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NUCLEAR REGULATORY COMMISSION

IN THE MATTER OF:
COMMISSION MEETING

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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

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DISCUSSION/POSSIBLE VOTE ON
FULL POWER OPERATING LICENSE FOR BYRON-1

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PUBLIC MEETING

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Room 1130
1717 H Street, N.W.
Washington, D.C.

Tuesday, February 12, 1985

The Commission met, pursuant to notice, at 2:03 p.m.

COMMISSIONERS PRESENT:

- NUNZIO PALLADINO, Chairman of the Commission
- THOMAS ROBERTS, Commissioner
- JAMES ASSELSTINE, Commissioner
- FREDERICK BERNTHAL, Commissioner
- LANDO ZECH, Commissioner

STAFF AND PRESENTERS SEATED AT COMMISSION TABLE:

- S. CHILK
- E. CHRISTENBURY
- L. OLSHAN
- F. MIRAGLIA
- D. EISENHUT
- J. KEPPLER
- J. STREETER
- M. MALSCH
- C. REED
- R. QUERIO

AUDIENCE SPEAKERS:

- R. BERNARO
- T. NOVAK
- J. ZERBE

DISCLAIMER

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P R O C E E D I N G S

1
2 CHAIRMAN PALLADINO: Good afternoon, ladies and
3 gentlemen.

4 The purpose of this afternoon's meeting is to discuss
5 and decide on whether or not a full power license shall be
6 granted to the Byron Nuclear Power Plant Unit No. 1.

7 On October 31, 1984, the NRC issued a license
8 authorizing fuel load, pre-criticality testing, and power
9 operation for power levels up to five percent of full power.

10 The NRC staff has prepared a presentation and I
11 understand that members of the NRC staff as well as repre-
12 sentatives of Commonwealth Edison Company are available to
13 answer any questions we might have.

14 At the conclusion of the discussions, I intend
15 to poll the Commission on whether or not to authorize the staff
16 to issue Byron a full power license.

17 Would any of the other Commissioners like to add
18 any additional opening remarks at this time?

19 COMMISSIONER ASSELSTINE: No.

20 COMMISSIONER ZECH: No.

21 CHAIRMAN PALLADINO: Well, then let me turn the
22 meeting over to Mr. Darrell Eisenhut of the NRC staff to
23 begin the presentation.

24 MR. EISENHUT: Thank you. Today, as you have said,
25 we are going to be discussing the Byron license. Byron is one

1 of the plants of Commonwealth Edison. They presently, as you
2 know, have nine plants presently licensed, counting Dresden-1
3 which of course is in shut-down condition.

4 As you pointed out also, the utility is here today
5 and you may want to hear from the utility at the end of the
6 presentation.

7 This plant is one of the duplicate concepts. It
8 came in originally as a package of Byron-1, Byron-2, Braidwood-1
9 and Braidwood-2 which were duplicate plants on a theory, you
10 review the first one and the other three are automatically
11 reviewed.

12 I bring it up because there was also a replicate of
13 this plant concept that we had reviewed for a number months,
14 Marble Hill, as an example of the present standardization
15 policy of the agency.

16 Today with me are representatives of NRR and from
17 the region, Mr. Keppler and Mr. Streeter; Frank Miraglia of the
18 staff, the Deputy Director of Licensing, and the Project
19 Manger is with us, Lenny Olshan who will walk through the
20 briefing today.

21 MR. MIRAGLIA: Thank you, Darrell.

22 May I have the next slide, please?

23 We are here to discuss the Byron full power license
24 today. We will go over a short background, a brief discussion
25 of the duplicate plant concept as it relates to Byron and

1 Braidwood; an overview of the safety review that has been
2 conducted on the facility; a discussion of the regional
3 activities with respect to Byron, and then go to the staff
4 conclusion.

5 May I have the next slide?

6 As Darrell has indicated, this represents the ninth
7 operating facility, excluding Dresden-1, for Commonwealth
8 Edison. They currently have six operating BWRs and two
9 operating PWRs. In addition, there is an additional unit at
10 Byron under construction and two at Braidwood of the same
11 design.

12 It's a Westinghouse four-loop facility. The
13 facility is located in Northern Illinois, and with respect
14 to off-site emergency planning, the full participation drill
15 was conducted in November of 1983 and final approval was
16 received from FEMA in September of 1984.

17 At this point, I would like to introduce Lenny
18 Olshan who has been the Byron Project Manager since the fall
19 of 1982, to briefly discuss some of the additional items on
20 Byron.

21 MR. OLSHAN: Thank you, Frank.

22 Next slide, please.

23 As Darrell indicated earlier, the Byron-1 is the
24 first of four essentially identical units, the other ones
25 being Byron-2 at the same site and Braidwood-1 and 2 at a

1 a different site but also owned by Commonwealth Edison. All
2 four construction permits came in at the same time. They were
3 reviewed commonly and a similar SER was put out.

4 The four applications for the operating license
5 came in at the same time, and the Byron-1 and 2 SER was issued;
6 the Braidwood-1 and 2 SER leaned heavily on the Byron-1 and 2
7 SER.

8 The common, the NSSS and the balance of plant are
9 essentially identical, the only differences relate to site-
10 specific concerns.

11 COMMISSIONER ASSELSTINE: How far behind Byron-1
12 are Byron-2 and Braidwood-1 and 2?

13 MR. OLSHAN: Byron-2 is presently scheduled for
14 June of '86. Braidwood, I think, is around the same time
15 frame. Braidwood-1 and Braidwood-2 is, I think, October '87.

16 MR. MIRAGLIA: I believe that's right.

17 MR. STREETER: I believe it's April '86 for
18 Braidwood-1.

19 MR. OLSHAN: Right.

20 MR. STREETER: And June of '86 for Byron-2, and
21 then the Braidwood-2 sequences in about a year later.

22 MR. OLSHAN: Thank you, John.

23 The next slide, please.

24 The plant, the Byron-1 is very similar to other
25 four-loop Westinghouse plants and also similar to another plant

1 that Commonwealth is the owner of, that's the Zion plant.
2 The only item that we thought was worth bringing up that is
3 unique to Byron is the volume reduction system. It is
4 composed of a fluidized bed dryer and a fluidized bed
5 incinerator for the handling of liquid and solid waste, and
6 it's the first of this type of incinerator to be licensed at
7 any plant.

8 There is going to be one also at Braidwood, and
9 there are a couple of other applications that we are presently
10 reviewing.

11 The technical specifications have gone through the
12 standard review process that has been done recently on plants.
13 That is, we had an independent contractor review the tech specs
14 against the FSAR. Region III did a walk-through to review
15 the tech specs against the "as built" plant, and Commonwealth
16 Edison has just sent a certification letter, certifying that
17 the tech specs match the FSAR, the SER and the "as built"
18 plant.

19 The tech specs being issued with the Byron-1
20 license are going to be common for Byron-1 and Byron-2, which
21 should simplify the process when Byron-2 is going to be
22 licensed.

23 CHAIRMAN PALLADINO: Are they going to be identical
24 plants?

25 MR. OLSHAN: They are identical plants, one set of

1 tech specs with notations where they differ. There may be
2 a footnote to identify differences betwe Byron-1 and 2. But
3 there will be one common tech specs.

4 COMMISSIONER ASSELSTINE: Have they also checked
5 the "as built" plant against the FSAR?

6 MR. OLSHAN: Yes.

7 COMMISSIONER ASSELSTINE: Okay.

8 MR. OLSHAN: That was done by Commonwealth Edison.
9 I believe the region does that all the time.

10 MR. STREETER: We involve some contractors in our
11 effort, and we also did some of it ourselves.

12 COMMISSIONER BERNTHAL: I'm curious if you could
13 just digress for half a minute about the volume reduction
14 capability of the low level waste, rad waste system. I don't
15 know whether I'm losing my ability to recall, I must have
16 seen it when I was out there -- maybe I didn't.

17 But could you give me a word or two on what the
18 specs and characteristics are?

19 COMMISSIONER ASSELSTINE: It's an interesting
20 system, yes.

21 MR. OLSHAN: Could you be more -- the specs, you
22 said?

23 COMMISSIONER BERNTHAL: Well, what's it capable of?
24 I mean, what's the volume reduction ability? I'm just curious
25 about some of its nice features.

1 MR. OLSHAN: Well, it's capable of a reduction factor
2 of about four with respect to wet waste, and for dry active
3 waste it's a reduction factor of about 35.

4 COMMISSIONER BERNTHAL: I see.

5 COMMISSIONER ZECH: Quite an impressive site, quite
6 an impressive arrangement, I recall it quite well. And I
7 think that it does have certain application as far as the
8 utility is concerned to do some of their own work that might
9 have to be sent away.

10 So, I don't think I have ever seen another one
11 like it. But I do think it's something that we should watch,
12 it may have application to other plants.

13 COMMISSIONER BERNTHAL: This fluidized bed, does
14 that mean only that the characteristic is that you've got --
15 presumably you don't have the other mixture of ingredients
16 that you do when we talk about fluidized bed with a conventional
17 fossil-fired plant, for example; or does anybody know?

18 MR. MIRAGLIA: Bob Bernaro.

19 MR. BERNARO: Actually, to get into that kind of
20 detail I'd have to ask Cornell Reed, he is here.

21 COMMISSIONER BERNTHAL: Okay.

22 MR. MIRAGLIA: But basically the fluidized bed
23 taking the waste material in question and getting the heat
24 distributed in it, direct contact heat.

25 I'd like to add that Lenny Olshan said that Byron and

1 Braidwood are looking to this system. There are a couple of
2 other plants that are looking ahead to this kind of a system.

3 COMMISSIONER BERNTHAL: But this is the first.

4 MR. MIRAGLIA: Yes, this is the lead one. And this
5 is an activity that I would expect to see in more plants
6 with the strong incentive for reduction in the quantity of low-
7 level waste.

8 COMMISSIONER BERNTHAL: Well, that's enough said.
9 I just think that low-level waste is a problem that while we
10 so often divert it with a nuclear power plant's construction
11 and operation, it is a terribly important issue and will
12 become increasingly important in the years ahead.

13 COMMISSIONER ASSELSTINE: It certainly looks like
14 the direction of the Congress is going to be it's a utility
15 problem for a few more years.

16 COMMISSIONER BERNTHAL: That's right.

17 CHAIRMAN PALLADINO: I must say, I spent some time
18 looking at that system, and I too was impressed with its
19 capabilities and its design objectives.

20 MR. OLSHAN: The OL hearing began in March of 1983
21 and continued and was completed in August of '83. The initial
22 decision came out in January '84, denying a license. The
23 applicant appealed the decision. The Appeal Board remanded
24 the hearing back to the original Licensing Board, and a re-
25 opened hearing was conducted in July of '84 and continued until

1 August of '84, and then the original Licensing Board issued
2 their supplemental initial decision in October of '84, which
3 gave us the go-ahead to issue the license, the low-power
4 license on October 31, 1984.

5 Byron is presently going to start up with a six-
6 shift operation. That's four shifts to cover the 40-hour
7 week, and one shift for training and one shift to cover sick-
8 nesses and vacation time. On that six-shift rotation, two of
9 the shifts will be manned with the proper requirements of
10 experience. That means four shifts will need shift advisors.
11 Byron has eight shift advisors present at the plant and they
12 will be having shift advisers on all six shifts.

13 COMMISSIONER ZECH: How long do you intend to keep
14 those shift advisors in the plant in a watch-standing
15 position?

16 MR. OLSHAN: I understand they intend to keep them
17 for a year, even though the tech specs and the license
18 condition doesn't require it that long.

19 CHAIRMAN PALLADINO: This plant also, if I recall
20 correctly, has a SCRE -- senior control room engineer. Could
21 you highlight that a little bit?

22 MR. OLSHAN: Right. The requirement is for a shift
23 technical advisor. They fill that position by what they
24 call a SCRE. A SCRE is a shift technical advisor that holds
25 an SRO license. So, he is even more qualified than the STA.

1 They have four -- of the six-shift operation they
2 have four SCREs, so only two shifts will need STAs and the
3 tech specs reflect that either a SCRE or an STA can fill the
4 shift requirements.

5 MR. EISENHUT: I think this is very similar, as
6 I recall, to the situation we discussed on La Salle where,
7 when we licensed the La Salle units --

8 CHAIRMAN PALLADINO: I missed it La Salle, I picked
9 it up at Byron.

10 MR. EISENHUT: I'm pretty sure we had the same
11 situation with a SCRE at those two facilities, and I think
12 it's something that generically is a direction they are
13 heading in the utilities.

14 COMMISSIONER ASSELSTINE: Yes. I think Zion has
15 the same kind of arrangement. Commonwealth is going for that
16 across their system.

17 MR. EISENHUT: I think that's correct.

18 COMMISSIONER ASSELSTINE: Yes, yes.

19 CHAIRMAN PALLADINO: Okay, go ahead.

20 MR. OLSHAN: Well, if there are no further questions,
21 let me turn it over to John Streeter. He is the Byron
22 Division Director for Region III and he will cover the
23 inspection program and the remaining topics.

24 MR. STREETER: If I could say just a little bit
25 about my position and my responsibilities before I get started

1 I'd appreciate it.

2 My capacity is the Director of the Byron Project
3 Division. That is my sole responsibility, and I was given
4 that assignment last June by Mr. Keppler to focus attention,
5 undivided attention, to assure the project received the
6 proper management oversight.

7 This was before it went into the remanded hearing
8 and will continue until the latter part of this month.

9 I appreciate the opportunity to come before you
10 and to give you Region III's observations on what our activities
11 have been and what our conclusions are relative to the
12 readiness of the plant to go into operation.

13 First of all, the basis for our decisions on seeing
14 about the readiness of a plant, it comes from our routine
15 inspection program and any special efforts that we might
16 pursue.

17 The construction and the pre-operational tests
18 have started up now in the operations program. I can say at
19 this time that the results of those programs to date give us
20 confidence that the plant was properly constructed in
21 accordance with the commitments in the FSAR, SER, and we
22 feel confident that the utility is capable to commence safe
23 operation of the facility.

24 Some special inspection effort that might be
25 worthy of note is a regional construction team inspection that

1 was conducted in 1982. Following our Zimmer experience, Mr.
2 Keppler decided that it would be advisable for us to make
3 an assessment about other construction facilities in Region III
4 to see if there were similar problems that existed at Zimmer
5 and some other construction facilities.

6 Consequently, in 1982 we conducted a regional
7 construction assessment team inspection with one, at least
8 one member from headquarters.

9 The results of that inspection, although several
10 non-compliances were identified, the bottom-line conclusion
11 was the quality assurance program seemed to be functioning
12 properly and there weren't the kinds of problems that were
13 identified at Zimmer and South Texas, and other facilities.

14 One important thing that did come out of that that
15 you may be familiar with is a program called the QC Inspector
16 Re-Inspection program which was an important subject of the
17 remanded hearing.

18 That program was undertaken by Commonwealth Edison
19 as the result of a finding of the regional construction
20 assessment team inspection that the contractor's certification
21 practices were in question -- not necessarily that the people
22 weren't qualified, but the paperwork wasn't there to support
23 their certification.

24 As a result of that an inspection program was under-
25 taken that lasted many months, close to a year, I believe. It

1 involved a couple hundred-thousand re-inspections to determine
2 if the individuals who were improperly certified were over-
3 looking any important safety items.

4 The conclusion from that, as addressed in the hearing
5 was, no. The bottom line was that the people whose certi-
6 fications were in question were indeed capable of doing their
7 inspection activities.

8 There are several other special inspection efforts
9 that went on namely -- that you might be interested in --
10 NUREG-07-37, the tech spec verification effort that Lenny
11 previously mentioned, and the integrated design inspection --
12 independent design inspection that was conducted by IE and
13 several others related to allegations.

14 The net result of all of the normal inspection
15 program and all the special efforts that we have partially
16 highlighted here, lead us to conclude -- as I said before --
17 that the facility was properly constructed and the utility is
18 capable of resuming operation, commencing operation.

19 COMMISSIONER ASSELSTINE: Were there any significant
20 findings in the IDI?

21 MR. STREETER: If I could put it this way,
22 Commissioner, the bottom line was that there were no findings
23 that required, that called into question significant design
24 defects that had to be repaired in order for equipment to
25 function as it would be required to.

1 There were some efforts, there were some repairs
2 made but nothing that would draw into question the capability
3 of systems to perform.

4 MR. KEPPLER: My reaction to that was that the IDI
5 inspection team raised a number of concerns regarding the
6 work of Sergeant & Lundy, but because of the conservative
7 assumptions used in the design there did not have to be any
8 hardware changes.

9 MR. STREETER: That's right. And I don't want that
10 to sound too bland on that effort. As a result of concerns
11 that were developed out of the IE's independent design
12 inspection, the licensee commissioned Bechtel to come in and
13 do what is called an independent design review, which was a
14 comprehensive effort of about three systems to do further
15 check into the design processes of Sergeant & Lundy.

16 And the conclusion supported the fact that there
17 were no significant design changes required.

18 COMMISSIONER ASSELSTINE: Is that same kind of
19 effort also looking at Unit 2, as well as Braidwood?

20 MR. STREETER: No, sir. What is under way now,
21 I believe NRR has sent a letter to the licensee asking the
22 licensee to assess the application of the efforts that were
23 made at Byron-1 to Braidwood-1 and 2 and Byron-2.

24 COMMISSIONER ASSELSTINE: Okay.

25 MR. STREETER: And then approach it from there.

1 MR. EISENHUT: I think that's correct. I don't
2 think we have taken a final view on whether or not there ought
3 to be some additional work on either Byron-2, the Braidwood
4 units, and at the time we did it, I believe we also asked
5 the same question on Marble Hill because of that being a
6 replicate of a duplicate concept we wanted to make sure it
7 didn't have the same kind of application.

8 MR. STREETER: Next slide, please.

9 CHAIRMAN PALLADINO: You list steam generator
10 snubbers and WHIP restraint energy absorbing material. Were
11 you going to say something about those?

12 MR. STREETER: I can, yes, sir.

13 The steam generator snubbers, the situation there
14 was the licensee through its architect-engineer procured the
15 steam generator snubbers from Boeing, it's the aircraft
16 company, it has an engineering division in Washington.

17 These are very large devices. There are four on
18 each of the four steam generators. What occurred was that
19 they found that the snubbers would not function as they
20 originally thought they would. They would not meet the
21 procurement specifications.

22 Consequently, what was required was that those
23 snubbers had to be replaced by some others from another
24 manufacturer. Those have been installed and they are now
25 operable.

1 CHAIRMAN PALLADINO: How did you find out that the
2 others were not operable? How did you find out the replacement
3 was operable?

4 MR. STREETER: There were a couple of factors
5 that led us into that, Mr. Chairman. One was, it started out
6 at Marble Hill. During an inspection at Marble Hill some
7 information was picked up that the steam generator snubbers
8 which were procured from the same place as the Byron snubbers,
9 it was identified that they had excessive leakage and were
10 causing some concern down there.

11 They weren't installed at Marble Hill, they were
12 sitting on the shelf. Because of the inspector's concern about
13 the leakage observed there and knowing that they had the
14 same ones at Byron, he in turn performed an inspection at
15 Byron-1 and observed that they also had leakage.

16 So, that led to further looking into the duct
17 procurement documents and the test results, and led to the
18 conclusion that in order to assure that they would properly
19 operate, further testing would be necessary.

20 CECO agreed to conduct that testing. It was
21 conducted last June, and the testing demonstrated that the
22 components, devices, weren't capable of performing properly.

23 CHAIRMAN PALLADINO: Did the replacement snubbers
24 pass?

25 MR. STREETER: Yes, sir. They were tested. They

1 were manufactured by another manufacturer. They now have
2 two in parallel as opposed to one large device at each
3 installation as the original installation called for.

4 What is going on now is, Commonwealth is trying
5 to modify the original snubbers such that they can use them
6 in Byron-2 and Braidwood-1 and 2. Testing is going on now
7 to try to qualify those components.

8 CHAIRMAN PALLADINO: Okay. Were you going to make
9 some comments about the WHIP restraint energy absorbing
10 material?

11 MR. STREETER: Yes, sir. The WHIP restraint
12 energy absorbing material was an issue where -- the material
13 is honey-comb looking, made out of stainless steel, and it's
14 purpose is to place it around pipes such that if you get a
15 pipe break, then the energy absorbing material would do just
16 that, it would absorb some of the initial energy to allow
17 you not to have to beef up the structures and over-design
18 the structures themselves.

19 What we found in looking into this issue was that
20 we had some questions about the installation process, the
21 fuel-cutting activities, the designs of some of the WHIP
22 restraints and, perhaps more importantly, when we started
23 looking into those items, this led us to request SECO do
24 additional testing, which they agreed to do and did conduct.

25 That revealed that the material strength itself was

1 way below what it was supposed to be. It was supposed to be
2 somewhere around 6,000 psi material, and it turned out to be
3 about two-thirds of that in many cases, which then led into
4 a reassessment of all of the WHIP restraint installations
5 and replacement of the material with known good quality
6 material.

7 The reason it's listed here is just to simply give
8 you an idea of those things that really consumed a lot of
9 time on our part in special inspection efforts.

10 CHAIRMAN PALLADINO: Thank you, John.

11 MR. STREETER: I might add on the steam generator
12 snubber question and also the energy absorbing material
13 question that you have asked about, we have assured in all
14 these cases that proper corrective actions were taken such
15 that we are entirely confident that the facility is properly
16 corrected.

17 However, we haven't finished our final evaluation
18 of what enforcement action we might intend to take on some
19 of these issues. So, that's under review.

20 CHAIRMAN PALLADINO: But as far as the technical
21 resolution is concerned --

22 MR. STREETER: All corrective actions have been
23 completed entirely.

24 On the next slide -- pardon me, the previous slide
25 on allegations? Thank you.

1 On allegation status this is just something that
2 we thought that you would be particularly interested in where
3 we stood.

4 I would like to say that since the time when we
5 originally thought the license might be issued, back around
6 September, at the end of the remanded hearing we received a
7 large number of allegations -- or I should say expressed
8 concerns from an expert witness for the intervenors in the
9 remanded hearing. It was a tremendous task, the number of
10 items we had.

11 So, we used in determining how we approach those
12 allegations the Commission guidance that was set forth as
13 the result of the Diablo Canyon matter, and enlisted the
14 licensee in evaluating many of those allegations.

15 We in turn looked at those and made our own
16 assessment, along with the other ones that we kept for our
17 own selves. The criteria that we used on giving those
18 items to the licensee is, we gave them those that we did not
19 feel would compromise the effort that needed to be done to
20 have an objective look into the allegations.

21 To date, at this point in time, we have what we
22 call seven open allegation files. Now, one of these open
23 allegation files might constitute as many as -- depending
24 on how you counted -- up to a hundred individual items, -- such
25 as was the case with the intervenor expert witness' concerns

1 as I just described. Those have been completed.

2 We have four open allegation files. We have assessed
3 those. We do not feel that there is any significant implication
4 as far as the systems intalled at the plant or the readiness
5 of the plant to go into operation.

6 COMMISSIONER ASSELSTINE: Are these all technical
7 allegations as opposed to wrong-doing?

8 MR. STREETER: No, sir. I can give you one example.
9 One of them happens to be an item that we got about a week
10 ago via a constituent from a Congressman that talked about
11 the drug use that she had heard about through an employee
12 that worked at the plant.

13 That particular one, we have addressed. We have
14 taken that action to discuss it with Commonwealth. They
15 have enrolled him in their -- I forget the title but it's
16 their corrective action program for drug and alcohol offenders.

17 He is in that program. He has been removed from
18 safety-related activities and no one else was implicated in
19 that particular one.

20 CHAIRMAN PALLADINO: Is that the one you referred to --

21 MR. STREETER: That's the second one, Mr. Chairman.

22 MR. KEPPLER: Let me interrupt. There are no
23 on-going OI investigations.

24 MR. STREETER: Jim, there are two open, if I can
25 address that. They are not on-going perhaps in the sense that

1 they are not active, but there are two OI investigations. One
2 is dealing with the steam generator snubber issue and related
3 to the manufacturer and whether -- basically relating to --
4 did the manufacturer properly represent his product.

5 The second one relates to a vendor of components
6 for Commonwealth by the name of Systems Control in Michigan,
7 and that has been referred to the Department of Justice and
8 they haven't ruled on what their intentions are on that.

9 MR. KEPPLER: My comment was meant to be toward
10 Commonwealth Edison.

11 COMMISSIONER ASSELSTINE: Yes.

12 COMMISSIONER BERNTHAL: When you say that they are
13 open but not on-going, what does that mean, we don't have
14 the resources to finish them, or what's going on?

15 MR. EISENHUT: Well, I think you might want to hear
16 from Mr. Hayes on the matter. Mr. Hayes informed me right
17 before the meeting that OI considers they have no active on-
18 going investigations against Commonwealth at this point in
19 time.

20 COMMISSIONER ASSELSTINE: Right.

21 COMMISSIONER BERNTHAL: I see.

22 MR. EISENHUT: There are, however, general generic
23 matters that affect a number of utilities, and I would probably
24 suggest if we go into any more to that, to deal with that
25 as a separate matter --

1 COMMISSIONER ASSELSTINE: Yes, deal with that as a
2 separate matter.

3 MR. EISENHUT: -- since we view them as not
4 specifically related to this plant.

5 CHAIRMAN PALLADINO: But as far as technical
6 allegations, do you feel you resolved them all?

7 MR. STREETER: Yes. On some of the -- the last
8 entry on that slide you note that we are pursuing information
9 to allow us to formulate an effective investigation. We
10 simply haven't been successful in getting the people to
11 cooperate with us and giving us the specifics.

12 CHAIRMAN PALLADINO: When you say "people," do
13 you mean those who are providing the allegations?

14 MR. STREETER: Yes, sir. Yes, sir.

15 Can we have the next slide, please?

16 To give you an idea of where we stand now as far
17 as the SALP process, we did an internal SALP review, what
18 we call a mini-SALP, that was internal to the region last
19 week to see what we thought of the licensee's performance.

20 And I guess if I could characterize it, you won't
21 see any outstanding features. You will see a 1 in the fuel-
22 loading activities. You will see that all of the three
23 categories that were indicated last time, specifically in the
24 pre-operational test area, the fire protection area, indicate
25 improvements.

1 I can't promise you that these ratings will hold
2 when the formal SALP assessment period has ended. There are
3 a couple because of the steam generator item, the snubber
4 item and EAM, perhaps that might result in a reduction in
5 the piping and supports area. Also -- well, I guess that's
6 about it.

7 I would like to say in the security area although
8 it's a 2, there has been some decline there and that we have
9 identified -- the licensee has recently identified, -- a
10 couple items that require corrective action.

11 COMMISSIONER BERNTHAL: Are there principal
12 improvements in the fire protection involved here?

13 MR. STREETER: What were the principal --

14 COMMISSIONER BERNTHAL: Yes.

15 MR. STREETER: I would have to -- two-fold.
16 Primarily, more involvement by management. During the last
17 SALP period, at the tail end, they had become aware that their
18 performance wasn't what it should have been in that area,
19 they were convinced of that. They elicited the support of a
20 professional fire protection engineer on their staff. They
21 elicited the support of consultants to turn the program around,
22 and they have been successful.

23 COMMISSIONER BERNTHAL: Did it involve any hardware
24 modifications of any kind, or is it primarily management
25 organization?

1 MR. STREETER: Well, it did relate -- result in
2 the identification of some hardware, what I'll call deficiencies,
3 some shortcomings that did require correcting, yes.

4 COMMISSIONER BERNTHAL: And how die emergency --
5 did you have another --

6 CHAIRMAN PALLADINO: I just wanted to ask, are they
7 in compliance now with their fire protection regulations?

8 MR. STREETER: They will be as soon as one last
9 item is completed. I believe that's due for Thursday, it's
10 the installation of a fire hazards panel. There may be some
11 other --

12 MR. OLSHAN: There is one additional license
13 condition that we gave them until July 1st, it's the misters
14 on the charcoal filters. We didn't want them to put the
15 misters in earlier because they are doing work around the
16 charcoal filters and they could damage the misters.

17 That's reflected in the license that we sent to you.

18 COMMISSIONER ASSELSTINE: What standard are you
19 using to judge compliance with Appendix R now? Are you
20 using it with the generic letter or is there some other
21 interim guidance that is being used in assessing the evaluation
22 on fire protection, like the ill-fated interpretation document
23 from last year. What's being used, the branch technical
24 position?

25 MR. OLSHAM: The branch technical.

1 COMMISSIONER ASSELSTINE: Okay, good.

2 COMMISSIONER BERNTHAL: I also was going to ask how
3 come emergency preparedness has gone down instead of up, or
4 instead of level, I should say?

5 MR. STREETER: I'm not sur^r that that entry is
6 correct. I can't tell you specifically on SALP IV. Now I
7 can tell you that they are 2, and I can tell you that there
8 have been no significant problems identified in the interim
9 that would specify that reduction.

10 So, my suspicion is that the 1 is probably an error.
11 I'll check that.

12 COMMISSIONER BERNTHAL: Okay. I don't know whether
13 to be pleased because it hasn't gotten any worse or not
14 pleased because it could be better. I'll accept that.

15 MR. STREETER: Could we have the next slide, please?
16 Thank you.

17 CHAIRMAN PALLADINO: Some of these you did not
18 rate. Is that because they were inappropriate to rate?

19 MR. STREETER: Primarily, Mr. Chairman, it's because
20 that phase of the activity is just about completed, either
21 that or we had no significant inspection activity going on. But
22 it's principally the former, that the support systems and
23 the pre-service inspection, all those things are in the past
24 now.

25 We sort of had a combination between, especially on

1 Byron-1 with the fuel load and the plant operation, it's a
2 combination of construction and operation facility, a hybrid.

3 COMMISSIONER ASSELSTINE: Would you say that these
4 SALP ratings put Byron where in the range of plants for
5 Commonwealth, about in the middle, upper part, or --

6 MR. STREETER: Well, I guess I'd have to say if
7 I looked at the construction facilities, Braidwood and Byron,
8 I would have to say that the results indicate that they
9 indicate better results than Braidwood.

10 If I looked at how they compared to the operating
11 facilities, depending on which one you choose, it would make
12 a difference. But where they are overall, I'd have to say
13 they are right in the middle of the pack. That might be my
14 assessment.

15 I would like to add that personal observation since
16 I have been out there is that they have the capability and
17 they have been encouraged to move to the top.

18 COMMISSIONER BERNTHAL: Let me ask this question --
19 I always have some difficulty as, I expect, the rest of us
20 do getting a calibration on these SALP ratings -- Jim, maybe
21 you are the best to answer this -- how do they stack up as
22 compared with the rest of the plants in your region?

23 MR. KEPPLER: Well, at this point that they were
24 rated, I think the best comparison I could give you would be
25 against Callaway and La Salle was in. They were better than

1 La Salle, they were not as good as Callaway.

2 CHAIRMAN PALLADINO: That puts them right in the
3 middle.

4 MR. KEPPLER: But if you take the numbers at
5 face value, we would call this a solid 2, fairly average plants.

6 MR. STREETER: The next area I would like to address
7 is the regulatory performance improvement plan by SECO. When
8 we came before you last year, I guess it was March or April,
9 for the La Salle-2 full power license meeting, there was a
10 lot of discussion about the implementation of a regulatory
11 performance improvement plan by SECO.

12 That was brought about by a period of one to two
13 years where we became convinced and later the licensee shared
14 our view that the performance was not only what we would like
15 it to be, it wasn't what they would like it to be either.

16 So, through a series of meetings, a program was
17 developed to correct the increasing number of personnel layers
18 in enforcement actions that had been taken, and to strive
19 for excellence in performance.

20 At the-time we came before you last April, the plan
21 had just been implemented in February. It stressed a lot of
22 key elements. One was that it issued some corporate directives
23 to address some specific important areas such as operator
24 error; restart of a plant after a trip, and conduct of
25 operations.

1 They also -- "they" meaning SECO -- also made some
2 organizations changes, both at the plant and at the corporate
3 level to improve the communications that we felt were a
4 problem. And also in the communications area we improved the
5 communication between the licensee and the region so that we
6 could more effectively communicate to them what we were
7 expecting out of them and to assure that they were responsive
8 to our views.

9 The result of all of that after it was implemented
10 in February, it was agreed that we would have periodic
11 meetings to assess the effectiveness of the program.

12 By the way, Commonwealth isn't the only one that
13 has developed one of these plans, they go by slightly different
14 names but the concept is the same.

15 We met with them in May, and the last meeting, I
16 believe, was in September, where we drew a conclusion that
17 the regulatory performance improvement plan indeed seemed to
18 be contributing to improved performance at most plants.

19 The reason I'm saying "most plants," the exception
20 to that is La Salle and some particular areas at some of the
21 other facilities. Where we find that the plan isn't working
22 as effectively as it was designed to do, we have taken steps
23 to address those specifics as we are doing now in the case of
24 La Salle.

25 COMMISSIONER ASSELSTINE: What kinds of indicators

1 are you looking for in terms of evaluating improved performance
2 and the extent to which the performance improvement plan is
3 being effected at different plants? What kinds of indicators,
4 violations?

5 MR. STREETER: The enforcement history certainly is
6 a very important aspect of that. We also rely a lot on the
7 observations by the rest of the staff, just the intuition
8 and what they see, how they feel about the operation of the
9 facility.

10 We rely a lot upon the SALP results that we see.
11 Those three areas there, I would say, are the principal
12 ones that we use. But I can't stress enough that I would
13 have to say the principal thing is the observations made by
14 the inspection staff, primarily the resident inspectors. We
15 rely a tremendous amount on that.

16 MR. KEPPLER: Let me add a couple of other things.
17 We pay a great deal of attention to the corrective action
18 programs the licensees implement, and I'm particularly
19 interested in recurrence of repetitive problems.

20 COMMISSIONER ASSELSTINE: Yes.

21 MR. KEPPLER: And I'm interested in the reduction
22 of personnel errors, people mistakes at the site.

23 COMMISSIONER ZECH: Can you tell us any specifics on
24 that program? In other words, you've got a program that
25 apparently is headed towards trying to prevent personnel errors.

1 We have been trying to do that for an awful long time. Is
2 the program -- can you give me two things, some specifics on
3 it and second, in your view, is it the kind of program that
4 should be shared with other utilities and perhaps with INPO
5 as one of their good practices?

6 If you would be a little more specific on what
7 you are doing to eliminate personnel errors.

8 MR. STREETER: I would say the corporate directive
9 that the licensee has implemented addresses the need for a
10 detailed evaluation of those operating events involving
11 personnel error. They are giving a lot of attention --

12 COMMISSIONER ZECH: Yes, corporate directive will
13 do something, but it doesn't do everything. I would appreciate
14 knowing, how do you get the personnel from making errors?

15 MR. STREETER: Well, I'll offer a couple of things,
16 Commissioner. One is that they try to -- they are communicating
17 with the staff, number one, what they are expecting of them
18 and not to make errors; and try to strive for the best
19 performance; try to encourage the people. That's one. They
20 do this in several different ways.

21 One is in an area called their Pro Program, or
22 their Professional Program, where they encourage individual
23 contributions and strive for excellence in performance.

24 COMMISSIONER ZECH: I hear your words, but I hope
25 it's not just a paperwork program, it's real.

1 MR. KEPPLER: Let me help you here a minute. I
2 think there are several things that they have done to help
3 reduce personnel errors.

4 One is that they are stressing their discipline --

5 COMMISSIONER ZECH: Good.

6 MR. KEPPLER: -- the actions that they expect from
7 their people, they hold them more accountable.

8 COMMISSIONER ZECH: Good.

9 MR. KEPPLER: They are giving time off, they are
10 definitely holding people more accountable than they have in
11 the past.

12 COMMISSIONER ZECH: Good.

13 MR. KEPPLER: They strengthened training.

14 COMMISSIONER ZECH: Good. Those are the kinds of
15 specifics I'm looking for.

16 MR. KEPPLER: When there have been personnel errors
17 at a level that are more than one might expect, they have a
18 corporate review that's done. This is a detailed review by
19 corporate management that looks into the root cause of a
20 problem, and they try to correct that.

21 They have added people into the actual control
22 room, management-type people, to try to free up the shift
23 supervisor, shift engineer-type people so that they can pay
24 closer attention to what's going on and make sure that
25 activities are --

1 COMMISSIONER ZECH: Make sure that the errors, for
2 example, weren't caused by some fallacy in the system or the
3 procedures, or something.

4 MR. KEPPLER: Yes, sir.

5 COMMISSIONER ZECH: And that's important to get
6 the management people involved in that, in my experience, it's
7 very important because, you know, errors are made by people
8 who are turning switches and things like that.

9 But if the error is made, personnel error made, is
10 symptomatic of other problems, it's important that the
11 management be involved in it.

12 What you are telling me specifically is what I hoped
13 you would tell me because, you know, discipline is teaching
14 in a way and when people make errors -- and people do make
15 errors -- they need correction and they need to be taught how
16 to do it right.

17 So, everybody should benefit from errors. If a
18 program is as good as you think it is -- and I don't want to
19 elaborate too much here, Mr. Chairman -- but if a program is
20 as good as you think it is, well, then I would suggest you
21 consider making it something you share with the other utilities
22 and perhaps put in INPO's Good Practice Program.

23 MR. KEPPLER: Well, let me add to this if I could.

24 A couple of weeks ago when we were back before the Commission,
25 the Regional Administrators, we talked about a number of plants

1 and a number of regulatory improvement programs. And as we
2 mentioned at that time, some of these seemed to work, some
3 of them had not worked as well as others.

4 I think Mr. O'Reilly used the word that some of them
5 have a rather short half-life to them, too.

6 My view of the Commonwealth program is that it has
7 been one of the better ones. Two years ago, I was not very
8 happy with Commonwealth Edison's overall performance of
9 operating plants. We had issued a number of fines to the
10 company. They seemed to be making a lot of mistakes at all
11 their operation stations.

12 Since that time, after some rather candid discussions,
13 since that time I would have to say that the company, from
14 the top management down, the CEO of the company on down, has
15 really put forth a very strong effort to improve the
16 regulatory performance.

17 We see very positive indicators at Dresden, Quad
18 Cities, and Zion. You can look at the numbers of mistakes,
19 you can look at the noncompliances, you can look at the
20 repetitive equipment problems, you can see an improvement
21 in the operation.

22 There is an improvement in the La Salle operation
23 but it still, in my view, stands out at a level that is not
24 where I want it yet. But the relative improvement, compared
25 to the other stations is not there yet. But they are working

1 very hard at it, I'm convinced.

2 We had a major meeting yesterday with the CEO and
3 other key officials, and I'm convinced the company is working
4 very hard to make that performance at La Salle as good as
5 the other stations and to put Commonwealth toward the head of
6 the pack.

7 COMMISSIONER ZECH: Well, I would be interested in --
8 perhaps you could send to me and to my fellow Commissioners
9 too, I am sure they would be interested also in that program.

10 MR. KEPPLER: I will be happy to do that.

11 COMMISSIONER ZECH: I do think it's something that
12 perhaps has merit. If it's a good, hard-nosed program that
13 gets results and actually improves people's performance, it's
14 worth looking into. If it's just a paperwork program, it
15 won't impress me.

16 MR. KEPPLER: No, it is not a paperwork program.
17 But one cautionary remark I would make. It's not programs
18 that make things work, it's people.

19 COMMISSIONER ZECH: Yes, I agree with that. That's
20 why I'm so interested in this program.

21 MR. KEPPLER: And a program that may work at one
22 company may not be --

23 COMMISSIONER ZECH: But if the program is making
24 people perform better, it's got merit. And you are right,
25 people are the cause of many of our errors, but teaching them

1 to perform better is a very worthwhile endeavor in my judgment.

2 So, I would be interested more in your program.

3 MR. KEPPLER: I will be happy to get it to you --

4 COMMISSIONER ZECH: Thank you.

5 MR. KEPPLER: -- and all the Commissioners.

6 COMMISSIONER ASSELSTINE: Good. I think it also might
7 be helpful later on, when we hear from the utility, to get
8 their perception and sense of the improvement program and
9 what benefits they are gaining from it.

10 COMMISSIONER ZECH: I agree with that.

11 MR. STREETER: Can we have the next slide, please?

12 Byron has been part of the regulatory performance
13 improvement program. It applies to only the operating
14 facilities for Commonwealth. But Byron has been part of it,
15 the station operating organization, since its inception; they
16 have been involved.

17 We performed a special inspection last spring to
18 assure ourselves that they were getting into the program such
19 that when they did receive a license, that they would be subject
20 to its provisions. We found that the people were knowledgeable
21 of the program, understood what it was intended to be; what
22 its goals and objectives were, and we found that station
23 management as well as corporate had taken a strong role in
24 implementing the program at Byron.

25 Now, following up on Commissioner Zech wanting

1 specifics on the program, I can offer you one case here of
2 about two, three weeks ago, where there was an operator
3 error involving the safety injection train. In holding
4 people accountable, the licensee took actions -- it was
5 the result of a procedural error. They took action to
6 instruct the operators, trained other operators, and they
7 placed a letter in the personnel folder of the operators
8 saying, basically, that this will be removed if improved
9 performance is seen over the next several months.

10 COMMISSIONER ZECH: Very good.

11 MR. KEPPLER: So, that's a step in holding people
12 accountable.

13 COMMISSIONER ZECH: Very good.

14 MR. STREETER: Can I have the next slide, please?

15 COMMISSIONER ASSELSTINE: Before you leave that
16 one, can you talk a little bit about the third bullet under
17 the second category, plant personnel were placed with the
18 benefits of the shift overview superintendent.

19 MR. STREETER: The shift overview superintendent
20 is part -- it related to a bullet on the previous slide
21 relating to increased management oversight of station
22 activities.

23 COMMISSIONER ASSELSTINE: That's having a manager
24 actually involved in the shift activities, watching what's
25 going on and being directly involved.

1 MR. STREETER: Yes, sir. He has no other duties
2 than to act as the station superintendent's eyes and ears out
3 there on shift, and they are on a rotating basis. They are
4 engineers. He has no other duties than go around and observe
5 what's going on and report back to the station superintendent
6 on these observations.

7 COMMISSIONER ASSELSTINE: And what are the benefits
8 that plant personnel saw in that approach?

9 MR. STREETER: It increased the communication by
10 having engineers on the back shift and everything, especially
11 in their areas of expertise they could help people understand;
12 they technically evaluate things and see that management was
13 interested in what was going on.

14 They have very specific identifiers so people know
15 who they are, just like control room personnel. They have a
16 unique color hat and jacket so that people are very much
17 aware of it, of their presence.

18 Could we go on the next slide, please?

19 COMMISSIONER ASSELSTINE: I think they are on it, yes.

20 MR. STREETER: Operating experience. Thank you.

21 To give you an assessment of where we stand and
22 what we have observed at Byron since the fuel loading
23 license was issued, we offer the observation, as the SALP
24 rating indicated, that the initial fuel loading activities
25 were conducted in a very deliberate manner. They were very

1 cautious. We have emphasized that and perhaps it wasn't
2 necessary because all of their activities have been conducted
3 cautiously since they have been licensed.

4 (Commissioner Roberts leaves meeting.)

5 MR. STREETER: As a result of an increased number
6 of reportable events very early in the game, about the first
7 part of December, we initiated a series of bi-weekly
8 meetings because we thought that the number of events were
9 unusually high. We had some other items to discuss with
10 the utility, for example, the work load, was it too high,
11 the contributing factors; trying to reduce repetitive failures
12 of equipment and these things.

13 We instituted these bi-weekly meeting in the middle
14 of December. Every two weeks we have had a meeting at
15 the site with senior-level management -- the manager of
16 project, station superintendent and down -- with a set
17 agenda of items to discuss.

18 COMMISSIONER ASSELSTINE: Could you give a few
19 examples of the times of reportable events and what you think
20 the causes of them were?

21 MR. STREETER: Yes. Everyone doing their own
22 assessment will categorize these differently, but I have done
23 my own and I can give you my observations.

24 I feel that they can basically be divided into
25 one missed surveillance test, and I would have to say on that,

1 it's simply making an adjustment from a construction facility
2 to an operating facility. I have seen it happen -- not that
3 it's desirable but it happens until people become disciplined
4 and say, "Gee, I've got to do this at this time and adhere
5 to that schedule because it's a tech spec requirement," you
6 see a missed surveillance test.

7 You will see some items, for example, where people
8 are adjusting also to an operating facility such as
9 penetration disturbances. They will be working on Unit 2,
10 not recognizing the impact on Unit 1. There are a few of
11 those cases. But the majority of the cases that Byron was
12 faced with were principally what I'll call repetitive equipment
13 problems.

14 They had particularly a radiation monitor device
15 that was susceptible to noise in the control room ventilation
16 system. It kept malfunctioning and also due to procedural
17 errors that were made changing in the filters and equipment
18 in the systems, caused a lot of problems in that particular
19 area.

20 To address that as part of these bi-weekly
21 meetings, the licensee formed a task force to deal with those
22 issues, and I can tell you now that within the last month
23 they have had perhaps one event, they have corrected that
24 problem.

25 CHAIRMAN PALLADINO: Is this a source range monitor?

1 MR. STREETER: No, sir. I am going to get to that.

2 CHAIRMAN PALLADINO: That's one of my questions.

3 MR. STREETER: One of the other, the other equipment
4 problems that I was alluding to was the spiking on the source
5 range instrumentation. They had a great deal of problem with
6 that, reducing the noise which was determined to be the cause
7 of the spikes on the source range instrumentation.

8 Mr. Chairman, if I could, I have that set out as
9 the very last item because I know you are interested in that
10 subject.

11 CHAIRMAN PALLADINO: It was a current problem when
12 I visited the plant.

13 MR. STREETER: I can tell you, though, just right
14 now that they have implemented a large program to look into
15 its causes. In my view, they have corrected that problem. It's
16 still noisy but the number of spikes that they are
17 experiencing is greatly reduced. I think they have had about
18 one in the last month. But I'll address that more specifically
19 when we get to the end, if you'll bear with me.

20 CHAIRMAN PALLADINO: Thank you.

21 (Commissioner Roberts rejoins meeting.)

22 MR. STREETER: Did I answer your question,
23 Commissioner?

24 COMMISSIONER ASSELSTINE: Yes, fine.

25 MR. STREETER: As a result of those bi-weekly

1 meetings, we feel that they have been effective in making
2 improvements in all areas discussed, and we are at the point
3 now where perhaps -- Thursday we are going to have the last
4 meeting. If the progress continues, we will discontinue those.

5 The post core load in initial criticality activities
6 were conducted, as was the fuel load, in a disciplined manner.
7 We believe that the performance was fine in that area.

8 As an additional measure as a result of, I believe
9 it was Commissioner Zech's interest, in control room discipline
10 and housekeeping, the resident inspectors recently went around
11 and assessed the performance of the licensee in those two
12 areas.

13 Control room discipline, as we have noted here,
14 was rated in our view as a Category 1 if we would have used
15 the SALP criteria for that.

16 COMMISSIONER ZECH: Very good. Glad to hear that.

17 COMMISSIONER BERNTHAL: I'll have to say that
18 while occasionally I made the comment that I would like to
19 see Commonwealth Edison rise considerably above the "Good
20 Gentlemen," a "C" category, one of the things that really
21 did impress me -- I'll say something nice now -- when I
22 visited there was the system that they had set up in their
23 control room for documentation, I guess "human engineering"
24 would be the right word, of emergency procedures and the
25 manua's and various devices that would attend to emergency

1 provedutes.

2 That particular set-up there, the design of it, I
3 think probably is the best I have ever seen. Whoever did the
4 job on that, I think, deserves some credit for it. I think
5 that s a terribly important thing because -- well, for obvious
6 reasons. In fact, it's become one of my favorite questions
7 when I visit any plant, including some that I visited in
8 Europe last summer, simply to ask operators, "What do you
9 do if this happened," a particular accident sequence occurs.
10 Not being so much interested in exactly which knobs, and
11 buttons, and pages they go to, but where all the equipment
12 is and generally what the human flow is that accompanies an
13 accident sequence.

14 It just seemed to me that they have done a very
15 good job with that. So, I wanted to make that comment that
16 seems to support what you have said.

17 MR. STREETER: Could we have the next slide, please?

18 We are getting into the last two items that I have
19 on my agenda. They are items that a number of the
20 Commissioners have expressed a particular interest in, namely,
21 the operator examination performance, past failure rates, and
22 also the source range noise.

23 Dealing with the operator examination performance,
24 during the last SALP period we noted that the candidates that
25 were placed up for examination by the utility in the first

1 group did not very well on the exams. As a matter of fact,
2 they were very poor results as you can see from this. In
3 5-83 they had about a 40-percent pass rate which, when you
4 compare it to the national pass rate that existed at that
5 time was about 75 percent.

6 As a result of that pass rate we felt and expressed
7 in the SALP report that the licensee was not preparing its
8 candidates very well to take the operator examinations. That
9 it was a misuse of resources not only on their part but our
10 part to go out and administer exams to people who were not
11 ready.

12 Following the May '83 results, there was an
13 October '83 examination which indicated that their results
14 were very close to the national average. This was because
15 of efforts that were made to dedicate time to people, take
16 them off of the pre-operational test activities, give them
17 some time so that they could prepare for the examination
18 because that was a principal factor that was identified for
19 the first failure rate.

20 CHAIRMAN PALLADINO: Was the October examination
21 with new people or people that were re-takes?

22 MR. STREETER: Yes, sir. You see the way that
23 I have arranged this information, the top portion, to remove
24 as much bias as I could, I have the first-time candidates
25 and then below the re-take candidates.

1 So, the October information that you see, for their
2 first-time candidates they achieved a pass rate that was
3 slightly above the national average at that time.

4 The same group you will see down below, they put
5 up some re-take candidates, which is very close to the pass
6 rate in that category at the time.

7 COMMISSIONER ASSELSTINE: As I recall when I was out
8 at the plant, the utility talked a little bit about this, and
9 they pretty much acknowledged that that first group they just
10 put up before they were ready and just didn't give people
11 a chance to do the preparation work.

12 MR. STREETER: Yes, sir.

13 COMMISSIONER ASSELSTINE: This seems to support that
14 view.

15 MR. STREETER: Now, following the SALP comments
16 in the summer of -- last summer, they have had but one other
17 group of candidates go up, and you don't see another step jump
18 in improvement over the October '83 results. But we believe
19 that once the improvements that they have put into place have
20 taken full effect, we are going to see more improvement yet.
21 And the next candidates are expected to come up in September.
22 So, I hope that on the next SALP results we are able to say
23 they turned it way around, they are way above the national
24 average.

25 CHAIRMAN PALLADINO: What happened to all those that

1 were unsuccessful, for example, on 5-83. What is that, 34
2 were unsuccessful? The number that re-appears.

3 COMMISSIONER ROBERTS: -- they got taken out in
4 the re-take.

5 MR. STREETER: That's right, Commissioner. Some of
6 them were put up a second time, and I believe a few of them
7 who did not pass the second time around, were simply taken out
8 of the program.

9 CHAIRMAN PALLADINO: I don't know if I interpret
10 this correctly, but out of the 59, 25 passed, 34 didn't,
11 and I only see maybe ten reappearing out of the 34. Does
12 that mean they just didn't try?

13 MR. STREETER: Well, you see ten back in 10-83.
14 You also see ten more in the 7-84. So, there are twenty
15 re-takes there.

16 CHAIRMAN PALLADINO: And they all came from this
17 population.

18 MR. STREETER: Not necessarily the first group, but
19 from the people who had previously taken it. And some, you
20 see, haven't re-taken the examination.

21 COMMISSIONER ASSELSTINE: But since there are only
22 five unsuccessful candidates from the October '83 and July '84
23 group --

24 MR. STREETER: Principally.

25 COMMISSIONER ASSELSTINE: -- it's probable the bulk

1 of them came from that first group.

2 MR. STREETER: Yes, sir.

3 CHAIRMAN PALLADINO: That looks like 20 out of 39.

4 COMMISSIONER ASSELSTINE: Yes, that's right.

5 CHAIRMAN PALLADINO: And the others just gave up?

6 MR. STREETER: Well, not necessarily gave up. SECO
7 in some cases gave up on them. Normally what the licensee's
8 practice is, as I understand it because a great deal of time
9 and money is invested in these candidates when they put them
10 up --

11 CHAIRMAN PALLADINO: That's why I asked.

12 MR. STREETER: -- they normally stay with them
13 a couple of times before they see that they are not capable
14 of passing the examination.

15 Next slide, please.

16 The source range noise problem, Mr. Chairman, that
17 was causing problems at the time you were out there, they
18 have experienced numerous spikes on their source range --
19 not only spikes where it spikes up, it also has a band of
20 noise or did have a band of noise at one time where there
21 would be a solid line, it moved between two and five counts,
22 something around that.

23 When I first started looking at this, and at the
24 time you were out there, I believe I offered the view that
25 it appeared to me that they were experiencing much more noise

1 than other facilities that my experience indicated.

2 At the time you visited and immediately following
3 it, we took steps to do our own independent review, the
4 Region III review, as well as encouraging the licensee to
5 do their review. They have done an extensive program. They
6 have through equipment changes to eliminate the noise and
7 other steps, they have improved the situation greatly.

8 The thing that came out of this that impressed me
9 was, in doing our own investigation we found that this was
10 a common problem to facilities, both BWRs and PWRs in their
11 initial phase before criticality where you had a very low
12 count rate, so that the signal, the noise ratio was very low.

13 I identified perhaps somewhere around 25 to 30
14 plants that have experienced this problem over the last ten
15 to 15 years it's been around.

16 It's the type of situation that appears when people
17 install this instrumentation it's a tailor-made fit where
18 they have to go in when they see this noise from various
19 sources and correct it on a case-by-case basis.

20 They have pulled in here -- they have visited other
21 facilities that were recently licensed; they have pulled in
22 their noise experts for surveys; they have brought Westinghouse
23 to the site, and through all of that their evaluations have
24 resulted in a much improved condition and they determined
25 that it's a common problem that has to be faced.

1 CHAIRMAN PALLADINO: Well, in the other plants, has
2 the problem gone away when they got a better signal of back-
3 ground --

4 MR. STREETER: Yes, sir. One of the responses that
5 the residents got when they were conducting counterparts was,
6 "How did you fix it --

7 CHAIRMAN PALLADINO: I remember your speculating
8 possible cause. Was any equipment change necessary in the
9 source range monitors at Byron, as a result of that program?

10 MR. STREETER: Equipment change in the sense --
11 the ones that come to my mind, they have relocated equipment.
12 For example, they have a device called a pre-amplifier that's
13 outside the penetration area, that they took and physically
14 moved closer to the penetration to reduce the span.

15 They replaced one detector. They changed the
16 connections on all, if not most, of the connectors. So, they
17 did a lot -- they re-ran conduit and cables to minimize
18 the noise.

19 CHAIRMAN PALLADINO: Are you satisfied that the source
20 range monitors can function to provide the necessary start-up
21 data?

22 MR. STREETER: Yes, sir.

23 CHAIRMAN PALLADINO: And you are not concerned about
24 the spikes or any spurious signals that you get?

25 MR. STREETER: Pardon me, I'm concerned --

1 CHAIRMAN PALLADINO: Yes, let me rephrase it. Are
2 you concerned to the extent where you are worried that
3 criticality might not be properly achieved?

4 MR. STREETER: No, sir. I'd rather not see it as
5 anyone would prefer not to, but it doesn't cause me a safety
6 concern with the plant.

7 CHAIRMAN PALLADINO: Okay.

8 MR. STREETER: That concludes the Region III overview.

9 MR. EISENHUT: Mr. Chairman, I believe that's all
10 we planned to cover today. This is a rather, we think,
11 strasight-forward project. We believe that the licensee
12 satisfied all the requirements for a full power license, and
13 we are not going to focus on any other issues unless there
14 are questions from the Commission.

15 CHAIRMAN PALLADINO: All right. Well, perhaps
16 this is a good time to open up to questions from the
17 Commission, and we'll see if anybody else has comments.

18 I had three basic questions, one of which we have
19 explored, that is the source range monitor.

20 The second question. At the time of issuance
21 of the five-percent license, there were many license conditions.
22 How have the license conditions changed since the issuance
23 of the five-percent license, and how have the tech specs been
24 revised if the tech specs had to be a revised as a result?

25 How do we stand with regard to license conditions?

1 Maybe this is --

2 MR. OLSHAN: I'll address that. You are referring
3 to the low power license. We have eliminated all the license
4 conditions that had five-percent conditions on them. Those
5 were the -- for the steam line break, which was License
6 Condition 5(a) has been eliminated --

7 MR. EISENHUT: I don't think you need to walk
8 through.

9 MR. OLSHAN: Okay, I'm sorry.

10 MR. EISENHUT: All of the conditions from five
11 percent have now been resolved, and in the full power --

12 MR. OLSHAN: Supplement 6.

13 MR. EISENHUT: -- amendment, the full power license
14 that we sent down, notice it is somewhat of a streamlined
15 license because all of those conditions have now been
16 satisfied or will be at the time of the issuance of this
17 license.

18 We took the posture, recall, of re-issuance of
19 the license. So, the amendment that we normally issue is
20 actually a completely revised full power license, so it is
21 not amending the previous license.

22 COMMISSIONER BERNTHAL: I have to comment -- at least
23 I believe I'm correct if I comment that in view of some
24 earlier discussions today isn't it true that you are issuing, or
25 proposing to issue a full power license here that contains

1 an exemption from GDC-17?

2 MR. OLSHAN: Yes, that's correct.

3 COMMISSIONER BERNTHAL: Thank you. My point being
4 that we do occasionally do that.

5 COMMISSIONER ROBERTS: The point is well taken.
6 Thank you.

7 COMMISSIONER ASSELSTINE: I am going to come back
8 to that one in a few minutes.

9 (Laughter)

10 MR. EISENHUT: You will in fact notice on page 7
11 of the proposed license --

12 COMMISSIONER ASSELSTINE: Which page?

13 COMMISSIONER ROBERTS: That's wonderful.

14 MR. EISENHUT: On page 7 of the proposed license,
15 paragraph "d" we have numerated those exemptions that we
16 believe are required by this license. There is in fact an
17 exemption to Appendix J, GDCs 2, 13, 17 and 19, as well as
18 the Appendix E exemption for emergency preparedness.

19 We have taken the posture that on each of the
20 licenses we will enumerate the places that exemptions are
21 required in the actual license itself, and summarize them
22 in this fashion.

23 CHAIRMAN PALLADINO: Let me ask onie other question.
24 Could you summarize significant events that are not complete
25 at this time, and what the schedule for completion would be?

1 And a correlary question, are there any items which will remain
2 incomplete after the first refueling outage or until the
3 first refueling outage?

4 MR. MIRAGLIA: I think with respect to items that
5 must be completed before the utility is ready to receive or
6 exceed five percent power is the one item that was discussed
7 relative to the fire protection panel.

8 That test is being performed today and the results
9 will be reported to the region tomorrow. In addition, the
10 evaluation of the low physics tests, it is our understanding
11 that the utility will be completing those tomorrow and again
12 would require some review and discussion with the region.

13 That should take care of all licensing matters with
14 respect to issuance of the full power license. There are
15 a number of conditions in the proposed full power license
16 that are dated requirements, and I don't recall off-hand
17 but perhaps Lenny could indicate if there is anything that has
18 to be done after refueling.

19 MR. OLSHAN: I'm sorry, a lot of these are items
20 that have to be completed by the first refueling.

21 CHAIRMAN PALLADINO: By the first refueling. How
22 about afterwards?

23 MR. OLSHAN: There are some that -- you mean immediately
24 after? I'm sorry.

CHAIRMAN PALLADINO: No.

1 MR. MIRAGLIA: Anything longer than the first.

2 MR. OLSHAN: Anything longer than the first
3 refueling, no.

4 MR. NOVAK: Tom Novak. There are some Reg Guide
5 1.97 items --

6 COMMISSIONER ASSELSTINE: Yes.

7 MR. NOVAK: -- typically very long range, and they
8 would be done in calendar year 1987, the early part, which
9 probably would extend beyond the first refueling.

10 MR. EISENHUT: I think, Tom, it's generally those
11 items in Attachment 2 to the license which, you will recall,
12 are the NUREG-737 Supplement 1 issues. There are five of
13 those. There are the emergency response facility items,
14 detailed control room design review, SPDS, upgrading
15 emergency procedures, those are the standard.

16 We believe this package is comparable to the kinds
17 of things we have been issuing although, granted, some of the
18 dates are a little later than other plants. That's due to
19 the sequencing of Commonwealth, of how they went into doing
20 the SPDSs, the upgrading of the emergency facilities.

21 We believe these dates, though, are reasonable and
22 are very comparable to dates we have seen on other plants.

23 That, principally, are the issues that stretch
24 out into the future. There are a number of items that have
25 to be resolved prior to start-up following the first refueling

1 outage. However, on this plant it's actually fewer of
2 those kinds of conditions than there have been on past
3 licenses.

4 In fact, this is actually a pretty brief license
5 compared to the way we have been doing licenses where we
6 formally document all of the conditions of any significance
7 that are pending in the future.

8 CHAIRMAN PALLADINO: Is equipment qualification all
9 settled on this plant?

10 MR. EISENHUT: Perhaps we could discuss it. It's
11 certainly settled in the framework of where we think we have
12 a program laid out for resolution.

13 MR. MIRAGLIA: License Condition No. 5 indicates
14 that the EQ provision will be complied with by the 3rd of
15 November, 1985. The status of the component evaluation was
16 outlined in Supplement No. 5 to the Byron SER, and there were
17 nine components at that time that required some degree of
18 corrective action.

19 Right now, it is our understanding that three of
20 those components, the corrective actions have been completed;
21 on five additional items they expect completion by
22 March.

23 MR. MIRAGLIA: One item which has to do with the
24 in-core thermo couples requires an outage and that is the one
25 item that will take at least until November, and they need

1 an outage of sufficient duration to complete that.

2 That's an overview status on the EQ issue for
3 Byron Station.

4 CHAIRMAN PALLADINO: Thank you. Tom, do you have
5 any questions? Jim?

6 COMMISSIONER ASSELSTINE: I have just a couple. Let
7 me pick up with the last item that you talked about,
8 environmental qualification.

9 I'm at least encouraged to hear that there is only
10 one item that goes beyond March.

11 (Chairman Palladino leaves meeting.)

12 COMMISSIONER ASSELSTINE: And I have to say what
13 bothered me when I saw this provision in the license, I thought
14 that at long last we are finally just about through with
15 environmental qualification problems. I expected next month
16 being March, and that being the deadline in the regulation, that
17 these problems would be behind us.

18 I was somewhat dismayed to see first thing off an
19 extension to November. I guess what I'm wondering is, this
20 is the first time I have spotted one of these. Is this the
21 first schedular exemption that the staff has granted, or
22 are you granting other schedular exemptions or do you plant
23 to, either for NTOLs or for operating plants?

24 MR. MIRAGLIA: The answer to that question is, yes,
25 there have been a number of schedular exemptions past March

1 of 1985, but no later than November 30. For the Commonwealth
2 facilities which I looked at before we came down, I believe
3 there is only one other, I think La Salle has time until
4 November of '85. I believe all the other Commonwealth
5 facilities at this time do have the March.

6 COMMISSIONER ASSELSTINE: Is it fair to say, then,
7 that as a practical matter the March deadline is now November?

8 MR. MIRAGLIA: No. I think in certain selected
9 areas extensions have been granted to November. They are
10 for a number of components with shown just cause and things
11 of that nature. So, it's not a blanket approval or wall
12 out to 1985. I think it's a mixed bag in that regard.

13 MR. EISENHUT: Let me try to answer it this way:
14 The March '85 date we are certainly striving to meet, and I
15 think it's fair to say that we are ensuring that the utilities
16 make all efforts to meet this March '85 date.

17 The Director of NRR, of course, has the authority
18 to grant schedular exemptions if just good cause has been
19 shown, or appropriate words. We make a formal determination
20 on each case where an item is extended past March '85 to
21 November '85.

22 There have been a number of them. Generally, what
23 you find is, you find perhaps one or two, or a handful of
24 components as a reason why you just can't get from here to
25 there by that given date.

1 And what we have also found, we find ourselves
2 modifying dates because the utilities come in with a commitment
3 to get it done by a date certain and then they can't quite
4 make it and it's a little bit later.

5 So, there are a number of schedular exemptions we
6 have issued. We certainly can get you a rack-up on how it
7 looks.

8 (Chairman Palladino rejoins meeting.)

9 COMMISSIONER ASSELSTINE: Yes, I guess I would like
10 to see a list. And while I grant you that Harold has the
11 authority to issue those, I think I would have been happier
12 if this had been brought to the Commission's specific
13 attention since we have spent so much time and effort and
14 given so much attention to the March 5th deadline.

15 If in fact -- I would have liked to have known
16 earlier that it was slipping, at least across the board, in
17 a number of instances.

18 MR. EISENHUT: It's my understanding it was, but
19 I'll have to go back and check to see where that comes from.

20 COMMISSIONER ASSELSTINE: Okay. But at least it's
21 for specific components after taking a hard look to make
22 sure that everything has been done to try and meet the
23 March deadline.

24 MR. EISENHUT: That is correct.

25 COMMISSIONER ASSELSTINE: Okay. I wanted to go

1 back to the exemptions next and talk a little bit about
2 particularly B, C, and D on page 7. I guess what I would
3 like is for you to go through each one of those individually
4 because each one of those three seemed to me, at least
5 reading the item in the license, to be a fairly significant
6 matter, the first being seismic design; the second being
7 loss of electric power, and the third being the radiation
8 protection in the control room.

9 Could you talk a little bit about what the specific
10 problem is in each item and what the justification is for
11 the exemption in each case in those three instances?

12 MR. OLSHAN: I'd like to address those. The first
13 exemption to GDC-2 is a license condition that requires an
14 extension on the seismic qualification of some equipment.
15 And because it's a seismic qualification, GDC-2 requires
16 structures and systems be designed to withstand earthquakes.

17 We felt that even though we don't know whether it
18 will or will not meet its seismic qualification to be on
19 the safe side we thought it would require an exemption.

20 The SER, SER-5 talks about the interim justification
21 for operation, and we found that acceptable.

22 COMMISSIONER ASSELSTINE: And what is the difficulty
23 you said you don't know whether --

24 MR. OLSHAN: They just have not completed the
25 seismic qualification testing.

1 COMMISSIONER ASSELSTINE: All right.

2 MR. OLSHAN: So, it may pass and maybe nothing has
3 to be done, but because there was doubt we decided an
4 exemption was required.

5 COMMISSIONER ASSELSTINE: All right, okay.

6 But the utility's position is it meets the requirements.
7 Is that rightj

8 MR. OLSHAN: The utility doesn't agree on any of
9 these three exemptions.

10 COMMISSIONER ASSELSTINE: They don't think exemptions
11 are necessary.

12 MR. OLSHAN: They don't think exemptions are necessary
13 on any of these. We took a rather liberal approach on what
14 required exemptions, and that's why B, C, and D are in there.

15 COMMISSIONER ASSELSTINE: Okay.

16 MR. OLSHAN: The next exemption is a problem that
17 occurred with the instrumentation for the diesel generators.
18 They are not mounted on what we would call a vibration-free
19 floor, and we had some questions as to whether long-term
20 operation of the diesels and low-level vibration might
21 damage the instruments.

22 So, we asked them to justify by the first refueling
23 that the instrumentation could withstand that kind of
24 vibration, and we thought it required exemptions from GDC-13
25 which talk about operability of instrumentation and GDC-17,

1 which address the diesel generator.

2 But the reason we felt comfortable in granting that
3 is because for several refuelings this low-level vibration
4 should have no effect on the instrumentation. It's a long-
5 range effect.

6 COMMISSIONER ASSELSTINE: So, the concern is only
7 in the latter stages of facility operation.

8 MR. OLSHAN: Yes, if there is any concern at all.

9 COMMISSIONER ASSELSTINE: Okay.

10 MR. OLSHAN: But that's why we granted that one.

11 And the last exemption you talked about was GDC-19
12 exemption, which is addressed in Supplement 6. The concern
13 was whether it would meet the GDC-19 requirements for control
14 room habitability, and the applicant has agreed to make some
15 modifications to the control room ventilation system, sub-
16 stantial modifications I might add, and as a result of that
17 he can't have those completed by five percent power. We
18 felt comfortable in going until July 1 for those modifications
19 because they are significant modifications.

20 The likelihood of having any problems because of
21 the start-up phase is unlikely. So, we granted that
22 exemption also.

23 CHAIRMAN PALLADINO: Are the modifications
24 interfering? The fact that modifications are being made,
25 could that interfere with operation in the control room?

1 MR. OLSHAN: No, no, that's something that can be
2 done while they are operating. In fact, that modification
3 ties into the fire modification I spoke to before. That's
4 why they get the extension on that fire, the mister, it's the
5 same area and they will be doing a lot of work around there.

6 COMMISSIONER ASSELSTINE: I think the exemption
7 on containment air locks is the kind of one that is fairly
8 routine.

9 MR. OLSHAN: Right, that's a standard exemption you
10 have seen before.

11 COMMISSIONER ASSELSTINE: Are we looking at whether
12 Appendix J needs to be modified so that we are not in the
13 process of routinely granting exemptions to Appendix J on
14 a periodic basis?

15 MR. EISENHUT: Well, I have answered that at least
16 30 times and said, yes.

17 (Laughter)

18 MR. EISENHUT: Let me make sure that we still are.

19 MR. BERNARO: Yes, we are. Yes, we are looking at
20 a two-stage thing rather than wait for the ultimate source
21 term and all that. We are looking at a housekeeping
22 modification of Appendix J that will avoid all these exemptions
23 which relate to reverse testing of air-lock doors and things
24 like that. They are just bad engineering.

25 COMMISSIONER ASSELSTINE: When might we hear from --

1 MR. BERNARO: I'm hoping in two to three months.

2 COMMISSIONER ASSELSTINE: Okay.

3 The last question I had was on page 8 and it just
4 may be a misunderstanding problem I have. On paragraph F
5 you say, "With the exception of 2(c)2 the licensee shall
6 report any violations of the requirements contained in
7 Section 2(c) of this license."

8 I thought 2(c)2 was tech specs. Does that mean that
9 there is no reporting requirement on tech spec violations?

10 MR. OLSHAN: I think that means that if the tech
11 specs call out a different reporting requirement, then it
12 supersedes this. There is an item in the tech specs called
13 "Reporting Requirement," that's different than this. That's
14 why this exemption is in there.

15 COMMISSIONER ASSELSTINE: So, the item on reporting
16 in the tech specs is sufficient to cover that.

17 MR. OLSHAN: That's right.

18 COMMISSIONER ASSELSTINE: All of the tech specs,
19 you don't need this duplicate reporting requirement. Okay.

20 MR. EISENHUT: It defines certain things are
21 reportable and certain things are reportable in different
22 time frames.

23 COMMISSIONER ASSELSTINE: Right.

24 MR. EISENHUT: And for the tech specs, those
25 reporting requirements govern over the 24-hour notification.

1 COMMISSIONER ASSELSTINE: Good. That's all I have.

2 CHAIRMAN PALLADINO: Fred?

3 COMMISSIONER BERNTHAL: I only had one question, I
4 guess, in addition that I wanted to ask, and that was in
5 respect to the simulators. One of the questions I questioned
6 and discussed a little bit when I was out at the plant was
7 the location of the simulator. Granted, not all of our
8 plants have simulators -- our plants, all of "the" plants
9 that we license have simulators. We don't require them to
10 have simulators but I have sometimes wondered whether that
11 would not be a good requirement.

12 In this particular case because Braidwood and Byron
13 are duplicate plants, as I understand it, the simulator is
14 located at the Braidwood facility, it's about two hours away.

15 Are you satisfied that that's a good arrangement
16 and situation from the standpoint of training and retraining
17 the operators for this plant?

18 MR. EISENHUT: Yes.

19 COMMISSIONER ASSELSTINE: I take it that's where
20 their training center is, as I recall.

21 COMMISSIONER BERNTHAL: It is, yes. I mean, I
22 realize that other people travel considerably farther than that
23 for training on simulators, but that's, I guess, not the real
24 question I am asking here.

25 I guess my question is whether this has proven to be

1 essentially as useful and essentially the same as if the
2 simulator were on site.

3 MR. EISENHUT: That might be a question you might
4 put to the utility. Certainly, from our standpoint we see
5 no problem of having it within a couple hours. In fact, we
6 think it's commendable they do have the joint facility.

7 COMMISSIONER BERNTHAL: Certainly, I would agree, yes.

8 MR. EISENHUT: I might also point out that even
9 though we do not have a requirement for simulators, it's my
10 understanding that most plants in the country are eventually
11 pursuing simulators, and it's down now to a small number that
12 actually are not.

13 So, I think that's a very commendable move on the
14 part of the industry as an overall --

15 COMMISSIONER BERNTHAL: I agree.

16 COMMISSIONER ASSELSTINE: Certainly, this situation
17 is a lot better than the utility that can only send their
18 operators for a couple of weeks a year either to Zion or
19 to B&W, or something.

20 MR. MIRAGLIA: When one looks at the general
21 distribution, geographic distribution, of the Commonwealth
22 plants within Illinois, this location and Bridwood is close by,
23 Dresden. It's kind of central to the other Commonwealth
24 facilities as well.

25 COMMISSIONER ASSELSTINE: Yes. And they also got it

1 operable, too.

2 MR. MIRAGLIA: That's correct.

3 COMMISSIONER ASSELSTINE: Which means that it's of
4 big benefit not only in preparing the operators for Byron
5 but also Braidwood as well.

6 COMMISSIONER BERNTHAL: Yes, in fairness I have to
7 say that it's better than a lot of other situations, but maybe
8 the utility can speak a bit more to that.

9 CHAIRMAN PALLADINO: Okay, Lando?

10 COMMISSIONER ZECH: No, sir; thank you.

11 CHAIRMAN PALLADINO: I wonder if OPE or OGC have
12 any comments before we have a licensee representative join us.

13 MR. MALSCH: No, we have no comments.

14 MR. ZERBE: We have no comments.

15 CHAIRMAN PALLADINO: All right. Well, maybe this
16 would be a good time, if the Commission desires, to have a
17 Commonwealth Edison representative join us and make a few
18 remarks if he would like to, and respond to Commission questions.

19 MR. EISENHUT: I believe Cordell Reed is here.

20 CHAIRMAN PALLADINO: All right, Cordell?

21 COMMISSIONER ASSELSTINE: You seem to be a regular
22 customer around here.

23 MR. REED: I have asked our plant superintendent to
24 join me up here to give me a warm feeling.

25 (Laughter)

1 My name is Cordell Reed. I am Vice President of
2 Nuclear Operations at Commonwealth Edison, and I am joined by
3 Robert Queric who is our Plant Superintendent.

4 I am truly honored to have the opportunity to make
5 a few comments about Byron because I feel so good about Byron.
6 One thing we have at Byron is a very experienced senior staff.
7 Both Bob and his three Assistant Superintendents are all either
8 SRO'ed on Byron or former SROs, even the Maintenance Assistant
9 Superintendents, even the Technical Service Assistant
10 Superintendent. They have held operating management positions
11 at our other stations. So, we are dealing with a known
12 quantity.

13 They are using the same management systems and
14 procedures that have shown to be effective at our other
15 operating stations. Bob attends all of our superintendents'
16 meetings which are monthly meetings. So, they hit the ground
17 prepared to operate.

18 The thing that impresses me with Byron is the
19 professionalism in the control room. It was the first station
20 to volunteer to adopt uniforms. We cannot force our people
21 to wear uniforms, and they voluntarily accepted the uniforms --
22 first the management and then the bargaining group. We are
23 now giving this opportunity to our other stations come March,
24 and we are very optimistic that our other stations will adopt
25 them also.

1 COMMISSIONER ROBERTS: Is there an economic incentive,
2 do you provide the uniforms?

3 MR. REED: We provide the uniforms. So, they do
4 get free uniforms and free cleaning. But the whole benefit
5 of the uniform is if they will adopt it. We can't force them.
6 If they feel better with them, that's good.

7 As a part of our shift oversight, I have spent quite
8 a bit of time in our control room -- not with the superintendent
9 but on off-shifts just watching. I must say that our most
10 formal control room is Byron Station, their shift turnover,
11 just the whole professionalism is better than our operation
12 stations, something we are striving for at our operating
13 stations.

14 I also want to say a few words about our regulatory
15 improvement program because that is absolutely "the" dominant
16 goal of Commonwealth Edison.

17 We had a horrible record in 1983, one that we were
18 totally dissatisfied with, totally unacceptable. And we had
19 a meeting on February 4th of '84, on a Saturday, with all of
20 our Superintendents and Assistant Superintendents, our
21 Chairman and our senior downtown staff, and we all committed
22 ourselves to improve that.

23 We have a plan -- we don't like to call it "regulatory
24 improvement program" because programs, we have too many
25 programs. We have a plan. You are right, we have put out

1 some directives, some policies which give position descriptions
2 of how we want our operating staff to perform, and what you
3 do with jumper logs. We have a very strong root-cause
4 determination before start-up. If there is a scram, we can't
5 determine root cause, the central office must be involved.

6 But at the very core of the program has been
7 communications to the people in the plant. Our Quad City
8 Superintendent had 25 meetings with small groups in the plant
9 during 1984 getting out, talking with the people.

10 Our shift oversight where the Assistant sups, the
11 Rad-Chem Sup, the Tech-Step Supervisor, the Vice President
12 of Nuclear Operations, everyone in management attempts to get
13 into the plant on off-shifts, on holidays, on weekends, talking
14 with the people, telling them what the problems are at other
15 plants. It's been a people thing.

16 And then, lastly, we have greatly increased our
17 discipline. We had a policy in the past to encourage candor,
18 when someone makes a mistake we would not take disciplinary
19 action. We have had to change that policy, and we are taking
20 discipline on people who make repeated mistakes. People who
21 have the proper procedures available to them. We try to do
22 that with prudence, but all of the people at all of our plants
23 know that they are going to be held accountable for what they
24 do.

25 We have had a great improvement of '84 over '83. We

1 don't want this to be a half-life, we want it to be a way of
2 operating.

3 As Mr. Keppler said, we are not satisfied with the
4 performance at La Salle County. There has been great
5 improvements when we look at LERs, personnel errors '84 over
6 '83, tremendous improvements -- tremendous improvements. But
7 we are not satisfied with it and we have hired a consultant
8 to work with us -- not for us, with us -- to interview people
9 in the control rooms and the people in the station to try to
10 determine those things that impede their ability to follow
11 procedures -- whether it's us or whether it's the procedures.

12 And then we have gone around to each station, taken
13 a vertical slice of 15 people in the station, from the
14 Assistant Superintendent of Operations to the maintenance,
15 the lowest maintenance guy to get their comments on how we
16 can improve performance.

17 So, I just tell you that this regulatory improvement
18 plan is the key goal of the company.

19 Two other brief things I would like to say. We are
20 very proud of Byron. It's the best plant in terms of
21 equipment and facilities that we have, and I think you can
22 see that pride in the housekeeping that you have seen at that
23 plant. It's super and Bob has done just a great job in keeping
24 that up. And I think that pride we will sustain.

25 You had talked about simulators. I guess one of the

1 things we are most proud of is our central training facility
2 which Commissioner Asselstine had a chance to look at, at
3 Braidwood. By putting those facilities there, we have been
4 able to put one of the most modern training centers together.
5 We have a hundred professionals there and we can give our
6 people not only operating but maintenance training. We are
7 very proud of that.

8 Lastly, I would like to give a positive stroke to
9 Region III -- it may be my last opportunity.

10 (Laughter)

11 MR. REED: But most of my middle managers and I
12 have taken a little seminar on how to get people to do what
13 you want them to do, and when they do something right you
14 tell them about it and maybe they'll keep on doing it.

15 (Laughter)

16 MR. REED: We have had a lot of work at Byron and
17 with the introduction of a Program Director in John Streeter
18 at the plant, we think it has really helped the situation.

19 I mention this because our Chairman mentioned it
20 to Mr. Keppler yesterday, that John is a rough guy, he takes
21 nothing at face value; everything he checks. But he is willing
22 to work on weekends and holidays. So, I would like to give
23 this positive stroke and hope we get the same kind of
24 attention at Braidwood.

25 So, I hope from these remarks you get the impression

1 that we at Commonwealth are just very satisfied with the
2 Byron station.

3 CHAIRMAN PALLADINO: All right, thank you, Cordell.

4 I must say that I was also impressed with the way
5 John Streeter handled the questioning today and did a very
6 effective job. I'm not taking anything away from the rest of
7 the staff when I say that, I think they all performed well.
8 But John deserves some special commendation in my mind. And
9 I appreciate your comments also.

10 COMMISSIONER ASSELSTINE: Yes, it's very good to
11 hear that kind of feedback.

12 CHAIRMAN PALLADINO: Any questions by Commissioners?

13 COMMISSIONER BERNTHAL: Well, I expect you'll have
14 plenty of opportunity to compliment him again -- you may not
15 always have motivation.

16 (Laughter)

17 MR. REED: I feel like I shouldn't have said that.

18 (Laughter)

19 COMMISSIONER ZECH: I would just like to say that
20 I was very pleased to see the comments regarding your control
21 room discipline, and also your pre-critical activities, the
22 initial criticality that was conducted in a disciplined and
23 professional manner, and your remarks also bearing out your
24 efforts to bring professionalism to not only your control room
25 but your maintenance area and to the whole plant, and instill

1 that in everybody at Byron.

2 So, that's the right approach and it's not an easy
3 one. It does take continual effort, but it's the right one.
4 So, I commend you for that. And the uniforms in the control
5 room, I think you are right, I suppose you can't require it --
6 maybe you can -- but the important thing there is, it's
7 symbolic of discipline, symbolic of a professional organization
8 and a business-like approach to this important industry.
9 I think that's exactly the right approach to take.

10 So, I only hope that you will continue with those
11 efforts and that they will pay off in operational performance
12 and safety. In my judgment, they will.

13 COMMISSIONER ASSELSTINE: Joe, I don't have any
14 questions, I would just make a comment or two.

15 I was impressed on my visit to the plant and also
16 to the training facility both, with the quality of the
17 facilities. I thought your control room lay-out, your
18 technical support center is a Cadillac. It's very nice and
19 I thought the facilities were quite good. The control room
20 was well designed, particularly from a human factors standpoint.

21 And I was also impressed with the commitment of
22 the operating staff in getting ready for operation. I would
23 agree with Cordell that at least at the time housekeeping
24 seemed to be quite good. I still remember the smell of fresh
25 paint from my visit.

1 (Laughter)

2 MR. REED: I have been there several times since
3 then, Jim, and they keep it clean.

4 COMMISSIONER ASSELSTINE: And I think the training
5 center is a major commitment and truly is a very useful and
6 important part of facility operations. I think you all
7 recognized that, most utilities are. They are putting major
8 efforts into it.

9 But I was impressed with that facility, the fact that
10 you had your simulator operational, and it was also a treat
11 to put one of your crews through a few exercises on the
12 simulator and see how they performed. I was very impressed
13 with their capabilities.

14 COMMISSIONER BERNTHAL: Let me just say a word lest
15 I be misunderstood. I want to make sure the record is straight.

16 Commonwealth is a large and strong nuclear utility
17 and has great capability. I have occasionally tried to prod
18 and needle you, as you have heard today again. I shouldn't
19 say "Gentlemen's C," these days I should say "Gentlemen's B,"
20 I guess, which probably in any case more accurately fits
21 Commonwealth. You have a good program. You have a huge
22 construction program that's, I guess, approaching some phase
23 of completion now.

24 But I would really like to see, and would hope to see
25 the day, when Commonwealth is just one of the very best in all

1 phases and leads the way, simply because they are such a large
2 utility and a strong and deep utility in this nuclear power
3 area. I have confidence that the Byron plant and your
4 management will bring us to that day sometime in the near
5 future.

6 MR. REED: We do, too. You know, if Bob Querio here
7 was still our Assistant Superintendent at Quad City Station,
8 that station would be much stronger. And having so many plants,
9 we have had to take some time to get the experience back as
10 we have taken our key people away, and to get a sense of
11 management.

12 But our experience with the regulatory program in
13 1983 shook us to our roots from the Chairman all the way down,
14 and we are absolutely committed to reaching that point, and
15 no one is harder on us than INPO.

16 If we finally satisfy INPO, we are doing that, we
17 won't have to worry about the NRC.

18 CHAIRMAN PALLADINO: Okay, any other comments or
19 questions?

20 COMMISSIONER ZECH: No.

21 CHAIRMAN PALLADINO: Let me ask the Commissioners if
22 they are ready to vote on the question of whether or not to
23 authorize the staff to permit power ascension above five percent,
24 or do you need more time?

25 Well, then, let me pose the question. Would all those

1 who are in favor of authorizing the staff to issue a full
2 power license for the Byron Plant Unit 1 please say aye?

3 COMMISSIONER ZECH: Aye.

4 CHAIRMAN PALLADINO: Aye.

5 COMMISSIONER ROBERTS: Aye.

6 COMMISSIONER ASSELSTINE: Aye.

7 COMMISSIONER BERNTHAL: Aye.

8 CHAIRMAN PALLADINO: Any opposed?

9 (No response)

10 CHAIRMAN PALLADINO: All right, I think that indicates
11 the confidence that we developed in that plant.

12 Is there anything more to come before us at this
13 session?

14 COMMISSIONER ZECH: That's it.

15 CHAIRMAN PALLADINO: All right, thank you. We'll
16 stand adjourned.

17 (Whereupon, at 3:45 p.m., the meeting of the
18 Commission was adjourned.)

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CERTIFICATE OF OFFICIAL REPORTER

This is to certify that the attached proceedings before the UNITED STATES NUCLEAR REGULATORY COMMISSION in the matter of:

NAME OF PROCEEDING: Discussion/Possible Vote on Full Power
Operating License for Dyron-1

Public Meeting

DOCKET NO.:

PLACE: Washington, D.C.

DATE: February 12, 1985

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

(sig) M. E. Hansen
(TYPED) M. E. Hansen

Official Reporter

Reporter's Affiliation

As Federal

INSPECTION PROGRAM

- ° CONSTRUCTION
- ° PREOPERATIONAL
- ° STARTUP
- ° OPERATION
- ° SPECIAL
 - ° REGIONAL CONSTRUCTION ASSESSMENT
 - ° QC INSPECTOR REINSPECTION
 - ° IE INDEPENDENT DESIGN
 - ° SYSTEMS CONTROL CORPORATION
 - ° NUREG-0737 IMPLEMENTATION
 - ° ALLEGATIONS
 - ° AUTHORIZED NUCLEAR INSPECTOR
 - ° INTERVENORS' EXPERT WITNESS
 - ° ELECTRICAL CONTRACTOR
 - ° STEAM GENERATOR SNUBBERS
 - ° WHIP RESTRAINT ENERGY ABSORBING MATERIAL
 - ° SER FOLLOWUP ITEMS

ALLEGATION STATUS

- . SEVEN OPEN FILES
 - . THREE ARE FULLY INVESTIGATED - REPORTS IN PREPARATION
 - . ONE IS RECENT AND WILL BE PROCESSED IN A NORMAL MANNER
 - . THREE HAVE INITIAL INFORMATION TOO GENERAL TO FORMULATE EFFECTIVE INVESTIGATIONS
- . EVALUATION OF THE INFORMATION AND NATURE OF OPEN ALLEGATIONS PRESENTS NO CONCERN FOR PLANT OPERATION
- . REGION III IS PURSUING INFORMATION TO ALLOW EFFECTIVE INVESTIGATION OF ALLEGATIONS

BYRON UNIT 1 SALP RATINGS

<u>FUNCTIONAL AREA</u>	<u>SALP PERIOD</u>			
	<u>II</u>	<u>III</u>	<u>IV</u>	<u>NOW</u>
SOILS AND FOUNDATIONS.....	NR*	NR*	NR*	NR*
CONTAINMENT AND OTHER				
SAFETY-RELATED STRUCTURES.....	1	2	2	NR*
PIPING SYSTEMS AND SUPPORTS.....	2	2	2	2
SAFETY-RELATED COMPONENTS.....	2	3	2	2
SUPPORT SYSTEMS.....	NR*	3	2	NR*
ELECTRICAL POWER SUPPLY AND				
DISTRIBUTION.....	3	3	2	2
INSTRUMENTATION AND CONTROL SYSTEMS..	2	NR*	2	2
LICENSING ACTIVITIES.....	2	1	2	2
QUALITY ASSURANCE.....	2	3	2	2
PREOPERATIONAL TESTING.....	2	3	3	2
ENVIRONMENTAL PROTECTION AND				
RADIOLOGICAL CONTROLS.....	2	2	2	2
FIRE PROTECTION.....	NR*	NR*	3	2
SECURITY AND SAFEGUARDS.....	NR*	NR*	2	2
PRESERVICE INSPECTION.....	2	NR*	NR*	NR*
INSERVICE TESTING.....	NR*	NR*	NR*	2
EMERGENCY PREPAREDNESS.....	NR*	NR*	1	2
REINSPECTION PROGRAM.....	NR*	NR*	1	NR*
PLANT OPERATIONS.....	NR*	NR*	NR*	2
FUEL LOAD.....	NR*	NR*	NR*	1

*NOT RATED

CECO REGULATORY PERFORMANCE IMPROVEMENT PLAN

- PURPOSE: PROMOTE HIGHEST LEVELS OF SAFETY AND RELIABILITY AND ACHIEVE ERROR FREE OPERATION
- REASON INITIATED: TO CORRECT DETERIORATING PERFORMANCE AS EVIDENCED BY AN INCREASING NUMBER OF PERSONNEL ERRORS AND ENFORCEMENT ACTIONS AT OPERATING PLANTS
- DATE IMPLEMENTED: FEBRUARY 1984
- KEY ELEMENTS:
 - ISSUED CORPORATE DIRECTIVES TO TIGHTEN CONTROL IN SPECIFIC AREAS
 - INCREASED CORPORATE OVERVIEW OF STATION ACTIVITIES
 - IMPLEMENTED PERSONNEL ERROR CORRECTIVE ACTIONS
 - REVISED ORGANIZATION TO EMPHASIZE THE PLAN
 - IMPROVED COMMUNICATIONS
 - INCREASED STATION SENIOR MANAGEMENT OVERVIEW OF STATION ACTIVITIES
- PERIODIC REGION III/CECO MEETINGS TO ASSESS THE EFFECTIVENESS OF THE PLAN
- REGION III HAS NOTED THAT THE PLAN APPEARS TO HAVE CONTRIBUTED TO IMPROVED PERFORMANCE AT MOST CECO OPERATING PLANTS

BYRON PARTICIPATION IN CECO
REGULATORY PERFORMANCE IMPROVEMENT PLAN

- . PLAN IS APPLICABLE TO BYRON OPERATING ORGANIZATION

- . SPECIAL INSPECTION IN MAY 1984 REVEALED THAT BYRON WAS FULLY PARTICIPATING IN THE IMPLEMENTATION OF THE PLAN. SOME SPECIFIC OBSERVATIONS BY REGION III WERE:
 - . PLANT PERSONNEL WERE AWARE OF THE PURPOSE OF THE PLAN
 - . PLANT PERSONNEL HAD READ AND UNDERSTOOD THE IMPLEMENTATION DIRECTIVES
 - . PLANT PERSONNEL WERE PLEASED WITH THE BENEFITS OF THE SHIFT OVERVIEW SUPERINTENDENT
 - . CECO HAD MADE A FORCEFUL EFFORT TO IMPLEMENT THE PLAN AT BYRON

- . LICENSEE #53 GIVEN A GREAT DEAL OF VISIBILITY TO THE PLAN BY ADVERTISEMENTS ON BULLETIN BOARDS AND POSTERS IN THE PLANT

OPERATING EXPERIENCE

- . INITIAL FUEL LOADING ACTIVITIES WERE CONDUCTED IN A CAUTIOUS AND DELIBERATE MANNER

- . BIWEEKLY MANAGEMENT MEETINGS WERE INITIATED BY REGION III ON DECEMBER 19, 1984, DUE TO CONCERNS ABOUT THE NUMBER OF REPORTED EVENTS. MEETING TOPICS EMPHASIZED:
 - . TIMELY CORRECTION OF REPETITIVE PROBLEMS AND THE REDUCTION OF PERSONNEL AND PROCEDURE RELATED EVENTS
 - . OBTAINING MORE INFORMATION FROM OTHER CECO PLANTS AND OTHER UTILITIES
 - . COMPLETION OF OUTSTANDING WORK ITEMS TO MINIMIZE CONFLICTS WITH TESTING
 - . IMPROVEMENT OF COMMUNICATIONS BETWEEN SEGMENTS OF PLANT STAFF

- . IMPROVEMENTS HAVE BEEN MADE IN ALL AREAS EMPHASIZED. MEETINGS WILL LIKELY BE DISCONTINUED AFTER FEBRUARY 14, 1985

- . POST CORE LOAD PRECRITICAL ACTIVITIES AND INITIAL CRITICALITY WERE CONDUCTED IN A DISCIPLINED AND PROFESSIONAL MANNER

- . CONTROL ROOM DISCIPLINE WAS RECENTLY EVALUATED BY THE RESIDENT STAFF AND WAS FOUND TO BE EXCELLENT

OPERATOR EXAMINATION PERFORMANCE

FIRST-TIME CANDIDATES

<u>EXAM DATE</u>	<u>NUMBER OF CANDIDATES</u>	<u>SUCCESSFUL CANDIDATES</u>	<u>PASS RATE</u>	<u>NATIONAL PASS RATE</u>
5/83	59	25	42%	75%
10/83	19	15	79%	78%
7/84	4	3	75%	84%

RETAKE CANDIDATES

<u>EXAM DATE</u>	<u>NUMBER OF CANDIDATES</u>	<u>SUCCESSFUL CANDIDATES</u>	<u>PASS RATE</u>	<u>NATIONAL PASS RATE</u>
10/83	10	7	70%	72%
7/84	10	9	90%	56%

SOURCE RANGE NOISE

- . SPIKING FIRST EXPERIENCED DURING INITIAL FUEL LOADING
- . EXTENSIVE INVESTIGATION PROGRAM UNDERTAKEN BY CECO
- . DETERMINED TO NOT BE ACTUAL FLUX INCREASES
- . DETERMINED TO BE CONFINED TO SOURCE RANGE CHANNELS
- . DETERMINED TO BE COMMON PROBLEM AT MANY PLANTS BEFORE INITIAL CRITICALITY
- . CORRECTIVE ACTIONS TAKEN TO MINIMIZE NOISE PROBLEM
- . CECO'S RESOLUTION OF PROBLEM WAS REVIEWED AND APPROVED BY ONSITE AND OFFSITE REVIEW GROUPS
- . REGION III INDEPENDENTLY REVIEWED THE MATTER AND CECO'S CORRECTIVE ACTIONS AND BELIEVES CECO ADDRESSED THE MATTER RESPONSIBLY AND COMPREHENSIVELY

12/82

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Meeting Title: Dis/Pass. Vote on Full Power
Operating Licenses for Byron-1

Meeting Date: 2/12/85 Open Closed

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