UNITED STATES OF AMERICA U.S. NUCLEAR REGULATORY COMMISSION

BRIEFING ON FORT CALHOUN

FEBRUARY 22, 2012

9:00 A.M.

TRANSCRIPT OF PROCEEDINGS

Public Meeting

Before the U.S. Nuclear Regulatory Commission:

Gregory B. Jaczko, Chairman

Kristine L. Svinicki, Commissioner

George Apostolakis, Commissioner

William D. Magwood, IV, Commissioner

William C. Ostendorff, Commissioner

APPEARANCES

Omaha Public Power District (OPPD):

W. Gary Gates Chief Executive Officer and President

David Bannister
Vice President, Chief Nuclear Officer
Fort Calhoun Station

John Herman Division Manager-Nuclear Engineering OPPD

NRC Staff:

Bill Borchardt Executive Director for Operations

Elmo Collins Regional Administrator Region IV

John Lubinski Deputy Director Division of Inspection and Regional Support NRR

Troy Pruett Deputy Director, Division of Reactor Projects Region IV

PROCEEDINGS

CHAIRMAN JACZKO: We'll now turn to the regular part of the meeting. Before we begin, though, I would just like to make a note. I believe, you can correct me if I'm wrong Steve, I think this is your last public meeting. So I just wanted to say, for those of you who don't know, this will be Steve's last public Commission meeting as General Counsel, so I just wanted to say a few words about Steve. He's been with the federal service for 34 years, and he's accepted, what will be I'm sure, a very interesting position as counsel at the OECD in Paris, working at the Nuclear Energy Agency. I've known Steve over seven years, and I have certainly appreciated his expertise, experience, and his steady professionalism. I think he has demonstrated tremendous leadership as the General Counsel in the long line of tremendous General Counsels that we've had at this agency. So I want to thank you for all your service to the agency and to the American people for your many, many decades of public service, and for the work you'll continue to do in between learning French and eating wonderful food.

STEPHEN BURNS: Learning French will be the challenge. No, I appreciate that Mr. Chairman, it's been, as I said, I started at the agency in 1978, a few months before the Three Mile Island accident, and I think -- my joke has always been I wanted to be a communications lawyer, but then when I found the Atomic Energy Act was based on the Communications Act in 1934, I became a communications lawyer for all these years, but it's been an interesting thing -- one of the interesting things has been working with the Commissions over the years, for the last 25 years, and working with the staff as well as with the lawyers in my own office and others, so I think you for those nice words.

1	CHAIRMAN JACZKO: Sure, of course. Comments from
2	COMMISSIONER SVINICKI: Yes, Mr. Chairman, I just Steve,
3	you're moving on to something that I think is very fascinating, there's a lot
4	happening in the international arena, and so I want to wish you well, and I'm sure
5	that everyone will continue to benefit from your contributions in that capacity, so
6	good luck.
7	COMMISSIONER MAGWOOD: Well, as a former chairman of the
8	NEA's steering committee, I can tell you you're going to be working with a great
9	organization, and the fringe benefits of excellent restaurants within walking
10	distance of anywhere you go is not to be overlooked. So I look forward to
11	coming to Paris and visiting you once you learn where all the good restaurants
12	are.
13	[laughter]
14	COMMISSIONER APOSTOLAKIS: Good luck in your endeavors,
15	Steve.
16	STEPHEN BURNS: Thank you.
17	COMMISSIONER APOSTOLAKIS: I think you will enjoy it there.
18	STEPHEN BURNS: Thank you.
19	COMMISSIONER OSTENDORFF: Steve, I've enjoyed working with
20	you, and wish you all the best. Thanks for your service.
21	STEPHEN BURNS: Thank you.
22	CHAIRMAN JACZKO: Well, with that, we'll turn to the subject of
23	today's meeting. The staff and I would note that this is the first this is another
24	day of firsts or some lasts, and some firsts this is a first in a newly renovated
25	Commission hearing room, so that explains the new carpet smell. So but it

1 looks very nice, I think it came out very nice, so thank you Annette for your work

2 to get that done. Bill, do you want to get started then?

BILL BORCHARDT: Sure, thank you Chairman. Yeah, I'd also like to add my thanks to the Office of Administration that got this room completed yesterday, and it's in good shape for today's meeting, so I'd like to congratulate them for a lot of hard work on a very tight time schedule, and on behalf of the staff to add our thanks to Steve for his many years of service; we've had a very long and productive relationship with Steve, as have many of the senior managers, and in fact all of the staff within the agency, so wish him the very best of luck and we'll be seeing him in the next few years in a different capacity.

So today we're here to discuss the NRC's oversight of Fort

Calhoun. A plant that enters Column IV of the reactor oversight process action

matrix, which is the multiple repetitive degraded cornerstone column, receives a

degree of increased oversight and attention from the staff, and from the

Commission.

The annual agency action review meeting and the procedures that govern it was revised in 2009 to ensure that once a plant enters into Column IV, that within six months it receives -- it is the subject of a Commission briefing where the licensee comes in to describe their plans and activities related to improving facility performance. This was done, this timing, in order to make sure that the public and all stakeholders understood that we didn't wait for annual assessments or annual reviews to revise and adapt our inspection and oversight program to changing performance within the licensees, so we have continuously been modifying and adjusting the resources, and you'll hear from Elmo and the rest of the team here shortly about what we've done in that degree.

Fort Calhoun is located near Omaha, Nebraska, and it entered Column IV of the action matrix on September 1st of 2011. The meeting was scheduled shortly thereafter in order to brief the Commission on the performance issues in accordance with our management directives. Since that time, however, performance challenges continue to emerge at Fort Calhoun, most notably the flooding situation in the Midwest, and the staff, on December 13th of 2011 transitioned out of the normal reactor oversight assessment program to Manual Chapter 0350, which is oversight of reactor facilities in a shutdown condition, due to significant performance and operational concerns. This is the first plant to enter into an 0350 process in just short of 10 years, the last one was Davis-Besse. Can we go to slide three, shows the agenda for today's meeting, and with that I will turn the presentation over to Elmo.

ELMO COLLINS: Slide four please. Mr. Chairman, Commissioners
-- Mr. Chairman, Commissioners, good morning. Slide four. This morning I plan
to provide a summary of the events and the regulatory actions that preceded us
and leading up to this meeting. Slide five.

In 2010 the NRC finalized a finding of significance; it was classified as yellow significance in the reactor oversight program. This dealt with an inadequate flood strategy that was identified by NRC inspectors. In 2011 Fort Calhoun station was in the process of preparing for the 95002 inspection which follows a plant that enters the degraded cornerstone of the reactor oversight process. Twice during 2011 the licensee performed self-assessments, and both times the self-assessments determined, and to the licensee's credit they reported, they were not yet ready for us to come on site and perform our supplemental inspection.

however, as we all know, in advance of that, in May, we received notification the
 licensee and the NRC, that the Corps of Engineers planned to increase the
 release rates from the dams of the Missouri River system to unprecedented

Ultimately, that inspection was scheduled for June of 2012,

5 levels, and the projected water level at the Fort Calhoun station that they were

6 given by the Corps of Engineers indicated that they were going to have to deal

with water on site at the station.

On June 6th, the licensee declared an unusual event. The waters were approaching 1,004 feet, which is the grade level at the site, which is also the emergency action level for an unusual event at Fort Calhoun station. On June 7th, the licensee experienced another event that was a fire and safety related 480 volt breakers, which -- for which the licensee declared an alert, and the agency entered the monitoring mode. We'll talk a little bit more about that later, but just to note it here, and later that day the licensee exited the alert.

I'll note that in advance of the rising waters at Fort Calhoun station, the licensee took a number of substantial actions to prepare the site to respond to the high water levels. Some of these were strengthened actions and added actions from NRC's finding, yellow finding that the licensee had developed, and they took actions even beyond that, I'll add.

The Nuclear Regulatory Commission responded to this. We instituted 24/7 site coverage with the rising water levels at Fort Calhoun. We verified the actions that the licensee put in place and the flood barriers as part of our inspection preparation, and we received, I'll just note, significant assistance from the other Regions, and the inspectors that enabled us to carry out this 24/7 monitoring for an extended period of time.

1	So we were in the emergency response mode, the licensee was in
2	the emergency response mode, the water had exceeded grade level at the site,
3	and so NRC, at this time, deferred the conduct of the routine supplemental

4 inspection for the yellow finding while the site was in emergency response.

The water peaked at about 1,006 feet, 11 inches in July of 2012, and we conducted a public meeting in Omaha with the licensee as the waters started going down to try to understand their plans, their actions post-flood for inspections, tests, verifications of equipment and the site to make sure that the facility was properly prepared for return to power, and this resulted in the substance of our Confirmatory Action Letter that we issued in August of 2012. It had some other actions in there for equipment problems, but it was primarily aimed at what was needed to be accomplished because of the flood.

So at the same time period, coincident with the flood and the Confirmatory Action Letter, Region IV was finalizing a finding of significance associated with the reactor protection system. It turned out to be a white significance, and this combined with the yellow flood finding and being in the fifth quarter of degraded cornerstone, NRC's assessment determined that Fort Calhoun Station performance warranted the highest level of oversight provided for by the reactor oversight process, and that's Column IV.

Region IV made an organizational change to ensure we provided the specific oversight for the conduct of the inspection programs, and to provide for the ongoing safety assessment that Bill alluded to. We established a separate branch. Fort Calhoun is the only branch in that part of the division of reactor projects.

The water levels subsided and licensee exited the emergency

conditions, so in September we were back on site. We needed to do some reactive inspections, primarily -- most significantly with the fire that had occurred on June 7th, so we conducted a special inspection to review that, to try to understand the significance, and there were several performance deficiencies which were identified in this inspection, but most importantly, I think at this time, we're still developing -- that inspection report is in final draft, and we're finalizing that for issuance, but the event, as we gathered the circumstances and did a risk assessment of that event, it became apparent to us that it's likely -- in all likelihood would be considered a significant operational event. We were coming up with conditional core damage probabilities in excess of 10 to the minus 4.

And so as part of our ongoing assessment process, the licensee had been shut down for over six months, the efficacy of the performance indicators starts to come into question when licensee's are shut down for extended periods of time. Our ability to meaningfully complete the baseline inspection program to give us meaningful performance information was called into question, and so we once again considered what is the appropriate level of NRC oversight, what's the proper level for NRC engagement at this facility, and now we know that the June 7th fire was a significant operational event, and Region IV, in conjunction -- in consultation with NRR and with the Executive Director for Operations, decided that Manual Chapter 0350 process was the most appropriate oversight guidance for us to use at Fort Calhoun Station. One of the benefits of this process is it will provide for us additional steps to verify that all the actions are taken for plant safety before the plant returns to power.

I believe the number of events and the significance of the events that we've seen at Fort Calhoun Station indicate that there are significant

1 performance issues that need to be addressed by the licensee, and while I think

2 to date a comprehensive assessment of everything is not yet finally been

3 completed, we do know some things that are challenges at Fort Calhoun Station

performance. The first of which is maintenance and design, and I say this

5 because of the insights we got from the special inspection after the June 7th fire.

Licensee review and NRC inspection trace the roots of the causes of that fire

back to a design modification which was accomplished almost two years ago.

There were installation difficulties; testing was not done to test the resistance of the contacts, and it actually resulted in a configuration where 12 safety related 480 volt breakers either had or were susceptible to having a high resistance contacts, and so we -- those issues need to be understood.

The corrective action program has weaknesses, and there are organizational effectiveness weaknesses at the site that also need to be addressed, so the licensee has a number of plans in place, I believe you will hear from them, and we will use those plans to inform us for our restart checklist to make sure we address the right items for safety before the plant returns to power, so thank you. I'll turn it over to John; he's going to summarize 0350 process.

JOHN LUBINSKI: Good morning, I'm John Lubinski, I'm the vicechair for the Fort Calhoun Station Manual Chapter 0350 oversight panel, and I'll
discuss a general overview of the 0350 process. The purpose of Manual
Chapter 0350 is to establish and provide enhanced oversight and assessment of
licensee performance during the shutdown through restart, and until it is
appropriate to return the plant to the routine reactor oversight process. Oversight
includes an enhanced inspection plan that follows several aspects of the ROP;

specifically oversight utilizes the baseline inspection program to the maximum extent possible. In those cases where the baseline does not provide adequate assurance that performance issues are appropriately addressed, enhanced and supplemental inspections are used. Plants are not included in the reactor oversight progress action matrix when under 0350; however, performance deficiencies are evaluated using the appropriate aspects of the significance determination process.

For entry conditions, in general, into Manual Chapter 0350

Oversight, there are four conditions that must be met. First, plant performance is in Column IV or V of the action matrix or a significant operational event had occurred. Secondly, the plant is in a shutdown -- is shut down, or the licensee is committed to shutdown to address the performance issues. The NRC has a regulatory hold in effect such as an order on the licensee or the licensee is committed to not restart such as under a Confirmatory Action Letter, and finally, once all these three conditions are met, NRC management makes a decision that Manual Chapter 0350 Oversight is appropriate based on the conditions of the plant and the licensee performance.

The process followed under Manual Chapter 0350 includes the establishment of an oversight panel to develop criteria for oversight, and to verify licensees corrective actions are adequate; development of a process plan that guides the oversight panel through its activities; development of a restart checklist which identifies all the items and issues that need to be addressed prior to plant restart; and ensures open and transparent communication to external stakeholders throughout the process. Regarding termination of Manual Chapter 0350, oversight under Manual Chapter 0350 continues after plant restart for a

1	period of tir	ne recommended	by the	oversight pa	anel, and	approved	by the
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- 2 Regional Administrator. When appropriate, the oversight panel will recommend
- 3 termination of Manual Chapter 0350 and return to the routine reactor oversight
- 4 process and inclusion back into the appropriate column of the action matrix.
- 5 That's a general overview of the 0350 process, I'll now turn to Troy who will talk
- 6 specifically about Fort Calhoun issues associated with 0350.
- 7 TROY PRUETT: Thank you John.
- 8 CHAIRMAN JACZKO: Take your time, whatever you need.
- 9 Technically, you run out of time, but don't worry --
- TROY PRUETT: I thought I got to stop talking when it hit zero.
- 11 [laughter]
- 12 CHAIRMAN JACZKO: Keep talking until we tell you to stop talking.
- 13 [laughter]
- 14 TROY PRUETT: Well, good morning Mr. Chairman and
- 15 Commissioners. Again, my name is Troy Pruett and I'm the chairman of the Fort
- 16 Calhoun Station oversight panel, and what I wanted to talk about today was
- 17 where we are in the process, actual process, at Fort Calhoun Station. As
- 18 mentioned earlier, the first step was to identify the panel members, and we did
- 19 that on December 29th, I was named as head chairman, John the vice-chairman,
- and then the other members are comprised of Region IV staff and staff from
- 21 NRR, so we have a diverse team of headquarters and regional personnel.
- Next step was to sign out a panel charter, we did that on January
- 23 12th, and the panel charter, at a real high level, listed the activities that the
- 24 panel's responsible for: communications with externals, developing an agency
- 25 record, doing a comprehensive safety assessment and then reaching a

1 determination that the facility's safe to restart, making that recommendation for

2 the Regional Administrator and then to be able to provide some level of

3 assurance that the facility, once restarted, if warranted, can operate safely.

The next part of the process was to develop a process plan, and we recently completed that activity. It essentially follows all the elements that are in Manual Chapter 0350, highlights all the different activities that are in that Manual Chapter for us to accomplish. It provides a little bit more detail about the types of internal/external stakeholders we need to be communicating with, and how frequently we need to be able to do those things, and more importantly, it will ultimately establish a comprehensive agency record of all the activities that the panel took during this process.

The restart checklist, or the plant issues list, that's currently under development, we know with a high level of certainty that the current Confirmatory Action letter that was put in place following the flooding event, most of the items in that Confirmatory Action Letter will transfer over to what we term the restart checklist. In addition, as Fort Calhoun Station completes their comprehensive assessment to determine the depth and breadth of performance issues, there may be certain things that come out of that that will add to the restart checklist. The NRC may choose to add additional items to that checklist, for example, Fort Calhoun Station will embark upon an independent safety culture review that will need to be completed prior to restart of the facility, that's something that we would add to the restart checklist. All the items on the restart checklist will be incorporated into another Confirmatory Action Letter, and we're probably going to issue two more Confirmatory Action Letters through this process. One will specifically address those items that need to be completed prior to restart of the

- 1 facility to ensure safe operation. The second Confirmatory Action Letter would
- 2 be similar to what we would issue for a plant that enters Column IV after
- 3 completion of a 95003 inspection, and that'll be those activities that are
- 4 necessary to sustain performance improvement for the long term, beyond restart
- 5 of the facility, and that's needed to ensure continued performance improvement,
- 6 and continued safe operation of the facility. And again, the restart checklist and
- 7 the Confirmatory Action Letters, those are all under development right now as we
- 8 learn more about the performance at Fort Calhoun Station.

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9 The next thing we have to do is to develop an inspection plan.

10 Again, this is a two phase approach. There's -- the first stage is those

inspections that are required to be completed prior to restart. We'll also develop

an inspection plan that'll go beyond restart for the transition from safe operation

of facility back to the return to the reactor oversight program.

As John mentioned earlier, we have gone through and looked at each of the elements that are — that were in the inspection program prior to entering 0350 and we selected those items that we felt are appropriate to continue in the near-term. That'd be an initial operator examinations, those are important to do, so we decided to keep those inspections. There's a tri-annual fire protection inspection schedule for March, we decided to keep it. Fort Calhoun's transitioning into NFPA 805 so that was an important inspection to maintain. We're looking at the resident inspector modules to see what's appropriate to be accomplished, and each of those baseline procedures will do the things that are appropriate to accomplish, and then the residence, if appropriate, will be used to follow-up on CAL specific items. There's a component design basis inspection that was scheduled for this summer. We've

opted not to complete that inspection, instead use those resources as part of our independent assessment of the licensee's performance review.

We recently completed a readiness for the 2012 flooding season inspection. You guys may have seen the event report that came out as a result of that inspection activity, and again, that inspection was to make sure we were ready to deal with the summer of 2012. We'll also have to do another inspection that looks at the 2011 flooding effects, and what were the impacts on the facility, what corrective actions has the facility put in place to deal with some of those issues, namely, soil compaction underneath the facility; that's still an ongoing review right now, and the licensee is completing some level of analysis. We still have a fair amount of analysis left to do to understand the soil compaction under the facility.

Once we've completed our inspections, we'll develop a plan to return Fort Calhoun Station back to the normal reactor oversight process. Upon facility restart, we'll stay in Manual Chapter 0350 process for some period of time, likely one to two quarters. That's to allow the performance indicators time to reset, so we have meaningful data, so we can make performance assessments under the reactor oversight process -- and then again this is all intended to make sure that when, if warranted, the facility can safely restart and then we'll be able to maintain safe operation beyond restart, and those are my comments.

BILL BORCHARDT: So in conclusion I'd just like to make four quick points. One is that the issues that got Fort Calhoun to Column IV and to the 0350 process didn't manifest themselves overnight. It's unlikely they'll be fixed overnight. This is usually a long, deliberate process that is required to address all of the issues.

1	The second point is that we're early in on this process, you're still in
2	the discovery phase, so it would not be surprising if there's a redefinition of some
3	of the issues. Also, it wouldn't be all that surprising if some new issues are
4	discovered and emerge that need to be addressed throughout the process. The
5	third is that this requires a significant resource commitment on the part of the
6	NRC, and of the licensee. The NRC is prepared to provide whatever resources
7	we need to the Region IV team. We can draw on resources from the other
8	regional offices, and from headquarters to support whatever inspection activities
9	are required, whenever they're required.

And the fourth is what Troy alluded to, is that the objective is not just restart. It has to be much more than that, it has to be sustained, long-term safe operation of the facility, and that's the kind of acceptance criteria the staff will use when it makes regulatory recommendations. That completes the staff's presentation, thank you.

CHAIRMAN JACZKO: Great, well thank you. We'll start with Commissioner Svinicki.

COMMISSIONER SVINICKI: Well, good morning again, and thank you all for your presentations. My questions are pretty general so I will leave it to Bill and Elmo to decide if you want to respond yourselves or you want to ask the other members of this panel to take some of these questions.

I was not serving on the Commission at the time of Davis-Besse so I will confess that when the 0350 process was mentioned for Fort Calhoun I had to go and study up on the entry conditions, the process, and then how -- what's the structured process for exit from this particular process. At a very high level, I don't know Elmo, maybe you would want to take this, could you contrast --

1 because of course people, I think, are generally very familiar with the columns of

2 the reactor oversight process, but Column V, if I'm defining this correctly, would

3 be for plants that we consider unsafe and the 0350 process, I know we went over

the entry conditions, but could you contrast Column V in our system versus the

0350 process, from kind of the staff's regulatory toolbox?

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ELMO COLLINS: Thank you. At least in a general sense, 0350 serves two distinct purposes in my mind. One is it allows us to -- for facilities that are shut down, construct a unique oversight process to provide the meaningful performance information that we can use for our assessment. So set that aside, it also talks about being in Column IV and/or having a significant operational event, and we saw both of those at Fort Calhoun Station, so those are the types of things that ask us questions. Do we need to extra work before this facility returns to power? Without -- and that's where 0350 takes you. It provides for that construct, systematically to identify the issues to be addressed for the added verification of safety. We knew enough, in our continuing assessment process, to know we needed to ask those questions. We found that the facility did meet the entry criteria of 0350, and we made that determination. Contrast that to Column V, we didn't do the work, I would offer you, to take the results from the special inspection team and other findings, to finalize to a useable product to meet these multiple significant performance items which is one of the criterion to consider a facility for Column V. We didn't do it, and we haven't done it, so we never actually got to ask ourselves was the facility unsafe or not? Because we want to engage before that, at any rate -- [laughs] --

COMMISSIONER SVINICKI: John, did you --

ELMO COLLINS: -- and the guidance provided for that.

1 COMMISSIONER SVINICKI: Thank you, it looks like John wanted

2 to --

JOHN LUBINSKI: If I could just add, as Elmo said, when the decisions were made with respect to the plant being transitioned to Column IV, the plant was in a shutdown condition at that time. The performance issues, somewhat related to the shutdown conditions, but others were related to operating conditions. From the standpoint of the Region's oversight, the plant was in a safe condition during shutdown, continues to be in a safe condition since it is shutdown today, so therefore looking to move to Column V, as Elmo said, was not something that we looked at all the details because we felt we were in the appropriate process. They were in Column IV, the 0350 process allows us to enhance our oversight and customize it to the situation at hand, which they were continued to be in a regulatory hold, having them in a shutdown condition and prior to restart, as Troy said, we will make sure all safety issues are addressed so that we will not authorize restart until they're in a safe condition. So the process itself led us from Column IV to 0350.

COMMISSIONER SVINICKI: Can I ask -- maybe since you had your microphone on I'll ask you a follow-up. You had presented the entry conditions for entry into Manual Chapter 0350 and I'm not trying to be hyper technical about the process here, but I -- when there was a discussion, I think it's the -- well, they kind of flow from each other, so I won't jump to number two, number one briefly is plant performance is in Column IV/V. Elmo was just talking about that. But item two is the plant is shut down or the licensee has committed to shut down the plant to address performance issues. I had a sense here that maybe you are doing a bit of a stylized interpretation of these entry conditions

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- 2 performance issues and status at Fort Calhoun would -- was that at a level that
- 3 would have -- that you would have either shut that plant down or requested that
- 4 the licensee commit to shut the plant down? Was the flooding event an aspect of
- 5 kind of a stylized application of item two?
- 6 JOHN LUBINSKI: I wouldn't say it was a stylized application. I'll
- 7 ask Elmo or Troy to add to this, but when we look at the process we're in the
- 8 timeline, the plant was coming out of an outage already so they were in a
- 9 refueling outage. They remained down at that point. Prior to going into the
- 10 outage, there were not performance issues identified that would have caused us
- 11 to even put them in a Column IV at that point.

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issues occurred.

- 12 COMMISSIONER SVINICKI: Okay.
 - JOHN LUBINSKI: So from a discussion standpoint we weren't doing anything stylized with respect to that. They did have an event occur in June prior to the flooding, so the flooding added to that, and then there were other performance issues that occurred along the line, so to be able to speculate would we have done something different if they were operating, it would be difficult because number one, that was not the situation, and number two, we don't know the performance or reaction of the -- what the licensee would have done if they were in an operating condition at that point, and had any of these
 - ELMO COLLINS: I would like to add to that, Commissioner. In August and September when we issued the Confirmatory Action Letter and moved the plant to Column IV, we consciously kept the flooding issues and actions for plant restart separate from the ROP performance assessment

- 1 process. They were not linked at that time, but once we became to understand
- 2 the June 7th fire as a significant operational event, we had to -- we actually
- 3 asked ourselves the same question you asked -- you just asked us, you know,
- 4 does it meet this, and how does it meet it, and are we being true to criteria, and if
- 5 the plant had been operating and that event had occurred, then we would have
- 6 wound up in the same position.
 - COMMISSIONER SVINICKI: Okay.
- 8 ELMO COLLINS: It would have resulted in a plant shutdown, a
 9 significant operational event, and transient, and so it would -- we would -- it would
 10 have taken us to the same path, and so -- yes, I hope that helps give you some

11 insight.

COMMISSIONER SVINICKI: That is helpful, I appreciate both of the commentary that -- the comments that you both made in response to that question, and Elmo, I think you did a good job in response to my first question of talking about how the 0350 process because we can design what we need there in terms of an inspection process, we need some aspect, again, of our oversight not to be so regimented that we -- you do need, in my view, something like an 0350 because you're always going to find yourself in unique circumstance, plant-specific, that we need to have aspects of our program that allow us to do -- to design something that fits for the circumstances and that's some of how 0350 at the time was explained to me by Eric Leeds and others, and you're nodding your head to that, I think that was a point you emphasized earlier in response to that, so I think the other question that, you know, I -- again, I'm saying we have many performance indicators, and when I went to our website and looked at a lot of the different areas of performance, it did look like, you know, things were green, but

- 1 there were some areas where the trends were downward in some areas, and the
- 2 findings that we had were of various levels of safety significance, so it sounds
- 3 like in light of that, coupled with the extreme flooding event, 0350 just made a lot
- 4 of sense to you.
- 5 ELMO COLLINS: Well, I think that's correct. Being in Column IV
- 6 with a significant operational event speaks to significant performance issues that
- 7 warranted the additional verification prior to plant restart, and 0350 gives us a
- 8 process to accommodate that.
- 9 COMMISSIONER SVINICKI: And my last question is my other
- understanding is that an aspect of if plants are shut down for whatever reason for
- 11 extended periods, we don't have the inputs to populate the ROP indicators. How
- do we go about regaining that? Is -- I don't so I know, as Bill Borchardt
- emphasized, we're in early stages of this process, but how do you go about at
- the point where we're convinced that restart is appropriate? How do they move
- out of this, and back into the ROP?
- 16 ELMO COLLINS: Good, that is one of the assignments of the 0350
- 17 oversight panel, is develop that transition plan, I'll let Troy address some of the
- 18 details.
- 19 TROY PRUETT: A lot of that hinges on what's in the plant issue list
- and the restart checklist. Through our review of the facilities comprehensive
- 21 assessment, we'll come in with a fairly large team, do a validation of that
- assessment, from that we'll develop the additional items to fill out the restart
- checklist at our plant issues list, and we'll work through those and we'll go back
- 24 and do additional validation inspections to make sure each of those items has
- been resolved to ensure safe restart of the facility, and then once we're confident

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1	that we can do that, we've in that decision, we'll develop an inspection plan to
2	go through restart, post-restart, and we'll go in and we'll brief Elmo, we'll make a
3	recommendation that we believe the facility is safe for restart, and then Elmo, in
4	consultation with NRR, will sign off on that.
5	COMMISSIONER SVINICKI: Okay, it looks like we'll be hearing
6	more about that in the future. Yes, John?

JOHN LUBINSKI: One point is in 0350 is it allows us and is designed that way -- that we would continue under the 0350 process even after restart for some period of time so that we could address your specific issue there, so that we can understand that the performance is sustained performance moving forward. And we could look at a couple months and that would be determined by the restart panel, how long that would be, of performance indicator data to determine what would be the best place to put them back into the action matrix.

COMMISSIONER SVINICKI: Okay, thank you. Thank you, Mr. Chairman.

CHAIRMAN JACZKO: Sure. Commissioner Apostolakis.

COMMISSIONER APOSTOLAKIS: Thank you, Mr. Chairman.

This Column V, is that a recent addition to the ROP? And I notice that some of you even skipped it. Is it -- from IV we went to 0350. So was it last Monday or a year ago? When was it added? It wasn't there in the beginning. Column V.

JOHN LUBINSKI: It wasn't recently added to the action matrix and that -- as we thought -- the exact timeframe of that? Fred Brown's going to give you the exact timeframe, but as he's coming up, as we talked about it, the entry condition even in 0350 specifically says if a plant is in Column IV or Column V we

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1	can transition to 0350. So the process is designed such that it's an enhanced
2	oversight process customized to the condition of the plant based on performance
3	issues and the current plant issues. Current the timeframe, please.
4	FRED BROWN: Yeah, Fred Brown, NRR. Column V was an
5	original part of the SECY-09-0007 formulation for the reactor oversight process.

- 6 The change that was made to the ROP in the management directive about five 7 years ago was to specifically add 0350 and how the 0350 process interrelated 8 with Colum IV and Column V. But the original ROP did have five columns, and the unacceptable performance was I believe in --
- 10 COMMISSIONER APOSTOLAKIS: So a plant can be in Column V 11 without going to 0350?
- 12 FRED BROWN: No, if a plant goes to Column V, we handle it in 0350. 13
- 14 COMMISSIONER APOSTOLAKIS: Okay, okay. So it's automatic, then? 15
- 16 FRED BROWN: Yes.

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- COMMISSIONER APOSTOLAKIS: You have to go to 0350. You mentioned that there were multiple degraded -- repetitive degraded cornerstones. I wonder how the plant reached that state. I mean, I thought part of the agency's adopting the ROPs are there would be early warning that things are not going well. And yet we end up with a plant that has multiple repetitive degraded cornerstones, and then we move on to 0350. Does that mean that we don't have enough leading indicators in the ROP to warn us so that we'll never reach that level? Or what does it mean?
 - ELMO COLLINS: That's a question we're going to ask ourselves

ı	and we're going to have to answer. We have the same question. This just and
2	so that's going to be part of the process, is to take a look lessons learned on
3	the regulatory aspects of this historically. Well, I'll give you my personal
4	assessment. I mean, the site had a degraded cornerstone in 2007/2008 and we
5	completed the supplemental inspection and gave it an up-check. Here we set
6	2010 another degraded cornerstone, same cornerstone. And so for the same
7	cornerstone to become degraded over course of three or four years, that's
8	probably in the big picture that's telling you something about organizational
9	performance. And the reactor oversight process doesn't carve that out
10	separately for consideration, but looking back on it, historically that was an
11	indicator to us. You know, that that cornerstone degraded again and doesn't
12	register in the action matrix, but it's a historical fact that I think we'll have to give
13	consideration. And this time we saw additional findings of significance on top of
14	that, and the significant operational event, and that's what led us up to today.
15	BILL BORCHARDT: Yeah, you know, we every couple of years
16	we start talking about leading indicators, and we just don't have one, never have
17	had one. I hope someday we will, but it's not on the horizon. So it's a challenge,
18	but this is a rare and unusual event. It hasn't happened in 10 years. It's far more
19	often that a plant goes to Column II, maybe goes to Column III, addresses the
20	issues and ends up ultimately back up in Column I. So that's by far the more
21	normal path.
22	COMMISSIONER APOSTOLAKIS: But there will be some
23	reevaluation of the ROP after the

BILL BORCHARDT: Well, we do that annually. I mean, and this'll certainly be a major part of the annual assessment, to figure out the sequence of

1 events that led to this exact situation.

JOHN LUBINSKI: And as an input to that, as part of our process plan for the oversight panel we will be looking at the Lessons Learned of the way we've implemented this and looking back at the record to provide information on our annual reassessments of the reactor oversight process.

COMMISSIONER APOSTOLAKIS: Okay. Thank you. Mr. Pruett, you said that among other things the panel that you're chairing will have to decide that the safety culture is good, there would be a survey, and -- before you give the go-ahead. How did you decide that?

TROY PRUETT: That's part of the process. Fort Calhoun's required to complete an independent safety culture assessment. So they've let out a contract with an outfit to come in and perform that review for them. Our — the Human Factors Group in NRR will validate the process, the survey tools, and the types of questions that that group will use at the facility. And then our inspection follow-up team will go in and look at those results from that team.

We'll compare those to our results that we obtain through the inspection. And to the extent that there's alignment between what they found and what we found — COMMISSIONER APOSTOLAKIS: But presumably there are two cultures here. One is before they enter 0350, and the other would be afterwards. I mean, there would be some changes. So which culture are you looking at? The one after?

TROY PRUETT: We'll want to get a perspective on the historical safety culture to make sure that the corrective actions that they took were appropriate to get the behavioral changes that they wanted at the facility. And we'll also take a snapshot of the current-day safety culture, as well. A lot of times

1 in the focus group sessions, the people that sit there around the table

- 2 have a conversation with them, they talk about -- "Here's how things work, the
- 3 facility. Here's the meaningful changes that we've seen as we've developed
- 4 aspects of our integrated improvement plan." So --
- 5 COMMISSIONER APOSTOLAKIS: We still don't know what a
- 6 good safety culture is, though, do we? I mean, that will be your judgment that,
- 7 "Yeah, they're okay now."
- 8 TROY PRUETT: Right. Right.
- 9 COMMISSIONER APOSTOLAKIS: Right? Okay. And then you
- 10 say, "They will return to the reactor oversight process." They will return to which
- 11 Column? All green?
- 12 TROY PRUETT: Well, the oversight panel --
- 13 COMMISSIONER APOSTOLAKIS: Or they will return to the
- 14 process itself.
- 15 TROY PRUETT: Yeah, yeah. The oversight panel --
- the oversight panel will make a recommendation as to which column to place
- 17 Fort Calhoun Station back into. It'd be speculative right now, though. But I
- believe the recommendation that the panel would come forward with eventually
- 19 would be -- we're going to have a Confirmation Action Letter that's open,
- 20 traditionally with a 95003 plant that's in Column IV. That would remain in Column
- 21 IV until completion of the Confirmatory Action Letter, and then they would
- transition back into Column I or II, or whatever the findings supported at that
- 23 time.
- 24 COMMISSIONER APOSTOLAKIS: So they will return to Column
- 25 IV?

1	TROY PRUETT: Possibly.
2	COMMISSIONER APOSTOLAKIS: Pretty serious.
3	TROY PRUETT: Right, right. Possibly. Right.
4	COMMISSIONER APOSTOLAKIS: Well thank you, Mr. Chairman.
5	CHAIRMAN JACZKO: Commissioner Magwood.
6	COMMISSIONER MAGWOOD: Thank you and good morning.
7	First let me say I appreciate, you know, Elmo and Troy and the Region IV staff
8	and the work they've put into this, as well as the NRR staff. This is something
9	that I've been following for a long time, and Elmo and I have talked about this on
10	multiple occasions and I appreciate the amount of work that's gone into preparing
11	for this stage and the amount of work that's going to go forward in seeing this
12	through.
13	I wanted to ask a couple historic questions first, just to get some
14	orientation. And hopefully and Elmo you look old enough to have been around
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15	long enough, so maybe you can answer some of these questions. But as I look
	long enough, so maybe you can answer some of these questions. But as I look back, I we really haven't had plants in 0350 very many times. It's been less
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15 16	back, I we really haven't had plants in 0350 very many times. It's been less
15 16 17	back, I we really haven't had plants in 0350 very many times. It's been less than a dozen times in the history of the agency. As you look as you and
15 16 17 18	back, I we really haven't had plants in 0350 very many times. It's been less than a dozen times in the history of the agency. As you look as you and maybe you've looked at this as you've gone into this process, but I'm curious as
15 16 17 18	back, I we really haven't had plants in 0350 very many times. It's been less than a dozen times in the history of the agency. As you look as you and maybe you've looked at this as you've gone into this process, but I'm curious as to whether 0350 is most often activated by a particularly large operational
15 16 17 18 19	back, I we really haven't had plants in 0350 very many times. It's been less than a dozen times in the history of the agency. As you look as you and maybe you've looked at this as you've gone into this process, but I'm curious as to whether 0350 is most often activated by a particularly large operational problem of a well-defined nature, or is it generally lots of operational problems in
15 16 17 18 19 20 21	back, I we really haven't had plants in 0350 very many times. It's been less than a dozen times in the history of the agency. As you look as you and maybe you've looked at this as you've gone into this process, but I'm curious as to whether 0350 is most often activated by a particularly large operational problem of a well-defined nature, or is it generally lots of operational problems in lots of different areas? When you look back, is there a pattern that you see with

that was of such significance and spoke to the facility performance that really

- 1 became the seed or the catalyst to really prompt us to seriously consider 0350.
- 2 And that's similar to what happened here. It was the fire on June 7th that
- 3 affected both trains of safety related equipment that really had risk significance
- 4 and safety significance.

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5 BILL BORCHARDT: Yeah, and I'd say -- you know, the vast

6 majority, almost 10 of the issues, preceded ROP. So this was back in the days

7 of SALP and some of the words that have been banished from the regulatory

dictionary. And it -- at least half of them I would say, just based on my general

9 recollection, were just long-term, sustained, nagging issues that the Regional

staff and they -- had developed numerous inspection findings. We didn't have

11 the rigorous methodology that the ROP affords us, so it was kind of more of a

lingering issue of problems not being fixed that at least on half of the occasions

13 led to entry into 0350.

COMMISSIONER MAGWOOD: And that's what I guess I would have expected, because it's -- and I'm going to come back to that for a moment, but let me sort of ask Elmo to sort of emphasize -- to talk about something you just emphasized, which is you talked a lot about -- you talked about the fires being sort of the large operational issue that kicked it into this mode. In your discussion with Commissioner Svinicki you talked about that, as well. Let me ask the question a little bit differently from the way that Commissioner Svinicki asked it, and know this is again looking at the situation more theoretically as opposed to what actually happened, but are you saying that the plant is in 0350 because of the fire or is the plant in 0350 because of the fire and all the other things that were happening, as well? Understand your --

ELMO COLLINS: I think, if I understand your question, I would say

1 the latter. There were a number of factors. The fire, the significant operational

event being one, which entered into the decision the process -- the criterion of

0350 walked us through that.

I'll just add, we actually asked ourselves this question early on, what was the right oversight process? 0350? We have another Manual Chapter, 0351, which deals strictly with extended shutdown periods. So we could have accommodated the performance indicators in the baseline programs through that program. And until we got on site in September and October and really got the facts laid out and got a good grasp of the significance, I had thought that's where we were headed. But then the significant operational event tipped the scale over and made us reconsider 0350.

COMMISSIONER MAGWOOD: So, let me -- that sort of brings me back to Bill's point that generally, historically, it wasn't just the one singular event, it was sort of a nagging, long-term list of problems that led to plants generally getting into 0350. And I guess my question really is, is that really more of what we're seeing with Fort Calhoun as opposed to the single operational event? Is this -- and to sort of use the word, is this a safety culture problem that we really have at Fort Calhoun, as opposed to an isolated set of circumstances?

ELMO COLLINS: I think -- my best guess is I think there's quite a bit of work to be done to really frame the answer to your question and with a systematic and defensible analysis. But yes, there are the cultural aspects at the facility, as well, that are coming into play. That -- a program -- if -- in Column IV, that's kind of the given. If you get to Column IV you have to do an independent safety culture assessment. It's almost assumed that if you reach that level of performance that somewhere in the organization, to some degree, likely of

1 significance, there are cultural issues at play.

COMMISSIONER MAGWOOD: And one would think that that's the hardest to assess and the hardest to fix really if you look long term. The last couple of plants that went through this process I think spent about three years in 0350, something like that?

JOHN LUBINSKI: The timeframe for the last plant that went through was three years, from the time they entered until the time they terminated the 0350 process. On average, the plants before that -- and it's a little bit different, as Bill said, because the majority of those were before the ROP. But somewhere -- two, two-and-a-half years on average going through the process.

COMMISSIONER MAGWOOD: Largely because it wasn't just fixing one or two operational issues. It's really looking at the -- it really becomes the safety culture, organizational performance. It's a broad issue.

ELMO COLLINS: That's correct. I -- let me elaborate a little bit. In my analysis, if you have the significant events, they're almost always the causes. And when you really trace the roots back, they go pretty far and are going to go pretty deep into the organization. This fire in June 6th was -- I mean, it was a modification. It was actually well-intended, to improve the reliability of 480 volt breakers. But what resulted was a condition that was an unreliable configuration and actually induced conditions. And just that characterization gives me pause and so, I mean, what's going on in that organization when you set out to accomplish something, to make it better, and you actually get the opposite result? That's going to trace back into --

COMMISSIONER MAGWOOD: Yeah, I had the exact same reaction. I was also looking at the significant -- the yellow they got on failure to

ı	maintain external 11000 procedures. And one of the sentences in the discussion
2	of this says, "The finding was determined to have a crosscutting aspect in the
3	area of problem identification and resolution, corrective action program, failure to
4	take appropriate corrective actions to address safety issues and adverse trends
5	in a timely manner." Sounds like safety culture issue to me. And so I guess
6	when I look at this, you know, I think it's you know, I think that you I think
7	you've been saying this in different ways as this got started, but this really isn't
8	this isn't about the flood, it's not about the fire, it's about the organization, it's
9	about the safety culture at Fort Calhoun. And so I think it's important as we go
10	forward looking at this to not overly focus on those specific operational
11	challenges, but to really focus on the overall performance of the organization. Is
12	that a fair way to look at it?
13	ELMO COLLINS: I agree completely, Commissioner. We in our
14	articulation, maybe we refer too much to the events and the incidents in the
15	findings, but the reactor oversight process is very event incident-driven. We
16	it's not doesn't have leading indicators. We react, engage based on the
17	significance of what we see and increase when the significance increases. And
18	that's what we've seen at Fort Calhoun Station.
19	COMMISSIONER MAGWOOD: Well and I and that's not to
20	and I appreciate Commissioner Apostolakis' discussion about that aspect of it.
21	And I recognize the ROP doesn't limit itself to those kinds of you know, I guess
22	I say canaries in the mineshaft. But we do have the resident inspectors and I
23	would think that one aspect of the resident inspectors' presence on site would be
24	to give you, personally, some indication as to whether we are having
25	organizational and safety culture issues. I did were you able has this

- 1 before we got to this stage, did Region IV have indications of issues? Even if it
- 2 hadn't reached this point, but were you -- were there issues that you were
- 3 concerned about?
- 4 ELMO COLLINS: I have two answers to that question. Yes and
- 5 no. You know, we are as true as we can be to implementing the guidance and
- 6 procedures of the reactor oversight process. One of the values it brings is to put
- 7 discipline in potentially numbers and guidance to any issue, what it means, and
- 8 what it doesn't mean. And so resident inspectors follow that, and we're true to it.
- 9 So if it's not there, you know, it's not going to surface as increasing engagement
- in the ROP action matrix. It's just not. And even substantive crosscutting issues
- don't change the action in the action matrix. I will say that it is a fact, and I rely
- 12 heavily on the context and insights that resident inspectors develop at a facility.
- 13 They understand what's going on there and they can put context around an issue
- and a problem that you'd never get from the regional office, and never get from
- 15 black and white guidance. That does bring value and insight to us, and we try to
- use that. And that points us, then, to how we focus our inspection efforts. And
- we were seeing that at the Fort Calhoun Station.
- 18 COMMISSIONER MAGWOOD: That's a fair answer. Appreciate it.
- 19 Thank you very much.
- 20 CHAIRMAN JACZKO: Commissioner ...
- 21 COMMISSIONER OSTENDORFF: Thank you, Mr. Chairman. I
- 22 want to --
- 23 CHAIRMAN JACZKO: Moment of forgetfulness there.
- 24 COMMISSIONER OSTENDORFF: Thanks. I want to thank
- 25 Region IV and NRR. Elmo, I want to go back to your comment you made in your

- 1 opening statement about kind of three major challenges, one maintenance and
- 2 design, two corrective action program and three, dealt with organizational
- 3 effectiveness. I want to ask a couple of questions in those areas. Can you talk a
- 4 little bit about this breaker replacement and the testing? That got my attention
- 5 and I wanted to maybe understand a bit more about what happened and what
- 6 should have been done.
- 7 ELMO COLLINS: The 480 volt breakers at Fort Calhoun Station --
- 8 I'm going to let Troy provide some details here. Or Jeff.
- 9 COMMISSIONER OSTENDORFF: I'm very interested in what test
- 10 did not occur that should have occurred or any inspection --
- 11 ELMO COLLINS: Specifically, what I was referring to there was --
- well, and let me back up and describe the mod slightly. They were replacing the
- 13 breakers, but they were of an older design. The newer breakers were not
- identical and they were actually smaller, physically smaller for 480 volt breakers.
- 15 And so the licensee opted on a path to retain the cabinets and the bus bar
- arrangements, and fit the smaller breakers inside a larger cubical, which resulted
- in the need to design a -- I call it a -- it's called a cradle. I call it transition piece.
- 18 But the breaker has stabs which go into the transition piece. The transition piece
- 19 has another set of stabs which are inserted into the bus bar arrangements. And I
- 20 believe that there are inspection and licensee review. In that installation they
- 21 didn't measure the electrical resistance between the cradle and the bus bars. Is
- 22 that -- and I'll let the -- Jeff Clark speak before I say more than I know here.
- JEFF CLARK: Good morning. I'm the branch chief from the
- 24 Division of Reactor Projects that has Fort Calhoun oversight. As Elmo specified,
- in that modification it was going from one breaker style to another. You had to

- 1 come up with this transition piece, as Elmo said, to have stabs. What we have
- 2 determined through our inspection is there wasn't a rigorous process to
- 3 determine that proper engagement of those multiple stab pieces. The actual
- 4 location of those within the breaker cabinets was such that it couldn't be seen
- 5 easily. You'd have to do some disassembly of the back portion of the cabinets.
- 6 Some other things, such as resistance checks, thermography, or whatever, were
- 7 not done to validate or verify that those connections were actually properly made.
- 8 And that the modification then in turn would be effective going forward.

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- 9 COMMISSIONER OSTENDORFF: I assume there's quality
 10 assurance paperwork or some kind of a work completion form that would have
 11 some testing or some post-installation checks on this?
 - JEFF CLARK: There was. And one of the complications we saw in there was that it was a misunderstanding with some of the craft and some of the QA, that they felt that some of those observations and readings should only be taken on the visible portion of the modification and were not done because of the complexity of getting to the back panel.
 - COMMISSIONER OSTENDORFF: This doesn't sound like it should be rocket science. I mean, I guess I'm -- I've replaced lots of breakers over many years in the Nuclear Propulsion Program. It's pretty straightforward just to do resistance -- and this is, you know, not complicated. So I'm trying to figure out, is this an unusual set of circumstances here because of the pieces are not visible? I'm just trying to fathom the absence of the testing of this. That's -- and maybe there's no answer for that.
- JEFF CLARK: Again, there's -- the specific answer to that is going to be, you know, part of our follow up --

1	COMMISSIONER OSTENDORFF: Yeah.
2	JEFF CLARK: inspection to that as to why you didn't actually get
3	into that aspect.
4	COMMISSIONER OSTENDORFF: Okay.
5	JEFF CLARK: But, again, it fell in with the complexity of getting to
6	the actual connections.
7	COMMISSIONER OSTENDORFF: Okay. Thank you.
8	ELMO COLLINS: I'll add two points. One, this is the first time
9	these have been this actual process and mod have been done at Fort Calhoun
10	Station, so now, there were evidently there were some translation
11	weaknesses or misses with how those were put in and how they were tested. I'll
12	also add, just to we got to issue our inspection report on this, so well, we're
13	very close to issuing, and I would I'm a little hesitant here to
14	COMMISSIONER OSTENDORFF: I understand.
15	ELMO COLLINS: discuss it.
16	COMMISSIONER OSTENDORFF: Well, I guess but I
17	understand this is a potential significant contributing cause to the fire. Is that
18	what I heard from you? Is that correct?
19	ELMO COLLINS: That's correct.
20	COMMISSIONER OSTENDORFF: Okay. Let me go on to the third
21	challenge you mentioned, Elmo, in the area of organizational effectiveness. And
22	I appreciate you or anybody else at the table commenting on the existing Fort
23	Calhoun management's capacity to address the situation with 0350 and
24	strengths, weaknesses, areas for improvement on the management ability to get
25	their hands around these issues

1	ELMO COLLINS: I'll start just by saying this is a significant
2	challenge for the site, organizationally. Just being in Column IV by itself would
3	be a challenge to any organization. This station is also challenged by the
4	external event that they experienced with the flood. And so and we believe
5	with the fire and the significant operational event, that that adds to the challenge
6	a licensee has. So, by any measure, this is going to be very challenging for the
7	organization. I think we need to see, you know, how they move through this with
8	their cause analysis, the extent and condition for some of the equipment issues
9	they've seen, and the extent of causes and that's something we'll have to take a
10	look at. I'm not in a position to say how that's too much uncertainty around that
11	right now. Too many unknowns.
12	COMMISSIONER OSTENDORFF: Is the licensee getting any
13	external assistance from other industry sectors or any industry coalitions?
14	ELMO COLLINS: Yes, I believe they are. They have entered into
15	a contract with an Exelon corporation and I believe they'll probably speak more to
16	you about that, though, when they're at the table.
17	COMMISSIONER OSTENDORFF: Okay. Thank you.
18	ELMO COLLINS: They're getting external assistance.
19	COMMISSIONER OSTENDORFF: All right. Thank you, Mr.
20	Chairman.
21	CHAIRMAN JACZKO: The as we go forward, there are, as I
22	think Elmo, as you talked about, a couple of pending, potential, greater-than-
23	green findings. To what extent do those factor in at this point, as they if they've
24	moved into Manual Chapter 0350, do we then keep you know, if these come
25	out as more whites than yellows, does that have an impact on the ROP or what

1 do those mean going forward?

2	ELMO COLLINS: I think moving forward technically, Fort
3	Calhoun Station has been removed from the reactor oversight process, but we
4	will develop those findings and make an assessment of the significance. And so
5	what practically will happen is they will then, once they're finalized, be handed to
6	the Restart Panel for consideration of inspection and evaluation for licensee
7	corrective action. It's not going to change our level of engagement at this point in
8	time.
9	CHAIRMAN JACZKO: Given or, I don't know, Troy, did you want
10	to add anything?
11	TROY PRUETT: Just to say if those findings that we believe would
12	result in a greater-than-green result, those would go to the panel. The panel
13	would add those to the restart checklist for resolution prior to restart.
14	CHAIRMAN JACZKO: It's and I guess, as I understand, based
15	on the different potential findings, that it's possible that we could see them then
16	with degradation in possibly four cornerstones. Have we ever had a plant in a
17	situation like that? Well I mean, again, not putting them into the ROP but
18	TROY PRUETT: Yeah, there hasn't been, and again there are a
19	number of findings that are working their way through the process right now. I
20	don't believe we would hit four degraded cornerstones, based on where they are
21	in the process right now.
22	CHAIRMAN JACZKO: Okay. John, did you want to
23	JOHN LUBINSKI: If I can just add, just no we have not had a
24	plant in that area, and as we move forward, as Elmo said, the when we
25	characterize these, we would not be characterizing them as additional degraded

cornerstones. The more important part is when we have plants that have a degraded cornerstone is how do we react, how do we do our inspections? And that's the purpose of the oversight panel, is to take the information from those findings, the risk significance of those, also determine the connection to the other items that have been identified, to verify that, number one, the licensee's plans for addressing and identifying the extent of condition and corrective actions are appropriate. And then from our standpoint to make sure our inspection efforts that were — our enhanced inspection efforts under 0350 are adequately addressing not only the issues themselves but any crosscutting nature to them.

CHAIRMAN JACZKO: Well, thank you. I appreciate that, and I -you know, I think to some extent the ROP is a very useful tool for communication,
so -- and I appreciate -- because I think moving to 0350, we don't really follow it,
but I think there is some value of, to some extent, tracking these things as to
where they would have been in the ROP even if -- you know, because if we see
another yellow, we see additional whites, that seems fairly significant from plants
that I've experienced in the time that I've been on the Commission, to see that
many findings with that level of significance.

ELMO COLLINS: I'll just add, I mean, communication is a very importance piece of Manual Chapter 0350, as well. And so we will have public communication about what we believe the significance is. What 0350 adds is — an ROP would change the level of significance by different columns of the action matrix. That's not going to change our level of engagement because we're already what we believe is maximum engagement with the 0350 oversight panel, and for communication purposes, there's a series of, you know, public meetings that we'll be conducting to talk about where we're at and how we're moving

forward through the process.

CHAIRMAN JACZKO: And Commissioner Svinicki asks a number of really good questions about the 0350 process, and I think for all of us, this is a little new. And, I think, when I was on the Commission, Davis-Besse was coming out of their 0350 maybe, or maybe they had already, but they were still wrapping up, I think, the CAL items, so they may have already been out of the 0350, but were wrapping up the CAL.

Is there an extent in which, I mean, is there a difference, let's say, at this point, with the additional issues that would be identified if they had some high degree of significance that would be equivalent to yellows or possibly even red findings if they were under the traditional ROP? Is there a difference? I mean, do we go back and reevaluate effectively Column V, or is there really no difference at this point between being in Column V, being in 0350, and being shut down?

ELMO COLLINS: Yeah, technically, Fort Calhoun's been removed from the reactor oversight process, so those algorithms that are constructed to determine NRC engagement with the action matrix are not applicable in Manual Chapter 0350. In lieu of that, we have the oversight panel, which looks at each issue and its significance to determine how it needs to be addressed.

So, what we rely on in 0350 is getting the right items and to restart for safety is getting the right items in the restart checklist and getting those items resolved and addressed appropriately, and to provide that additional verification of safety before the plant returns to power.

CHAIRMAN JACZKO: Would there be more tools if we were to terminate 0350, put them back in the ROP, and put them into Column V than

1	tools that we have available now under 0350?
2	TROY PRUETT: No, I don't believe so. Column if you hit
3	Column V, you automatically transition into 0350, and you go into this process,
4	so the process wouldn't be any different.
5	BILL BORCHARDT: And I think the bottom line is that the licensee
6	needs NRC approval to restart, I mean, so, that's and we won't give
7	authorization to restart until the startup checklist is done, we're satisfied that all
8	the corrective actions have been taken for all the issues identified, and, so, it's I
9	think there's a very strong regulatory footprint on the process from this point on.
10	CHAIRMAN JACZKO: Great. Well, thanks. One last question on
11	that. Do we have any preliminary results on the have we run the fire event
12	through the ASP at this point? Do we know? Is there plan to be an ASP
13	analysis?
14	JOHN LUBINSKI: There will be analysis. We have not run that yet.
15	CHAIRMAN JACZKO: Yeah. Okay. Any expectations of what that
16	is there a potential to be a
17	JOHN LUBINSKI: Don't want to
18	CHAIRMAN JACZKO: significant precursor, or
19	JOHN LUBINSKI: Don't want to prejudge at this point. We'd have
20	to run the information first.
21	CHAIRMAN JACZKO: Do we have a timeframe for when we would
22	likely do that?
23	JOHN LUBINSKI: Do we have a time frame
24	RANI FRANOVICH: Eighteen months.
25	JOHN LUBINSKI: Eighteen, I'm sorry.

1	RANI FRANOVICH: Eighteen months.
2	CHAIRMAN JACZKO: Have we started?
3	JOHN LUBINSKI: Rani, if you could just come to the microphone.
4	Rani Franovich is the branch chief in charge of our performance assessment and
5	program.
6	RANI FRANOVICH: Yeah, Rani Franovich. Research does the
7	ASP review, and they do a screen each year, but it can take 12 to 18 months to
8	have the final outcome. I believe they probably are reviewing it, but we don't
9	have any indication of where they are and what the results are indicating.
10	CHAIRMAN JACZKO: Okay. Thanks. Again, maybe we can just
11	confirm or let us know if they are actually doing it or
12	RANI FRANOVICH: We'll take that action, Chairman.
13	JOHN LUBINSKI: We'll do that, sure.
14	CHAIRMAN JACZKO: Great. Thanks. Okay. I think those are all
15	the questions I had, so, again, thank you for your presentation for the work that
16	you've done. I think this is a very appropriate action on the part of the agency,
17	and I look forward to continued updates on progress. Thanks. We'll take a quick
18	break.
19	[break]
20	CHAIRMAN JACZKO: Okay. We'll continue meeting and get a
21	presentation from the Omaha Public Power District. Gary, I'll turn to you to begin
22	and however you want to proceed.
23	W. GARY GATES: Thank you, Mr. Chairman. I'd like to introduce
24	the people at the table with me. Dave Bannister is the chief nuclear officer and
25	vice president of our company. I'm Gary Gates, president and CEO, and John

Herman's our division manager of engineering.

I'd like to open with a few opening comments, and then for the sequence, Dave Bannister's going to go over in some detail our recovery plan which will cover the points that we heard earlier in the meeting as we go through this as well.

First, I'd like to cover a couple of things, what we're here to do and what we're not here to do. First, I want to assure you that we understand the seriousness and the scope of these issues. We have a sense of urgency to return Fort Calhoun to sustained high levels of performance. I intentionally did not say a restart, I said sustained levels of performance. That'll be action-based, we don't have a time table. We want to share the elements of our recovery plan.

It's taken a long time to develop this plan. We will get it to the restart committee with Troy very soon, and the reason it's taken us a long time are two: As we surveyed the industry on similar situations, our advice was take your time up front, do the plan very well, do it very detailed, and have all the corrective actions in it that you need; a second is we want to kill this issue completely as we move forward.

We're clearly not satisfied with our performance. We'd like to assure you we have the support of our entire company. I can talk at any level of detail about that and our board for resources. Also, the majority of the workforce at Fort Calhoun are experienced, long-term employees. They have operated at a high level of performance. We lost our edge. The workforce at Fort Calhoun is very willing and anxious to make any changes needed and have already started that process.

I'd like to cover what we're not here to tell you, that we've

1	completed all our discovery. We have more to come in that, as was mentioned
2	earlier. We do not want a short-term fix. We're a work in progress. We're
3	challenging ourselves, questioning everything. We're doing deep dives to get
4	root cause identified. As we find those deep dives, other issues will come up.
5	We anticipate that, and we'll deal with them. Changes, we will make. You have
6	my personal and the company's commitment on that.
7	We're not assuming that we have the capacity to do these efforts
8	without outside help, to ensure our sustainable performance. Dave will cover
9	that in his presentation on the additional resources that we've brought in to help
10	us.
11	My last comments would be, as you listen to Dave's comments and
12	to our presentations today and our answers, please do it in this context: We have
13	a long-term goal of sustained performance. We understand we have let the
14	industry down and we have let ourselves down with our performance. We have
15	the drive, commitment, and heart to return this station to high performance.
16	Performance recovery is in progress. We've done a lot of individual
17	root causes and have those results. We have interim actions in place to deal
18	with, specifically as mentioned earlier, safety culture and those issues. But,
19	additional items with improvement will be needed and are in our overall plan.
20	I'd also like to assure you that the industry has rallied to help us.
21	We were very involved on a national level. I can say across the board and I
22	think it's unique to the nuclear power industry the amount of help we've been
23	offered and taken to return our station to high performance. We will be a high-

DAVID BANNISTER: Okay. On slide one, first of all, I'd like to

performing unit. Dave, would you please go through our presentation?

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1	thank the Commission for the opportunity to talk about our performance in a
2	public setting. On side two, I'll talk about the key areas I'm going to discuss this
3	morning and cover.

First of all, an acknowledgement of our performance issues and our accountability to them, the key objectives of our performance improvement plan and really our actions that dictate them going forward, and then finally some specific details about the plan itself. Okay. Slide three.

As Gary indicated, Omaha Public Power District understands the significance of the position that we're in, and we hold ourselves responsible for our unacceptable performance. We're committed to do what's necessary to identify, analyze, and resolve our performance issues.

Our performance issues were revealed by violations of color and other internal findings. Violations dealt with -- and you've already been briefed on those -- our flood preparation procedures, a failed electrical contact interactive protective system, some handling of some historical security-related information, and our corrective action program culture.

To date, we've done causal analysis on each of these issues and put forth detailed, corrective actions. We've rewritten our flooding procedures, fabricated, upgraded flooding gates and plates as a positive protective feature, and upgraded our flooding strategy.

We recognize we have more work to do. This was revealed at our specific flooding readiness inspection that we had in early February, and this resulted in some additional revisions to our flood procedures, and in the process of evaluating a safety class of a particular equipment in our intake structure.

We've replaced the failed contactor in our reactor protective system

- 1 and the three backup contactors in the other channels, and this was done last
- 2 February. We've improved our handling and storage of security-related
- 3 information and we've instituted stronger management oversight in our corrective
- 4 action program.

Our event, which we've talked a bit about, is a breaker failure that

6 occurred on June 2nd, or, excuse me, June 7th, and we anticipate that there is a

finding of significance on this issue. To date, we've replaced that breaker in the

load center and we have testing in progress.

We clearly understand that we must improve, and we've established a sense of urgency in our organization to improve not only our performance with safety but also from a regulatory perspective. We're taking strong management actions to continue to strengthen our leadership and management of the station, improving our oversight and rigor into our technical decision-making, and improving our human performance. Next slide.

Next, I'll discuss some key objectives of our integrated performance improvement plan, and they are as listed to improve and sustain station performance, equipment reliability, and risk reduction; to identify and correct human performance issues; to ensure ownership in the improving initiatives; reestablish regulatory confidence; and reinforce public confidence.

And we talked -- as Gary Gates had talked before our focus is really a long-term approach to performance improvement and not taking a short-term view of this. We do that by being rigorous in our analysis, digging deep in the discovery of our issues, and then recognize that the plan has taken time to evolve. However, we want to ensure that we do this right the first time, that the analysis has the right breadth and depth, and that ensures that we clearly

1 understand the issues and put forth a correct -- smart, corrective actions.

Slide five talks about some of the improvement plan attributes, and these are really the attributes that will make the plan successful. First of all, site engagement. This is at all levels of the organization, whether people are participating on the performance improvement team; identifying and implementing the corrective actions; or being part of the analysis and part of the discovery.

Next, a strong, external support. Gary Gates indicated that we have reached out to the industry and have gotten a tremendous amount of support. One of those are from Exelon nuclear partners -- and I'll talk more about them in terms of leading our performance improvement efforts -- the Institute of Nuclear Power Operations, and other industry experts.

We've also employed internal and external oversight, both from our internal quality organization, our nuclear safety reviews, our independent offsite review committees, and line organization assessments. We've also increased our internal and external communications really with a focus on being transparent and open in our communication and our messaging.

And, finally, our projects scope, which is much, much broader and much more focused on sustained improvements rather than just meeting the minimum requirements associated with startup.

The next slide, I'll talk a little bit about the organization, and this is our performance-improvement team, and these are really the keys to the organization. First of all, a dedicated, blended team of OPPD, Exelon, and external experts. The organizational accountability as you see in the chart directly to the chief executive officer of the improvement team.

1 The team is largely self-contained. It has the right expertise

2 embedded on the team to analyze and resolve technical issues and assist with

the implementation of corrective actions in a number of areas, being it with safety

culture, identifying and correcting deficiencies, reactor system reviews, the

5 corrective action program, or analysis of engineering and maintenance issues.

There's a representation on the team from every line organization at the station.

The next slide shows some of the major elements of the integrated plan, and I'll talk briefly about each one of those. These elements were selected to ensure that we have a complete understanding of our performance issues and that we develop the right actions in place to address them. The elements are, first and foremost, are our flood recovery plan, and that really recovers the physical plant and really ensures we harden our flooding strategy and take care of any issues of any impact the flood may have on the plant.

A detailed reactor safety system review, detailed assessment of the processes and behaviors used to identify and correct our deficiencies at the station, an independent assessment of our nuclear safety culture, detailed assessment of our corrective action program, and then, of course, review of selected engineering and maintenance processes. And these were processes that were identified doing some of our internal assessments and some inspection activities.

Next, I'll go on to provide some more detail on each section of the plan, which I've just laid out here. On slide eight, first of all, the flood recovery plan, and really, the plan analyzed and addressed the physical impacts that the flood had on the station in six broad areas. The actions from the flood recovery plan have been put into our integrated plan. We felt that was necessary.

First of all, the site restoration, that deals with the physical cleanup and recovery of the site in and around the station. It also deals with the recovery of the load center and the fire that occurred on June 7.

Plant systems and equipment assesses any flood-related impact that the plant systems and equipment had due to having water on site for nearly 100 days. The equipment reliability looked at any long-terms effect the flood may have on station equipment and the site itself. This is where you would see the geotechnical or soil evaluation. The design and licensing basis assessment really looks at the configuration and licensing basis changes that we may need to look at as a result of the flood.

The emergency plan basically assessed and corrected any equipment deficiencies or responses that were impacted by the flood and any necessary changes we would make -- need to make long-term. And then, finally, the security aspect is to ensure that we've restored the physical security system and then looked at if there's any enhancements we need to make going forward.

On slide nine, it talks about the reactor safety review, and this is an intrusive assessment into selected safety-related functions, subsystems, and processes really to verify that we can fulfill their safety-related functions. We also look cross-functionally to evaluate if any safety organizational performance issues exist with the maintenance design or the operation of the system that we're looking at.

As part of that review, there's a couple of key attributes that I'll touch on. In the design equipment performance and configuration control attribute will verify that the system can fulfill its intended safety-related function and we'll do that by doing a detailed review of the design basis, the operation,

1 and any past modifications that we made. We'll also, as a part of this review, do

2 a latent issue review. We'll also assess the effectiveness of any corrective

actions that we've done and look at any performance deficiencies that have

evolved with the system and any testing methodologies we'd use to prove

5 operability of the system.

We'll also verify proper configuration control of system by doing plant walk downs, design document reviews. We'll also look at our work control process to make sure that we properly evaluate risk when we're doing maintenance or upgrades on any portion of the system.

Next, in the human performance attribute, we'll assess our effectiveness of identifying and correcting issues dealing with human performance. We'll give specific attention to any attribute identified in a crosscutting aspect really to evaluate its impact on work control, decision-making, work processes and practices, resources, and ALARA planning.

In the procedure review attribute, we'll assess how effective we are in identifying and correcting deficiencies dealing with plant procedures, and we won't limit these just to operational procedures, but we'll take a broader look, including things like emergency preparedness procedures. And, finally, we'll look at the effectiveness of the emergency response organization readiness.

On slide 10, I'll discuss the processes that we'll use to evaluate the things that we do to identify and correct performance deficiencies at the site; sometimes this is called an IACPD review. Purpose of this review is to determine whether our systems were identifying and correcting performance deficiencies are really adequate. To do this, we'll evaluate a number of processes and programs.

1	We'll look at our	performance	improvement	programs.	This
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- 2 includes a corrective action program, our causal analysis program,
- 3 benchmarking, trending, self-assessment, and the use of operating experience.
- 4 We'll also evaluate our performance goals and metrics to ensure they're
- 5 appropriately set and how well known they are throughout the organization. We'll
- 6 evaluate any greater than green finding to validate that we've done a good depth
- 7 of analysis and we've got the right corrective actions in place.

We'll also review our employee concerns program. Part of this is to ensure that employees are free to raise concerns without any fear and also that each of those -- if there was a concern brought forward, that it was appropriately inspected, evaluated, and actions put in place.

And, finally, we'll conduct what we call a historical data review, and this is -- we do this by doing document reviews and what I would call this, a binning process, really, to take a look to ensure that actions that we have taken and issues we have had in the past were properly characterized and acted upon. And, of course, any deficiency we find in there will be corrected.

On slide 11, is the third-party safety culture assessment. That will be performed by Conger & Elsea; they're a nationally recognized firm that provides root cause analysis and safety culture assessments. The assessment is a very important part. We recognize that and really consists of three key elements: behaviors and practices, safety culture, and employee concerns. And the idea of this, the assessment really allows -- we want employees to open up and encourage them to raise concerns and offer opinions about how we do our business at Fort Calhoun.

We really recognize the importance of culture and the role that

- 1 safety culture plays in our day to day operation. That's why we've implemented a
- 2 lot of interim actions, you know, regarding culture and how we get this
- 3 information. We have daily discussions on a safety culture attribute. We utilize a
- 4 safety culture advocate, a person that sits in some of our higher-level
- 5 management-level meetings to just focus on safety culture, where we may have
- 6 missed an opportunity to utilize and discuss safety culture in a decision-making
- 7 process.

We also do abbreviated safety culture surveys to try to get insights, and a lot of this deals with our messaging and communication to a site to make sure that we're keeping on top of that and seeing what impact safety culture may have on our decision-making interactions. And, with all that knowledge and information, we still recognize that this is an opportunity for us in an area that we have to do better in.

Regarding our third-party safety culture assessment, just to give you some perspective, this will be done with survey, individual interviews, and focus groups. And the target population will be all Fort Calhoun Station employees and any consultants or contractors have been on site for greater than six months. The surveys start on the 27th of this month, and we expect the final report in early May.

The performance improvement team provides line ownership of the safety culture process and survey, and the key element of our involvement is to make sure that it's an independent assessment. That's got to be key. And then the final report we issue will be rolled up to and factored into our integrated plan and our action moving forward.

On slide 12, our corrective action program improvements are vital

1 for us because we -- based on our analysis, our corrective action program hasn't

2 served us in the mean that it should. It hasn't been doing the things that we

needed it to do. Key elements of our corrective action program culture

4 improvements include a causal analysis that we've done, and really to pinpoint

where our corrective action program deficiencies lie. Some key interim actions

that we have taken to date primarily deal with more oversight and focus of senior-

level management, management of the station on corrective action.

I've personally given my expectations to all station leadership regarding CAP, the importance of the program, the fact that it is core business. It demands our attention each day, and there's no tolerance for shortcuts.

We're demanding higher standards in our analysis and our corrective action oversight, and we're coaching lower thresholds and writing corrective action documents for the entire site. We also are conducting training as part of our causal analysis. We have done an upgrade of our corrective action program. We're actually conducting training on that revised program and the culture aspects of that today. You know, part of that training includes the fact -- and what does it mean when we say that corrective action program is core business and how we expect it to be the corrective action program to be used at the site, the fact that we're instituting higher standards for causal evaluation, action item closure, and the level of documentation that's required for closure, the amount of senior management oversight we put in the corrective action process, and our expanded use of training to identify issues early before they become larger issues.

On slide 13, I'll discuss some of our plans for assessing selected engineering and maintenance processes and issues. We identified a number of

engineering and maintenance programs and processes that, in all cases, weren't meeting our needs and expectations. Each area is being thoroughly analyzed and evaluated to identify any past discrepancies and actions that we need to be taken to correct and strengthen the processes and behaviors going forward. The findings in these reviews will be evaluated in the aggregate, and then actions will

become part of our integrated plan.

Some weaknesses that we are investigating and will continue to investigate really include our degraded non-conforming condition process, our operability evaluations, use of vendor manuals, and the upgrade of those manuals, our configuration control of safety-related equipment, our equipment service lives, safety evaluations and 5059 screenings, and our oversight of vendors.

Now, on slide 14, we recognize that our integrated plan will identify our issues, and yet the overarching objective of the entire plan is to improve our performance long-term, and we really ensure this by doing an collective evaluation of each of the individual elements of the plan and then rolling those analysis up and then doing an overall analysis of all the issues. We also do this by developing smart, corrective actions with the appropriate management oversight of the review and implementation and closure of each of those actions by implementing management changes to strengthen and challenge our oversight of the station and our recovery efforts. We also do this by employing external sources. We talked about some of the folks and the help that we've gotten from the industry, and that actually, to lead an oversight our improvement activities and also provide us counsel and direction. Also, by providing long-term oversight, and these are both by internal and external sources of oversight, and

- 1 then we provide check and adjust points within our action plans and interim
- 2 actions to make sure that we're staying on the path and we're making the
- 3 improvements at the rate that we expect.

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long-term.

Now, what's different today? Well, we're utilizing the systematic approach to evaluate where we are. We recognize that our performance issues are broad, and we have to dig deep to be able to get those on the surface so we 7 can get forth the right actions to correct them. And, really, it's looking at the cultural level and getting it in at the cultural level to ensure these are sustained

Before I turn this back over to Mr. Gates, there's a couple of points I want to reinforce to you. I clearly understand the significance of the position that we're in, and I hold myself responsible for our unacceptable performance. I've never been in this situation before, but you have my word, I will fix it.

We're taking a long-term approach, and really, that's looking at this from a performance-improvement perspective, and it really starts with digging deep to get these issues uncovered and then put forth the right action to correct it. I commit to you that we'll focus on nuclear safety each and every day; that's our primary value, our primary focus, and we won't deviate from that. I'll turn this back over to Mr. Gates.

W. GARY GATES: Thanks, Dave, and, to you, Mr. Chairman, and the Commission for giving us this opportunity to speak to you today on our plan. As Dave said, and the whole OPPD team, we're serious about safety. We understand that. We understand our obligations to the industry and our responsibilities.

I have the privilege of working in this nuclear industry for almost 40

1	years now,	and I	know wh	nat Fort	: Calhoun	Station is	s capable o	f. I knov	v what	the

- 2 people are capable of there, and with personal interaction, I know their
- 3 willingness to do the right thing.
- 4 We will not return Fort Calhoun to operation until we're satisfied and
- 5 recommended along, I know, with the CAL process from the NRC's point of view.
- 6 You have my commitment, personal commitment, CEO and Gary that we'll get
- 7 this fixed. We'll do it right. We'll do it in a very thorough, very professional, and
- 8 very transparent manner. Thank you and we would appreciate your questions at
- 9 this time.

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- CHAIRMAN JACZKO: Thank you for that presentation. We'll start with Commissioner Svinicki.
- COMMISSIONER SVINICKI: Well, my thanks to each of you for the messages that you've delivered here today and for the update you've given on the status of actions at Fort Calhoun Station. I had a chance to visit there. I can't recall specifically when it was. It was probably over a year and a half ago, and it was well before the flooding event and some of the recent events that the NRC staff panel talked about, and I appreciated the opportunity, though, to visit the station and talk to the women and men who worked there.
- I'm going to touch on a few items, and I want to acknowledge that I know that we're, as the NRC staff panel indicated early in the process, so I acknowledge that up front, but I'm still going to ask some questions, and please respond to the extent that you have the information or details, and you can give some indication of where things stand.
- I'll start with a very general question. Mr. Gates, you had mentioned that your board and others are fully supportive of making the

necessary, and I appreciated your commitment to that. That will obviously be key if things aren't resourced, they can't be accomplished. However, I know as we look forward on some post-Fukushima actions, Fort Calhoun as other stations may be receiving requests for information and other compulsory actions, are there areas where you feel that your response to what NRC might require on those items, which, again, to some level of detail about those actions has already been communicated from the NRC staff to the industry, so you must have some general awareness of what you're looking at in terms of a post-Fukushima response to the NRC. Do any resources, in terms of key niche expertise compete with things that you have, commitments you will have to make under this 0350 process, and, if so, how will you balance that? W. GARY GATES: Let me start that, Commissioner, if I could. The way we're going to handle those capacity requirements to handle both Fukushima -- we're also in the process of transitioning to NFPA 805. We have the emergency preparedness rule that's out that we're working through. We have the cyber and all those issues. We're specifically bringing those separately out of the organization to be managed -- and in concert with the line organization but in a separate function so we get the right focus on it, we devote the right resources to it. As a matter of fact, we have set ourselves an internal goal that we want to lead the country in one of the Fukushima items, which is increasing our station blackout time. As we recover from this effort, we think that's a proactive message and also one that our plant can get its arms around and execute. It being a smaller PWR, we've got a lot of options in that area. So we plan on leading those efforts and not just reacting to them as a unit. I'd let Dave

resources available that the station needs to take the actions that will be

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input some more color around that, but we do understand the additional capacity and we provided that structurally in the organization as well as resource-wise.

DAVID BANNISTER: As Mr. Gates just pointed out, it's exactly what we have done. We've -- I don't want to say compartmentized, but we have designated people in the organization focusing on just the Fukushima pieces, going to the various working groups and committee meetings, looking broadly across the industry on the input on what are other sites doing? In some cases, doing the analysis or what's the best practice to be able to implement the right structure or right process. We're doing the same thing with all the other initiatives. One I'll also point to is the security order. And, you know, that is going down the path and has been. Even -- if you can believe this, even during the flood we had activities that were still going in terms of planning processes, et cetera, to get ready for our actions as soon as the flood waters receded to get in there and do the work for the security order. So that's all ongoing.

bit on this theme, but turning now to external support, which you've indicated that, where appropriate, you will supplement your efforts, you have a partnership with Exelon. I'd like to turn to the concept, though, of sustainability in recovery versus external support. And I'm not saying that external support should be spurned. There's a lot of really valuable external support, both Exelon and other industry-wide sharing of lessons that you can tap into. As a matter of fact, one of the things I recall from my visit to Fort Calhoun Station, which is in walking from one part of the facility to another I spoke to one of the station executives about the fact that he had an opportunity through INPO to be at another station and how valuable he and others at Fort Calhoun found those opportunities. Again,

- 1 it's a comparing of, as he put it, "How we do business versus how other people
- 2 do business." And so obviously reaching out and not becoming insular is very
- 3 important, but you do need all of your measures to be sustainable for Fort
- 4 Calhoun Station over the long term. It's this peril of having, you know, fixers
- 5 come in but then they haven't really, once they depart, had you -- really have you
- 6 invested in something that will be very enduring for the station. How are you
- 7 approaching that?

W. GARY GATES: The -- and I'll let some more comments be made, but the way we're approaching that -- that's an excellent point. As Dave said, we integrated the recovery crew. Right now it's about two-thirds OPPD people and one-third outside resources. So we want our folks to learn the lessons and then come back into the line organization. Our plant manager, Tim Nellenbach, is going on loan to INPO. And he'll be spending his time in a very detailed program in our cooperation with INPO to raise standards and understand what's going on around the country. Because as a single unit, single operated unit, being insular is something you really have to guard against. And we have put those into our plan, as well. So we have integrated crews with the folks.

And the other piece is we are going to stay with an outside support as long as necessary until we're satisfied that we have the unit sustainable. And it may be a prolonged period of time. We're not sure what that'll be. We are starting those discussions. But we recognize that, particularly in a single unit of our size, it is always going to be a challenge for insularity -- if that's a word. I may have just invented one. I hope not. Or the fact that we will always be capacity-challenged in the degree of -- the way we looked at this, you know, you

have a station staff that's running and typically every unit has excess capacity that they use for special projects and everything. So we put in new steam generators and head in 2006, and we grew capacity with a single vendor, it was Bechtel at the time. And then we reduced down to our normal staff and we were putting in projects. But if you — the ones you just mentioned, Fukushima and the other ones we alluded to, take additional capacity, and then layering on top of that. So we're going to always be, I believe, in a position to need additional capacity beyond what we have. We had a lot of additional capacity due to our extended power uprate, which we were pursuing, and we have now suspended to focus those resources on this recovery. As a matter of fact, that extended power uprate has provided us some great information because we were doing system reviews to do that, to raise the power level. So we have a lot of information from deep dives, from the extended power uprate that will serve us well as we go through this recovery effort. Dave, I — but we're internalizing those

lessons.

COMMISSIONER SVINICKI: Okay. Thank you.

DAVID BANNISTER: Yeah, we had actually a lot of discussion upfront because we were concerned with the same thing. That, you know, once the cavalry leaves, you know, what does that leave the rest of us? And so my analogy is that the ramp-up is very quick to bring on the additional resource, but there's a slow decay curve of getting those resources out. And the intent of that is that there's a -- that learning has to take place, that there's oversight and challenge as we continue -- once the plant is up and performing at the level that we expect, we want to continue that. So there's a slow removal of this external resource. As we're building, you know, our knowledge, improving our

performance, and really culturally sustaining that new type of culture we want in our organization.

COMMISSIONER SVINICKI: That sounds like a very appropriate way. You don't want an abrupt removal of external support, because its gradual removal I think will allow the station to adjust back over time. In military sense we call that surge capacity. But -- the additional capacity that you're talking about. The challenge, of course, will be that with the actions that NRC has under contemplation for Fukushima, all of the industry will be surging at the same time. So there's going to be limited, as I call them, smart nuclear people across the country to put on some of these questions. You have a very near-term need in terms of your recovery process from the 0350. So it sounds like you've done a lot of thinking about that upfront and I appreciate that.

In my brief remaining time I'm going to ask you -- although it's not really central to today's meeting, I can't help but have a curiosity about the extreme flooding event that you experienced. As you think about that at a high level, do you feel that there are generic lessons for the industry that you're going to be able to draw from that extreme natural event, and is there anything that you could share in terms of kind of inter-organizational or inter-agency cooperation, state, FEMA, and others? Will you be looking on any Lessons Learned there that you could feed back into other people's Lessons Learned system?

W. GARY GATES: We have a detailed Lesson Learned document that's still under development but has quite a bit of legs under it to address those issues, and we certainly will. We do have -- we think we can offer to the industry some insights. And I would just give one, in the interest of time, and Dave may have others. I think it's the length of time that you may be in an external event.

- 1 Most plant events, pretty quick, typically. But external events can end up being
- 2 very, very protracted. And that brings on a whole new set of challenges, as when
- 3 the Chairman was out seeing us, I mean, to the point where you're carrying copy
- 4 paper in by hand just to run procedures for operators to use and those kind of
- 5 things. So I think the looking at the length of time is just an example of one of the
- 6 insights.
- 7 COMMISSIONER SVINICKI: Did -- Mr. Bannister, just quickly, did
- 8 you want to add anything?
- 9 DAVID BANNISTER: And I know the Chairman was out and saw,
- we actually met at the Corps of Engineers Head Office, which is only four or five
- 11 blocks away from our corporate office. And that was the one thing that I saw, is
- 12 very early on when we started -- you know, because every day -- we live on the
- river, so every day we're looking at their websites, we're looking at the river,
- 14 looking at the National Weather Service, and we were seeing this. And then it's
- that dialogue upfront and early. That's what gave us the early indication that, you
- 16 know, this wasn't something that was, one, going to go by quickly. And that's
- 17 why, in our dialogue with them -- even though they weren't necessarily projecting
- the river levels that we saw eventually, with that early insight we took early
- 19 action. And so that gave us time and really allowed us -- the safety part of the
- 20 plan is easy to protect, because that's what the procedure's designed to do. But
- 21 we protected all the, you know, millions of dollars of asset around the site. And it
- 22 was that early dialogue and early conversations that we had with the Corps of
- 23 Engineers, the National Weather Service, and other state agencies and federal
- agencies that helped us make those decisions.

Chairman.

situation.

2	CHAIRMAN JACZKO: Commissioner Apostolakis?
3	COMMISSIONER APOSTOLAKIS: Thank you. Mr. Bannister, you
4	had a series of slides where you described your integrated performance
5	improvement plan, flood and recovery, reactor safety, correcting performance
6	deficiencies, and so on. Actually, what I would be more interested in is to know,
7	in your opinion, what were the top two or three areas where you feel you went
8	wrong and you ended up in this unhappy situation?
9	DAVID BANNISTER: Well, I would call it more than an unhappy

COMMISSIONER APOSTOLAKIS: Unfortunate?

DAVID BANNISTER: Yeah. What I really point down to, the one issue is our corrective action program culture, our -- and it's a culture that evolved over time. We looked at it more of a work driver, more of a -- you know, it's a way to manage the system rather than being "this is the work that we do, it's finding and correcting our performance deficiency." That is the work that we do in our business, and so if I can point to one thing, that is the one area, where over time, that we didn't hold a high standard there. The other is, really, it falls upon the shoulders of leadership. We weren't holding our people accountable, particularly with the corrective action program, to identify issues at a low level and kill them dead. And we'd continue to have these issues reappear or we'd have an -- whether it be an equipment deficiency or, you know, our procedural item or a behavior. That we did not jump on that. You know, and that's a leadership issue, and that also requires some cultural change within the organization. And, quite frankly, it involves some management change at our

- 1 site. One of the things that we've also done is by bringing on Exelon Nuclear
- 2 Partners, they recognize they have a significantly different culture than we do,
- 3 and that's not by accident that we reached out to them to give us that type of
- 4 insight.
- 5 COMMISSIONER APOSTOLAKIS: You are part of the USA --
- 6 what is it?
- 7 DAVID BANNISTER: Utility Service Alliance?
- 8 COMMISSIONER APOSTOLAKIS: Yeah.
- 9 DAVID BANNISTER: Yes.
- 10 COMMISSIONER APOSTOLAKIS: You are part of it.
- 11 DAVID BANNISTER: Correct. Correct.
- 12 COMMISSIONER APOSTOLAKIS: So did you have outside input
- 13 or support from your fellow members?
- 14 DAVID BANNISTER: We do. And it's -- some of it is prescribed
- that we have, and it's -- you know, it's -- you know, that we get monthly,
- 16 quarterly, et cetera. Much of it, though, is on demand. When we ask for it, you
- 17 know, they come in and provide it. And, you know, what I will tell you is that in all
- 18 cases that didn't get to the right level. You know, now I see that. It's very clear
- 19 to me that, you know, with management and leadership and in some cases
- sharing of those leaders, having them go to another site, see what they do with
- 21 related -- whether it be engineering or corrective action, and then bring that
- 22 information back. We need to do a better job of that.
- 23 COMMISSIONER APOSTOLAKIS: Yeah. I'm curious, because,
- 24 Mr. Gates, you mentioned the potential for insularity. And being a member of
- 25 USA probably that's a way of fighting against it. But evidently it didn't work very

1 well.

2	DAVID BANNISTER: Well, certainly we didn't apply it in the right
3	areas. We do a very good job in the areas of training and qualification. Maybe
4	with particular operator performance issues and how we evaluate them, and the
5	standards with crews. We needed more work on just you know, I would call
6	the blocking and tackling, of finding and fixing our issues and killing them dead.

There was an opportunity of course that we missed.

COMMISSIONER APOSTOLAKIS: Yeah, yeah. Well, it's interesting that you identified the corrective action program is the number one. I mean, we've always believed that this was the cornerstone of a good culture, a good performing plant, and so on. So you confirmed it once again. Well, thank you very much, Mr. Chairman. Back to you.

CHAIRMAN JACZKO: Commissioner Magwood.

COMMISSIONER MAGWOOD: Thank you. And, welcome. This is a -- you know, first, I appreciate Commissioner Svinicki mentioning the flood. Let's just go into -- you know, indicated -- as that situation unfolded, you know, we like many other people in the country were watching you deal with that. So I just wanted to say I appreciate that, you know, the unusual circumstances, you know, beyond the performance issues we talked about today, of just dealing with that natural disaster and -- not just for the plant, but obviously for the people that work at the plant, who live in the region. And I have no doubt that there were people who were personally affected by the flood, so I just wanted to pass on that --

DAVID BANNISTER: Thank you.

COMMISSIONER MAGWOOD: -- you know, certainly that was

something we were -- in our thoughts during that time. The -- one thing I wanted to -- and Commissioner Apostolakis, he often steals my questions because he

gets to go before me. So he's done that again. But one thing -- as he was

4 having the dialogue about what were the issues you thought got you to this

5 place, one thing that Mr. Gates in his remarks was, you know, "That we lost our

edge." And I'm just curious, because, you know, while we have a very

7 systematic way of thinking about nuclear safety performance, nuclear culture,

8 there's always, as leadership, you have a sense as to where things -- or when

things are going right and when things are going wrong. And I'm just curious, do

you -- and you don't even have to give me the answer if you know what it is, but

do you have more or less a gut feeling as to where things started to go wrong,

where things started to go off the tracks? Were there personnel changes,

organizational changes that you can think back and identify that led you down the

14 path to where we are today?

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W. GARY GATES: Let me start with that. I think it was so subtle and so slow in many cases, that I think -- and something made sense very recently to me, I believe from a presentation given to you by Ed Halpin on faint signals of human performance. How do you pick those up? And it's best picked up by being present and talking to people and that sixth sense. I think our performance, if you look back at our indicators, and Commissioner Svinicki indicated -- I mean, we -- if I just looked at data, we had a lot of good operations up until perhaps even the flood time. But if I look back in the context of those most recent comments -- which I'm reflecting a lot on my role in this and how we got here and what we need to do for the future. I think it was those faint human performance signals that we missed. I can't point to a specific personnel change

- 1 or a specific watershed kind of an event. As I've reviewed it, going forward, I
- 2 think, you know, the flood is not the reason. It was a factor, but it was there. But
- 3 we -- when I said, "Lost the edge," it's to what Dave referred to as our
- 4 accountability to our systems. It's all about people and it's all about leadership at
- 5 the end of the day. And so that's where the issue is, is we missed some signals
- 6 along the way, that we are -- and what have already corrected and what we will
- 7 correct in the future -- paying attention to those faint human performance signals.
- 8 That really resonated with me when Ed talked about that.
- 9 COMMISSIONER MAGWOOD: I don't know, Mr. Bannister,
- 10 anything to add?

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DAVID BANNISTER: You know, I -- and I've read the same document about the faint signals, and as a matter of fact I've read that document on the plane ride here. And -- you know, and I thought back about the same types of things and, you know, is there a particular point in time where, you know, "Hey, things aren't going quite right"? I couldn't necessarily pinpoint that. But I can go back and think about, you know, there were things, you know, with the contactor issue, with the M2 contactor protective system. That, you know, our -- we tend to look at our process and providing and supporting us, but in some cases those are leadership and management decisions that, you know, even though we had worked through our process and said, you know, it was acceptable to go repair it, you know, as a leadership team we should have said, "Well, wait a minute. This isn't right." And those are the types of things, the faint signals that we got to keep asking ourselves. And, you know, that's -- what I impress upon the staff is to look -- I don't necessarily call them faint signals, but

look for the signs. If you're asking yourself -- you know, constantly asking

1 yourself this question, "Well, boy, that doesn't seem right," that's telling you

2 something. Go act on that. Go pursue that. And then get the staff together and

3 sit down, because chances are they're saying the same things, "Boy, this doesn't

seem right." And that's that whole cultural learning for the entire organization.

5 John, do you got anything to add there?

JOHN HERMAN: I would say the early signs for me, the condition reporting system backlog was too big, and we knew that and we didn't address it. The number of root causes and apparent causes that we were required to do was higher than normal, and we didn't address that. When we looked at our corrective actions that came out of those root causes and apparent causes, frequently we found we were shooting maybe 85, 90 percent, but we missed one or two things. And then the timeliness issue. Things were scheduled, the right things were there; eight or nine of them got done, but not all 10. Those were the early signs for me looking back on it saying, "What did we miss? We allowed that." So what you had was a number of very low-probability events that were unlikely to escalate, but when you had enough of them on the table, something's going to occur. So the need to drive those numbers down, keep the backlogs low, and resolve things in a timely fashion so that you take them off the table. There isn't that one item out of 10 that's still hanging out there.

COMMISSIONER MAGWOOD: I appreciate that. Really quite -very interesting. You mentioned earlier that -- you talked about the external
resources you're bringing in to help right the ship, so to speak. And I thought you
had a good dialogue with Commissioner Svinicki about that. But one aspect of
that I wonder about is you look at where these external resources are coming in
to supplement your staff, are there areas where your staff was actually lacking in

1 experience or expertise that concern you now that you have those resources in

2 place, now that you can see what others are bringing to the table? Are there

3 areas where you now know that you need to build staff?

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W. GARY GATES: I would say -- and I'll start this. I can -- John will probably add to this, but our engineering group -- we've got about half of the engineers that are new there. And if I looked broadly at the utility, there's some interesting statistics. And I'm not trying to change the subject, but just the numbers for us for utility, for when I started this would be an unusual number, but in the next five years over half of our folks will have less than 10 years experience in the whole utility; and that is also mirrored at Fort Calhoun Station. So what we have found is we've gotten some external resources in that have more layers of experience, particularly in John's area where he is taking on a very aggressive task of qualifying our new engineers. And they're well-trained and qualified. What's the experience factor and how much does that add in, and how do we transfer that? That's going to be the key issue. But that's one of the key points for me. And that kind of change that I think we're not unusual in going through, having a very high percentage of new people. And how do you transfer that experience factor?

COMMISSIONER MAGWOOD: And I -- actually, I don't think that changes the subject. I think that's probably a large part of it, because there's a big demographic shift that's taking place in the industry. It's a big demographic shift that's happening here at NRC. And there is a transition, and managing those transitions -- you know, we have a big knowledge management program at NRC, trying to transfer the knowledge and experience as best you can from people who've been around for -- you know, for decades to people who just

- 1 graduated perhaps five years ago. And that's not an easy matter. So I know
- 2 that's something the whole industry's dealing with, and perhaps as you go
- 3 through this that's an important lesson learned for others. Because it's probably
- 4 one of those subtle things that doesn't leap out in your ROP, but there certainly is
- 5 an ongoing trend that can affect performance. But, again, we'll be watching very
- 6 closely. I do appreciate the personal commitment that you've talked about today.
- 7 I think that's where recovery begins with the leadership and I think that that's
- 8 exactly the right kind of message to be sending. So appreciate your comments.
- 9 Thank you.

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CHAIRMAN JACZKO: Commissioner Ostendorff?

COMMISSIONER OSTENDORFF: Thank you, Mr. Chairman. I want to thank you all for your candor today. I didn't expect anybody to come in here and make any excuses. I've had some dealings with you all in the past. I know you're all pretty straightforward people, accept responsibility and accountability. So I just wanted to echo the importance of that, but I appreciate how you presented yourselves. My colleagues raised some great questions and points, I think. Commissioner Apostolakis on corrective action program piece, which was the question I was going to ask, and I think that was really my experience in the Naval Reactors Program goes to the heart. If you don't have a way of going about methodically fixing problems, then any list of actions to take is just -- it's not worth the paper it's printed on. And then Commissioner Svinicki and Commissioner Magwood talking about sustainability piece. I know it's of critical importance to you as a single unit operation, and I think we all appreciate the challenges that you have when you have just that one unit that's part of your organization.

And I know that others have addressed this issue, as to how you're
using Exelon, INPO, and so forth. Let me just provide a data point, because
we're all creatures of our experience, that really framed my experience as a
submarine officer. It wasn't until after I had finished being a commanding officer
of a submarine, so I had 19 years of Commission service. In the four years after
that, I went to sea on 30 different submarines: Atlantic fleet, Pacific fleet. And I
was observing the ship's cleanliness formality of operations, torpedo shooting,
missile launch abilities, et cetera. I was shocked at the wide spectrum of levels
of performance in those 30 submarines. But it wasn't until after I'd been captain
of my own ship that I had the chance to go do that.

And so as a single unit operation you probably don't have a whole lot of flexibility to send people elsewhere, but to the extent you have an opportunity to send some midlevel managers for periods of time. And, Dave, you already talked about that a little bit in your presentation that caught my attention. I'd just say, I think that's very valuable to see how are others doing it well? It's easy to say, "Well, this is screwed up over here. This is not the way of doing it." But seeing a positive example as to how these operations, whatever aspect of your operations you're talking about, how are they being done well? That, to me, is -- pays huge dividends. I'm not trying to lecture you, but providing an analogous experience I've seen work in a different setting.

Gary, let me ask you a question. Given all that's been said today and I've heard a lot of comments that seem to me to reflect significant self-assessment reflection by you and your team, how do you assess your workforce's receptivity to making the changes that you think, as the CEO, are necessary in order to get to where you want to go?

1	W. GARY GATES: I appreciate that question, because that's one
2	that's near and dear to me. And I'll tell you exactly how I do it. I go out and ask.
3	There's nothing more than personal contact that'll allow you to assess that. So
4	I'm out in spaces, I'm understanding asking people about it. We've had direct
5	meetings with all our unions and all their E-boards, and even though they may
6	not be working at Fort Calhoun, they're working in other parts of the company.
7	The entire company is willing to help Fort Calhoun get better. And it's by
8	personal interaction that I make that assessment. There are other more formal
9	areas. I've started a practice called Sunrise Meetings. I think it gets its name
10	because they start at 6:30, and they're very structured in the sense that all
11	groups are there to go over information and specific questions. They vary from
12	meeting to meeting.
13	The second thing I do is I walk down a system with a system
14	engineer and take operators and find out what they're thinking about it, as well as
15	a system engineer. I found that that allows the system engineer to have a
16	candidness when the operator's standing there talking about the system and its
17	operation, as well.
18	And then the third, I go to training and I assess by interaction with
19	the training staff and with operators there what their willingness to change is. So
20	it's by personal interaction, Commissioner. And they are willing to change.
21	COMMISSIONER OSTENDORFF: Okay. I don't have any other
22	questions. I'm not going to say good luck, because that you know, you don't
23	get out of bad situations by luck. It's just by hard work and persistence. So I
24	wish you well in your endeavors.

W. GARY GATES: Thank you.

1	CHAIRMAN JACZKO: Well thank you, and I don't have any other
2	questions, either. I think many of the issues have been covered already and the
3	staff I think has a good process and I encourage you to continue to interact with
4	them, and they'll interact with you, and heed their areas of focus and we'll, I'm
5	sure, have an opportunity to interact in the future as you continue to make
6	progress on your recovery. Thank you.
7	W. GARY GATES: Thank you, sir. Thank you.

[Whereupon, the proceedings were concluded]