compliance with the requirements of its operating license. TVA has a tall stack, perhaps many stacks, of NRC requirements that it has been ignoring. TVA would have to implement all of those requirements which were applicable, as well as fix all of the problems that caused Unit 1 to be shut down in the first place.
2. Compel TVA to place Unit 1 into the permanently closed category. TVA would have to do some work, such as preparing and submitting a post-shutdown decommissioning activities report, to fit into that category.
3. Issue regulations and/or regulatory policies that apply to nuclear plants in "administrative hold." NRC cannot convince anyone that it is doing a good job of regulation when it has no regulations that apply to Unit 1.

The NRC's obligations under the Atomic Energy Act of 1954, as amended, requires that it end the regulatory limbo status on Unit 1. Therefore, you must take one of these three actions.

Thank you.

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**Browns Ferry Unit 1:
Operating or Permanently Closed?
NRC Must Force TVA to Chose.**

**David Lochbaum
Nuclear Safety Engineer
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October 26, 1998

Why Are We Here Today?

- **03/85: TVA voluntarily shuts down Browns Ferry Unit 1**
- **06/85: TVA places Unit 1 in “administrative hold”**
- **01/98: UCS asks NRC if TVA pays a full license fee for Unit 1**
- **01/98: NRC tells UCS that TVA pays full fare and that Unit 1 gets inspected just like any other operating plant**
- **04/98: UCS petitions NRC to revoke operating license for Unit 1**
- **08/98: NRC grants UCS’s request for informal hearing**

Why Did TVA Shut Down Unit 1 in March 1985?

■ According to O. J. Zeringue, then TVA's Senior Vice President of Nuclear Operations:

- “TVA identified a failure at [Browns Ferry Nuclear Plant] to consistently maintain a documented design basis and to control the plant's configuration in accordance with that basis.”

What Happened in 1985?

- Yul Brynner appears in the play "The King and I" for the 4,500 time.
- Patrick Ewing received the Naismith Award as the nation's best collegiate basketball player.
- Billy Joel married Christie Brinkley
- Ronald Reagan sworn in for a second term as President of the United States
- Team led by Robert Ballard discovers the wreck of the *Titanic*
- *Back to the Future* and *Rambo: First Blood Part II* are the top grossing films

What Happened Since 1985?

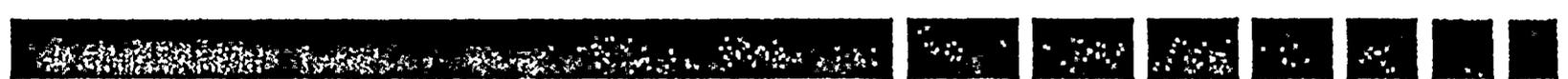
■ NRC has issued approximately:

- 40 bulletins
- 140 generic letters
- 1,100 information notices

■ TVA's typical response to this safety correspondence:

- “Unit 1 is shutdown, defueled, and under administrative hold. The conditions described by this [generic letter] will be addressed prior to its return to service.”

What Happened Since 1985?



- NRC issued TVA a request for information regarding adequacy, availability, and control of design basis information in October 1996.

- TVA's response:
 - “In accordance with TVA's prior commitments, TVA will implement the [design basis verification project] on Unit 1 prior to its return to service.”

Why Unit 1 is NOT an operating plant?

- TVA placed Unit 1 in commercial use in August 1974. It operated until March 1985. Unit 1 has been on “administrative hold” longer than it operated.
- Operating plants get inspected by NRC against federal safety regulations:
 - Unit 1 is not inspected as operating plants are
 - Unit 1 is “frozen” in 1985 non-compliance. The NRC could not verify compliance even if it did inspect

**TOTAL HOURS EXPENDED ON OPERATING REACTORS BY UNIT
BY NRR HEADQUARTERS AND REGIONS
OCTOBER 1, 1995 - SEPTEMBER 30, 1996**

PEACH BOTTOM 3	2947.2	HATCH 1	6321.7	SEABROOK 1	7604.8
NORTH ANNA 2	2965.7	SAN ONOFRE 2	6336.7	SOUTH TEXAS 2	7526.2
PRAIRIE ISLAND 2	3132.7	HATCH 2	6337.2	SALEM 2	7783.0
LIMERICK 2	3479.0	PALO VERDE 1	6344.1	ZION 1	7878.0
NORTH ANNA 1	3590.3	TURKEY POINT 3	6376.1	CATAWBA 1	7917.7
OCONEE 2	3612.7	BRUNSWICK 1	6454.7	CLINTON	7918.4
PALO VERDE 3	3738.8	QUAD CITIES 1	6476.2	SALEM 1	7958.0
FARLEY 2	3773.8	MCQUIRE 1	6564.2	THREE MILE ISLAND 1	7958.9
COMANCHE PEAK 2	3809.9	COOK 2	6586.8	DAVIS-BESSE	8191.8
BYRON 2	3816.6	CATAWBA 2	6593.6	FORT CALHOUN 1	8194.3
FARLEY 1	3844.6	LASALLE 2	6669.6	DRESDEN 3	8267.2
OCONEE 3	3904.8	BRAIDWOOD 1	6693.7	OCONEE 1	8426.1
COMANCHE PEAK 1	3976.3	NINE MILE POINT 2	6745.6	PILGRIM 1	8539.4
BRAIDWOOD 2	4121.0	SUSQUEHANNA 1	6776.3	PERRY 1	8700.1
BROWNS FERRY 2	4184.7	SUMMER	6880.4	BROWNS FERRY 3	8818.9
POINT BEACH 2	4300.4	HARRIS 1	6904.2	COOPER	9063.1
LIMERICK 1	4346.2	NINE MILE POINT 1	6937.3	RIVER BEND	9123.2
DIABLO CANYON 2	4386.6	SOUTH TEXAS 2	6950.9	OYSTER CREEK	9144.2
PEACH BOTTOM 2	4442.0	KEWAUNEE	6160.7	ROBINSON 2	9420.1
PALO VERDE 2	4482.9	BEAVER VALLEY 1	6233.4	HOPE CREEK 1	9519.8
TURKEY POINT 4	4487.9	COOK 1	6247.5	WOLF CREEK 1	9614.8
MCGUIRE 2	4512.2	POINT BEACH 1	6339.7	DRESDEN 2	9746.1
PRAIRIE ISLAND 1	4691.0	SEQUOYAH 1	6371.6	MILLSTONE 2	9894.2
SUSQUEHANNA 2	4599.6	SEQUOYAH 2	6387.5	WATERFORD 3	9928.2
SAN ONOFRE 3	4666.6	VOGTLE 1	6434.1	MAINE YANKEE	11255.0
BEAVER VALLEY 2	4678.1	CALVERT CLIFFS 1	6456.6	FERMI 2	11303.7
SURRY 2	4769.4	BIG ROCK POINT	6549.6	INDIAN POINT 3	11342.8
VOGTLE 2	4837.7	ST LUCIE 1	6682.3	PALIBADES	11848.1
QUAD CITIES 2	4840.7	ARKANSAS 1	6713.6	MILLSTONE 3	12719.7
INDIAN POINT 2	4977.0	MONTICELLO	6799.9	WASH NUCLEAR 2	13435.2
CALVERT CLIFFS 2	5012.4	CALLAWAY	6845.2	GINNA	13697.6
ST LUCIE 2	5022.0	VERMONT YANKEE	6901.8	WATTS BAR 1	16937.1
ARKANSAS 2	5029.7	DUANE ARNOLD	6905.6	HADDAM NECK	16104.5
BRUNSWICK 2	5044.6	ZION 2	6913.4	CRYSTAL RIVER 3	17798.6
DIABLO CANYON 1	5153.7	LASALLE 1	6992.2	MILLSTONE 1	22795.4
SURRY 1	5179.2	FITZPATRICK	7303.4		
BYRON 1	5244.1	GRAND GULF 1	7493.7		

MEDIAN = 6050.9

MEAN = 6906.7

**TOTAL HOURS EXPENDED ON OPERATING REACTORS BY SITE
BY NRR HEADQUARTERS AND REGIONS
OCTOBER 1, 1995 - SEPTEMBER 30, 1996**

DUAL UNIT

TRIPLE UNIT

NORTH ANNA 1,2	6558.0	VOGTLE 1,2	11271.8
PEACH BOTTOM 2,3	7389.2	CALVERT CLIFFS 1,2	11467.9
FARLEY 1,2	7618.3	ST LUCIE 1,2	11604.3
PRAIRIE ISLAND 1,2	7723.7	ARKANSAS 1,2	11743.3
COMANCHE PEAK 1,2	7788.2	NINE MILE POINT 1,2	11782.9
LIMERICK 1,2	7825.2	COOK 1,2	11834.3
BYRON 1,2	9060.8	LASALLE 1,2	12861.8
DIABLO CANYON 1,2	9640.2	SEQUOYAH 1,2	12789.1
BRAIDWOOD 1,2	9814.7	BROWNS FERRY 2,3	13003.6
TURKEY POINT 3,4	9883.0	CATAWBA 1,2	13511.3
SURRY 1,2	9947.6	SOUTH TEXAS 1,2	13576.1
SAN ONOFRE 2,3	10005.2	ZION 1,2	14791.4
MCGUIRE 1,2	10076.4	SALEM 1,2	15719.0
QUAD CITIES 1,2	10316.9	DRESDEN 2,3	18003.3
SUSQUEHANNA 1,2	10378.1		
BRUNSWICK 1,2	10499.3		
POINT BEACH 1,2	10640.1		
HATCH 1,2	10858.9		
BEAVER VALLEY 1,2	10911.6		

PALO VERDE 1,2,3	13565.6
OCONEE 1,2,3	16945.6

MEDIAN = 10840.1 MEAN = 10919.4

MEDIAN = 14755.6 MEAN = 14755.6

Why Unit 1 is NOT an operating plant?

- TVA placed Unit 1 in commercial use in August 1974. It operated until March 1985. Unit 1 has been on “administrative hold” longer than it operated.
- Operating plants get inspected by NRC against federal safety regulations:
 - Unit 1 is not inspected as operating plants are
 - Unit 1 is “frozen” in 1985 non-compliance. The NRC could not verify compliance even if it did inspect

When Does the NRC Issue an Operating License?

- NRC issues operating licenses for nuclear plants after reaching two determinations:
 - That it has reasonable assurance that the facility is designed and constructed in accordance with federal safety regulations, and
 - That it has reasonable assurance that the facility will be operated and maintained in accordance with federal safety regulations.

Does Unit 1 Satisfy the NRC Criteria for an Operating License?



- TVA shut Unit 1 down in March 1985 because it lacked reasonable assurance of compliance.
- TVA put Unit 1 in “administrative hold” in June 1985.
- TVA has deferred responding to NRC correspondence and new rulemaking for Unit 1 since June 1985.
- **CONCLUSION:** Browns Ferry Unit 1 does not satisfy either of the criteria for an operating license.

Why Unit 1 is NOT a permanently closed plant?

- According to NRC memo dated July 1, 1998, “Annual Report on the Status of Prematurely Shut Down Plants:”
 - ALL of the permanently closed plants are covered by decommissioning guidance and the NRC’s Integrated Decommissioning Inspection Program
 - ALL of the permanently closed plants have submitted a post-shutdown decommissioning activities report (PDSAR) and have (or will have) submitted a license termination plant (LTP).
- Browns Ferry Unit 1 does not meet either of these criteria for a permanently closed plant.