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Hearing

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Jefferson City, Missouri
Volume 7

In the Matter of an Investigation Into an Incident in December 2005 at the Taum Sauk Pumped Storage Project Owned and Operated by the Union Electric Company, doing business as AmerenUE	)))Case No.)ES-2007-0474))

COLLEEN M. DALE, Presiding
CHIEF REGULATORY LAW JUDGE

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STEVE GAW,
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P R O C E E D I N G S

JUDGE DALE: If everyone's ready, let's go back on the record. We are here on August 3rd, 2006, in Case No. ES-2007-0474. We are picking up with a new witness. I'll leave it to you, Mr. Reed.

MR. REED: Yes, Judge. Thank you. Steve Schoolcraft, please.

JUDGE DALE: Mr. Schoolcraft, if you'll raise your right hand.

STEVE SCHOOLCRAFT,

being first duly sworn to testify the truth, the whole truth, and nothing but the truth, testified as follows:

DIRECT EXAMINATION

BY MR. REED:

JUDGE DALE: Thank you. You may inquire.

MR. REED: Thank you, Judge.

Q (By Mr. Reed) You are Steve Schoolcraft, correct?

A Yes. That's correct.

Q Can you see the placard in front of you? Is your name written there in front of you? Is that the correct spelling?

A Yeah. That's right.

Q Okay. I thought maybe it was on your side as well.

A No.
Q Okay. Sorry. To remind you of who you are, I guess.
A Yeah.
Q No. I apologize. What's your position with Ameren?
A I'm the Generation Coordinator for the Ameren Energy trade floor.
Q The Ameren Energy trade floor is part of what Ameren organization?
A Ameren Energy is the company.
Q Ameren Energy?
A Yes.
Q Because I think yesterday when we were talking to Warren Witt, he thought that you had -- you worked with AmerenUE.
A We -- the units that we are the trading agent for are the AmerenUE units currently.
Q Okay.
A So that's true. But we're not under AmerenUE, except to the extent that the -- the reporting structure goes up to Tom Voss.
Q Okay. I just want to be clear on that. You do not -- you're not employed by AmerenUE?
A I -- no. Ameren Energy is the company that I

work for.

Q What's the full name of the company? Ameren Energy?

A That's a good question. I think it just says Ameren Energy, Incorporated, or Ameren Energy Company.

Q Okay. You're the -- did you say Generation Coordinator?

A Yes.

Q Is that your official title?

A I believe that's the current official title. Yes.

Q What about -- is there a Power Supply supervisor?

A Yes.

Q Is that with Ameren Energy?

A Yes.

Q Is that you or someone else?

A That's someone else.

Q Who is that person?

A That -- that is -- it's a 24-hour staffed position, so there's five Power Supply supervisors that are one on shift at all times.

Q Okay. Do they answer to you?

A No.

Q Who is their boss, immediate boss?

A Currently, they report to Jim Vaughn. I think at the time, in 2005, it was Tim Lafser.

Q Okay. It was Tim Lafser. Now it's Jim Vaughn. Did I ask you who is your immediate boss?

A Currently, it's -- it's Jamie Haro. But at this time, it was also Tim Lafser.

Q Yeah. At the time, meaning back in fall of --

A In '05.

Q Thank you. Is there -- is there a group that's called the trading unit?

A I've heard that term. I don't know if that's official board chart term, but --

Q It may be?

A Yes.

Q Some witnesses have mentioned a trading unit or trading group. Would that be you?

A I'm part of the group. I'm not an energy trader.

Q All right.

A But I work with the energy traders.

Q I see what you mean. Tell us specifically what you do as Generation Coordinator.

A The primary part of the job is to take requests from the power plants in our fleet for -- for outages or special conditions or tests and try to -- to come up with

an economical schedule for those activities where we have options.

Q Tell us what kind of information you need to schedule those kind of outages.

A We would need to know what -- what power level the unit would need to be at, whether they can operate in regulation, which means can they change power level, or do they need steady load?

We need to know how -- the duration of the activity. I guess we'd need to know what their limitations are that they can schedule the activity. In other words, they have manpower and other resources that they may need to coordinate.

Q You need to know -- these kind of outages are generally planned in advance, I take it?

A Usually.

Q Usually, they are?

A Yes.

Q Worst case, they're not, right?

A Sometimes not. Right. Yeah.

Q Sometimes not. If they're planned in advance, do you anticipate what the load is going to be -- what -- I guess what power is -- will be needed at that time and then figure -- configure the assets in order to meet that?

A Yes. It's -- it's probably more -- the load is

related quite closely to the market prices, also. And what we're really looking at is both the load conditions that we expect and where the market will be.

Q Did -- in 2005, just a few minutes ago, you had talked about who you answered to. And you mentioned it -- at that time, it was Tim Lafser, correct?

A Right.

Q What about above Mr. Lafser?

A It would have been Shawn Schukar.

Q Can you spell that name for us, the last name?

A S-c-h-u-k-a-r.

Q Okay. And then what about above Shawn Schukar?

A Above -- above Shawn was Andy Serri.

Q Spell that for us if you can.

A S-e-r-r-i, I believe.

Q Okay. And anyone beyond that?

A Beyond that, it went to Tom Voss.

Q Then it went to Voss, Mr. Voss. Okay. And currently?

A Currently, it's -- I report to Jaime Haro instead of Tim Lafser. And then the chain goes to Shawn Schukar.

Q Okay.

A And then it goes -- actually goes straight to Tom Voss now.

Q Okay. Straight to Tom Voss?
A Uh-huh.
Q And from Mr. Voss to Mr. Rainwater?
A Correct.
Q All right. How long have you been with Ameren Energy?
A I don't remember when we moved up. I don't know the exact time. But it's been several years.
Q Five? Ten?
A Less than five.
Q Less than five. What did do before you came to Ameren Energy?
A I was actually working in Energy Supply Operations. And at that time, we were working with Ameren Energy, but we were separated in a different area of the building, different organization, different part of the building.
Q Something I'm going to ask you about a little bit later is -- is some contact you had with David Fitzgerald. Do you recognize that name?
A Yes.
Q He had discussed an e-mail he sent back in the year 2000, which I think you were a part of. Do you remember this e-mail?
A I don't remember that.

Q All right. But in the year 2000, would you have been with Energy Supply?

A Yes.

Q And is that AmerenUE?

A That was Ameren Services.

Q Ameren Services. Okay. And before working with Energy Supply at Ameren Services, what did you do?

A I -- at that time, I was basically doing the same job I'm doing now, coordinating outage schedules for the power plant.

And I was in communication with the Ameren Energy trade floor, but I wasn't sitting on the trade floor and working in the organization at that time.

Q Where -- where -- is your office in St. Louis?

A Yes.

Q Who -- who's on your floor, part of your group where -- where your office is?

A Right on our floor are the -- there's -- basically, it's in two sections. Like I said, there's a trade unit, which is composed of some term traders that trade longer term energy and some real-time traders.

There's typically one real-time trader on all the shifts, and then there's -- on the dispatch group, there's also a power dispatcher and a Power Supply supervisor who -- those jobs are staffed around the clock.

Q Now, the -- the people who work in trade and then the Power Supply supervisor, are they employed by different companies?

A No. They're all Ameren Energy.

Q All right. I wanted to ask about an interview with the Missouri State Highway Patrol of you back in February of 2007. Do you remember that interview?

A Yes.

Q Have you had a chance to look at the note or the -- the narrative of that interview?

A Yes.

Q Is there anything in there that -- that appears to you not to be accurate?

A A couple of really small areas, if you -- if you want me to point those out.

Q Could you, please?

A In the third paragraph --

Q Yes.

A -- about two-thirds of the way down, there's a sentence that starts, At the time of the breach.

Q Yes.

A Where it says Ameren there, I -- what I think is correct was I said I -- I moved to a different plant, not all of Ameren. So my bonus plan changed, but not the whole company.

Q Okay. Does that mean after the breach?

A Actually, the change occurred before that. So that statement was kind of --

Q I see.

A -- not real clear. But I -- they paraphrase it at the time of the breach. That fall, I had changed to a different bonus plan.

Q Okay. So to -- to be completely accurate, would we say before the breach?

A Yeah. That would be right.

Q Okay. Anything else?

A Yeah. In the fourth paragraph --

Q Yes.

A -- it's on the second page on line -- there was a word about halfway down that says, He stated there would be negotiations.

Q Yes.

A I don't remember that word. But I think a more accurate word would be discussions.

Q Okay. Anything else?

A One more at the -- in the fifth paragraph, down near the bottom where it says, Schoolcraft stated. The thought process was that -- and there's a word missing there. I think it's supposed to say if.

Q Yes.

A If the plant brought up the problems. And then down below where it says, And damage aspects, I would put the word "then" in there.

Q Yes.

A That would make it a pretty good sentence, I think.

Q I see what you mean.

A I didn't see anything else other than those, though.

MR. REED: All right. I -- does everyone have a copy of this? What I -- what I propose to do, Judge, is make those edits as we've done, and then I'm going to edit out the -- Mr. Schoolcraft's date of birth, home address and home phone.

JUDGE DALE: Okay.

MR. REED: What number would -- exhibit would this be?

JUDGE DALE: 33.

MR. REED: 33. Thank you.

MS. PAKE: Are you offering it for admission?

MR. REED: Yes.

MS. PAKE: We would just object based on our same running objection.

JUDGE DALE: Are there any other objections? Then it will be admitted subject to that standing

objection.

(Exhibit No. 33 was offered and admitted into evidence.)

Q (By Mr. Reed) Mr. Schoolcraft, I want to talk about the time period back in the fall of 2005 a little bit with you. As the -- as the Generation Coordinator, you would schedule outages at that period of time?

A Yes.

Q Whenever there was a request for an outage, can you tell us how that was handled by you or by your group?

A Once we got all the details of the -- what the plant is requesting, depending on, I guess, the -- the options that they offer, we may have some discussions with the trading group on what they anticipate the market to be and the time period that we need to schedule the outage.

And then, basically, as long as there's no safety aspects to this, which they wouldn't be making a request to us if there was, but then we -- we have discussions again with the plant on -- we propose an option we think would be the most economic way to do it.

And then they'll tell us whether that's acceptable to them or whether there's other options they'd like to pursue. Finally, we get -- typically, we'd get an agreement. In cases where we can't come to a pure agreement, the plant would always decide where they needed

to do the outage.

Q Is it -- is it -- is it there on your floor with Ameren Energy the -- do you guys monitor the levels of the Taum Sauk reservoir?

A We have level indication on our -- on our screens, yes.

Q What kind of control do you have over the facility itself, the pump back and the generation?

A We don't have any actual control because it's dispatched actually from Osage plant.

Q Okay.

A But we'd have the -- we give direct -- dispatch directions on when to start and stop equipment, the pumps and generators.

Q Tell us what informs your decision about when to start and stop the -- back at that time, the Taum Sauk generation?

A The majority of the decisions were made by -- bid into the MISO market in a day ahead basis. MISO's computer calculates a dispatch for the unit for the next day and gives awards for those.

And, basically, we normally follow those dispatches. There would be times in the market where in real-time the market isn't what we anticipated it would be, and we may opt to start the unit or stop the unit at

slightly different times than what MISO directed us.

Q Whenever there was a request for an outage, can you tell us the -- the kind of people who would usually call in and ask for something like that?

A Yes. That -- most of those would come from -- each plant has pretty much a designated -- normally, from the Planning Department Coordinator that I work with most of the time.

It can sometimes come from a higher level supervisor or superintendent in some occasions where they wanted to discuss more details with us. But, typically, there was someone in the Planning Department that had some maintenance or operations background that we coordinate with.

Q Would you generally know what the occasion was for the outage? They would tell you what they needed to do?

A Oh, yeah. We -- we do like to know the detail, what kind of work they're doing so we understand the risks associated with that.

Q Now, how was that communicated to you? By e-mail or by telephone or both?

A It's typically by phone. We also have an electronic request submittal system now that some of the requests come through that way. And there's also e-mails

sometimes. Usually, the e-mail doesn't come standalone. It's accompanied with a phone call.

Q Can you tell me what generation assets you deal with in -- in Ameren Energy?

A It's different now than it was in 2005. Do you --

Q I'd like the 2005.

A Okay. In 2005, we had the -- both the -- the Missouri and Illinois assets were dispatched on a -- under the Joint Dispatch Agreement. And so we had -- you want me to name all of them or -- I mean --

Q Well, I think that's what I was getting at.

A There's a lot.

Q With regard to the Joint Dispatch Agreement was between AmerenUE --

A And --

Q -- and the -- and the --

A Ameren SIPS.

Q Ameren SIPS. Is that the Illinois regulated utility?

A Illinois -- that was unregulated.

Q All right. But all of the assets that were owned by those two organizations, would those be assets that you would deal with?

A Yes.

Q All right. Any -- any other assets outside of those two companies' assets?

A No.

Q I guess as part of the AmerenUE, I guess that would include the Callaway nuclear plant?

A Correct.

Q Can you tell us generally how back in the fall of 2005 the Taum Sauk facility was -- was being scheduled for generation?

A Typically, MISO, from what I can recall, ran the unit almost every day. So during the day and -- and it seemed like frequently we had two runs. There was -- there was a short morning run and oftentimes in the afternoon, dispatch, also.

Q So is it your recollection that in the fall of 2005, Taum Sauk was generating every day?

A I think it ran almost every day.

Q And -- and sometimes two times a day?

A Sometimes two times.

Q When you ran two times a day, would you -- would you drain some pump-back and drain some more or --

A Occasionally -- I don't know if this is happening in 2005. There have been occasions where we pump-back some during the day. But, usually, the price curve didn't fall enough to make it economical to fall

during the day. So the majority of the pump-backs were done at night.

Q Now, you talked a few minutes ago about a day ahead scheduling or a day ahead market; is that right?

A That's right.

Q And that's what -- you would know a day ahead whether you were going to run Taum Sauk, let's say, continuously or twice that day?

A Typ -- yeah. We usually would know that. It doesn't -- the awards don't come out until the afternoon. So by three or 4:00 in the afternoon, we usually know what the next day's runs will look like.

Q If MISO scheduled Taum Sauk, but for some reason, Taum Sauk couldn't generate, what would you do?

A I'm talking about the day ahead. Okay?

Q Right. So that afternoon, MISO scheduled Taum Sauk the next day, but you're not going to be able to deliver?

A You don't do anything, really. It won't be there for generation, of course, for MISO. We would declare an outage for MISO so they understand the unit's not going to run.

And then they make dispatch adjustments in there throughout the day, even though they've got the day ahead award, they've got additional runs of the computer as

things change and things like that and will be calling for other units to come on to replace the units they aren't going to have. So we don't do anything other than let MISO know the unit's not going to run. That's pretty much it.

Q Back in the fall of 2005, if you recall, was the Callaway nuclear plant offline for any period of time?

A Actually, I don't remember.

Q What about any other generating assets back in the fall of 2005?

A I -- again, I don't remember the -- what the fleet situation was at the time.

Q Because my next question was, were there any -- let's go ahead and ask it --

A Okay.

Q -- if I could. Were there any other generating assets that were not, I guess, generating as expected in the fall of 2005?

A I can't really remember. Like I said, I -- I suspect they weren't all at a hundred percent, but I don't remember the situation.

Q Is there a -- is there a master plan for the use of AmerenUE's generation assets? And what I mean by that, is there a -- is there, I guess, a schedule of dispatch, which units go on when, that sort of thing?

A There's -- there's a cost -- an incremental cost associated with each unit. And in general, all your -- your -- well, Callaway's typically our lowest cost generator.

And then all of our coal units are -- are next in the dispatch order because they're cheaper to operate. But then we have a couple hydro units that depending on the water situation, they depend more on the water situations such as Osage and Kiakuck.

They may be in that order dispatch. Typically, they're further up the line because they have limited resources or little control. Of course, Kiakuck, I guess. Would be considered low because they -- they're run off the river, so they run all the time at some level.

And then Taum Sauk fell in that area right after the coal plants, typically. And I can't remember exactly what units we did have, but we -- gas-fired CTGs would be the next -- or the last units to come on.

And I guess at the bottom of the stack would be your CTGs that are oil-fired, most expensive units.

Q Can I ask, is that -- is that just a general policy? Or is that just the way you operate because economically, that's --

A It's economics.

Q So it's not actually written down? I mean,

everybody understands that's how you dispatch the units, right?

A Right.

Q And I suppose from day to day, week to week, you guys calculate those things and decide what's going to run when, correct?

A We actually do make the calculation, but we get it from another support group that looks at coal costs and gas costs and comes up with the table for incremental costs.

Q In the fall of 2005, when Taum Sauk was generating probably every day, as far as you recall --

A Probably.

Q -- where was -- can you tell us where Taum Sauk power was going beyond just telling us it's going in MISO?

A I don't think I can, really.

Q Okay.

A It just goes onto the grid.

Q I guess what I'm getting at, I know it's complicated, but did you have to have Taum Sauk running to meet native load?

A There's actually -- in the MISO pool, we wouldn't have to meet -- have anything run to meet native load. It's desirable to do because it's more economical to dispatch your own units for native load.

But in MISO, we could buy from the MISO pool to cover our load, also, if needed. So I don't think it's a requirement.

Q Well, I guess from day-to-day, you know how much power you need to meet your native load?

A Uh-huh.

Q And you probably also have a pretty good idea of what you're going to sell off system?

A Yes.

Q And so from any -- from day-to-day, you could decide whether to run Taum Sauk or not --

A You could.

Q -- just to meet the native load, correct?

A That's true. You could do that.

Q So if you -- all right. Thank you. Who -- who would be responsible for making sure that AmerenUE had sufficient energy at any -- at any time to meet its native load?

A The Power Supply Supervisor usually does that, always does that calculation.

Q From -- from -- on any -- I guess, from day-to-day, are you aware of the off -- off system sales possibilities?

A I know the general market that's out there for the next day and the -- the balance of the week, usually.

But beyond that, I don't really know what the market opportunities are for selling as far as volume goes.

Q Who -- who makes the off system sale itself?

A That would be any one of the energy traders could be doing that. There's some that do mainly next day trading. That, again, it's not always the same buy. But it's a position.

Q We -- we've heard some testimony about the pump-back of Taum Sauk, how it -- it generally takes more power to fill it than it -- than it generates.

A Right.

Q But because of the -- the difference in costs or the difference in the time periods where it's -- where it's pumped back and generated, it can still be profitable, correct?

A Yes.

Q All right. In terms of calculating what that margin is, I wanted to ask about the costs that are used. Do you know anything about that?

A I didn't do it myself. In general, it's -- well, no, I don't really know. What I know is we're looking at market prices in MISO at the time that we're doing the pump-back. So you're trying to pump the unit back in the lowest market hours of the day.

Q Are you just comparing the -- I guess the MISO

price at pump-back versus what you expect it to be at generation time?

A Right.

Q Okay.

A That's really what you're doing.

Q You're familiar with the operating level of Taum Sauk. Do you know what I mean by that?

A I'm not sure if I know what you mean.

Q Over the past few days, we've talked about an operating level of 1596 --

A Okay.

Q -- which would be the elevation at which the top of the water would be.

A Okay.

Q Does that number sound familiar to you?

A It does sound familiar, yes.

Q You generally, I guess, are aware of the operating levels. And what I mean by that are the elevations, 1596 I think it's down about 1595?

A That sounds right.

Q Okay. Is the -- I guess generally when you generate at Taum Sauk, you start at 1596?

A You hope to. Yeah. I mean, you could start generating at any level that the pool was at, but --

Q Is there a difference between how much power you

can get out of Taum Sauk between the top 2 feet of the reservoir? Like if it's completely full at 1596, can you get more power out of the top 2 feet than you could the bottom 2 feet, say, between 1527 and 1525?

A I would have to say yes. And I think the answer, though, is in the -- we normally operate in efficiency mode, which pretty much gave you the same megawatt level all the way down. If you looked at bottom level, you'd still be lower megawatt output.

Okay. We heard some discussion about, I guess, the height of the water and the weight and that sort of thing?

A Right.

Q So I guess that's --

A That you're saying is generally true. If there's a little bet more head pressure, a full reservoir.

Q Can you tell us -- can you give us an average number about how much, say, 2 feet of water at the top of Taum Sauk is worth on any given day?

A I don't know how I would know, really. It would be fairly small, I think.

Q Is there -- is there an average amount that you can give us for the 70-some-odd feet of water that's generated with like a full generation run?

A Are you talking about dollar value or --

Q Dollar value?

A Again, that's kind of hard to do because you're -- I never sat and calculated it. But you've got to take off the pumping costs and, you know, the market versus what you've gotten for generating. So I really don't know how much that is.

Q On -- on any given day, I would -- I would think that you would know how much water is in Taum Sauk, like whether it's as 1596 or some lesser number?

A Yes.

Q You would know how much water you have available to generate the next day, correct?

A Right.

Q Now, if -- if the reservoir were dropped a couple of feet, that would reduce the total megawatt hours that could be produced, right?

A That's true.

Q How does that affect, I guess, the -- the scheduling that MISO gives Taum Sauk?

A We would have to make sure that we didn't -- when we bid our unit in to MISO that we didn't commit to having more generation available for them to dispatch than what we actually had.

But I don't think even with that 2 feet we were running into any limits as far as -- that's what I don't know. I'd be guessing there, but --

Q Okay.

A But I'd say yes, we'd have to know the impact of the lowering level on what we did into the market the following day.

Q The -- back in October of 2005, I think it was October 7th, Richard Cooper sent an e-mail stating that the reservoir was going to be operated at 1594 instead of 1596. Does that sound familiar?

A I've seen that e-mail, yes.

Q Okay. My question is, was -- for the next couple of months before the breach, was the reservoir actually operated at 1594?

A I -- I believe it was. And that was an indicated level of 1594. Knowing what we know now, I don't know that that was the actual, though.

Q What does -- what do you mean by indicated level?

A What we see is the level that the level transmitters send -- send out. And if there was damage to the probes, I don't know that we were seeing the true indicated level.

Q Could -- could you have an indicated level of 1594, but at the same time, the reservoir were actually full, to the top?

A I guess you could if your instrumentation error

was that great.

Q Back in the fall of 2005 between, say, October 7th and December 14th, do you recall whether you were getting less megawatt hours out of Taum Sauk?

A I don't remember any discussions about getting less. So I don't think we -- if it was, it was certainly insignificant. It wasn't noticed.

Q Okay. When you noticed whether the top 2 feet of head were missing in terms of megawatt hours during that period of time?

A I -- I can't say for sure. I'm not the -- the Power Supply supervisors would probably have better knowledge of that. I don't remember any discussions where we knew we were missing much as far as megawatts.

Q If you were -- if you were missing some megawatts because the levels were lower, you'd need to let MISO know, right?

A Yes. Adjust our day ahead bit for that. Part of what does this is we don't always generate from to full -- full to empty. So on those days, you'd have no ideas that you were not getting the use of the full reservoir.

Q I want to -- I'm sure you're aware that Steve Bluemner testified?

A I knew he did. Yeah.

Q Okay. And he had talked about the gauge piping

repair and -- and the need for an outage in order to take care of some of that. Do you remember that?

A As far as --

MS. PAKE: I'm sorry. He would not have been here for his testimony.

Q (By Mr. Reed) Yeah. I'm talking about whether you remember the specific event between you and Mr. Bluemner back in the fall of 2005.

A What I remember is we had a couple of phone call conversations about the repairs.

Q Can you tell me how many phone call conversations you had?

A I only remember once or twice.

Q Who else would Mr. Bluemner have talked to about scheduling an outage besides you?

A Depending on when he called, he could have talked to -- there actually could be several people. But most likely would be the Power Supply supervisors. They take outage requests when I'm not in the office.

Q If you're there, you take the call?

A Typically, if it's a next day request, I take it. If it's something that's closer to a real-time event, then the Power Supply supervisor or would probably take the request.

Q Can you tell us about the calls that you had

with Mr. Bluemner and what you remember about those?

A What I remember was I was aware from previous e-mails that they had some damage they wanted to repair. So that was kind of the -- the background.

He discussed that he had parts on hand to make the repairs. He needed divers to do the work. And in order for the divers to work safely, they needed -- I'm pretty sure this is right -- they needed the water level at a certain elevation, and they needed it that way in daylight hours for the diver to work safely, also.

Q Do you recall any response that you gave to him about when the outage would be?

A I -- I believe that we told him that the best economic window to do the outage would be on the upcoming weekend, whatever that weekend was.

Q Okay. Why would -- why would a weekend be better?

A If there's an opportunity where you would not run the unit for generation, it would most likely be on a Saturday or Sunday. Typically, a Sunday might be the day that you're most likely to have a low enough power market that the unit wouldn't even be dispatched.

Q Can you tell us how that works in terms of dropping and leaving the reservoir down at a certain level to get that down?

A Typically --

Q Like when would you do that?

A Probably, the ideal would have been to generate for the last time on Friday or Saturday, whatever the case was, depending on the market. And then when we pump back the unit, the reservoir, pump-back is to the level -- only to the level that they needed it for the dive and then have them complete the work. And then on a subsequent night, finish the pump-back.

Q Did you ever talk directly to Richard Cooper about the gauge piping repair?

A I don't recall ever talking to Rick. No.

Q Did you ever talk to Warren Witt about the gauge piping repair?

A I don't think so.

Q What about Mark Birk?

A I don't recall any conversations with Mark either.

Q Do you know these gentlemen?

A Yes.

Q Do you know all of them?

A Yes.

Q All right. Have you ever had an occasion to talk to Warren Witt about scheduling an outage?

A No.

Q The -- the discussion with Mr. Bluemner about the gauge piping repair, did you ever have occasion to talk to someone else, like your supervisor or someone on your floor about that?

A I'm sure that -- that we had discussions on the floor as far as making people aware that we had a job to do. But I don't really recall any specific discussions.

Q Do you -- what -- what sense of urgency, if any, did Mr. Bluemner relay to you about the repair?

A No sense of urgency, really.

Q But he -- you were aware of, I guess, the function of the gauge piping?

A I knew it was normal level control system. That's about as much as I knew, though. I guess I was always aware that there were -- there was an emergency level trip system, also, that was a separate system.

Q Okay. In the -- in the Highway Patrol interview that we talked about a few minutes ago, I think that you mentioned -- do you have it have up there?

A Oh, yeah.

Q I thought that you had mentioned in there that you thought the weather was warm in early November. I think it -- it's in paragraph 5, about midway through. It says, He believed it was due to the warm weather.

A Oh, that was from the e-mail.

Q Right. Do you -- do you recollect -- do you recollect whether or not it was particularly warm in November 2005?

A I don't remember.

Q If -- if Taum Sauk were generating every day, where would that -- where would that power be going if it were warm?

A Usually, warm weather would be a correlation with -- I think what we were doing was often double generating, we call it, in the morning and in the afternoon.

If you're getting air conditioning load on the system, then that could cause the unit to have -- to run in the afternoon with higher market prices and higher load.

Q In your experience, what would the temperature in St. Louis have to be from people that are running their -- their air conditioners in November?

A Well, business -- business air conditioning load picks up with temperatures in the, you know, low '80s. That's what I would say. That's my opinion, I guess.

But residential might be a little warmer than that or sustained warm weather pattern. But I think anything in the '80s, we see air conditioning loads start to come in.

Q In the -- in paragraph 5 there, after it says, He believed it was due to the warm weather -- see that?

A Yes.

Q And then it says, But did not know if the stated market was high or low. Can you tell me what that means?

A In December, if you have mild weather, warm, but not warm enough for air conditioning, then you actually create a -- a lower power market.

I'm sure that's what it -- what that was referring to. If it's hot enough, then it actually goes -- the market goes higher. So it could be cold brings on high market prices. Mild weather, the market falls off. And then with hot enough weather, it will come back.

Q Mr. Fitzgerald told us yesterday that -- that generally when he was the manager at Taum Sauk that he could schedule a repair outage within 24 hours. Do you know if that has changed -- if that had changed by the fall of 2005?

A I don't know why anything would have changed, no.

Q Is that -- is that generally true, that a repair outage can be scheduled within 24 hours?

A It can always be scheduled within 24 hours if they -- if there's any urgent need for it. Depending on the nature of the repair, it might be difficult to

schedule in 24 hours and still meet economics. And that's depending on the conditions -- the duration of the job and things like that. Some repairs can be completed just between runs on the unit without any impact in the schedule at all.

Q There -- there's a --

MR. REED: What number is the e-mail that Mr. Fitzgerald sent?

MS. HOUSE: 25.

MR. REED: There's an Exhibit 25. Do we have that here, Judge?

A Okay.

Q (By Mr. Reed) You've had a chance to review Exhibit 25?

A Yes.

Q Were you copied on that e-mail?

A I don't think so. I've never seen it.

Q You've never seen it before? It indicates that there were requests to operate Taum Sauk beyond its prudent operational limits. Do you know of anyone who made a request to operate Taum Sauk in such a manner?

A I don't, no.

MR. REED: I've got a chart that was prepared by the Staff of the Missouri Public Service Commission. I'm going to mark that as Exhibit --

JUDGE DALE: 34.

MS. PAKE: 34.

MR. REED: 30?

JUDGE DALE: 34.

MR. REED: 34. It will take me a moment to pass that out.

(Exhibit No. 34 was marked for identification.).

Q (By Mr. Reed) Okay. Mr. Schoolcraft, what I'll represent to you is that this is a Staff -- a chart prepared by the Staff of the Public Service Commission based upon information provided to the Staff by Ameren.

And I just want to talk about what -- what this -- this chart seems to show. You can see on the left the numbers, 500 down to minus 500. And those are megawatts. All right?

And then each block, as you go across the chart, is a day. You can see at the top, this is September 16 through 30, so that each block, as you go across, is a day. So this would be 16, 17, 18, 19, through 30. Do you see what I mean?

A Uh-huh.

Q Now, those numbers below zero are actually the pump-back at Taum Sauk. Do you see that?

A Yes.

Q And then the -- the -- up above, you can see the

graph goes up to 400, and those are the generation modes. Okay?

A Yes.

Q So if, in fact, this is accurate, what I'm suggesting to you is that this would show for each day through the period of time we're going to talk about the -- the pump-back and, also, the generation at Taum Sauk.

A Okay.

Q If we look at September 16th, the first day, it would appear that there were actually two generations. Do you see what I mean by the graphs?

A Yes, I do.

MS. PAKE: Judge, could I just have a running objection to this for this chart for lack of foundation?

JUDGE DALE: Okay.

MR. REED: I don't need to respond?

JUDGE DALE: No.

MR. REED: Okay. Thank you.

Q (By Mr. Reed) I want to turn with you back to October 16 through 31. Now, this -- this would show, as you've testified earlier, that on many days, there were -- there were two generation cycles at Taum Sauk. Do you see that?

A Uh-huh. Yes.

Q In fact, October 16 through 31, it appears, like

you testified, Taum Sauk was being run every day, doesn't it?

A Yes.

Q Let's turn to November 1st to the 15th. And there again, we have some days where Taum Sauk was run twice, but other days where it was run once, correct?

A Correct.

Q Now, let's look at November 16 through 30. Mr. Schoolcraft, it would appear on this chart that those dates, 19, 20, there was no generation?

A From this chart, that's --

Q From this chart.

A Yes. Yes.

Q Okay. And then if you move ahead, it looks like on the 24th there was no generation as well?

A That's what it shows. Yeah.

Q Do you remember specifically whether there were days in November where Taum Sauk did not generate?

A I don't.

Q If -- if -- if Bluemner were trying to schedule an outage during October, November of 2005, it would appear from the November 16 through 30 period that there are windows of opportunity, would there not?

A It -- it would appear that way if this is correct. Yes.

Q If it's accurate. Right. Even the 24th would be a day which may have been a holiday. I'm not sure. But --

A Yeah.

Q This -- this chart shows generation every day. And that would include weekends if this chart is accurate, would it not?

A That -- yes.

Q Okay. Now, finally, let's look at December 1st through the 15th, and we can see if this chart is, in fact, accurate that up to -- it looks like there was a pump-back December 14th and then thereafter no generation. Do you see that?

A Yes.

Q Is there -- earlier, you had suggested that -- that if -- maybe the repair outage for the gauge piping needed to be done on a weekend. But that would be no different than any other day that's indicated that Taum Sauk is -- is generating; isn't that right?

A That's not really true.

Q Why is that?

A Because even -- even if we took an outage on the weekend when we would have run, the market would be a lower market, typically, on the weekend. So the amount of opportunity that you're giving up is less on a weekend.

Q You would -- you would run less on the weekend than you would on the --

A It's not really how much run time. But it's how much you're getting paid for the run in the market.

Q I -- it seems like -- I may be -- I may be wrong, and somebody, I'm sure, will take me -- take me up on this. But it seems like Mr. Bluemner testified that he thought Taum Sauk wasn't even generating in -- back in November 2005, and that was the reason that he couldn't get an outage was because the reservoir was not being drained sufficiently so that the diver could get in.

A That's also possible. I don't know the particulars. But if you have a full reservoir, you actually would need to generate in a -- in a market that's not -- where you're not being paid well for the megawatts in order to get the level down to the point that he needed it.

So it's possible that it would have been uneconomical to generate during the window he was making the request, also.

Q What would have needed to be done -- what would Mr. Bluemner have needed to have said in order to get the outage right away?

A Well, basically, if -- if there was a safety concern, they would have told us they need to take an

outage. And, also, the plant management should have -- would have told us that, also. If they recognized a safety implication, they declare the unit unavailable or put it in a safe condition, whatever that would have to be.

Q Can you tell us, Mr. Schoolcraft, about back in the fall of 2005 what incentive or bonus plan would have applied to you?

MR. REED: Is this going to be in-camera?

MS. PAKE: Well, if you're asking generally, I don't think we need to go in-camera. If you ask then specifically how it applies to him, then --

MR. REED: I do want to just ask him specifically with himself.

MS. PAKE: Then I would request we go in-camera.

JUDGE DALE: Okay.

MR. SCHAEFER: Can I make a -- can I make a suggestion -- can I make a suggestion, your Honor?

MR. REED: Do it later. Do it later.

MR. SCHAEFER: No. What I was going to say maybe -- it's entirely up to you. Maybe if you have general questions, we could do general. And then when you get from the general into specific maybe, then at that point we could go in-camera. But I don't want to suggest anything. I'm just saying maybe that's an easier way.

JUDGE DALE: If you're about to ask specific questions, let's go in-camera.

MR. REED: Let's not go in-camera. Let me ask the other questions I want to ask. And at the end, I'll do that, and we can all follow up. So -- is that all right, Judge?

JUDGE DALE: Yes.

MR. REED: Save us the trouble.

(Exhibit No. 35 was marked for identification.)

Q (By Mr. Reed) We're up to Exhibit 35. I'm going to hand you a copy of that exhibit. Have you had a chance to review that, Mr. Schoolcraft?

A Yes.

Q This e-mail is from Jeffrey Scott to you dated September 9, 2005, and it talks about next week's operating schedule.

We had the same e-mail yesterday. I messed this up. So he -- he asks about scheduling a time to do some work September 14th through the 16th, which is actually five to seven days ahead of time, correct?

A Yeah.

Q So what -- what action would you take with regard to this kind of a request that far in advance?

A Typically, I'd just make a phone call back to -- to Jeff after we looked at what we expected the market to

be the following week and make some suggestions.

Q Would you -- would you be able to tell them -- would you be able to tell Jeff what -- what the well-defined window of opportunity would be to perform his work?

A I -- if that's what they needed, yes. And what we usually asked for, also, was some flexibility in case the weather shifts a little bit that week and a different two or three-day period that week might be better or something like that.

But, generally, yeah, we should be able to give him an idea of what date he should plan on doing the work.

Q But in this case, he wanted to do it the 14th through the 16th, right?

A Right.

Q And, apparently, the technician from Allen Bradley needed to be there. Those are the days that are available. So would you be able to accommodate that specific request?

A Yes.

Q If -- if you -- if you replied with a window of opportunity that says, You guys have X number of hours at this period of time, is that what you would do?

A What I -- I'm not sure if I know what you're asking.

Q I guess if he wanted the window of opportunity, would you give him something specific on these three days?

A Probably, we would have expanded on what he's requesting here as far as what conditions he's actually asking for. This is not exactly clear to me what we would schedule.

But -- but I -- based on the fact that I -- we would have additional conversations to clear that up, I think we would reply with an agreement that they have an outage set up.

Q Who -- what is ESO?

A Energy Supply Operations. And that's just -- that's some confusion that still goes on to this day over the fact that we used to be part -- I used to be part of ESO, and I'm part of Ameren Energy. We get called ESO quite a bit.

Q Would you say -- would you say that that is some confusion, then, the ESO reference?

A I'm actually at Ameren Energy, yes, sir.

Q He's asking -- he sends it to you and he thinks that you're ESO, correct?

A That's what I think.

Q All right. I have another e-mail marked as Exhibit No. 36.

(Exhibit No. 36 was marked for identification.)

A Okay.

Q (By Mr. Reed) You've seen these before?

A I vaguely remember this one. Yeah.

Q Okay. Have you had occasion to look at the -- the e-mail on the second page, November 14th, 2005 --

A Yes.

Q -- in the last few days?

A Yes.

Q All right. Exhibit 36, the -- the top page, the first page, there is an e-mail from James Patrick. And this is one, two, three pages, correct?

A Yes.

Q Who is James -- who is James or Jim Patrick?

A Jim Patrick, at the time of this e-mail, was -- I'm not sure what his title was. But Jim was coordinating all of the major outage schedules for the plants.

Q And what was your role at this period of time?

A I was -- I was the Generation Coordinator, which part of that responsibility is meeting with the outage scheduling team periodically and discussing the schedules that they were proposing and giving some input from the trading perspective.

Q What -- I hadn't heard of the outage scheduling team before. Who would be on there?

A There wasn't really an official team. But Jim

Patrick led the outage scheduling effort. He coordinated that with Tim Finnell from operations analysis and myself. There was also another -- one of the traders that usually attended the meetings with me, John Brickie, was the locker term trader.

And I'm not sure if there was anybody else that was on the team. But we met periodically just to discuss when changes were being proposed to the outage schedule.

Q The -- what kind of outage event would, I guess, prompt an outage scheduling meeting?

A The sched -- the major outage schedules or the overhaul type outages for all the plants are, for budget reasons or material delivery reasons, always sort of in a state of change.

When -- when something would happen -- we have -- we have an outage schedule on paper. But when something happens to make us need to shift those outages or the market changes, whatever the situation would be that would prompt us to look at moving an outage, we would get together when there were some of those changes to discuss and talk about the impacts on the -- the company budget and the -- the trading -- the trading portfolio.

Q Would -- would those be regularly scheduled meetings or impromptu kind of meetings?

A Not really. They're more impromptu.

Q The event like Mr. Bluemner needing the gauge piping repaired, would that be considered a meeting?

A That would be considered a short outage that Jim Patrick wouldn't have been involved in.

Q That would have been worked out between you and Mr. Bluemner?

A Correct.

Q With regard to the Taum Sauk facility itself, had Mr. Cooper ever called you to schedule repair outages?

A Oh, he had sometimes in the past. Yes.

Q But not -- not with regard to the gauge piping?

A Not that I -- I don't recall any calls on the gauge piping.

Q Do you generally deal -- let's say there's a project at some plant, that there needs to be a minor outage, let's say. Do you generally deal with the -- the engineer, the project engineer, him or herself, or do you deal with the plant manager or superintendent?

A It's usually done through the normal channel of the plant which is not even the superintendent level. It's usually through the -- whoever the designated coordinator is to -- to work with me. It's usually not any -- it's the same person that coordinates all the normal outages.

(Exhibit No. 37 was marked for identification.)

Q (By Mr. Reed) I have a -- the last e-mail I want to talk about, Exhibit 37. Much shorter.

A Yes.

Q Right. Exhibit 37 is a -- an exchange between you and Jeffrey Scott, correct?

A Yes.

Q November 9th and 10th, 2005. This has to do with disabling the sealed water lines on both units, do you see that in Mr. Scott's e-mail?

A Yes.

Q Okay. Now, he describes in there, This is not going to be a change as far as gen mode goes, but it will prevent operation in pump mode for the duration of the project.

And then your response is, I think we would be okay with this as long as you're 100 percent sure both pumps will be available, et cetera. Okay. Would you consider this a minor outage?

A Yes.

Q Okay. And so this would be -- this would be handled between you and Mr. Scott and the others, I guess included in there are Cooper, Buhr and Lafser, correct?

A Correct.

Q Did Lafser, Buhr or Cooper get involved in the resolution of this request?

A I don't think so. I'm not sure, but I don't think so.

Q Can you tell me how this was finally resolved, if you recall?

A I don't remember.

Q If -- if Mr. Scott called back and said, I can't be a hundred percent sure, what would happen?

A We would see if we could get agreement to schedule it on the weekend. The thing that would have to be kept in mind is if there's a safety aspect to this, the plant would make the final call on whether they can afford to wait or whether they have to do it.

Q If -- I guess I would think that -- that generally the response to a -- to your response, which is, You have to be a hundred percent sure, is I'm pretty sure, but I can't be a hundred percent sure. So I mean, 100 percent sure is -- there's no room for error there. Would you agree?

A I would say that that's right. Yeah.

Q And so it would appear that these -- the general response is that these kind of minor repairs need to be done on weekends?

A That's true.

Q Is that your decision? Do you see what I mean? Is it your decision to push these kind of repairs off to

the weekend?

A When we have the option to do that. Yeah.

Q Were there any phone calls that you recall regarding this -- this outage repair?

A I don't recall any. There probably were, but I don't recall any.

Q Do you recall a time when any repair at Taum Sauk would have prevented a previous scheduled pump-back or generation mode?

A I don't recall any. I'm sure there were some, but I don't recall one particular one.

Q What happens when you -- when you -- when MISO has you scheduled --

A Uh-huh.

Q -- Taum Sauk, you think it's ready to go, but something happens? What do you do?

A We declare an outage on the unit, which lets MISO know that the unit's not going to be available to run. And then MISO is doing the dispatch of the units anyway, basically, from there.

So they would run additional units on the system by making another commitment. They call them reliability assessment -- I think it's reliability -- I'm not sure what the word is, but it's a rack. They start additional runs a day ahead to make sure they have sufficient

resources on the system. So they would know that they don't have Taum Sauk, and they would re-run it.

And if additional units are needed, they'll dispatch those.

Q Do you feel like you put any pressure on Mr. Cooper or Mr. Bluemner to keep Taum Sauk running?

A I don't think so.

Q Because when Mr. Cooper was interviewed by the Highway Patrol, indicated that he was -- he had received pressure from supervisors to keep Taum Sauk running. You would not be his supervisor, would you?

A No.

Q Do you think that responding to a request for an outage to repair something with, You have to be a hundred percent sure, puts any pressure on the person requesting the outage?

A I don't think so.

MR. REED: Can we get into the bonus issue now, Judge?

JUDGE DALE: We'll go in-camera.

MR. LEONARD: Are we doing it? Are we doing it?

JUDGE DALE: Yes.

MR. LEONARD: Okay. Thanks, Judge.

REPORTER'S NOTE: At this point, an in-camera session was held, which is contained in Vol. 8, pages 1266

1265

through 1277.

MR. REED: Which were the exhibits? Were they 35 through -- I want to move for admission of --

JUDGE DALE: 34 through 37.

MR. REED: 34 through 37, Judge.

MR. SCHAEFER: Actually, wasn't 33 the Highway Patrol report? I think that's the first one he used.

JUDGE DALE: 33 was already admitted subject to the standing objection.

MR. SCHAEFER: Okay.

MR. REED: All right. Thanks.

MS. PAKE: My only objection, Judge, would be to 34, the chart. Simply, I haven't seen it before. It may or may not be accurate. We would object for lack of foundation since we haven't had a chance to check it against the records yet.

JUDGE DALE: All four will be admitted into evidence, but I'll note that Exhibit 34 was admitted over an objection to confirming accuracy.

(Exhibit Nos. 34 through 37 were offered and admitted into evidence.)

JUDGE DALE: Do you have anything else, Mr. Reed?

MR. REED: No, thank you.

JUDGE DALE: Public Counsel?

MS. BAKER: Thank you.

CROSS-EXAMINATION OF STEVEN SCHOOLCRAFT

BY MS. BAKER:

Q My name is Christina Baker, and I'm with the Office of Public Counsel. I have a question about your statement. You stated that the plant wouldn't be making a request of your group if there was a safety issue. Is -- is that what you said?

A Correct.

Q And can you explain that statement?

A If there's a safety issue involved, the plant doesn't have to request anything. They -- they are responsible to keep the plant safe. So they'll be informing us of what the plant status will be, but there will be no options for us. So they won't be making a request for anything.

Q Are you notified of those?

A Yes. Not always me directly, but our group is always notified.

Q What exactly do you mean by a safety issue?

A Safety issue would be anything that involved personnel safety or public safety or sometimes even just catastrophic type equipment safety, damage to large -- large damage to the equipment.

Q And who makes the determination of whether it is a safety issue that would make it not go through your

group?

A It's always at each individual plant, their staff. I'm not sure exactly what level makes that call, but, obviously, ultimately the plant manager would be responsible for that.

Q Is your group provided with documentation as to how that decision was made?

A Not necessarily.

Q But it there a preference that requests for outages go through your group?

A Yes.

Q If -- if there was an issue that came up that was a safety issue and the plant determined that maybe fixes could be made on a temporary basis, would that request have to go through your office?

A I'm not sure if I understand.

Q I guess what I'm saying is, there is a safety issue, if -- if they could alleviate that safety issue by maybe putting in the fudge factor and keeping the reservoir lower, would that mitigate the safety issue and the request have to go through your office?

A I think the request to make the repair, temporary repair, would not go through our office.

Q If it required an outage?

A If it was -- if it was to make the plant safe,

they would inform us what they're going to do. If there's any options on the timing of the repair, they would also talk it over with us. But when safety's involved, the plant makes the final decision.

Q Okay. So for the temporary repair, to make the safety issue be mitigated --

A Uh-huh.

Q -- maybe that would not go through your office. If it took further repairs to alleviate the problem completely, safety issue, they would say it would be mitigated. Would that go through your office for the final repairs?

A If the plant feels they're making a request that doesn't involve safety at that time due to, like you said, maybe a temporary repair was done and they feel like the plant can be operated safely, then, yes, that would go through me. I think I answered that right. I don't know if I --

Q I hope you understand my -- I guess, basically, in the situation that we're dealing with the -- the piping that had moved, they had -- had put into place a fudge factor.

A If the plant felt that they were -- if the plant felt they were in a safe condition at the time they made the request, then, yes, that request would go through me

for further repairs.

Q Okay.

A If they were doubtful of the safety aspects, the plant makes the determination on what needs to be done.

Q Okay. And so that would be the reason why this request for lowering the reservoir and needing the diver to come, in, that went through your office rather than being dealt with in the plant itself?

A Yes. Because there was no safety aspect recognized at that time.

Q All right. What is the response of Ameren when there is an unscheduled outage, the plant says it was due to safety and it's later found out not to have been an appropriate safety reason?

A I don't know that I've seen that happen. But -- what would be our response?

Q Uh-huh. So say they did an unscheduled outage. They told you it was for safety. It turns out it was not.

A I have a hard time answering that because I don't know why that would happen.

Q What do you think -- do you have any -- any understanding of -- of what your group would -- or would Ameren have a response to?

A No. I don't know how to respond to that.

Q All right. All right. So, basically, it is

more economical for Ameren to have the outage, go through your group rather than have an unscheduled outage; is that correct?

A Yes.

MS. BAKER: I think that's all the questions I have. Thank you.

JUDGE DALE: Thank you. DNR?

MR. SCHAEFER: Thank you, Judge.

CROSS-EXAMINATION

BY MR. SCHAEFER:

Q Mr. Schoolcraft, in the fall of 2005, either around the time or after Mr. Bluemner had those discussions with you about the loose gauge piping and his request to schedule an outage, were you aware at that time that the plant had made adjustments to the computer program to attempt to compensate for those loose gauge pipes?

A I -- just the one statement in -- in one of the e-mails mentioned that they had changed the set point to put themselves in a safe condition. That's all I knew about it.

Q Okay. So you knew about that prior to December 14th, 2005?

A Yes.

Q Okay. And as -- as -- specifically -- as

specifically as possible, what was your understanding of what they had done to do that?

A I guess -- the only thing I know that they did was they revised the set point in the computer so that the unit would come off sooner than it would have.

Q Okay.

A The pump-back -- the pump would have come off sooner than it would have. Two feet --

Q I'm sorry. Go ahead.

A Two feet less.

Q Can you explain what they mean by revised the set point? Actually, I don't know how they do that. I'm not at the plant, so I don't know how they do that.

Q What's the set point?

A The set point is the level -- indicated level where the -- the system will reach a trip -- a trip set point. Does that make sense? I -- it's the point on the -- on the instrumentation where the -- the pump should trip off.

Q Right. And that's information that you could see on your screen when you were the trader involved at the plant in the fall of '05, correct?

A I can see the level indication. I don't see the set points.

Q Okay. But you could see where the -- the

operating level is at any given time?

A Right.

Q Did you do anything to satisfy yourself that those adjustments that were made were adequate to compensate for the problem?

A No.

Q Why not?

A That's the plant's responsibility.

Q But you're the guy that tells the plant when to turn the generation on and off when -- when you're on duty, correct?

A Or -- our group does. Yes. And we dispatch the unit.

Q Do you know, did anyone in your group do anything to ensure that the adjustments that were made to the set point were adequate to address the problem?

A I don't know of anything that anybody did.

Q In response to an earlier question when you were asked about your discussions with Mr. Bluemner about the loose gauge piping, I believe you said that you were aware there were safety gauges in place at the time?

A The emergency strip -- or the emergency level system?

Q Yes.

A I'm -- I'm aware that there is a system for

that. Yes.

Q Okay. So in the fall of '05, when you had these discussions with Mr. Bluemner, were you aware that there was a safety shutoff system for the facility?

A Yes.

Q And do you know that to be the warrick probes, which were on the upper reservoir?

A I knew that -- I had heard that term. I didn't know what type of system was actually in place at the time of the event.

Q Okay. So when Mr. Bluemner had those discussions with you requesting an outage to make the repairs to the gauge piping, did you take into account the existence of those emergency shutoff devices when evaluating the timing of the requested outage?

A I didn't. No.

Q Why not?

A Because the plant is the one that's responsible for the safety of the unit.

Q I just wanted to clarify that because I believe earlier that you said when discussing the issue with Mr. Bluemner you were aware of the existence of those devices. I just wanted to clarify.

Is that something -- is your knowledge of the existence of those devices something that went into your

thinking when you denied the request from Mr. Bluemner to have a shut down?

MS. PAKE: Well, I object to the form of the question as misstating prior testimony and using the word "deny."

A Could you -- could you ask me again?

Q Sure can. Mr. Bluemner asked you for a scheduled outage to make a repair to the gauge piping?

A Yes, he did.

Q And did you tell him no?

A No. I don't think I did tell him no.

Q What did you tell him?

A I think we discussed what would be economic windows of opportunity to do the outage. And -- and then we never -- you know, we never made a final arrangement.

Q So if Mr. Bluemner testified that he asked you for an outage and you said, No, call me back tomorrow, that would not be accurate?

A I don't recall saying no or denying an outage. No.

Q Okay. When you were having those discussions with Mr. Bluemner about scheduling an outage in fall of '05 to fix the gauge piping, did you yourself make any assumptions that those safety probes or safety shutoff devices were properly set?

A Not making -- no. I mean, I didn't even -- they never expressed any urgency or safety concerns at all. So I had no reason think that there was any.

Q Okay. In the fall of '05 when you had those discussions with Mr. Bluemner, if you knew, in fact, that those safety probes were set to a level where they weren't working, would that have concerned you regarding when the scheduling -- when the scheduled outage was?

A Yes.

Q Okay. And why?

A I -- I guess yes in that if that had come up. Like I said before, we -- I didn't even consider whether the emergency trip system was in place at the time. That was the plant's call on whether that system was working. I -- I didn't know that there was any safety concerns with either system, really.

Q I understand that. But -- but if at the time you had the discussion with Mr. Bluemner, if you did, in fact, know that the safety devices were not working, would that have impacted your decision on when to schedule an outage?

MS. PAKE: Objection. Asked and answered.

JUDGE DALE: It has been. Sustained.

Q (By Mr. Schaefer) Is there any specific terminology that if Mr. Bluemner would have used it with

you would have understood the situation to be an emergency?

A I guess the way I -- if there was a safety concern and he was making a request because it was a critical system that could cause any -- any -- even a violation of the FERC rules or whatever on the -- on the levels, they would -- it would be up to them to tell us that.

Otherwise, the -- always the underlying assumption is that it's safe to continue operating the plant unless they tell us that it's not.

Q All right. And I understand that. And in -- there's two sides to every story. Mr. Bluemner can convey something to you, and you can understand either correctly or incorrectly what he says.

What I'm trying to get at is, in terms of what you would discuss with plants regarding emergency situations, are there some buzz words such as critical or urgent or emergency that would normally be used in a request in order for you to understand that it was something that needed to be addressed right away?

A I don't know of any particular buzz word. But, basically, the plant would call and notify us that something has to be done. This has to be done.

Q Okay.

A There would probably be discussions about why. And if they mentioned safety, then that's the plant's call.

Q Okay. Stepping back earlier in the year in 2005, between -- let's say between December of '04 and February of '05, did anyone ever make a request of you during that time period to have a scheduled outage -- outage to adjust the warrick probes?

A I can't recall if they did or not.

Q Okay. Are you aware of whether or not a request was made to anyone else in trading regarding that issue during that time period?

A I'm not aware.

Q All right. In the -- in the fall of '05, were there any protocols in place at Ameren Energy trading which would dictate when you would take a -- a facility offline?

A It was nothing official. We usually tried to schedule it when it's economical in the market place.

Q And --

A And that changes throughout the year. Typically, weekends are good opportunities to do short outages because the market's typically lower on the weekend.

Q Sure. And the market would be one factor,

correct?

A Uh-huh.

Q But is there -- are there any written policies or protocols that you could look at to see what those factors are?

A Not that I'm aware of.

Q Okay. So that's just something that each individual trader would just kind of evaluate on their own?

A I guess that would be accurate. Yeah.

Q Now, I want to ask you, in the fall of '05, the entity that you actually worked for was the -- the official name was Ameren Energy Corp.; is that correct?

A I think that's right. Yes.

Q And the parent corporation of Ameren Energy Corp. at that time was Ameren Corp.; is that correct?

A Right.

Q Okay. And then you dealt with other Ameren subsidiaries in your day-to-day duties, didn't you?

A Yes.

Q Okay. And was one of those entities Ameren Services?

A Yes.

Q Okay. And was that Ameren Services Corporation?

A I'm not sure.

Q Did you understand Ameren Services to be another subsidiary of Ameren Corporation?

A Yes.

Q Okay. And was another entity that you dealt with AmerenUE?

A Yes.

Q And did you understand AmerenUE to be another subsidiary of Ameren Corporation?

A Yes, I did.

Q So was it the responsibility of Ameren Energy Corp. to determine when generation was turned on and off?

A When generation's available to be turned on and off, we dispatch it. So yes.

Q All right. Fair enough. And is it the responsibility of Ameren UE to have generation available to be put out there when Ameren Energy Corp. asks for it?

A Yes.

Q And is it the responsibility of Ameren Services Corp. to be essentially the -- the project managers or maintenance guys, basically, for the facilities that are operated by AmerenUE?

A There's more to Ameren Services than that, but yes.

Q Fair enough. Were -- were there any protocols in place in December of '05 as to how Ameren Energy Corp.

was to communicate with Ameren Services Corp. or AmerenUE?

A I would say yes.

Q Okay. What were those?

A We had a -- a communication procedure. I don't have it with me. But that was an understanding between the plants, AmerenUE plants, and Ameren Energy on how we wanted to communicate.

Q Okay. Was that a written -- were those written documents?

A I believe there's a written procedure.

Q Okay. Do you know if that still exists today?

A I think so. I'm not sure.

Q All right. Is that something that, in your capacity with Ameren Energy Corp., that you were responsible to review and know?

A I would say yes.

Q Okay. Did you, in fact, review it and know what those policies were?

A Yes.

Q I want to ask you about MISO. Is it correct that MISO essentially would instruct Ameren -- Ameren Energy Corp. when power would need to be added to Ameren's system?

A I'd say -- it may not be the best way to phrase it, but, yes. The direction to start or stop a unit once

they have it available to them comes from MISO to us -- to Ameren Energy.

Q And I agree. It could probably be phrased a little better. For example, when you were on duty, would you have daily communications with MISO?

A I would -- me, personally, no.

Q Okay. How -- how would you get information from MISO on -- on whether or not there would need to be generation?

A There are -- actually, I get it through the Power Supply supervisor. So I don't use the system's -- all the systems that show that information every day.

But the Power Supply supervisors and the power dispatchers use that information and the real-time trader.

Q Okay. And would that be that MISO dictates on one day what will be necessary for the following day?

A Yes.

Q Okay. Now, when MISO makes those directions, does MISO simply inform Ameren of how much power will be needed, or does it actually direct which units Ameren should use to produce that power?

A Their awards are by the unit.

Q So, actually, the corrections from MISO are on -- basically direct what facilities should be engaged to generate power?

A Yes.

Q Do you know what goes into those factors and how MISO determines what facilities should be used to generate power?

A It's -- there's all -- there's a lot of parameters that we give them every day that involve start-up times, you know, maximum capability of the unit. But the main things would be cost of the unit in those cases. And that's something that we bid into the market on a daily basis is what is the cost of this unit.

And then they're attempting to schedule economically against the whole MISO footprint based on those things. There's a lot more parameters that you have to define for your unit so they know how to dispatch it. But --

Q I believe one thing you said earlier was the cost to operate the unit?

A Yes.

Q And I think you said earlier that, for example, coal is cheaper, so that would be one of the considerations?

A Correct.

Q Is another consideration from the coal-fired power plants the emissions that they put out from the stacks and what environmental conditions may exist in the

air on a given day?

A That's because of the way the credit system works for a lot of those things. That's pretty much factored into the cost that we provide for MISO.

Q So actually Ameren figures that into the cost?

A Correct.

Q Okay. So when MISO makes a determination of what plant should be triggered, the information they're looking at that was supplied by Ameren includes that air quality issue?

A I would say that's the right way to look at it. They -- they have no information on your emissions data that I'm aware of. It's strictly the parameters you give them.

And it's -- you know, whether the unit's available, what -- what its minimum load, maximum load, start-up times, all that.

Q Okay. And do you have any understanding of actually what goes into that equation on the coal-fired power plants of how air quality may impact the cost of operating that facility?

A Not -- not really. The cost of the credits that you get or whatever are all factored into it. But I don't -- that's not done by our group. So I don't know how it works.

Q What group actually does that?

A I think Operations Analysis is the name of the group.

Q Would that be part of Ameren Energy Corp.?

A It would probably be Ameren Services.

Q Services. Now, when MISO essentially -- let's say that MISO tells you one day, Ameren, turn on Taum Sauk the following day. Okay?

A Okay.

Q Does MISO direct how much power to generate from Taum Sauk, or does it simply engage Taum Sauk?

A They do -- they give a power -- the day ahead award is -- it's a financial thing. But it basically tells you that you're going to get an award to run the unit for so many hours and that it's three, four hours, whatever it was for Taum Sauk at a certain power level.

When you get to the real-time, MISO may give different dispatch instructions for what you got in your day ahead award.

Q Okay. And the instruction that MISO gives you, in fact, is what -- when they tell you how much power to generate, that's -- that's, -- is that MISO's direction of how much minimum power Ameren will need to put into the system?

A On the day ahead award, it's really just a

financial thing. You can choose not to run your unit if you want. It's just available to run. So --

Q Right. But if you didn't run the unit, you'd have to pick that power up somewhere else, correct?

A If we don't run the unit, MISO has to account for that somehow in their dispatch.

Q So, frankly, isn't it true that Ameren want direction from MISO to engage plants, correct?

A Sure. Yes.

Q All right. And -- and what I'm -- what I'm trying to get to is when MISO tells you, for example, to engage Taum Sauk and they tell you how much power to produce from Taum Sauk, that's how much power MISO is telling you Ameren either put this power in from Taum Sauk or you're going to have to get the power from somewhere else, correct?

A Not really. They give us instruction to run it. It's a financial decision whether we run it or don't run the unit. If we don't run the unit, MISO compensates by starting to run another unit within MISO possibly. So it's not necessarily Ameren's responsibility to replace the power.

Q Okay. Fair enough. But MISO doesn't give you a maximum limit of how much power you can produce on that day from that system, do they?

A No.

Q And are you aware that Taum Sauk actually had two generators, correct?

A Correct.

Q And are you aware that those -- there were varying amounts of how much power each one of those generators could generate while running, correct?

A I'm not sure if I know what you mean.

Q Okay. The plant could adjust how many megawatts --

A Oh, yes.

Q -- each generator was putting out at a given time, correct?

A Yes.

Q Okay. And so, for example, let's say hypothetically that MISO directed you to engage Taum Sauk the following day, but all that was needed from MISO's request was a minimal amount of the capacity of Taum Sauk. Okay?

A Okay.

Q Was it possible for Ameren to then use Taum Sauk to generate its maximum capacity in that day?

A I would say yes.

Q And did, in fact, Ameren do that?

A I don't know. I don't know any specific case

where we did. I would say probably we have.

Q Okay. And if they did, the required amount of generation that MISO called for would go into the MISO system, correct?

A It all goes into MISO system.

Q Okay. When -- how does Ameren get paid for a that power that it puts into the MISO system?

A It's a fairly complicated settlement system. But in general, the day ahead award is already basically paid financially for the company when you choose to run it the next day.

When you choose not to run it, prices don't come in at the level where they should. Basically, when you don't run it, you buy back that energy from the MISO pool at whatever the market price is.

Q Okay.

A If you generate additional megawatts above what your award was and what they're dispatching you, you get paid real-time L&P prices for that power.

Q Exactly. So in the hypothetical that I gave you, when -- when MISO directs you to generate, let's say, a minimum capacity level from Taum Sauk, that amount of electricity that goes into the system, you get paid for it at the set MISO rate, correct?

A True.

Q But the capacity that you're generating on top of that that goes into the system that day, you're getting real-time market prices for, correct?

A Correct.

Q And isn't it true that at various times there was dramatic difference between what the MISO rate was and what the real-time market rate was on any given day?

A There's often times quite a difference between the day ahead L&P price and the real-time I think is what you're trying to say.

Q Yes. In fact, MISO price is significantly lower, correct? Could be?

A I'm not sure -- the day ahead price? Is that what you're calling the MISO price?

Q I'm sorry. The day ahead price, yes.

A I don't know there's any trend there, but sometimes it was lower.

Q And, in fact, the power -- the excess power that was sold at the market price, that was -- that was much more profitable power generation for Ameren, wasn't it?

A Some days.

Q Fair enough. Now, are you familiar with the term Joint Dispatch Agreement?

A Yes.

Q What's the Joint Dispatch Agreement?

A It doesn't exist anymore. But at the time, there was an agreement that we would dispatch the Ameren SIPS units and AmerenUE units as a joint pool.

So we'd economically dispatch units on to meet the load in the Ameren system rather than -- rather than allocating the AmerenUE units only to the Ameren load and the Ameren SIPS units to the Ameren SIPS load.

Q Okay. What are the Ameren SIPS units?

A The main units, the coal units, were the Coffine unit, Newton unit, Hudsonville units, Maridocia (ph.) units. There were some CTGs at that time.

It's all been -- there have been units moved around. But I think Pinckneyville units at one time were over there, Kinmundy's, Gibson City's.

Q Those are all Illinois units, correct?

A Correct.

Q So -- so the Joint -- the Joint Dispatch Agreement, for lack of a better way to put it, was that an agreement between Ameren's Missouri facilities and Ameren's Illinois facilities on how to generate and distribute power?

A To be honest, I'm not sure of the details of the original agreement, who it was even between. I just know how we operated to it.

Q Is that how you operated? Is that how you

operated in accordance with it?

A I'm not sure if I know what you're asking me.

Q Okay. What was your understanding of the Joint Dispatch Agreement? Perhaps that's just a better way to ask it.

MS. PAKE: Your Honor, Mr. Schaefer's gone on at some length and with lengthy hypotheticals now with this Joint Dispatch Agreement. I would just ask if maybe he could be directed to get back to the factual issues that I understand the Commission's here to address.

CHAIRMAN DAVIS: Judge, I want to hear about the Joint Dispatch Agreement.

JUDGE DALE: The Chairman has spoken.

MS. PAKE: Understood.

Q (By Mr. Schaefer) Let me ask you this, Mr. Schoolcraft: Were there factors related to the Joint Dispatch Agreement that was relevant to how and when you made decisions to produce power?

A In -- in 2005, we were under MISO at that time.

Q Uh-huh.

A I don't know that it affected our decisions on how we dispatched the unit much at all. We offered all the available units into MISO with the particular cost on it. MISO determined when to -- when to run the units.

Q Okay. But -- but the Joint Dispatch Agreement

was in place in December of '05, was it not?

A It still was. Yes.

Q Still was. That's right. And getting back to my previous hypothetical, when you had a direction from MISO to produce a certain amount of power from Taum Sauk and that amount of power was less than the maximum capacity of Taum Sauk, okay, and follow me here, you had to direct the requested amount from MISO into MISO, correct?

A We could choose to. We usually did because we wanted to meet our day ahead award. But --

Q Right.

A But yes.

Q Could you somehow direct that excess capacity on top of that to -- over to the -- the Illinois units?

A Not really. No.

Q All right. Well, let me ask you this: Did the Joint Dispatch Agreement -- that allowed the Illinois unit to buy wholesale power, didn't it, from the Ameren Missouri units?

A It allowed them to buy wholesale power from our units.

Q Power at a wholesale rate. Yes.

A Not that I'm aware of.

Q Okay. Well, then what did it do?

A Before MISO, it probably had different meaning in that we could -- we could dispatch the most economical units from the entire fleet on to cover Ameren SIPS and AmerenUE load.

So it was the best economical mix of units of dispatch to cover that load. In the -- once we got into the MISO world, you're still concerned about covering your load. But MISO is going to cover your load. So basically, you know, wherever your units are -- so you're still going to -- MISO's going to dispatch the unit economically. But I -- I guess I don't know where you're going with that.

Q Well, and, again, I'm just trying to get to where does that excess power go on top of what MISO has directed you to produce?

A It goes -- any excess power goes into the MISO pool, and we're paid real-time prices for that.

Q Okay.

A I don't know if I --

Q Are the SIPS unit, can they buy that power at a wholesale rate?

A Not that I'm aware of.

Q Okay. Who -- who would know the answer to that question?

A I -- I don't even know who to tell you. I'm not

sure.

Q Okay.

CHAIRMAN DAVIS: Mr. -- Mr. Schaefer, can I cut in here for just a second?

MR. SCHAEFER: Of course, Chairman.

CROSS-EXAMINATION

BY CHAIRMAN DAVIS:

Q Okay. I'm sorry. So if Ameren were using the JDA to sell power from AmerenUE to SIP, Silco or any of the others, and then turned around and flipped it and sell it at -- if they were selling that electricity from AmerenUE to SIP, Silco or any of the other Illinois subsidiaries at cost and then those Illinois subsidiaries were flipping it into the market and selling at market rates higher, thereby the profits going back to either Ameren Energy Marketing, SIP, Silco or whoever, you wouldn't know that, would you?

A I guess I wouldn't know that.

Q Okay. Who would be the person at Ameren, do you think, on the trading side that could tell us if that was going on or not?

A I would probably talk to our -- the Vice President level of the trading groups.

Q And who is that person?

A On our -- on our floor, it's Shawn Schukar.

CHAIRMAN DAVIS: Okay. Thank you.

MR. SCHAEFER: Thank you, Mr. Chairman.

CONTINUED CROSS-EXAMINATION

BY MR. SCHAEFER:

Q Are you -- are you aware -- okay. First of all, the term for the Taum Sauk plant has been used as a peaking plant. Are you familiar with that term?

A Yes.

Q I think you said when MISO gives you a direction to produce power, they actually tell you which plant to use, correct?

A Correct.

Q But do you know -- does MISO make any distinction between what is base load power and what is peak power when they make that request? Or is it simply just a request to produce power?

A I mean, to them, it's just -- it's all the same. They have all the parameters for what that unit can do. I mean, if you put them all together, it's a peaking unit. And that's the way that MISO dispatches it. It's the only way they can dispatch it.

Q Right. And I think you've already testified that there are various factors on what determinations are made as to what plant will produce that power, correct?

A Correct.

Q And my question to you is -- Taum Sauk wasn't just a peaking plant. It was actually used by Ameren to supply base load, wasn't it?

A Well, yes and no. It can't run 24 hours a day to generate, so it's not really a base load unit. So it's -- it can be generated over certain parts of the day.

So, yes, during the peak parts of the day where our load was the highest, it was typically or probably going to our -- our native load.

Q Right. And when you -- are you using the term native load and base load synonymously?

A No.

Q Okay. What's the --

A Native load is the system load, the system demand. When I say base load, I'm talking about your power plants that are your -- your core power plants that are basically always on.

Q Okay.

A The coal plant in Callaway, for example.

Q Okay.

JUDGE DALE: Mr. Schaefer, how much more do you have?

MR. SCHAEFER: I don't think I have much more.

JUDGE DALE: Okay.

MR. SCHAEFER: As I go, I'm scanning through

many notes I made earlier, but I'm trying to cut out as much as possible.

JUDGE DALE: What do you mean by much? It's really time if a break, but --

MR. SCHAEFER: Let take a break because I can use that time to go through and maybe cut out some more time.

JUDGE DALE: Okay. And we'll be off the record until ten after.

(Break in proceedings.)

JUDGE DALE: With that, let's go back on the record. And we will continue with Mr. Schaefer's inquiry of the witness.

MR. SCHAEFER: Thank you, Judge.

Q (By Mr. Schaefer) Mr. Schoolcraft, I think you made a reference earlier to the fact that Illinois was a deregulated state; is that correct?

A Yes.

Q Tell me briefly, what is -- what does deregulated mean?

A I --

Q What's your understanding of what that means?

A Well, they're under -- on the Missouri side, we're regulated under the Missouri Public Service Commission. And they -- their units over there are at

Genco that were there free to generate and sell into MISO in an open market.

Q So is it your understanding that Missouri, being regulated, that the rates that Ameren may charge customers are actually set by the Missouri Public Service Commission?

A That would be true.

Q Okay. And if you could speak into the microphone?

A Oh, sorry.

Q Thank you. And are you aware that in setting those rates, the Missouri Public Service Commission looks at various factors for given facilities in determining what Ameren could charge customers for the existence of those assets and for the supply of power?

A Generally, I know that's true.

Q Okay. And are you aware that actually the Taum Sauk facility is in Ameren's rate base, so that facility is actually paid for by Missouri ratepayers?

A Yes.

Q At some point in -- hang on one second. At some point between 2000 and 2002, did you have any discussions with Mr. Fitzgerald about how the Taum Sauk facility actually operated?

A I may have.

Q Okay. Did you ever go to the Taum Sauk facility and take a tour of that facility with Mr. Fitzgerald?

A No. I've been to Taum Sauk, but not with Dave.

MR. SCHAEFER: Okay. I don't have any further questions.

JUDGE DALE: Okay. Commissioner Gaw?

COMMISSIONER GAW: Are we ready?

MR. SCHAEFER: I'm finished.

JUDGE DALE: I thought that was what you just said was --

MR. SCHAEFER: That's true. I'm finished.

COMMISSIONER GAW: Do you want to ask him some questions?

CHAIRMAN DAVIS: I don't think he'll know that much about what I want to ask about.

COMMISSIONER GAW: All right.

CROSS-EXAMINATION

BY COMMISSIONER GAW:

Q Good morning, Mr. Schoolcraft.

A Good morning.

Q Can you -- can you describe for me a little bit more in regard to -- to the position that you have and the hierarchy above you? Can you -- that is all under which corporation again?

A Ameren Energy.

Q Ameren Energy. And your role and position and the parameters of it, again, give that to me one more time.

A My job is the -- to be the Generation Coordinator. And that is a job to take requests from the -- the plants -- the main part of the job is to take requests from the plants for upcoming outages, tests, anything that changed the normal dispatch of the units --

Q Okay.

A -- that we have available to us and to try to schedule those things economically, and, also, within the parameters that the plant feels we need to meet.

Q Okay. Do you have a role in regard to the daily dispatch of those units?

A No.

Q Okay. And who does that?

A That -- the real-time dispatch of the unit, like in the same day --

Q Yes.

A -- is handled by the -- it's really a group of three now. The Power Supply supervisor, the power dispatcher and the real-time trader.

Q Okay. Was that the same scenario in 2005?

A That would have been the same. Yes.

Q Okay. And how do those entities or individuals

under those groups inter-relate to the Ameren group? Which corporation are they under?

A Those three positions are all under Ameren Energy, also.

Q Okay. All right. And in -- in hierarchy, how do they -- how would they show up on an organization chart under Ameren Energy generating?

A They -- they report up to -- at the time, it was a -- a manager, Tim Lafser. And then up to Shawn Schukar, Vice President. And then at -- in 2005, it was up through a -- I guess it was a senior vice President, Andy Serri, and then up to Tom Voss.

Q Okay. And -- and at that time, Tom Voss was over -- what's the name of the corporation again?

A Ameren Energy. But Tom was at a higher level where he had other -- he had power operations also reporting to him, AmerenUE power operations.

Q Okay. So do you know what his particular -- which corporation at that time in 2005 he would have been working for in regard to that hierarchy that you're describing?

A I'm not sure what all fell under Tom at the time. But I know for sure that the power operations and Ameren Energy both fell under him. I think Ameren Services, the shared services groups, were under somebody

else, I believe.

Q Okay. I -- would it be true to say that Mr. Voss had more than one position within Ameren in 2005?

A I guess that would be the right way to say it. Yeah.

Q Okay. He -- he had positions with more than one Ameren affiliate, correct?

A Correct. That's correct.

Q And today, do you know whether that has changed since 2005?

A I would say that's still the case.

Q Has Mr. Voss's positions -- the various positions that he holds changed since 2005, to your knowledge?

A The -- there has been a change in that the -- he -- he is only over the regulated side at this point. And the unregulated side of the company has a different reporting chain.

Q Are you aware of why those changes were made?

A Not really.

Q Okay. You didn't hear anything in regard to why there was a reorganization?

A Only the general statements that it was in order to better do business in the regulated and unregulated environment. But no -- nothing specific.

Q Okay. So in regard to -- to the day ahead scheduling, did you have a role with that?

A Yes.

Q All right. Describe what that role was for me.

A Okay. What -- what my role was was to take the requests as they come in from the various power plants for needs they had for the next day.

Some of those, we already had advance -- you know, that we knew they were coming. Some of them were fresh in the day ahead world. And we basically look at what they're requesting, the impacts that's going to have on our dispatch of the units the following day and approve those requests, get them scheduled so they show up, and, electronically, we have them out there for the power supply supervisors, too.

When he makes his bids into the MISO market, electronically, he has all those in front of him. So he makes sure that we bid them in correctly. So that my role is to make sure that I do the interfacing with the plant, the majority of it, and get them into the schedule so this they don't get missed for the next day.

Q Okay. Now, I want to understand this. Is -- if you're -- if you're in the position of scheduling on the day ahead, you are -- are -- is your role to determine and pass along information about what units within the Ameren

fleet are available?

A Yes.

Q All right. Do you make any determination in regard to any order of dispatch?

A In the day ahead world, I'd say no.

Q That's done by someone else, correct?

A Correct.

Q And who is that that would make that determination?

A The way that's done is -- it's actually one of the -- in our -- in our set-up right now, the Power Supply supervisor and one of the traders work together to get the bids into MISO, which would be setting of any prices on the units for the day ahead market.

But they're taking input that's already out there from the operations analysis group that -- that's data that's compiled to show the true cost of the units. And then they take those and bid them into the market for the next day.

Q Okay. So would they -- and who is that again?

A Who -- the Power Supply supervisor --

Q Yes.

A -- is a -- it's a position. So there's five guys that fill that spot.

Q All right. Who are they?

A I'm trying to think. You caught me off guard. But John Bruzing, Keith Paulman, Phil Scott. We're short one right now. Rodney Hamlin was one. He's been promoted to a different job.

Q Okay.

A I'm trying to remember the fifth one.

Q That's okay. If it comes to you, you might tell me later. Okay?

A I'll think of it. Okay.

Q Now, who do they report to?

A They report to -- currently, to Jim Vaughn.

Q To Jim Vaughn. And his title is what?

A I believe he's Managing Supervisor, and I'm not sure what they -- I think it's real-time dispatch is the way -- Managing Supervisor, Real-time Dispatch.

Q And who -- who does he report to today?

A He reports to Shawn Schukar.

Q All right. Now in 2005, how -- would that have been different?

A The only difference was that Tim Lafser was in Jim's position now, so he was the -- and he was a manager at the time.

Q Okay. What's his position now, again?

A He's manager of Meramac plant now.

Q Okay. All right. Do you know why he was --

well, let's strike that. Now, let me -- let me ask you in regard to -- to the determination -- so they -- you give the information, These units are available, right, to that group?

A Right.

Q All right. And then they make a determination of which of these units they are -- they are going to -- well, I'll -- let me ask it in this fashion.

Do they then -- if all of your fleet is available, do they then control or -- or deal with bidding in those units to the MISO market?

A Yes.

Q Okay. So that's their role?

A Yes.

Q All right. Now, the way that works, do you have a familiarity generally about the way that works?

A Generally.

Q Let's talk about that a minute. Is it -- would it be true to say that, ideally, if all units are available, there will be a bid put in for all of the Ameren fleet into the MISO day ahead market?

A Yes.

Q Okay. And -- and do you know, generally, how a bid is determined as to what they will bid a price in for particular units?

A Generally -- and like I said, I'm not involved directly in the process. But the general process is to take and price the units that we need to cover our own native load at cost so there's no price adder put in there.

And then they can come up -- I don't know how they come up with it, but they come you up with a strategy to put some cost adders onto the unit, bidding them in, the ones that are above and beyond the -- those covering the native load.

Q Okay. Now, it would generally be true, would it not, that you're not going to bid those units in at below the cost of running them?

A True.

Q You would expect the bid to be at least for the incremental cost of running them and probably with some additional profit margin built in?

A I would say that's true.

Q Okay. Now, in fact, what is paid from the MISO market is not based upon necessarily what the bid price is on those units, correct?

A That's correct.

Q What is paid is what the clearing price is at particular nodes within the MISO market?

A Yes.

Q So -- and -- and that price is generally set by the high price that is accepted, the last price, clearing price that is accepted by MISO in order to fulfill the needs to maintain the system reliably, correct?

A I'd say that's accurate. Yes.

Q So -- and is it true that -- that many times during the year, that clearing price is set by gas turbine price?

A It's becoming more common that that's the case. Yes.

Q Okay. Which is generally a higher price than it would take to run a coal unit?

A Yes.

Q A nuclear unit --

A Yes.

Q -- correct? A hydro unit?

A Yes.

Q Okay. Now -- so if I'm -- if I've got a coal unit that I can bid in and that price is bid in slightly above incremental costs of running that price and the clearing price is a gas turbine price, what does that mean in regard to my profit margin? Or in regard to that unit, just generally speaking?

A It helps it.

Q Yeah. So that -- that's -- the larger the

spread between the cost of the unit that you have to run and the clearing price, the bigger the profit margin as a general rule, correct?

A I'd say so. Yeah.

Q Okay. Now, in regard to -- it gets a little more complicated when we look at Taum Sauk because we have other considerations, right?

A Right.

Q When you're looking at running a -- a coal unit, for instance, you have some general idea about the -- the efficiency of the unit and what it -- what it generally will be. And that's pretty much constant, correct?

A Yes.

Q And, also, the variable would have to do with the fuel costs on a coal unit?

A The biggest part of it. Yes.

Q Okay. For the most part -- well, let's -- give me an idea about how that -- how much volatility there is in regard to fuel prices for a coal unit.

A As far as how it impacts its incremental costs, I can tell you.

Q That would be fine.

A Coal -- I've seen coal units that currently maybe incremental cost of the unit might be somewhere around $15 for a really cheap unit to maybe $25 or $30,

somewhere in there for an expensive unit.

Q Okay. And that measurement of dollars is per what?

A Oh, per megawatt. I'm sorry.

Q I assumed that's what you were talking about, but I wanted to clarify. Okay. And do you know for your -- for your hydro units, like at Bagnell, for instance?

A What we're -- that's going to vary pretty widely.

Q Is it?

A Because it's such a limited resource normally.

Q The fuel cost is negligible, right?

A Right. It's not the fuel cost there. It's limited resources and how to use it properly.

Q Without getting into highly confidential data, just generally, what do you take into account when you're dealing with the hydro units?

A I -- it's probably pretty complicated. And I don't know that I'm -- I understand it all. But general -- you look at the projected generation that you have available to you over the next week or so and try to optimize it in the market, basically. It's pretty much as simple as that. You've got so many hours that you can run the unit.

Q Okay.

A Sometimes none.

Q You can't drain -- you can't draw the reservoir down at Bagnell below certain levels, correct?

A Right.

Q You have -- you have anticipated --

A Pretty tight limits to operate within. That's right.

Q So you're trying to anticipate when, economically and financially, it's to the best advantage of Ameren to run those units within those parameters of how much water is available to run through the turbines?

A Correct.

Q Now, that -- to some extent, although on a different level, that applies to -- to Taum Sauk as well, correct?

A I mean, it's a limited resource. Yes.

Q It's a -- a limited resource. But it's on a day -- or more along the lines of a daily basis because you have the ability to pump back up at night?

A Right.

Q And that's not something that generally you would do at Bagnell, is it?

A What's that.

Q Pump back up into the reservoir.

A No. They don't have that capability.

Q Okay. In regard to gas units, Ameren does or does not have a combined cycle unit?

A We do not.

Q That's -- that's what I thought. So you do have several peaking units available in the system, correct?

A Correct.

Q There are varying types?

A That's true, too.

Q Okay. And those varying types have varying efficiencies and dis -- dispatch capabilities, correct?

A Right.

Q Now, when we're dealing with the -- the Taum Sauk unit itself in regard to -- to the -- to the examination of how you determine when to pump back and when to dispatch -- you've talked about this some already. But I want to tie it back to this MISO market a little better.

A Okay.

Q The -- the day ahead market is a -- is a -- is a clearing price, and that is done -- is it per hour on the day ahead? Do you know?

A Yes. Each hour of the day has an award for each unit.

Q Okay. So the people in -- in Ameren that are responsible for the -- for the bidding in of -- of the

units would -- would they attempt to -- first of all, they would -- they would -- would they bid in the Taum Sauk plant for -- well, excuse me. Let me strike that.

I want to go back to this for a minute -- in a minute. But they're drawing energy off to pump in to the top reservoir, generally?

A Right. We're actually adding to the system load for Ameren when we pump back.

Q So you're -- it's a load, not a generator in that mode, correct?

A Correct.

Q Okay. Do you know how it is -- how the financial side works in regard to the -- the charges that Ameren received for that load? Is it drawn off of the in -- is it drawn off of some incremental costs within Ameren for running its units, or is it taken off the market price at MISO? Are you aware?

A I'm not very -- very good at explaining that. But I believe that the process is -- Ameren also bids load into MISO. And the award process is something similar to what it would be for generation. There's an hourly award, I assume. But I haven't seen that myself.

Q Okay. Is that something that Mr. Schukar would have a pretty clear idea about?

A Yes.

Q Because it -- would it -- would it not be the case that -- that Ameren could elect to -- to take generation off of its system directly and not -- and dedicate it to that particular node rather than bidding it into the MISO market? Or do you know?

A I'm not sure -- sure if I know what you're asking me.

Q That's all right. I -- I think -- I think that's probably best left for Mr. Sugar anyway. Now, when you get into this -- question of -- of cost, though, if you were utilizing the price off of the MISO market -- there is a Taum Sauk node, is there not?

A Yes.

Q In fact, there are two of them?

A Two. Yeah.

Q Both of them relate to the fact that there are two generators at Taum Sauk?

A Correct.

Q Now, when you get into the -- the price that might be -- be paid or in order to -- to take energy off of that node, there is a publicly available price on the day ahead market?

A Right.

Q By the hour, correct?

A Yes. That's correct.

Q Okay. Do you know whether or not that -- that price signal, the price signal that's used to determine whether or not -- or what time to pump water up into the upper reservoir?

A Yes, it is.

Q Okay. And is that done on a day ahead basis?

A Not really. No. I think they're going to go real-time on that one. They're going to have a general idea day ahead where those hours are going to be.

Q Okay.

A But they're also going to watch the real-time price signals before they decide where to actually do it.

Q Okay. All right. So financially, then, would it be your belief that -- that in the pump-up procedure, or pump-back procedure that, financially, AmerenUE is going to pay the day of the real-time price for -- for what -- the hours they select?

A I think that's -- I think that's right.

Q Okay. Now, when -- if we go to the flip side and then -- and we're dealing with the -- the sale of the generation from that plant, I believe you have said generally that you're dealing with -- with -- first of all, those plants would be bid into the day ahead market?

A Correct.

Q Okay. So long as they're available?

A Right.

Q And then would it be accurate to say that MISO has a list of all of the generation that has been bid in for energy in the day ahead market in order to select from in deciding an order of dispatch within the generation fleet in the MISO footprint?

A That would be true. It's all held in a big computer program that they run.

Q And would it also be true that -- that taking into account reliability first that there would be an order of dispatch that would be established based upon the pricing or the bid price of those units into the -- the MISO market?

A Yes.

Q Okay. Now, that -- that day ahead market is basically a -- a promise by whoever bid in to furnish generation up to a certain amount the next day. Or is that fair?

A I don't think that's probably really true. It's a financial award that you get, but you could still choose not to run that unit.

Q It's not -- it's not suggesting that you will run X units the next day, is it? It is saying you'll provide energy or find a way to get -- or pay for energy --

A Or pay for it. Right.

Q -- the next day to ensure that there's enough energy within the grid for reliability purposes?

A I think that's a true statement.

Q Okay. Now, the next day, Ameren, if they have bid in a certain amount of generation, they either need to show up with that generation or find enough generation by purchasing it somewhere else in order to fill up -- fill that bid or what's -- is that a good way of saying it or --

A Not really. What really happens is if you don't show up, MISO has to find it.

Q And they'll find it?

A Right.

Q And they'll charge you --

A Settlement. Right.

Q And they'll charge Ameren for the extra amount or whatever it is that Ameren didn't show up with?

A That's, basically, because there's a penalty because they maybe had to dispatch another unit to -- that wasn't expected to come on. There's a cost associated with that.

So the plants that are under-performing or the companies that are under-performing throughout MISO pay that charge, split that charge. And then you buy back the

energy from the market that you didn't generate. So you could be ahead or behind based on what the market does in real-time.

Q Okay. Describe a circumstance where you would be ahead, and then describe one for me where you'd be behind.

A Ahead generally would be a case where you get an award -- a good award for the day ahead. And the real-time market comes in real weak.

They have -- a storm comes through and the load falls off. They have too much generation on across the footprint. The prices depress, and you can choose not to run a unit, basically, buy back at that lower cost.

So you got your day ahead award and you -- so that's a case where you come on the more ahead. Behind is more typical, probably, because you -- if even if you break even, the L&P prices are the same as they were the day ahead. You've got that RSG, they call it, penalty for uplifting other units in their place that probably makes it a loser to do that.

Or worst case, the prices come in way stronger than -- than the day ahead. And then you -- then you lose big.

Q Okay. So -- so you've -- in that event, then, the -- the guessing has gone the wrong direction and

you're -- you're paying extra money because of that, correct?

A True. Where you see that more is if you actually unexpectedly lose a unit in the meantime and you can't choose not to -- choose to run it. It's not available. But you're still subject to those day ahead versus real-time market and can loss -- lose quite a bit that way.

Q Okay. Now, in the overall scheme of things with these financial transactions, if a unit goes out of service that is generally used because its incremental costs is on the lower side of the fleet, financially, what does that do to Ameren?

A That's lost opportunity at least, right? I mean, you can't make the profit that you would normally make in the market.

And in the next -- in the same day -- next day market, you also are subject to penalties for not being there when you -- when the unit was bid to be available.

Q Okay. So -- so overall, there's a -- there's a loss in profit, correct?

A Correct.

Q Okay. Now, there's been some discussion about the difference between serving native load and off system sales. And I know this gets pretty complicated to try to

-- to try to -- to reduce it down to -- to -- to fairly simple discussion. It probably was easier, wasn't it, before there was a MISO market to have that discussion?

A I suppose it was. Yeah.

Q But once -- when did the MISO market go into effect, by the way, the Day 2 market?

A I was thinking it was -- I'm not exactly sure if it was just prior to the summer of '04 or '05. I think it was '04.

Q It started on April 1st?

A That's the thing I remember.

Q You remember --

A But I don't remember which year it was there.

Q Well -- well, when you -- when you deal with the question of -- of native load, when everything is bid into the MISO market, there is -- at least from a dispatch standpoint, you're -- technically, you can't see on the dispatch side who is actually being served by that dispatch, correct?

A That's true. That's true.

Q It's a network service, correct?

A Right.

Q So you dispatch it. The energy goes wherever it's going, correct?

A Right.

Q It doesn't necessarily mean that Ameren's -- AmerenUE's generation fleet is serving AmerenUE's retail customers?

A Right.

Q But that is at least supposedly straightened out on the financial side, correct?

A Right.

Q Now, can you explain how that gets straightened out this?

A Only in simple terms because I'm not --

Q Do it that way, and then we'll try to get into the -- into a little more detail with somebody else.

A Okay. Generally, what -- Ameren bids in their load, and we -- and we pay to have our load served by MISO as well as, you know, separately we have our generation bid in. And we get paid for generating into the MISO.

There is a settlement process, and I don't know that I totally understand it, where they match up our load with that much generation off of our own system and basically cancels it out. And there's that -- that, you know, overage or underage is what we settle on.

And I think also a risk management policy for the company has us try to attempt to cover at cost, you know, make sure that we cover with our own generation as much of our generation as possible.

So the bids are sent into MISO with that in mind.

Q Would it be fair to say that in regard to the -- to the retail customer that after you take into account the money that is received from -- from MISO for -- for the dispatch of those -- of those units in the Ameren generation fleet that -- that there is a netting effect that is intended to get to the point where Ameren's fleet is financially serving AmerenUE's retail customer load in -- in a similar fashion to what it would have been before the MISO market existed, generally speaking?

A I think financially, that's true.

Q Okay. And, again, we won't go down the road of trying to undo the nuts and bolt of that right now.

A Okay.

Q Okay. Now, in regard to off system sales, is there a financial distinction, if you know, regarding the off system sales of the AmerenUE generation fleet?

A I wouldn't know that, I guess. I'm not sure.

Q In effect, that -- that, again, would be something that we could talk to Mr. Schukar about and say --

A You could. Yeah.

Q Okay. Okay. Didn't did you say earlier that you were unfamiliar with the Joint Dispatch Agreement that

was in effect in '04 and '05 as well as some other years, but --

A I never read the agreement. I just knew what it meant and how we operated.

Q Okay. Well, did you describe how that operation took place earlier?

A I'm not -- I'm not sure if -- I guess you'd have to decide. I -- I may have tried. I'm not sure.

Q I don't remember the description very well. Could you -- could you do that now?

A Yeah. Basically, what you had was both the SIPS and the UE units were treated as one fleet. And so back before MISO, especially, we had a load forecast for the whole Ameren control area was SIPS and Ameren -- or UE.

And we served that load and whatever off system sales with a joint dispatch of the units. So whatever the economics were for the entire fleet was what decided what units we -- we dispatched and what order we dispatched them in.

So their coal units were mixed in with ours, and we would dispatch, you know, the Coffine and Newton units right along with the Labadie and Rush Island units before we brought on the more expensive units.

Q Okay. Were you familiar with the -- what the impact of the JDA was financially on AmerenUE in regard to

the -- to the use of AmerenUE's units to supply power to Illinois customers?

A I -- I think it's favorable, but I don't really have an idea of magnitude or anything like that.

Q Would it not have -- do you know whether it was the case that the units were provided to Illinois customers, the AmerenUE units, at incremental cost?

A That, I don't know.

Q Okay. And -- and you would, therefore, also not know whether or not the Illinois companies units were -- were available to AmerenUE customers at the same incremental cost?

A Right. It would be the same thing. I don't -- I don't know.

Q Okay. Now, when -- that JDA was in effect till when? Do you know?

A I think it was the end of 2005.

Q Was there a difference in what occurred in the dispatch of those units after the JDA expired, the AmerenUE units?

A Probably very little. And only because MISO was dispatching all the units based on their cost bid in anyway.

Q Okay.

A So I'm going to say my opinion would be they

probably didn't change that much.

Q In regard to the financial impact to AmerenUE, do you know whether there was a difference upon the expiration of the JDA as compared to when it was in effect?

A I probably should know, but I don't know.

Q Okay. So when you get around back -- back to Taum Sauk. When you get around to the dispatch of the Taum Sauk plant, that would have been controlled by MISO, correct? Or not, generally?

A It depends what you mean by control.

Q First --

A But MISO gave the first signal to dispatch the unit.

Q I'm assuming that it -- MISO been told that the unit is available?

A Correct.

Q Okay.

A Okay.

Q All right. So in regard to determining when that unit is going to be dispatched, what -- what is going to be the determining factor -- or factors by MISO about when in the day that unit will generate?

A They look at -- they know they have a limited resource. And I can't remember all the products that

would make them aware of that. That's something that goes into their model.

Q Okay,

A And what they're looking for is -- I don't know how the computer does it, but optimize best usage of that unit. It's in a cost category, like you said before. We're running CTGs on a fairly regular basis to cover --

Q Combustion turbines?

A Right. The combustion turbines. They were going to be more expensive than, say, at Taum Sauk. So there's going to be a window in any given day where you should be running Taum Sauk instead of those more expensive units.

Q And MISO's trying to dispatch the less expensive units earlier than the more expensive ones?

A Yes.

Q And so if the entire generation that's going at one particular point in time is including combustion turbines, you would expect Taum Sauk to be in the equation to run --

A Right.

Q -- subject to the limitations of when -- how much water it has?

A That's right.

Q So --

A And they're going to try to put it in the higher load hours of the day for MISO, which are usually the higher market hours, but --

Q Now, what -- what assures Ameren that MISO is going to dispatch that unit when it is going to make the most profit for Ameren during the day? How -- how does that occur? Do you know?

A I don't know that there's actually an assurance of that. It's the understanding of how the market works that that will take place. Yeah. I think it --

Q Let's think about this for a minute because I think it -- I think it will work this way, but I want to make sure I'm correct. We know that the -- during the hours of the day -- of the daytime, generally, you're going to see some -- some variation in the real-time price of the MISO market, correct?

A Right.

Q Now, you, as -- as Ameren, if you're -- if you're talking from Ameren's perspective, you want to try to have that unit dispatched during -- during a window because you're only going to have a window. You can't run it all day.

A Right.

Q You want it dispatched when that -- when that price at the Taum Sauk node is the highest during the day.

The highest portions of those prices make the most profit, correct?

A Right.

Q So how do you know that that is likely to be the -- the time when MISO will -- will dispatch that unit? What is it about the way the equation works with MISO that produces that result, if that's the -- indeed, the case?

A It did seem to work that -- it works very well that way. I'm not sure that I understand how the model does that.

Q Okay.

A But even with the CTG runs -- combustion turbine runs now, it's in the highest hours, typically. So the model works. I'm not sure that I know how it works.

Q So you are you're telling me you don't know -- you can't explain how it works. But from your observation, that was the result?

A Yes. And when it wasn't -- I guess I can clarify a little bit.

Q Sure.

A Sometimes the day ahead model doesn't reflect what we see in real-time all that well. So the highest hours you thought you'd see aren't -- don't actually materialize or they shift. We have the ability to run the unit in different hours and capture that, deviate from the

day ahead award because it's just a financial thing.

So there are things you can do. MISO's not always dead on. But it did seem to place it in the best hours when you looked at the -- the price curve.

Q Well, was the scheduling for the dispatch of the unit from MISO's perspective done on day ahead or on the day of?

A I'm sorry. What -- could you ask me that again?

Q The scheduling for the dispatch of the unit, the Taum Sauk unit, it was done on the day ahead or the day of? Do you know?

A Both, really. When we hit the day ahead award, we intend to dispatch it as the day ahead award shows.

Q All right.

A But in real-time, if the prices say something different is occurring --

Q Yes.

A -- then it's the Power Supply supervisor or the real-time trader, and the power dispatcher will make decisions on the fly in real-time to try and capture the better -- the better market.

Q Do you know how that communication on that adjustment works between Ameren and MISO?

A I don't know that I really know how the settlement part of it works. I know that in real-time

basically they're communicating, the Power Supply supervisors are communicating to MISO that we intend to do something different than the day ahead award. So they're aware of it.

And -- but as far as now that -- you know, how the settlement process -- I'm not sure if I know the implications.

Q Okay. And, again, who -- who would know the answers to those questions?

A I know Shawn would know.

Q Okay.

A There's probably others on our trade floor that would, too, but I know Shawn can answer those questions.

Q That's good. Now -- so the unit -- the unit gets dispatched. And during the time frame that it's dispatched, will it then -- will Ameren be paid for the market clearing the price during the time frame that it is dispatched? Is that your understanding?

A Yes.

COMMISSIONER GAW: Colly, would you mind handing him -- maybe you better mark these. There's just two. And I may --

JUDGE DALE: So this will be 38.

COMMISSIONER GAW: Whatever you think. Which one's 38? Is it the one that says 12/14 or the 30th of

April?

JUDGE DALE: Let's do 12/14 as 38. And the other one is 39.

COMMISSIONER GAW: Okay.

JUDGE DALE: Give me a set for the court reporter.

COMMISSIONER GAW: Yeah. Extras.

JUDGE DALE: Would you hand that to the witness? Here's another set.

(Exhibit Nos. 38 and 39 were marked for identification.)

JUDGE DALE: I have marked those as Exhibits 38 and 39. 38 is the one that has the handwritten date.

Q (By Commissioner Gaw) Okay. Now, Mr. Schoolcraft, let's take a look at -- oh, why don't we look at 39 first? Now, if -- have you seen anything like this before that you're looking at on 39?

A Yes.

Q Does it appear to be -- and I'm going to represent to you that -- that this is information that was pulled off of the MISO web site and cut and pasted to this document so we could have just selected days. And 39 is -- is a random pick-up of, I think, sometime fairly close after the start of the MISO market -- if we -- if we could go back and double check that it did start in '05 -- as

you were talking about earlier.

A Yeah. I think --

Q But it's just random. So there isn't anything significant to this. But if you'll look at -- if you look at that, does it appear to be similar to what you've seen on the MISO web site --

A Yes.

Q -- as far as the way it's formatted?

A Yes.

Q In fact, if we go to the historical data on the MISO web site, we could pull off information in regard to the -- the real-time and day ahead prices at all of the nodes --

A Yeah.

Q -- within MISO, correct?

A I believe that's right. I don't know how much the history goes back, but yes.

Q The -- the Ameren -- it says there -- under the node, it says AMRNTS1 general node. What does that mean?

A That's Ameren Taum Sauk Unit 1.

Q Okay. And right below that, it has TS2 under Ameren, right?

A Right.

Q That's the second unit?

A Correct.

Q And kind of what I wanted you to do with this is -- is to give me some perspective -- now, as I look across here on the first line on April -- this is April 30th of 2005. Did you see that?

A Uh-huh. Yes.

Q Assuming that that -- this is accurate in regard to those prices, there is not a lot of fluctuation there between the hours of the day and pricing. Would you agree with me?

A Not as much as some other days. That's true.

Q Yeah. And -- and part of what I want to do here is to gauge about -- the decisions that might be made to the extent that you know in regard to this -- when the prices are this close. Now, it says HE1 there. Do you see that?

A Yes.

Q What does that mean to you?

A It stands for Hour Ending 1.

Q Okay. And that's eastern -- eastern time, correct?

A It -- yes, it is. You're right.

Q So it's -- it's -- actually, then, it would be ending at midnight central. Would that be right?

A I think that's right. We -- parts of the year, we line up with their time and parts. We don't as far as

MISO's time.

Q You're talking about that strange Indiana court case?

A I'm trying to remember why that happens. But I think what you're saying generally is right. I think that's --

Q Okay. And this is a -- this is a standard -- eastern standard time. So if it's eastern standard time during the summertime, then it --

A Yes.

Q -- can cause an issue in regard to daylight savings time. And sometimes we line up in the summertime?

A Right.

Q And so the hours are exactly the same since they don't have --

A Right.

Q In parts of Indiana, they don't have savings time?

A Right.

Q Or something like that?

A Something like that.

Q So I don't know how -- that it's very important, just for the sake of explanation. So as you move along there, you've got some -- you've got some prices. First of all, $22. What does that represent?

A $22 a megawatt is the clearing price.

Q Okay. And as you move across there, it looks like as you move into Hour 9, you're getting up into the, what, $56.75 range?

A Uh-huh.

Q Okay. And that, again, would be the clearing price on the day ahead?

A Right.

Q Now, with this kind of dynamic, you're looking at a little more than double in the price between -- between the nighttime hour and -- and a higher price in the middle of the day. Do you know what spread is required in order for Taum Sauk to make a profit in -- in the -- in measuring the nighttime price and the daytime price?

A I don't know exactly. I would -- I would think typically it's got to be at least one and a half times the -- the -- or the smaller price.

Q Okay. So in looking at this across this line here, would you anticipate that -- that the Taum Sauk unit would have been bid in on a day like this, just generally speaking? Because I'm not going to -- I'm not going to go back and look at this point. I don't have that information.

A Yes. When I see the prices rise that strong in

the morning -- it's not real strong, but strong enough to probably bring some of the peaking units on across the system.

Q Okay. Now, when you're determining what that incremental price is to bid this unit in -- this is -- this is where I'm not clear. How do you make that determination of what price to bid the unit in?

A I actually don't know how they did that with Taum Sauk because I wasn't directly involved in it.

Q Would Mr. Schukar now that?

A I think he would. He wasn't directly involved in it either, but he might be able to tell you.

Q Okay. Because you have to base it on the anticipation of what it's going to cost you on the anticipation of course to pump it back up, which is variable --

A That's right.

Q -- correct? It makes it a little more complex.

A You can be wrong if the prices come in weaker than you thought. You're right.

Q Okay. So -- and this -- but this -- this price differential is not as significant as, say -- let's go down to July, which is also on that sheet, 28th, I think.

A Yeah.

Q Now, let's look first -- and part of the problem

I'm going to have here is understanding -- and I don't know if you can tell me or not. When I've got a day ahead market L&P that's dated 7/28 and a real-time market that's dated 7/28, am I talking about the same day there or two different days?

A I'm not sure either, but think you're talking about the same day.

Q Okay. At some point, if we have a break and you have any opportunity to clarify that, I -- I wish you would --

A Okay.

Q -- because I'm just after accuracy here because it would help me if we can -- if we can compare these two things a little.

A I actually haven't looked on the MISO site and got other printouts and things, and I don't know if I'm looking at -- you know, I'm not sure on that one.

Q If you have an opportunity to figure it out over the noon hour -- if we're going to have a noon hour. So looking across there, let's -- let's look at those prices. Now, you're -- power 12378, right, do you see that?

A Uh-huh. Yes.

Q I look down -- down toward later in the day. Do you see a high -- it looks like a high price is in Hour 16?

A Yes.

Q That's 80.74, right?

A Right.

Q Okay. Now, in the day ahead market, that -- that's a more significant differential than what you saw earlier, correct?

A Correct.

Q The profit margin there for -- for running Taum Sauk looks to be better than it did in that day in April that we looked at?

A Yeah. I'd agree.

Q Okay. Let bounce down to that real-time market. Now, again, we don't know this to be the case. But if we were to assume that the real-time market was for the same day that the day ahead was pertaining to --

A Okay.

Q Look at the variation and what we see in our 15 -- well, let's look at 16 so we're on the same power. What's that price on the -- on one? On --

A $125.61? Is that the one?

Q Yes. Okay. Now, first -- yes, that's right. Now, first of all, that's a big -- that is a significant difference from the real-time price in Hour 1, right?

A Right.

Q Which was 37.70?

A Right.

Q Okay. Now, in addition to that, if this was the same day, that's fairly -- that's significantly higher than the day ahead market L&P, correct?

A Right.

Q What would that mean financially to Ameren? Can you process that? Or is that something that we need to ask Mr. Schukar about?

A I can answer it in a general way that -- it probably doesn't mean we get much more profit out of Taum Sauk on that day.

Q Okay.

A Because we can't generate more -- the day ahead award probably would have been for full output of those hours. So you can't make any more.

Q Okay.

A Now, I probably would check that with Shawn, but that's the way I see it. If you had a unit that didn't get fully dispatched, you could take advantage of that by going ahead and dispatching it up yourself.

Q Okay. All right. Lock at 30 -- 38 with me for a moment. Now, first of all, I've got at the bottom of that page a 12/15 date, which, of course, we know 12/15/05, Taum Sauk was no longer available, correct?

A Correct.

Q That doesn't change the fact that we've still got prices at that node, right?

A That's right.

Q It's just that with Taum Sauk being unavailable, it's no longer relevant to Ameren what that price is or --

A That's true.

Q I guess that's -- that's fair --

A It's still a load node, but you're right. It doesn't have any real relevance if you can't generate.

Q So let's look back up and we'll deal with -- in the middle of the page, this -- there's 12/13/05. Those prices, then, are -- on that day, you can -- you can see some variation in what we saw before in regard to the high prices for the day, right?

A Right.

Q You see a higher price in our eight and nine, and then it dips back down again for a while. Do you see that?

A Yes.

Q And then it goes back up in our 18, 19 and jumps up to the highest price of the day, running one-forty-seven ninety-nine an hour in Hour 19?

A Right.

Q Okay. I don't know. Do you -- do you still have that --

COMMISSIONER GAW: I don't know what exhibit -- what exhibit was this?

JUDGE DALE: 34.

Q (By Commissioner Gaw) Do you still have 34 up there? Do you have it?

A Yes. Yes.

Q Can you tell which one of those columns is the 13th?

A If -- let me count over. But if the last one is the 15th, it looks like the third to the last one there would be the 13th.

Q I'm wondering if -- yeah. I think that's right, too. Now, on that day, does it appear that -- assuming this is an accurate representation, does it appear that the unit was dispatched twice during that day?

A It does.

Q And if -- if you -- we're making some pretty general assumptions here, and I understand that. We don't have this mapped out with the particular times. But does it -- does it look like that the dispatch of that unit sort of matches up with the two areas where the pricing was higher during that day?

A If I had to guess, I'd say it's pretty close.

Q Which is what you were explaining earlier that you would expect, right?

A Uh-huh. Yes.

Q So in effect, then, the MISO day ahead -- or the MISO marketplace and the dispatch of the unit are -- appear to be capitalizing and -- and assisting in ensuring that Taum Sauk is run at the times that are most economical?

A For the most part, I'd say that's right.

Q I guess we've got 12/14 on there, too. Is there anything about 12/14 there that -- that is different? I guess we could look at the fact that on 12/14 the dispatch appears to be similar to 12/13, right?

A Um --

Q On this --

A I would say it's pretty close. Yeah.

Q Yeah. We also have kind of a similar pattern, don't we, in regard to a at least the day ahead market in that Hour 8 and 9 had higher prices and then a dip and then back up to higher prices in 18 and 19?

A Yes.

Q Now, this is December 14th. We're in the winter, correct?

A Right.

Q I don't have temperatures for that day here, which we could find. But is this load pattern unusual for that time of year?

A It looks pretty typical to me.

Q Yeah. And that -- can you give me some ideas about why that might be -- that there would be in Hour 8 that sort of a surge expected and then again in the evening hours?

A If it's cold weather, you'll see the morning pick up with the businesses, lights coming on, businesses coming up, things like that. And you've still got a pretty good heat load there.

And then it will fall off during the day as the temperature warms up outside, gets nicer. In the evening, you'll see the sun go down, lights come on, heat load come up again. So that pretty much explains your two peaks.

Q Okay. Now, again, we were talking about this -- this -- generally, this information. It is available on -- to -- to the public, correct?

A I believe that's right. Yeah.

Q And it's available off of MISO's website?

A Correct.

Q So all of the information in regard to the historical day ahead and real-time prices are -- we could get on the Internet and go back and track that even now if we wanted to?

A That's correct.

Q And to your knowledge, is that information on

that website accurate?

A As far as I know. Yes.

COMMISSIONER GAW: Okay. Judge, this is probably a good breaking point if you want.

JUDGE DALE: Before we do that, do you -- shall I admit these into evidence? Is there any objection to admitting these into evidence?

MS. PAKE: No objection.

JUDGE DALE: Thank you. Then 38 and 39 are admitted.

(Exhibit Nos. 38 and 39 were offered and admitted into evidence.)

COMMISSIONER GAW: Thank you.

JUDGE DALE: And let's come back at 1:30.

(Lunch recess.)

JUDGE DALE: Okay. We're back on the record.

Q (By Commissioner Gaw) Mr. Schoolcraft, we may get back to some of those other questions that we were talking about earlier. But I want to get to a new -- new section right now.

First of all, in '04 and '05, can you describe for me any training that might have been held that you would have participated in, if there was any, regarding -- regarding decisions about safety versus -- in -- in outage selection? Do you know if there was any given?

A I can't remember any training like that.

Q Okay. And do you know whether or not -- I think you touched on this already, whether or not there were any written guidelines in regard to scheduling outages for plants during that time frame?

A We had a coord -- an outage coordination procedure that described how we do business at our end at the plant's end, how we -- how we communicate.

Q Okay. Is that -- is that something that is still current? Do you still have that?

A There is a procedure that still exists probably -- it's needing another revision based on where we are in the -- with some of the -- the tools we described, the computer tools that we use. But, yeah, there is a procedure that describes the process.

Q Okay Is that a -- is that procedure entitled something?

A Yeah. And I don't -- I'm not sure what the title is right now.

Q Okay. And today, do you have any training on that process?

A No training. No.

Q Okay. Is there anything that ensures that people read that written protocol?

A I'm not aware of -- like a sign-off sheet or

something like that?

Q Yes. Uh-huh.

A I don't think we did that. I'm not sure, though.

Q Okay. Do you know how -- how long that document is?

A I'm going to guess that it's somewhere in the order of 15 or 20 pages.

COMMISSIONER GAW: Okay. Is -- is that something that -- that Staff or -- has received?

MR. BYRNE: I don't think they asked for it or received it.

COMMISSIONER GAW: Okay. Is that something that could be provided?

MR. BYRNE: Yes, your Honor.

Q (By Commissioner Gaw) Do you know what -- do you know whether or not in that -- in that document it describes anything about communication regarding outages for safety purposes?

A I'm -- I'm pretty sure that it does have some sections that pertain to that.

Q Okay. Now, if -- I think earlier you were discussing the -- the communication that you had with Mr. Bluemner regarding scheduling an outage in the fall or -- or the winter of '05, correct?

A There was at least a couple of phone calls, yes.
Q Okay. And stepping back away from those specific conversations, was it appropriate procedure on scheduling an outage for Mr. Bluemner, in his position, to have called you rather than someone who was directly at the plant?
A I would think -- I can't remember how the procedure covers that. But, generally, it would be somebody from the plant, normally.
Q Okay. Was there -- was there any procedure that -- that mandated that it be somebody from the plant when you're dealing with schedule outages, if you know?
A I don't think so.
Q Okay. And was it unusual for you to receive a call from someone in Mr. Bluemner's position about scheduling an outage?
A It was unusual. Yes.
Q Okay. Unheard of?
A I'm not sure I'd go that far. Under the circumstances, I think it -- with Taum Sauk's staffing and things, it's probably reasonable. And I think we would have confirmed whatever -- whatever arrangements we made, we would have confirmed with the plant to make sure that they were in agreement with what we were planning to do.
Q Okay. Do you know how many conversations you

had with Mr. Bluemner in the -- in that time period in the fall of '05 about scheduling an outage?

A I can't be sure. All I can remember is one or two times.

Q Okay. If Mr. Bluemner had had conversations with others in your office, would it have been -- would it have been normal for you to have been told about those conversations?

A It's -- it's possible that I wouldn't know about those conversations.

Q Okay. Do you recall being told about any additional conversations?

A No.

Q Do you recall having called Mr. Bluemner or anyone else with Ameren, particularly affiliated with the plant, but not limited to that, about scheduling and outage for the purpose of making some of the repairs on the plant, including the transducers?

A I don't remember making the calls myself. I -- like I said, I took the calls, call or calls from Steve. But I didn't do any calls myself.

Q Okay. Well, it appears -- and we need probably to verify this. But it appears that, indeed, the plant did not run every day in November.

A That's possible.

Q And -- and I -- my specific question then, is, did you make any phone calls in anticipation of the plant not running to see about scheduling the repair work during those times when the plant was not being utilized?

A I don't remember making any of those calls. I think we were expecting the plant to let us know when they had everything in place to do it and then to make another call to us.

Q Well, was it your impression that the plant did not have everything ready to go in regard to making the repairs on the transducers?

A I think they had all the pieces. But one of the key pieces was having the diver contractor available. And I think that was the -- the part that was hard to coordinate with our economic end of the -- of the outage.

So that's a little bit of speculation. But I think that's the case, that when he had the diver, he had everything he needed to do the job, and I don't know when the diver was actually available.

Q Well, we've got a little bit of a -- of a chicken and an egg thing going on here, perhaps, don't we? I mean, if they call -- called your offices and said, We want to schedule this outage, without having a -- a specific date from you on doing that, it would be difficult, wouldn't it, to schedule a diver?

A I think what -- I -- from what I remember, we gave them a window of opportunity that would be a good time to do it and never heard back as far as whether the diver could be arranged for that date or not.

Q Do you know what the -- what the date was that you gave them?

A I'm going to say that -- I think Steve was calling sometime on or about the 27th of October. So it would have been the following weekend.

Q And did -- are you -- is your testimony that you remember telling him that, We are -- we will schedule an outage for that weekend for these repairs?

A We -- we offered that as a -- as a window that they could schedule in, yes.

Q And what was his response to that?

A That he'd have to check on the diver's availability and get back with us.

Q And did you have any further communication with him in that regard?

A Not that I can recall.

Q Now, I -- I think you've addressed this, but I want to make sure I'm following you. There was -- there was testimony the other day from -- from Mr. Bluemner indicating that he had called you several days in a row, or you or your offices, trying to get a -- an outage

scheduled and that, as I recall, he could not get a -- a scheduled time do so.

Is it -- is it your testimony, if that's accurate -- is it your testimony that that did not occur or that you do not recall whether it did?

A I -- I'd have to say I don't recall if he called that many times in a row or that I wouldn't even know if he spoke to me or somebody else, I guess, so -- it's possible that he made calls, but I don't remember getting that many calls.

Q Okay. To the extent that you can do so, would you tell me what specifically you recall about the communication you -- or communications you received from Mr. Bluemner about scheduling an outage?

A I -- I was aware from the conversation that they needed to make repairs to the level gauge tubes and they had the parts available to do the repair now.

They needed to coordinate it with dispatch to have the level -- to have an opportunity where the level was at the -- the place they needed it to get the divers in to do the repair.

And of course, then they needed the diver available. So all those things needed to come together. And as far as communicating anything about any urgency or safety concerns, there was no discussion of that sort.

Q Okay. Now, do you have any understanding about the -- the -- the role that the transducers play in regard to understanding what the level of the reservoir is?

A I -- some. I mean, I understand that the level controls the -- the primary level controls worked off of the level tubes, that system, and that there was a -- a back-up emergency trip system that was a separate system.

Q Okay. But from the standpoint of -- did you understand that at that time in -- in the fall of '05?

A I think I knew that much, yes.

Q Okay. And do you know -- did you have information in the St. Louis office that displayed to you what the -- what the water level was in the -- in Taum Sauk?

A Yes.

Q Describe that for me, would you?

A What I saw was -- we actually have a -- a plasma screen up behind the -- the row of desks that had those numbers up on it for Taum Sauk for the -- for the level.

Q Okay. What -- what does that look like? Is it just -- is it just digital?

A Distal display. Yeah.

Q And does it say certain -- a certain number on it?

A Yeah. It will say like 1595.1 or whatever the

level is.

Q Okay. And do you know where that number was coming from? What was generating that number?

A Not really. I know it's coming from their level, you know, their level control system, but I don't know exactly what instrument sends us that signal.

Q Well, you already said that you knew that the -- the level sensing instruments were the transducers, correct?

A I -- I'll say I -- I was pretty sure that that's the way it worked.

Q Okay. And -- and you knew that there was a problem with those transducers after you had been told that was the case by Mr. Bluemner; is that correct?

A I knew that there was a support problem. Yes.

Q Okay. And were you made aware of the -- of the fact that -- that there had been some adjustment to the reading within the software on those transducers?

A Yes.

Q Okay. And what was your understanding of that?

A The -- the only thing I knew was -- was from an e-mail that I think Rick Cooper might have sent that they looked -- they changed the set point by 2 feet to give sufficient margin for safe operation.

Q Was it your understanding that that change

actually lowered the level the water was coming to on the walls of the reservoir, or was it something different than that?

A Actually, I never really thought about that level versus what -- the indicated level versus the true level. That never -- I knew that they were operating at a safe level. I didn't know if it indicated the true level or not.

Q You knew they were operating at a safe level. How did you know that?

A Because the plant had no concerns about operating the plant. So I knew that they were -- they felt they were safe.

Q Did they -- did they tell you they were safe? Did they specifically say those words?

A No. They didn't tell us that they weren't safe.

Q Okay. But they did tell you they needed to schedule an outage to fix this measurement device, correct?

A Yes.

Q Okay. So when you get -- you get this information, then, that is based upon the -- that's on these screens, based upon these very transducers that are -- that have a problem with them, correct?

A Okay. Yeah.

Q All right. Now -- so -- so would it not stand to reason at that point in time that that number was in error that you were seeing on that screen?

A I guess it -- I guess it could be.

Q Well, you -- you know there was an adjustment that was made -- did you at that time know there was an adjustment that was made of about 2 feet to that -- to that reading, correct?

A True.

Q All right. And was there any indication given to you that there -- that there had been a verification that that was the right amount of change to reflect a safe operating level?

A No. We didn't have any discussions with them about that.

Q Okay. Now, I believe you might have testified earlier in regard to what your knowledge was about the impact of this adjustment on the generating capacity of the upper reservoir. Do you recall that?

A Yes. Yeah.

Q All right. And was it your understanding -- or do you know whether or not there was any impact on the amount of -- of generation capacity in the upper reservoir after that adjustment?

A Actually, I don't know that.

Q Okay. And who would know that?

A You'd almost have to do a study, in my opinion, to go back and look at all the history of the generation during that time.

The only real impact would be if you generated completely empty in the reservoir to where that top 2 feet would have mattered. And that may have happened or it may not have happened during that time period.

Q Well, let's assume that we're generating down at the same low level as we -- as we were before.

A As we were before what?

Q Before the -- before the adjustments were made to the -- to the figures in the software.

A Okay.

Q Okay? So if -- if we assume that that -- that's constant, if you assume that the level you're going down to is constant -- and it may not be a good assumption, but let's make that assumption.

A Okay.

Q Okay. And what I want to know is whether or not there would be someone who would be knowledgeable in St. Louis about the output change as a result of the change in the measurement on the -- on the upper level shut-offs in the transducers, if you're following. I -- I can --

A Probably somebody at the plant would be most

knowledgeable about the actual -- you're talking about the peak megawatts available -- that are being generated?

Q In essence, yes. I haven't got to that yet, but that's exactly what I'm asking. There would be -- let me -- let me ask it in a little different way.

I assume that there is somebody, as we've talked earlier today, that is -- is bidding in this unit at a certain capacity amount or energy amount maybe is a better way of saying it --

A Probably. Yeah.

Q -- that is saying, We've got this amount available --

A Right.

Q -- and bid that into as an overall part of the package that's being bid into the MISO market?

A Probably the way that the unit was bid into MISO, I don't know this for sure, was if we have so many hours of generation available --

Q Okay.

A -- to them, that 2 feet meant we had half an hour or an hour less of generation available, whatever that 2 feet comes out to.

Q Well, you're -- okay. Keep going.

A So they would have changed -- if they changed their bid at all, they would have changed it by that small

incremental amount that --

Q Okay. Who would have done that?

A That would have been done by the -- the day ahead trader and the Power Supply supervisor when they put their bids in.

Q Okay. And how would they have known to have done that?

A They would probably be basing their decision on what they see the indicated level. And so they're probably assuming that the level that they see is what the real level is.

So I don't know what -- I don't remember the circumstances, whether the indicated level was reading -- I assume it was reading 2 feet lower when it -- when the pump tripped off.

Q Okay. You can make that assumption.

A And in that case -- in that case, they know how much that 2 feet is available -- how much that means in generating time and could have adjusted their bid based on that.

Q Okay. Do you know whether or not that was done?

A I don't know that for sure.

Q And at the time that you saw those level indicators after the adjustment was made, was it your assumption that that had actually moved the water level

down, the capacity had actually been reduced?

A That's --

Q Was that your assumption?

A That's what I thought. Yes.

Q In fact, if -- if others were saying that -- that they believed that that was actually allowing the operating level to remain the same, would that surprise you?

A If they thought it remained exactly the same as it did before.

Q Approximately the same, that this was the intent?

A That would surprise me. Yes.

Q Did you ever have any discussions with anyone about that issue at the time --

A No, I did not.

Q -- in '05?

A I did not.

Q Okay. And who would it be that would know about -- you've already said what their titles would be in regard to who would know about whether they adjusted the -- the capacity in Taum Sauk on their bids. Who -- what would their names be, if you know?

A I'm trying to remember who it was in 2005. But I think -- the day ahead trader that was typically

involved with setting up the MISO bids would have been Brent Wattring (ph.).

Q Okay.

A And the Power Supply supervisor could have been any of those five. I only named four a while ago. But any of the five Power Supply supervisors who were on shift.

Q Okay. The information in regard to -- to the generation -- well, excuse me -- to the -- to the water levels, is -- was that screen shown in any other way besides just a number in your office?

A I believe there were other screens that we had on the -- on the small computer screens that have that same information.

Q And who would have had access to those?

A The Power Dispatcher, Power supervisor -- Power Supply supervisor, and I think maybe even the real-time trader may have that screen, also.

Q Okay. And what would have been the purpose for them having that information in their varying positions?

A Information. I mean, they need to know where we are in the generation or the pump cycle at any given time.

Q Okay. Because, in essence, at least some of them are -- are controlling that -- as a part of a link in several chain links here, controlling the dispatch of that

unit?

A Yes. I mean, they do receive -- could receive alarms on this same terminal that would be information about the issues going on at the plant.

But the main reason is economic decisions. They need to know how far they're pumped up or how far they're generated down to know what's left and make decisions on when to shut off the pump or shut off generation.

Q Okay. And is that data kept historically?

A As far as all the -- which -- which data do you mean?

Q The information that you would see on the screen at any instant, is it recorded and kept in storage data files?

A I think so. I think it's all still available.

Q Okay. Is that something that you, in your position, take -- are -- are taking in and are paying attention to?

A Not -- not in on a real close basis, no.

Q Okay. Did anyone ask you if you'd actually been down to Taum Sauk?

A I think they did. I have been down to the plant.

Q Was that prior to the breach?

A Yes.

Q And subsequently as well? Or no?
A I have not been down since the breach.
Q And -- and how many times did you visit Taum Sauk, would you say, before the breach?
A At least three times.
Q Okay. Do you recall when?
A There was -- I don't remember the dates or anything, but there -- they did have an outage of the plant to install the liner, and we had the reservoir drained. And I was down at that time.
Q What was the purpose of your visit then?
A Just to tour the plant.
Q The other visits, what were they -- when were they and what were they about? Do you recall?
A I think they were just other -- other times we toured the plant. I remember one other time for sure. So there was at least twice. There might have been three times I was down there over the years.
Q Okay. Was -- was actually seeing that plant of any value to you in regard to the position that you have?
A I think so.
Q Tell me how.
A I got to see firsthand the scope -- and size of the project they were doing, like the liner installation, some of the other work inside the plant that they were

doing. But that was -- the real reason was to see the reservoir drained gave you an idea how it was constructed and things like that.

Q Okay. Are -- are you aware of whether or not there was a change in the operating level between the time before the installation of the liner and the time afterwards?

A I don't recall any change.

Q Again, if there had been a change in the amount of -- of capacity of the reservoir, there would be some record of that somewhere, would there not?

A Of the -- I would think so. Yes. I'm not sure -- I don't remember anything like that. But I would think there would be some record of it, yes.

Q Okay. If the reservoir were 1 foot higher in standard operation after the -- the placement of the liner than it was prior to it, would that, if all other things were equal, have resulted in -- in an additional generation capacity for that site?

A I think it would. Yeah.

Q Okay. When did you say that -- I believe it's Tim Lafser --

A Yes.

Q -- left to go to Meramac, is it?

A He did go to Meramac. And I think he went -- it

was at the beginning of post -- of 2007, I think sometime.

Q Okay.

A Or late 2006. I'm not sure.

Q All right. The protocols that you were describing to me earlier that are -- that are written, would it be fair to say that they included protocols on the maintenance of generation units?

A I forgot. When you say protocols, what do you mean.

Q Earlier, you were describing certain protocols in regard to scheduling outages, I believe. Am I right about that?

A Okay. Yeah. Okay. I see what you're saying. And the question is --

Q Do -- would they -- would that set of protocols include instructions or rules regarding the maintenance of generation units in general?

A I don't think -- I would say no.

Q Okay. Do you know if there are written protocols in -- in Ameren in regard to -- to scheduling maintenance and doing maintenance on units, generation units?

A I would say yes, there are.

Q Okay. Have you read any of those?

A No. I don't -- I have not.

Q Okay. Do you know that there are, or do you believe that there should be?

A I haven't seen them myself, but I'm fairly certain there are.

Q Okay. Do you know who actually has the authority to implement protocols regarding the scheduling of outages for units?

A Are you saying -- I'm not sure if I know what the question is again.

Q I understand. I'm asking you about if -- you said there was -- there was a set of written protocols --

A Okay.

Q -- for -- for outages, right, scheduling outages?

A Right.

Q Who has the authority to -- to adopt those, for instance, so if they're going to be changed or -- whose -- whose authority is that?

A The rules that would -- or the policies that govern how the plant does maintenance would be power ops procedures. And probably -- probably the best person to ask would be Mark Birk when you get him later on.

Q He appreciates that very much.

A I'm sure he does.

Q All right.

A The part that we're involved in is, of course, the coordination of the outages they determine they need with dispatch. So that's where we come in.

Q When you were receiving this -- these communications, however many there were, from Mr. Bluemner about scheduling the outage, did you -- did you make the call to the other -- to the other side as you just described it?

A To the plant or --

Q No. You got a call from Mr. Bluemner, right --

A Okay.

Q -- who was acting on behalf of the plant, it appears?

A I did. Yes. Okay.

Q And who did you call?

A I don't have to call anybody at that time point.

Q Okay.

A We had a discussion about what he needed to have done and what it took to get that done. And from our end, the input was what we would see as the economic windows to do the work in. And that was the end of the discussions.

Q So you never did actually complete the other side of the communication that you just described --

A No.

Q -- right?

A There was never any real record because we didn't come to any agreement on when the schedule would be done.

Q At what point would you have called the other side in the normal circumstances?

A I think, in this case, because Steve wasn't a plant employee, had we agreed on a schedule that we needed to do, I would have checked on the plant then with a phone call to make sure that they were -- they agree that this is work that -- they understand that they -- they know what's going on because it's -- you know, to make sure it had been coordinated with the plant.

Q Okay. Now, as we speak today, is there a different protocol in regarding to handling a unit like Taum Sauk?

A From our end, nothing's changed. But as far as the plant's end, I'm not sure.

Q Okay. So in other words, at least today, if the same circumstance had occurred, you would handle it exactly the same?

A I think we would. Yeah.

Q Are you aware of any new unit that has been created regarding dams and hydro plants within Ameren?

A I can't think of any. Hydro plant?

Q Yes.

A No.

Q And in particular, related to safety.

A Oh. Oh, I see what you're saying. The -- the dam, yes.

Q Okay. Tell me about that.

A I don't know a lot about it. But I know that since Taum Sauk, the Dam Safety Group was formed, and there's -- it's been staffed. And as far as what their responsibilities are or, you know, in coordination with other groups are, I'm not sure. I haven't had any direct communication with them myself.

Q Okay. Do you know whether or not -- have you received any writings or any communication that indicates to you what their authority is as it relates to your operations?

A No, I haven't.

Q Okay. In -- in 2005, was there any requirement to record communications that you received from the plant regarding outages?

A No requirement that I'm aware of.

Q Was there a practice?

A There was a practice, yes.

Q Tell me about that.

A Well, typically, a number of our phone lines in the office are recorded phone lines.

Q Okay. So would there be -- normally, when you receive calls from the plants, would those calls be recorded?

A The majority of those calls would be recorded, I think.

Q And are they kept?

A I'm not sure about that.

Q Who -- who would know that?

A I -- I guess you could ask Shawn again. I don't know.

COMMISSIONER GAW: You got off on this one, Mark.

MR. BIRK: You can ask me, too.

A You can ask Mark. He may know.

Q (By Commissioner Gaw) Yeah. Yeah. So -- so is that still the case today?

A What? That we still have recorded lines?

Q Yes.

A Yes.

Q Okay. Would it be possible that there would have been, then, a recording of any calls that you received during '05 from Mr. Bluemner?

A There could have been, yes.

Q Okay. Now -- and I understand that you testified to earlier, but in regard to the ability of a

plant manager or superintendent to -- to say, We are unavailable, right, what I want to know is, when -- when you get into the areas that -- that -- that are in between that and -- and the scheduling of an outage for -- for reasons that involve a myriad of different --

Now, have you ever -- do you recall having any conversations, not limited to Taum Sauk, in your -- in the past in your position where plant personnel has called or someone on their behalf and suggested to you an issue that had some safety components in it in regards to scheduling an outage?

A I can't think of an example of that right now.

Q Okay. If someone were to call you as a plant manager and told you, We've got X, Y, Z going on and within X, Y and Z, you heard something that indicated to you that this -- this could be kind of a questionable case if things would go wrong where there's a safety question would you -- would you, first of all, are there any instructions to you that you're aware of as far as -- as far as company policy is concerned, written or otherwise, that would require you to act in a certain way if you knew that -- if you found and believed there to be some safety element to that call?

A I don't know of any written instruction to me or -- that would tell me that I have a responsibility to --

to dig into that to find out what the safety issues are. We do have those discussions regularly where if -- to clarify whether there is a safety issue, sometimes we have exchange of -- quite an exchange of information with the plants to determine if that's the case or -- or not.

Q Okay. Tell me about that, just generally speaking. What -- what -- give me some idea of how that develops and -- and what normally would occur.

A If -- probably a good example would be -- I don't know if there's any one good example. But a common issue that would cause a unit to need an outage, say, on the coal units may be a boiler tube leak.

Q Yes.

A We can -- some tube leaks are fairly minor and not likely to cause any kind of a safety issue and you could run a unit for a good period of time with a leak.

Others aren't that kind. They might quickly degrade or be in an area where it might be dangerous if they decided -- if they got worse.

So we'll have a discussion about the nature of the leak and those types of things to determine whether it's something that is a safety issue and needs to come offline, a particular schedule to -- to satisfy the plant or if it's not that kind of a leak.

Q Okay.

A So we do have those discussions about things that are going on at the plants. But like you said, it's really the plant's responsibility to relate that there is a safety issue first or to -- to suggest that there is --

Q Okay.

A -- before that discussion really takes place.

Q Okay. But if they suggested that this has a safety component in it, then there would be a dialogue?

A Yes.

Q Who gets involved in that dialogue when that occurs?

A It can be -- it can be just limited to myself. It can go on up through our chain and their chain. There have been some plant manager to -- you know, manager on our floor or Vice President level type discussions.

You know, even sometimes we've had the -- Mark called and -- on behalf of the plant and discussed some of the ramifications.

Q Okay.

A That could be any level, from my level on up.

Q Okay. And in that discussion, what kind of factors -- and I'm speaking very generally here. I know this --

A Right.

Q -- this could be done on a more specific basis.

But what kinds of factors go into that discussion and decision-making?

A As far as the decision-making, all we're trying to do from the trading end is find out if there is a safety aspect to it and what that means as far as the scheduling goes.

Do we have to take a unit off immediately? Do we need to reduce load on the unit? Do we need to schedule it by tonight? Do we need to schedule by the weekend? That's all the plant's call on how long you can operate with a particular plant issue going on.

Q Well, let's say that -- that the conversation revolves around, We know we've got this issue in regard to -- what did you say earlier?

A Boiler tube leak.

Q With a tube leak. And they say, you know, it's one of those things, it's hard for us to tell how long this is going to last. We -- we think it could last six months.

But then, on the other hand -- and I'm -- you can give me a better example. Feel free. But on the other hand, it may not last very long, but we were trying to figure out how to balance all these things together.

What happens in that event in regard to the dialogue as you know the normal process to be?

A What would be a typical discussion might be, what would be the consequences if -- if the tube leak does get worse? And are we talking personnel safety? Are we talking extensive boiler damage? What kinds of things could be the consequences?

Q Okay.

A Could it turn a -- what would be a fairly short outage into a longer outage if we try to run with this thing?

Q Right.

A Those are the kind of things that you would look at to properly look at safety and -- when safety's not an issue, economics.

Q Well, would it -- would -- okay. Now, I need you to work this through with me because, first of all, is there anybody on your side of the equation and up the hierarchy from you that their job is safety?

A No.

Q Okay. But they're in the discussion, correct --

A What --

Q -- in some of these cases that you're describing?

A Yeah. The trading group is involved in discussions. Yes. Not in the decision-making necessarily. As far as the safety issue goes, we are not

in the decision-making process.

Q Well, I understand. But we're talking about an area in these scenarios that may have some grayness to it?

A I don't see where that happens.

Q You don't?

A No, I don't.

Q Okay. Well, then tell me what this is that we were talking about a while ago with this leak that you were describing.

A Boiler tube leak? Well, what you've got is a steam leak inside the boiler.

Q Okay.

A If it's contained or not, that's the question. You know, we have to clarify all those things.

Q Okay.

A In the end, the -- the decision on whether there's a safety issue not is solely made at the plant.

Q Then help me to understand why your branch is involved in that discussion. What do you add to that discussion?

A What we would need to know in a case where this is a safety issue like, say, a change in plant dispatch or taking the plant offline or something that's going to occur, we have to know that, too, so we can bid the unit into the market.

Q Would be that be a question of them informing you, Hey, we're going to take this out on X date? Why do they need to talk to you about anything other than telling you that? What is the purpose of that discussion?

A I guess the question would be what discussion -- I mean, we -- usually, the plant already knows what they need to do with the unit as far as whether there's a safety issue or not. So I guess --

Q Then why would there have to be supervisors upstream from you that sometimes get involved in the discussion that you testified to earlier?

A Usually, what that would be -- would involve is -- it's not a safety issue in that case, but it's probably more of an issue of if we run with this tube leak for several more days, maybe the outage turns into a three or four-day outage.

It's not an easy decision, but we'd like to make it to the weekend with the unit, then it may not be a simple decision that they want to make at my level. They may want to go higher up.

But as far as the safety issue, I'm going to stand on --

Q I understand.

A That's not --

Q I understand that. You've already said that

several times, so as have others. I'm trying to understand what -- what it is that the protocol is in regard to these things and how the discussions worked.

A Okay.

Q So we've established that there are occasions when issues that could become safety issues are discussed with both your side of the fence and the plant's side of the fence, right?

A Yes.

Q Okay. And sometimes those discussions have to get elevated to up -- up the chain, even a Vice President at some point?

A It has gone that way. Yes.

Q Okay. How often would you say those conversations are elevated to that extent?

A Maybe a couple of times a year.

Q Okay. Now, if there is -- who makes the final decision on -- on that kind of a case when there's -- when there's discussion going back and forth and there's disagreement? Who has the authority to make that final -- make that call on what date to select?

A The plant staff.

Q Okay. So if they say, Tomorrow, you're going to -- you're going to do it tomorrow?

A We -- that's right.

Q Okay. And -- but if -- if they say, you know, we're trying to work on this, it's -- it's floating around here, we think we might be able to go longer, then there's -- then that discussion can get more complicated?

A If you're talking about the level control tube issue --

Q Yes.

A -- our -- there was never that type of discussion with me or with -- with anybody in our office, I don't think.

Q Okay.

A And the impression that we had was the level tubes were secured adequately, that they weren't permanently tied down where they wanted them to be, but they were -- were temporarily secure.

Q Okay. Then who was advocating for a quicker -- in your scenario, who was advocating for a quicker outage? Your side or the other side?

A In the Taum Sauk case?

Q No. No. I'm not talking about Taum Sauk specifically.

A Okay.

Q The scenario where you said this has come up with this tube situation.

A I would probably say it would tend to be the

plant maybe wanting to take an outage sooner than we did.

Q Okay. Is there any -- is there any analogy here to -- to driving a vehicle on old tires?

A Not that I can see.

Q Well, the reason I'm asking you that is -- if -- if I'm driving an old car on -- an old car. I'm driving a car on older tires that are extending to sort of the limit of -- of the -- what you expect them to run, but I don't own the car, say, I call dad up and say, Dad, you know, I need some new tires, and these things are going to go out, but I don't have the money.

And dad says, well, you know, I need to wait till -- till next -- in about a month from now when I'll get my next paycheck. Is -- is that -- is that an analogy to what you might sometimes run into with these plants, questionable -- a question about how long do you push the envelope on these -- on these questions that can have safety implications to them?

A I -- I don't think so, no. I don't think when they're -- I think the thing that keeps getting thrown in there is when there's safety implications, I don't think they are pushing the envelope.

Q Some -- some -- he could make the decision, couldn't he, to just park the car instead of driving on those older tires? He could do that, couldn't he?

A Sure.

Q But if son -- son kind of needs to drive that car, and maybe he's got a night time job where he needs to get to work and that car is important to him because he -- he likes that extra money in his pocket, that can be -- that can be a reason for him to take a chance on driving on those older tires, can't it?

A I -- I guess if you're talking about a son, I -- I can agree with you. But if you're talking about Ameren's way of doing business, no, I don't.

Q I -- I understand. I'm just asking if that -- and I think you answered me.

A I don't think it -- I don't think that's the case.

Q You think it's the case with the son, though, right?

A It could be.

Q The son has some incentives, cross-incentives, doesn't he, in this scenario that I gave you?

A Sure.

Q You know, on one hand, he knows he's taking the chance taking that car out with those tires that are getting old, correct?

A Yeah.

Q He also knows that, financially, that money that

he likes from that nighttime job is going to suffer if he doesn't drive that car if that's his only means of transportation, correct?

A Okay.

Q All right. I'll let you out of that one for a while, Mr. Schoolcraft.

So in regard to these issues that you're describing, what written protocols exist, if any, that describe how the resolution of those kinds of issues should take place?

A I think the current procedure does describe -- and I'm not sure how -- how it's set up right now, but it does describe what to do in the case where there's safety implications. And that pretty much lays the burden on the plant to determine what the boundaries are we can operate within.

Q Okay. And -- and you think those were the same protocols that were in effect in '05, right?

A I think, in practice, that's what we've always done. And what was in the procedure, I'm not sure.

Q Okay. You're not sure when these procedures were adopted?

A I'm not, really.

Q Okay.

A There was a procedure in place in 2005, but it

has been revised since -- I don't know when the -- the -- there may have been additional steps put in to clarify what the safety -- how safety implications should be handled.

Q Okay. You don't have the original copy -- access to the original copy, do you?

A Not -- not right now, no.

Q Could you get it?

A I think so. I'm not sure where the original one is, but we should be able to find one.

Q Some -- someone could on behalf of Ameren?

A I certainly hope so. I think we can get that.

Q Now, do you -- are you familiar with the -- at this point in time with the information that Mr. Bluemner had in -- at the time he sent you -- he was trying to contact you about the outage at Taum Sauk?

A What information are you talking about?

Q Well, what do you -- what do you know now that he -- that he was aware of, if anything, in regard to the status of the plant?

A I know he -- I don't know that these are facts, but what I understand is that --

Q Your understanding is what I'm asking.

A -- is that he knew that there were broken supports on the level tubes and I believe had had -- had a

diver in to do some temporary repairs.

And in addition to that, I knew the plant was involved because I saw on an e-mail that Rick Cooper had done a set point adjustment to ensure that they had the level within the -- the allowable bounds.

And the other thing I knew was that Steve had been able to obtain the part that he needed to do a more permanent repair. And I was aware that he needed a particular level to have the divers come and do the -- the work. And other than that, I don't know anything else.

Q Okay. Now, how much of that information did you have when he made his contact with you in '05?

A I suppose, although we didn't discuss it all in that call, all that information was available if you piece it together.

Q Okay. To you?

A Yes.

Q Okay. Do you know -- you mentioned that you believed he had a diver go in and make some temporary repairs. Can you tell me a little more about that?

A That's really all I know.

Q Okay. Do you specifically remember him telling you that?

A No. I think that also was through an e-mail.

Q Okay. Do you recall whether he -- he told you

how long the outage needed to be in order to make the repairs?

A I don't really recall. I -- I'm not really sure what it was.

Q Did you have any -- did you -- did you have any assumptions or belief in regard to how long that outage needed to be?

A What I seem to remember, it was not that long, less than -- less than a day.

Q Less than a day?

A (Witness nods head.)

Q And I think your answer was yes? I'm sorry. You nodded your head.

A Yes.

Q I'm sorry. That's okay. It's just the court reporter needs to be able to see -- write it down.

I don't know if you corrected this or not or changed it in regard to this -- to the Highway Patrol report and what it attributes to you. There was some statement in there in regard to, I believe, your saying, It was out of our hands. Do you remember that?

A I recall that being in the Highway Patrol report.

Q Do you know what you were referring to? First of all, do you remember saying something to that effect?

A I think I partially -- that may be the statement I partially corrected at the beginning today.

Q It could be. I apologize for that.

A But what it was referring was in the event that the plan expresses they have a safety concern, then it's not a scheduling issue for us.

Q Okay. That's what you were talking about. And, again, I think you may have said earlier that in regard to any profitability of Taum Sauk specifically to -- to the company, that would not be information that you would have?

A That's right.

Q Okay. I've asked this of another witness, but I'll ask you, too. Does Taum Sauk have the ability to -- to be utilized for ancillary services?

A I'd say yes.

Q Do you know which ones?

A It for sure could be used for, I guess, what I call reserve sharing where we can provide energy on short notice.

Q All right --

A Quick start.

Q What some people call quick start?

A Yes. Thank you.

Q Regulation? Yes or no?

A I think not.
Q And spending reserves?
A It could provide spending reserves.
Q Is it used for that purpose, if you know, very often?
A It -- hadn't been. But the need for that is probably more now than it was due to some contracts that are out there. So it probably would have been used for that more if we had it in service right now.
Q Okay.
A In the future, I'm not sure.
Q Okay. I understand that. That would depend on your ability to -- to control the -- the water flow through the turbines, right?
A Right. I think -- I don't know if anybody has testified to that up to now. But we can operate and arrange from, I don't know the exact minimum, but 165 megawatts up to -- to the full 225 megawatts. So if you were operating at a lower level, you'd have some spending reserves available.
Q Okay. And you believe that -- that the ability to -- to -- to ramp up and -- on spending reserves is a capability that would meet the requirements of MISO that they have for generating units?
A I think so -- I'm not sure -- the ramp rate was

pretty quick, if I remember right, so I would say yes.

Q Okay. On the filling of Taum Sauk, was it -- was it pretty much done full-out except for the variation when you kicked one turbine on and then waited for the other one?

A On the -- when we're going to pump back?

Q Yeah. Excuse me. Yes.

A They did a different -- it was done different ways at different times. But typically -- are you saying did we fill it all the way or --

Q No. Speed. I'm asking about speed of fill.

A It was pretty consistent. I'm not sure what the actual time was. But normally, you reached a point in the evening where you wanted to double pump --

Q Okay.

A -- and take advantage of the cheapest hours of the night by doing that.

Q Okay.

A So I'm not sure if I know what answer you're looking for, but --

Q Well, I'm trying to -- I'm trying to understand -- it's a nuance, but whether or not you -- when you were -- you would always pump back as fast as possible or whether sometimes you would not be quite on full speed because of economic reasons.

A I'm probably not the best to answer that. But I think, normally, we pump back quickly over -- once we got into the lower market hours, we wanted to go pretty quick because you didn't know when that market might change.

Q Okay. And I think you said that normally you ran on efficiency mode when you were dispatching power, right?

A I think that was on normal mode, yes.

Q And that efficiency mode is designed to provide that a set amount of megawatts are being put out during the -- the time when the water is running through the turbines?

A That's my understanding. Yes.

Q Do you know what the other mode is called? Or what it does is fine if you know.

A What it -- I think what it did was it -- it just basically went full open on the unit and got as many megawatts out as you could get physically through the turbine.

Q Okay. The -- the efficiency mode, I would assume that the gates allowing water to go through would be narrower at the beginning and then gradually widen out to account for the change in the pressure as the water dropped?

A I think that's right. It's doing some

compensation there to keep the efficiency operation at the best efficiency point on the curve.

Q Okay. Were you involved at Taum Sauk before the generators were changed a few years ago?

A I don't recall being involved before that. I -- I don't know the exact time that -- that they changed them, but I think I was -- I came to that job after we had the new turbines.

Q Okay. But you did come into the job prior to the installation of the liner?

A Yes.

Q Describe for me what you would see in regard to water levels prior to that liner being installed in St. Louis?

A I think if you -- I really didn't see anything. But if you looked closely, as a trend, you could see a slight loss of level over a period of time. And I'm thinking it was inches per day or something like that.

Q Okay.

A But you'd have to look pretty close to see that.

Q Okay. You were aware that it was dropping some --

A Yes.

Q -- as you were holding the water?

A Yes.

Q That's probably not a good way of saying that. But in any event, that -- that leakage would reduce the capacity available to some degree, right?

A That's true.

Q Do you know how significant that loss was as far as energy was concerned?

A I actually don't. I know there was some calculation of that at some point before that liner project, but I don't remember what it -- what it was.

Q Okay. Have you provided all of the e-mails that you are received or sent in regard to Taum Sauk to -- to the Commission?

A Yes.

Q Do you know? Okay.

A I guess I should clarify. I don't -- I think the company provided them on my behalf, but I don't know of any that are missing.

Q Okay. You provided all that -- that you sent or received to the company, correct?

A Yes.

Q All right. To your knowledge, they provided it all?

A That's what I'm saying. Yeah.

Q Do you have any written documents or notes that you made or received other than those e-mails regarding

Taum Sauk?

A I don't have anything, no.

Q Okay. Did you testify to FERC or any of the consultants that were working with FERC or with Ameren such as with the Rizzo Consultants Group?

A The only testimony I had before was with the FERC panel that came in.

Q Independent panel of Consultants?

A Yes.

Q Okay. Did you get a copy or transcription of the testimony you provided to FERC?

A Yes.

Q Okay. Who did you receive that from?

A I think I received that just prior to this hearing from our company attorneys.

Q Oh, okay. All right.

A I never saw it before that.

Q Okay. When Mr. Bluemner was testifying the other day, he -- he described -- and this is my recollection. Assume my recollection is accurate, and we'll voluntary check it next after we get back to the fence row.

But he described a -- an incident involving a -- a different generation plant where they had difficulty convincing the plant management that the plant needed to

have an outage for safety reasons. Does that -- does that surprise you if that's true?

A If there were real safety issues, yes, that would surprise me.

Q Okay. Is there -- do you have any idea of, if it were true, why that would have been possible?

A I'm not even sure what -- you know, what the case was that he was talking about.

Q That's fair. I'm -- what I'm asking you about is whether you can think of any reason where a plant manager or -- or superintendent might not want to, if they're advised by an Ameren Services engineer that there's a safety issue, shut the plant down?

A I can't think of a reason why he'd want to do that.

Q Okay. And just to verify that I got -- I have this right, I believe you said earlier something to the effect that the -- that basic presumption or assumption is that it is safe to continue operating the plant unless you have been specifically told otherwise?

A I'd say that's true.

Q Okay. And is there, to your knowledge, anything in writing within Ameren that would verify that that's a policy?

A I'm trying to -- you're saying that the -- it's

-- we assume that it's safe unless told otherwise? I think there's a policy regarding who's responsible for safe operation of the plants in power operations, and it's pretty much the reverse of that. It lays the burden the plants to take -- take charge of those situations and put the plant in a safe condition.

Q Okay. But I'm talking about from your position, in your role.

A From my position, I don't know of anything in writing that says just that.

COMMISSIONER GAW: Okay. I think that's all I have. Thank you very much, sir.

JUDGE DALE: Ameren?

MS. PAKE: No questions, your Honor.

JUDGE DALE: Thank you. Mr. Schoolcraft, you're dismissed. But you're not finally released from this proceeding. You're subject to call-back.

MR. SCHOOLCRAFT: Okay. Thank you.

JUDGE DALE: Thank you.

MS. BRUEGGEMANN: The next witness to be called will be Mr. Mark Birk. And if I can have an exhibit premarked --

MS. HOUSE: Your Honor, if you wouldn't mind if we took just a couple minute break?

JUDGE DALE: You know, this would be a good

time.

MS. HOUSE: Thank you.

JUDGE DALE: I've already noted it. I'm not necessarily in tune with what's going on around me, so good for you for speaking up. I'm sure everyone's grateful.

(Break in proceedings.)

JUDGE DALE: Okay. We're back on the record and ready for our last witness, Mr. Birk. Please raise your right hand.

MARK BIRK,

being first duly sworn to testify the truth, the whole truth, and nothing but the truth, testified as follows:

DIRECT EXAMINATION

BY MS. BRUEGGEMANN:

JUDGE DALE: Thank you. You may inquire.

MS. BRUEGGEMANN: Thank you. And we probably need to clarify that this may not be the last witness in all of the hearings, just for today.

JUDGE DALE: Right, you are.

Q (By Ms. Brueggemann) Would you state your name for the record?

A My name is Mark Christopher Birk.

Q And who do you work for?

A I work for AmerenUE.

Q And how long have you worked for Ameren?

A I've worked for Ameren for 21 years.

Q And would you mind going through with us the positions that you've held in those 21 years?

A Yes. Basically, in 1986, I started as an electrical engineer working in the nuclear function. In 1989, I transferred down to the Meramac power plant as an electrical engineer.

Around 1996, I became the Power Supply Supervisor in the Energy Supply Operations Department, which did, basically, operation of the transmission system and dispatch of the units.

Around 2000, I became Manager of that department. In 2002, I became General Manager of Energy Delivery Technical Services. And later on, Vice President of that department.

And 2003, I became Vice President of -- of Ameren Energy Trading. And in September of 2004, I became Vice President of Power Operations.

Q Okay. And just because I didn't get the dates as quickly as I was writing, for the Vice President of Energy Technical Services?

A EDTS. Uh-huh.

Q When was that?

A That was, I believe, sometime in 2002.

Q And then right after that and before your current position was what?

A Vice President of -- of Ameren Energy.

Q And then September '04?

A I became Vice President of Power Operations.

Q And that is with AmerenUE?

A With AmerenUE. Correct.

Q Now, on your switch from VP of EDTS to Vice President of Ameren -- in Ameren Energy, how did that occur?

A Basically, when I was the -- the VP in -- of EDTS, Energy Delivery Technical Services, one of the organizations in EDTS was Energy Supply Operations that did a dispatch of the -- of the power plants.

We had some turnover in our trading organization, and I was asked if I would go over and lead the trading organization. They felt I had familiarity with -- with the plant dispatch and with how the system operated.

Q And what was your familiarity with the actual trading part of the organization?

A I was not familiar with that at all when I went over there.

Q Okay.

A Other than we interfaced with them.

Q So that was a learning experience?
A Yes, it was.
Q And that was in 2003?
A Yes, ma'am.
Q Okay. So then for at least a year, you learned about the ins and outs of trading, and then switched over to VP of Power Operations?
A That's correct.
Q Now, were you asked to move to Power Operations?
A Yes, I have.
Q And who asked that?
A Mr. Tom Voss asked me to do that when Chuck Naslund, who had the job before I did, moved out to assume his current position at Callaway.
Q Okay. Now, who took over your old position, then?
A I believe that was Mr. Shawn Schukar. Are you talking about at Ameren Energy?
Q Yes.
A Yes.
Q The most recent old position, I guess.
A Yes. Uh-huh.
Q Any idea how long Chuck Naslund had been VP of Power Operations?
A No, I do not recall.

Q Was it more than a couple of years?
A Yes. I believe it -- he had gotten the job sometime in the late '90s.
Q Now, as Vice President of Power Operations, what are your duties in that position as you could summarize them?
A Basically, I helped develop and set the strategic direction for the fossil plants, hydro plants and -- and their regulated combustion turbines. I am not involved with -- with what happens at Callaway.
Q That's a different area?
A Correct. That's -- correct.
Q Now, throughout the hearing so far, have you been the Ameren designated representative of the corporation?
A That is correct.
Q Okay. So you've been present for the majority of the testimony?
A I have been present for the majority of the testimony, yes.
Q Were you here last night for Mr. Witt's testimony?
A I was not. But I did watch part of it from my home.
Q Okay. And were you listening at all or present

for Mr. Schoolcraft's testimony this morning?

A I was listening to part of it and present of part of it.

Q Okay. Is there anybody else that you missed all of their testimony, any other witnesses so far?

A No.

Q Okay. As Vice President of Power Operations, skipping to December 14th of 2005, were you contacted about a breach at Taum Sauk?

A Yes, I was. I am on the emergency call list for the EAP, Emergency Action Plan. And I was contacted at my home. Mr. Cooper left a message.

Q Okay. And do you recall what time you were contacted?

A It was sometime probably around six or 6:30.

Q In the morning?

A In the morning. In the morning, correct.

Q Now, jumping back for one second, would you mind describing your educational background?

A Yes. I have a Bachelor of Science in Electrical Engineering from University of Missouri-Rolla. I have a Master's of Science in Electrical Engineering from the University of Missouri-Rolla. And I am a Registered Professional Engineer in the State of Missouri.

Q Do you have any other states that you're

Registered Professional Engineer in?

A No.

Q Now, since you are on the list for the emergency call list whenever something happens, I'm assuming that at -- in the case of Taum Sauk, you actually went to the site maybe that day, maybe the next day?

A Yes. No. I went to the site that -- that morning.

Q Okay. How quickly did you arrive?

A I arrived sometime mid-morning.

Q Okay.

A Uh-huh.

Q Now, you're familiar with Taum Sauk?

A Yes, I am.

Q And had you been to the facility before?

A Yes, I have.

Q And numerous times before?

A Numerous times.

Q And on what occasions -- why would you visit Taum Sauk?

A Typically, I would visit Taum Sauk from time to time just to check on the facility, to talk with employees, talk with the management.

I would also visit if there were things going on such as the plants will typically have all plant meetings

where they'll have employee meetings get together, and you talk about a number of issues.

And then I would also visit for things such as United Way rallies and stuff like that.

Q Okay. And to go ahead and answer a burning question that has been going on throughout this whole thing. Did you go to an awards ceremony on September 26, 2005?

A Yes, I did.

Q And what was that ceremony at Taum Sauk about?

A It was -- it was actually an IEEE ceremony recognizing the plant for engineering design. It was a 40-year recognition award.

Q Okay. Now, on that day, did you speak to Rick Cooper?

A Yes, I it.

Q Did you speak to Jeff Scott?

A Yes, I did.

Q Okay. Did you speak to any other Taum Sauk specific employees?

A There were Taum Sauk employees there. So I probably engaged in small talk with a number of them. Uh-huh.

Q Okay. Was Warren Witt present also?

A I don't recall whether Warren was present or not

on that day.

Q Okay. Did anything about Taum Sauk and -- you've been in the room for the discussion of September 25th, the overtopping due to wave action, correct?

A Yes.

Q Did those discussions come up that day while you were present?

A No. I -- I was not made aware of those. There was no discussions while I was present of that -- of what had happened the day before.

Q Okay. When is the first time you found out about that overtopping event?

A About two weeks after the breach.

Q Okay. Now, is that common that you wouldn't be told about one of the plants having an issue, you know, here such as the actual overtopping or -- it wasn't overrunning of the plant, but the plant not operating --

A -- the wave action.

Q Operating as planned?

A Typically, it is the -- the plant superintendent or the plant manager's discretion on what they feel is important to let me know and what they feel is not.

And there are a number of things that happen at a plant every day. You know, I hear about some. And some of them, I don't hear about.

Q Okay. What sort of guidance -- well, let me back up for one second. You have a number of managers under your supervision, correct?

A That's correct.

Q And would you describe what all of these managers' general description is?

A Basically, a plant manager, whether it be a hydro, a fossil or a CTG plant manager, they're responsible for the -- the safe operation of -- of their particular facility.

So they -- they're the ones that are at the facility on a daily basis and interact with their staffs, provide direction to their staffs.

Q But who is directly under your supervision?

A The plant managers.

Q Okay.

A The plant managers are direct -- directly report to me. So as an example, Labadie has a plant manager. That manager -- and that plant manager is over the entire staff at Labadie plant. That plant manager reports to me.

Q Okay. But for the hydro operations, that's Warren Witt, correct?

A Correct. Hydro is a little bit different. We have plant superintendent at each plant, both at Kiakuck, Osage and Taum Sauk. And those plant superintendents

report to Warren Witt who is the manager of hydro who reports to me.

Q Now, recently, has -- and not so recently, there has been a Taum Sauk manager, correct?

A That is correct.

Q Now, why in 1990 -- well, let me back up. Why in 2007 while you've been in the position of -- of VP of Power Operations was a manager put into the Taum Sauk position over the superintendent?

A The reason that we moved Dave Fitzgerald back to Taum Sauk plant was, No. 1, to help bring the plant back to a state of readiness after the event because we -- we did get mud and other type of debris that went back up into the units. And we have a good deal of maintenance -- maintenance that must be done on the plant prior to being able to bring just the power block back in service irrespective of when the upper reservoir is rebuilt.

So Dave was brought in to -- to handle that. He was brought in to work on the relicensing, the FERC relicensing of Taum Sauk. And he was also brought in to -- to help improve both the procedures and the operating policies associated with that plant.

Q Whose decision was it to create -- recreate the position of Taum Sauk manager?

A That was my position -- my decision.

Q And not Warren Witt's?

A That's correct.

Q Okay. Can you also describe for us, since we're in this room right now, what the difference between -- and I think you touched on it already -- what the true difference between a plant manager is in the sense of -- of what your normal managers are versus a superintendent is?

A Okay. Basically, as far as responsibilities, if you have a manager, say of our Rush Island coal plant and a superintendent of, say, our Kiakuck hydro plant, their responsibilities on a plant daily basis are exactly the same.

Typically, what happens and what's happened in Ameren is, at times, people are put into superintendent positions before they are promoted to a manager position.

So, actually, like in my case, when I was in Energy Supply Operations, I was initially promoted to superintendent of that department. And roughly a year or so later, I was promoted to manager of that department.

My duty does not change at all, but a manager -- and I think Dave Fitzgerald articulated this earlier, but a manager has -- has different benefits than a superintendent may have.

Q And what benefits are those?

A Typically, the -- the benefit package is a little bit different, and -- and some of the incentive can be a little different.

Q Are there different standards that managers and superintendents are measured against?

A Not when you're talking about a plant superintendent. I don't want to confuse you. We have plant superintendents in hydro right now that are over their entire plant.

If you go into our fossil plants, we also have superintendents that report to a manager.

Q Okay.

A We have, like, a superintendent over Operations, a superintendent over Maintenance. And the reason -- the real reason for that is because the -- the Operating and Maintenance staffs are so much larger at our fossil plants than they are at our hydro plants. It requires a different level of supervision.

Q Okay. Well, and tell me if this is different then or if it's the same for all superintendents versus all managers. Is there different ways to grade a -- for them to get their incentive compensations or benefit?

A The way we treat it -- the way we treat the plant superintendents in hydro, we -- we held them to the same objectives that we held the managers to in our fossil

plants and the manager over our CTG fleet. So they had the same exact objectives.

Q Okay. So the things Mr. Fitzgerald talked about yesterday as to availability and budget and safety, and I think he may have named two different divisions of availability, those are the same for managers and superintendents?

A Yes. Yes. Uh-huh.

Q Okay. Now, were you interviewed by the Missouri State Highway Patrol on February 16th of 2007?

A Yes, I was.

Q And if you want to reach across to Exhibit No. 40 on top, in your hand, this has been marked as -- premarked as Exhibit No. 40. And there's a copy on all counsel's table. Have you seen this report before?

A Yes, I have.

Q Okay. And when did you read it or review it?

A I reviewed it prior to -- to today.

Q Okay. And background fairly quickly, have you been interviewed by anyone else regarding the Taum Sauk breach?

A Yes, I have.

Q And who is that?

A I was interviewed by the FERC Independent Panel.

Q Okay. Now, you've been in the room for when

we've gone through the other Highway Patrol summaries or interviews --

A Yes.

Q -- and asked for corrections and redactions and things like that?

A Uh-huh.

Q So knowing that we will redact your date of birth, your residence and your phone number from this document, as we go through, I'd like you to paragraph by paragraph read a paragraph and see if there's any corrections you'd like to make to it starting with paragraph 1.

A Paragraph 1 is fine.

Q Okay. Paragraph 2?

A Paragraph 2 is fine, except my date of birth. Are you redacting that or --

Q Yes. I'm redacting everything from, Is a white male with -- through your date of birth, your residence and your telephone number, and then we'll start again at --

A Trying to make me older than I am. I was actually born on March 31st, not March 30, but that's okay.

Q Okay.

A Other than that, paragraph 2 is fine.

Q Paragraph 3?

A Paragraph 3 is fine.

Q And paragraph 4?

A Paragraph 4 is fine.

Q Paragraph 5, then?

A Paragraph 5, where it starts -- I believe it's the third sentence where it says, He stated they operated on a wider margin than that. That is fine. But then it said, Birk stated that he believed the Trade Commission. I'm not sure what that means. I believe that to mean trading as opposed to the trade commission.

Q And when saying trading, who were you referring to?

A Ameren Energy Trading.

Q Thank you.

A He also stated he believed that it had little to no effect concerning -- and I don't understand the trade reliability of the plant. To me, it -- it should probably be more appropriately worded, The ability to designate the plant as a resource in MISO.

Q Now, if we could read through that sentence again, I don't think I followed you on the correction you wanted to make.

A He also stated he believed that it had little to no effect concerning the ability to designate the plant as

a resource in MISO.

Q Okay. I'm taking out trade reliability of the plant?

A Yeah. Yeah. I don't know -- I don't know what that means.

Q Okay.

A I don't know what that indicates.

Q Okay. And then the last sentence?

A I don't have any -- that looks fine.

Q Paragraph No. 6?

A Paragraph No. 6 is fine.

Q Paragraph No. 7?

A The only issue I have with Paragraph No. 7 is it's the sentence that's about the -- about the fourth sentence, Birk stated this e-mail was not unusual and there is typically scheduling problems involved -- I really think it's scheduling coordination required. So replace problems involved with coordination required.

Q To find the exact dates of which outages would occur; is that correct? Then it finishes?

A Yes. That's correct.

Q Any other corrections to No. 7?

A No.

Q Any corrections to No. 8?

A The only correction I would have to No. 8 is

when it talks about the megawatts that are produced, I would say he stated that approximately 500,000 megawatts are produced by Taum Sauk a year.

Q Okay.

A I don't have any other changes.

Q Okay. So at this time after your review, would you agree that this is a true and accurate summary of the from view you gave to the Missouri State Highway Patrol?

A Yes. It -- it doesn't encompass everything, but I believe it's an -- it's an accurate summary.

Q And then the title says Re-interview with Mark C. Birk.

A I don't understand that.

Q Okay. So, really, this was the first interview?

A Yes. I was only interviewed once by the Highway Patrol.

Q Thank you. Now, when you state in Paragraph No. 4 that -- or the summary states that you said you're typically not in the loop to determine if a plant should go off, what -- could you elaborate on that a little bit as to the true meaning of that statement?

A Yes. Typically, when -- when there is a decision made whether a plant should -- should remain in service or be taken out of service, that decision is made by the plant staff.

Typically, I do not get -- get a call. I may get a call after the fact that says, Hey, we've made this decision, we're taking this unit off, here's an FYI. But typically, I am not in the loop on those discussions.

We -- you know, we operate a system 24 hours a day. And, obviously, those -- those decisions are to reside with the plant operating staff.

Q Now, does that mean for all outages, short-term and long-term, you're not told?

A The vast -- the vast majority, I just -- uh-huh.

Q So even the long-term outages?

A The longer-term major overhauls, is that what you're referring to?

Q Yes.

A Those are scheduled pretty far in advance. And the reason you have to do that is because, quite typically, you have to buy materials, design equipment. Lead times tend to be quite long. So those outages are typically slotted pretty far in advance.

Q So then do you have an understanding, and having worked in trading, have an understanding as to how these outages are scheduled, short-term and long-term?

A Yes, I do.

Q And what's your understanding?

A On which type?

Q How about we start with short-term?

A Short-term outages? Short-term outage -- let me use a tube leak, for example, because I believe Mr. Schoolcraft brought that up earlier.

What would happen in -- in that instance, if we had a tube leak on a coal unit, the plant would make a determination if -- if it was a safety issue or an equipment issue.

And then they would contact our dispatch/trading organization and work out the details with them, specifically on -- on when the outage would take place. Normally, I would not be involved in those type of decisions.

Normally, what I would do is get an e-mail or a call from the plant manager after the decision has been made that we're taking this unit off on that date or the unit's coming off right now.

So normally, that -- that is how the short-term works.

Q Is that generally, also, how the long-term works?

A No. The longer term, because of the requirements that you have associated with long lead time equipment, to give you an example, recently, we -- earlier this spring, we had an outage on our Rush Island Unit 1

where we did significant boiler modifications to that unit.

The unit was roughly 30 years old. That outage, because of the requirement to get the necessary labor resources and materials, has to be planned quite a ways in advance. It typically takes a year to 18 months just to get the material and have the designs complete to do one of those outages. So you have to plan those pretty far in advance.

And you pick -- typically, you pick a season, spring or fall. And -- and you'll pick rough dates to do those outages. And then you'll fine tune the -- the exact date of the outage as you get closer.

Q So because of the long-term for site and planning that it takes, you become aware earlier than you would normally on a short-term outage?

A On a long-term outage.

Q Right.

A That is correct. Uh-huh.

Q Okay. Now, in Paragraph No. 8, it talks about the statement that Cooper made that -- and probably referring to his interview about feeling pressured to keep the plant running.

And you stated -- or this says you stated, He did not pressure Cooper to keep the plant running and hold

off on the repair until the spring of 2006. Could you elaborate into the discussion on that a little bit?

A Yeah. It was -- it was my understanding that -- you know, I think if you look at the end of even Paragraph No. 7 that there was a -- a spring outage that was being planned for those two units in -- in the spring of '06.

And the -- the repair that was going to be made to the gauge piping, you know, clearly had to be made before the spring of '06. You know, and I -- I did not -- I did not get involved in the actual repair on the gauge piping.

I believe there were some discussions, if I recall correctly, on where the spring of '06 outages would take place. And, basically, in that case, I -- I believe, if I recall correctly, that I asked Warren and Rick to work it out and determine where they wanted to take those spring outages.

Q Now, did you hear Warren Witt's testimony last night that he didn't feel he pressured Rick Cooper to keep the plant running?

A I did not hear that.

Q Okay. But would it surprise you if I told you that he indicated that and said that last night?

A It would not surprise me.

Q Okay.

A Uh-huh.

Q And you said you weren't pressuring him and Warren Witt wasn't pressuring him. Who do you believe Rick Cooper was getting pressure from?

A I actually don't believe he was getting pressure from anyone. I really don't.

Q And why do you believe he made that statement?

A I believe that -- and this is -- this is speculative, obviously, because I don't know what Rick's thinking. Okay? But I believe Rick felt that, but I don't believe that was correct.

Q Why did you think he felt that?

A I do not know. I do not know.

Q Okay.

A It clearly was not coming from me.

Q Okay. Skipping forward a little bit, there's been some exhibits that have already been put into evidence you have in front of you, if you'll pull the three that I just kind of sat up there, Exhibit 30 and 30-A. They complete one another when put together, so that's --

A You're talking about the three sheets?

Q Yes.

A Okay.

Q The three pieces of paper.

A Uh-huh.

Q Exhibit 30 is a string e-mail starting on November 7th, 2005. But at the bottom of it, it has a November 4th, 2005, e-mail that I believe was incomplete. And so the Exhibit 30-A exhibit on that second page is the complete November 4th, 2005, e-mail.

A Okay.

Q Okay?

A Uh-huh.

Q Have you seen this e-mail before?

A Yes, I have.

Q And do you -- do you recall having discussed this e-mail?

A Discussed this e-mail with --

Q Anyone.

A I believe my reply here shows I discussed it with Rick and Warren.

Q Do you recall that?

A Yes. Uh-huh.

Q Okay. Now, the subject of the November 4th e-mail appears to be Rick Cooper stating that he needs to retain Tom Pierie as the engineer on his staff, even though there's a proposal to pull Tom to a different plant. And this is November 2005. And that it -- basically, his experience on the project and the time he

spent designing and being aware of the successes and failures at Taum Sauk, it wouldn't make sense to pull him, Tom Pierie, off of the Taum Sauk project. Do you recall?

A Yes.

Q And when you e-mailed back on November 7, 2005, at 10:11 a.m, your statement was, I talked with Bob Powers about this, and he will make sure that we have continuity and the same level of support. So -- indicating that Tom Pierie is still going to be pulled from the Taum Sauk project; is that correct?

A That is correct.

Q Okay. Did you make that ultimate decision?

A To pull Tom Pierie from the Taum Sauk project?

Q Yes.

A No, I did not.

Q Were you informed of that decision?

A Yes, I was.

Q And did you support that decision?

A Yes, I did.

Q Okay. And can you explain why you supported that decision?

A Well, at the time, I knew that -- and I think this has been discussed in earlier testimony. But we hadn't completed the -- the full control work on the plant. We -- this is effective November 2005.

So the liners are even put in, the plant's operating. This is really to finish the rest of the control work that we didn't get to complete during the liner project.

I had some understanding of -- of how that control project -- what state it was in. And I believed -- and after discussing this with Bob Powers that Tom Pierie was still going to be available for consultation. And, basically, the -- the direct design was going -- while it was going to be handled by someone else, Tom would still be able to be there to ask questions other than to, to interface with. So I didn't see it as a significant risk.

Q Okay. Then I want to discuss with you what's been marked as Exhibit 18. It's an e-mail dated October 11th --

A This says --

Q -- 2005?

A Yeah. This says like Appling 18 on the top or something or --

JUDGE DALE: Yes. Ignore the Appling.

A Ignore the Appling. Okay. Just wanted to clarify that.

Q (By Ms. Brueggemann) Okay.

A Okay.

Q Thank you. Yes. The -- the one from Richard Cooper dated October 11th, 2005, 3:59 to a number of persons, including yourself?

A That is correct.

Q Now, do you recall seeing this e-mail?

A Yes, I do.

Q And do you remember seeing it at the time all of this was occurring?

A Yeah. It would have been within probably a day or two or so after it was sent.

Q Okay.

A Uh-huh.

Q Now, in the bottom-most string, October 7th, 2005, 7:31 p.m. which is from Richard Cooper to, again, a number of supervisors and yourself and Taum Sauk employees, in that first paragraph, it says -- it talks about a week ago or so -- a week or so ago, we noticed that the reservoir was fuller than normal after pump-back was completed, and then goes on to talk about, This bend in the pipe gives us a false reading and causes the reservoir level to look lower than it actually is. Until these pipes can be reattached, we are lowering the pump-back shutdown set point to 1594. We want to give ourselves enough cushion so that we won't pump over the reservoir walls. We'll have a diver come and look at this

situation.

And then at the very end, in the tail end of the paragraph, it says, We feel confident that lowering the upper reservoir low shutdown set point will keep us from overpumping the reservoir wall.

Now, when an e-mail is sent to you discussing the potential for overpumping over a reservoir wall, and, in this case, what was your reaction?

A In this case, my reaction was that -- I recall reading through it. And I think, you know, the point he made at the end, We feel confident that lowering the upper reservoir level shutdown set point will keep us from overpumping the reservoir wall, my feeling was when I read this that -- that -- that the plant staff had looked at this -- I could see on the e-mail that they had engineering involved with it.

So at that point, I had confidence that -- you know, that -- that they had a good understanding of what was going on and -- and that -- that Rick felt confident there would not be any problems.

Q Was this still the type of situation that you would keep your eye on, though, knowing that there was -- the potential brought up for overtopping the reservoir wall?

A Yes.

Q So then on the October 11th e-mail at the very top from Richard Cooper what looks like updating you and -- and other supervisors and Taum Sauk associates, he says in that second sentence, We have to develop/manufacture a new tie-down system for the pipes.

A Correct.

Q Now, when -- when they're specifically saying, This is the action that we have to take and the lower e-mail from a few days past was talking about overtopping the reservoir so this is directly related to keeping it from overtopping the reservoir, what was your reaction to this e-mail?

A I believed that -- that we were doing everything prudent. When I read it, you know, I remember looking at this one, also, and I believed, well, it looks like they've got a plan. And it even says in the e-mail they will work with ESO to schedule this work as soon as the tie-down system material is ready.

So I believed at that time that -- that what we were doing was both safe and prudent.

Q Whose responsibility was it to check up on the situation to make sure something like this is carried out?

A It would have been -- it would have been the plant superintendent's responsibility.

Q Okay. So Warren Witt would have no

responsibility in -- in making sure to check up on that action?

A Well, I think -- I think, you know, in that -- you know, he was Rick's supervisor, I think he would have probably -- or I would have expected him to, you know, inquire about it, make sure it got done.

Q Do you know if he did inquire about it?

A I do not know. I do not know.

Q That's just the expectation you have of your managers?

A Yes. Yes.

Q And what type of guidance do you typically give to your managers in the managerial style that they're taking in their plants or --

A Concerning --

Q Just concerning general safety issues and for this -- for this plant, it was a good instance of something extremely important to the plant running.

A The -- the guidance I have given to my managers on numerous occasions prior to the breach and after the breach is that -- that they and the plant operating staffs are the ultimate -- they're ultimately responsible for operating those facilities.

And if they feel that there is a potential for any type of safety -- personal safety issue, equipment

safety issue, environmental issue, it is their responsibility to -- to make the decision and secure the unit in a safe state.

Q Okay. In the November 4th e-mail talking about the projects going on and Tom Pierie's work on Taum Sauk ever connect in your mind to the October 11th e-mail with the problems of the new tie-down system for the pipes?

A No, it did not. No, it did not.

Q Would that be the type of thing that should have been recognized by Warren Witt?

A I believe this -- these are two different things completely.

Q Okay.

A You know, one of them, the November 4th e-mail, really was addressing a control upgrade project that was going to take place in the future.

This October 7th e-mail really talks about an operating issue that is occurring right now.

Q Okay.

A So one is -- one is a future event and one is occurring right now.

Q Okay. I -- let me check if you have the exhibit you need in front of you.

A You mean up here?

Q Maybe. Okay. 11 and 36.

A 11 and 36?

Q Yes. And, again, it's the same sort of situation, that there's an e-mail with a partial string attached on Exhibit 11 that's covered in Exhibit No. 36.

A Can I have a chance to look through these, please?

Q Absolutely. Take all the time you need.

A So you're saying 11 --

Q 11, is that a November 23rd e-mail?

A Uh-huh.

Q And then the first e-mail in the string, it appears to be a November 14th, 2005, 1:56 e-mail?

A Okay.

Q The full e-mail on that November 14th date is found on the second page of Exhibit 36.

A You almost have to be an engineer to figure this all out. Uh-huh.

Q Good thing you are.

A Okay.

Q Okay. I think the natural progression is to start with November 6 on that November 14th on the second page --

A Okay.

Q -- where you were also cc'd. And this is from Richard Cooper. Do you recall being sent this e-mail?

A Yes, I do.

Q And would you say it's a status update or information on the Taum Sauk plant's spring 2006 outages?

A That's correct.

Q Okay. Now, in the second paragraph -- or the -- the paragraph numbered two, in the middle, Mr. Cooper talks about, We also have some slope wall anchor plates that have pulled loose that could be repaired.

It talks about what Mr. Bluemner would be doing. We still have to repair the level gauge piping soon, and by the spring, we would be able to see whether the repair it a permanent fix or not.

Did you take this to mean that this would be a part of the spring 2006 outage repair?

A Not at all.

Q Okay. What did you take it to mean?

A To me, what I took this to mean was that the repairs were going to be done when the material arrived. And then we would be able to inspect those repairs during the spring outage to make sure that they were still sufficient.

Q Now, where do you think you got that understanding from?

A I got it from -- I got if from this -- this e-mail. I mean, you know, when you read it, we still have

to repair the level gauge piping soon. And by the spring, we would be able to see if this repair is a permanent fix or not.

So soon -- in the context of when this was written, which was November 14, 2005, I would take soon to be before the spring of -- of 2006.

Q Okay.

A And the way it's written, obviously, we'd want to do an inspection after we did the repair to see if it was working or not.

Q Now, did you ever have any discussions with Warren Witt about this or Richard Cooper about this or anyone else?

A About what?

Q The specific -- that specific portion of the e-mail.

A No, I did not.

Q Okay. Now, did you have discussions about the spring outage repair?

A The only response I believe I made was, as I mentioned before, I believe was directed to Warren to work through it with Rick and -- and decide.

Q Okay. On Exhibit 11, that's where we go to the November 23rd, 2005, 9:59 a.m. e-mail from Steve Bluemner and to a number of Taum Sauk personnel and supervisors,

including yourself?

A Yes.

Q And do you -- are you familiar with this e-mail?

A Yes.

Q Now, do you recall reading where it said, Regarding the level gauge piping all materials that are on hand to make the repairs, and, as you know, I tried to get this completed in early November but couldn't work out the schedule with Power Supply due to the warm weather.

Had Mr. Bluemner somehow relayed that information to you?

A Not other than this e-mail.

Q Okay. What did you -- what was your reaction to that portion of this, what I just read?

A Basically, you know, I was carboned on this. And the way I would look at -- and I get carboned on a number of things. And this is informational.

And the way I would take this is that, you know, they're trying to -- to work through the repair. Never at any time had any indication from Rick or Warren that this needed to be something that needed to be expedited or moved forward.

You know, and I don't believe -- and I still don't believe that at the time that it was occurring that we had a full grasp of the magnitude or that we fully

understood everything involved in the process. So --

Q Did you know what he meant by couldn't get the work out -- couldn't work out the schedule with Power Supply due to the warm weather? Did you know what he meant by that?

A I would take it to mean that -- that Steve made the request, which I don't believe is, by the way, the normal process. Normally, the plant should be making those requests.

But I would take it to mean that Steve made the request of -- of Energy Supply or Power Supply, which are the same things, and -- and they didn't -- they didn't work it out.

Q What do you think "due to warm weather" meant?

A I do not know because I don't -- I don't recall, without going back and looking at the actual temperatures, in November of that year whether there was warmer than normal weather.

I do recall that we had a Callaway outage that went -- this was a significant Callaway outage to replace steam generators that that went probably into about the middle of November. So that may have had some effect.

Q Did you tell anyone or correct that you thought it's not appropriate for the consulting engineer to be making the request?

A No, I did not.
Q Did you talk to Warren Witt about it or Richard Cooper about it at all?
A No, I did not.
Q Okay.
A There are -- there are times when -- when engineers do make those type of requests. But I think they're infrequent. They're not -- it's not the norm.
Q Okay. Were the spring 2006 outages scheduled?
A I think, ultimately, a decision was made, and I -- I do believe they were scheduled.
Q Okay.
A I don't -- I don't recall the weeks, though. That it was.
Q Do you -- I'm sorry.
A Go ahead.
Q Do you know who scheduled those?
A Well, those would have been -- been scheduled through the plant and -- and the trading organization.
Q Okay. And do you know who scheduled the -- the outage time slot?
A Typically, the -- the way the process works is the -- the plant gives a rough range. You know, they may say, We'd like -- we'd like to take an outage in the March/April time frame. And trading dispatch will look

and -- and hone it in and say, Okay, it looks like what's reasonable is taking an outage April whatever to April whatever.

Q Okay.

A That's how it typically would be done.

Q I've just handed you what's marked as Exhibit 41. And if you will, take a minute to look it over, please.

JUDGE DALE: I'm -- excuse me. I've lost track of exhibits. What's No. 40?

MR. BYRNE: The Highway Patrol statement.

MS. BRUEGGEMANN: Yes.

JUDGE DALE: Oh.

MS. BRUEGGEMANN: Thank you, Mr. Byrne.

A Okay.

Q (By Ms. Brueggemann) Okay. Do you recognize this series of e-mails?

A Yes, I do.

Q And have you seen them recently?

A No, I have not.

Q Okay. Did you see them back in 2005?

A Oh, yes. I -- obviously, I responded to them on here. That's what I was mentioning earlier.

Q What -- could you -- what do you mean that's what you were -- mentioning earlier?

A Well, when I said that I had asked Warren to work through the details and work it out.

Q Okay. Now, in the December 2nd, 2005, 8:02 a.m. e-mail from you to Warren --

A Uh-huh.

Q -- Witt --

A Uh-huh.

Q -- you say, Warren, I have checked with Trading, and they have allocated a spot during the spring of 2006 to take the outage.

Is that typical that you would schedule the outage?

A No. But I think if you go back and -- and look, Warren had -- had said something to me asking for who he had to talk with or what he had to get done. So -- in this case, I probably called them and -- and talked to Trading about it. That's not typical, though.

Q Why was Warren requesting -- is it typical that Mr. Witt would go ahead and try to schedule an outage on behalf of the plant?

A Well, I think -- realize in this time frame that, you know, Warren was new to his role and his job, so I think part of what he was doing was kind of asking me, Hey, how does this work and how do you handle this?

Q Well, wouldn't Mr. Cooper know how to handle it?

A Mr. Cooper should have known how to handle it. Yes.

Q Did you ever have a discussion with Warren as to why he was coming to you and not letting Mr. Cooper handle it?

A No, I did not.

Q Okay. Now, on the December 1st, 2005, e-mail at 8:12, it says, As we discussed earlier, I will wait for your recommendation on these items, along with the scheduling of the outage. Thanks, Mark.

A Uh-huh.

Q What did you discuss earlier?

A I don't recall. I assume it had to do with taking the outages in the spring on these units. But I don't recall.

Q Okay. Do you think it went back to the other series of e-mails with the list of possible repairs to do in the spring?

A It could very well -- it could very well have been.

Q Okay. And did you take note that in Warren's e-mail on that December 2nd, 2005, 7:44 a.m. date that he specified again repair the upper reservoir level instrumentation if any further work is needed on it by then? Did you note that?

A I didn't specifically note it at that time, but I do see it now.

Q Okay. What did you take that to mean?

A To me, I would take this to mean while we have the units out in the spring, we should also inspect or repair the pin stop leak, inspect and repair the liner, repair the upper reservoir level instrumentation if any further work is needed on it by then. So I would take it to mean that -- that there was the assumption that it would be repaired by then.

Q Okay. Did you have any specific information that it was about to be repaired since this is December 2nd this time?

A No, I did not.

Q Okay. Do you have any type of weekly or monthly meeting with the managers?

A I have a monthly meeting with the managers.

Q And what do they typically update you?

A Typically, our monthly meetings have more to do with strategic issues. They're typically not -- we don't address day-to-day operating issues. They're -- they run about three or four hours.

And by strategic issues, it may be talking about employee policy issues and talking -- talking about potential budgeting issues, potential reliability -- plant

reliability optimization issues, things like that.

But, typically, it's not day-to-day operating stuff.

Q Well, then, where do day-to-day operating issues get brought up?

A Well, typically, like I said, the day-to-day operating issues are handled at the plant. And, typically, the -- you know, I'm not involved in every day-to-day operating decision that's made. That is made locally.

So if -- if the plant manager feels that something is significant enough, they will bring it to my attention. But --

Q Are they supposed to bring it to their own manager -- plant superintendents, or are they supposed to bring --

A They have -- each plant has, typically, the -- the fossil plants in particular, they have daily planning meetings. They have -- we work a four-week rotating schedule. They address a number of issues on a daily basis.

Q Okay. So was the plant superintendent of Taum Sauk supposed to be bringing these issues up to his plant manager?

A The -- the plant superintendent at Taum Sauk,

which was Rick Cooper, would have been discussing the -- you know, Jeff Scott was -- was basically the -- the supervisor and the engineer. So they would have had the discussion on the issue, and they would have been working it through at plant level.

Q So would they have been bringing it up to Mr. Witt, their plant manager?

A I'm not sure.

Q Okay. And -- and I guess I need to clarify that he's everybody's hydro plant manager?

A Yeah. Correct.

Q Okay. Are there any other occasions that you called for any of your plants to schedule outages?

A Do you mean long-term outages, major overhauls or short-term?

Q Short-term. Any.

A I can't recall any. There are times when I will get called and -- it's not that frequent, but I will get called, and we will discuss the situation in a plant. And, ultimately, I -- the plant manager ultimately has the responsibility of making the decision. So there -- there will be times when they will talk it over with me.

Q Okay. Now, are you the person responsible for preparing and answering many of the requests to the -- requests by the FERC, requests by the Missouri State

Highway Patrol in those investigations?

A I did not prepare all of it. I was involved in reviewing the vast majority of it. And I signed off on -- on -- on most of it.

Q Do you have Exhibit 9 in the pile in front of you?

A Yes.

Q Okay. Have you seen that before?

A Yes, I have.

Q And could you describe what it is?

A Basically, it's a response to the Missouri State Highway Patrol regarding some questions that they had asked of us.

Q Okay. Did you prepare this?

A I did not prepare it. I reviewed it, and I approved it.

Q Okay. So then that's why you signed it at the end?

A That's correct.

Q Okay. Now -- and on that second page, it's under Response No. 2, first paragraph, middle of that first paragraph, that's not complete. At Taum Sauk, Jeff Scott is the -- the plant supervisor, power production project engineering, and Rick Cooper, the plant superintendent, typically communicated with generation

dispatch trading regarding the scheduling of outages. How do you know that? How did you know that in 2005?

A Because that is the way that -- that we handle it for all of our plants. And that is the way that we've handled it for a number of years. I -- in working up through Energy Supply Operations, I was on the other side, and I know exactly how those requests are made.

Q Okay. So how do you know they were handling it that way? Is it a policy? Is it a training? Is it expressly e-mailed? How do you know?

A The -- we have a -- a policy that, I believe, Mr. Schoolcraft alluded to on -- on that. But, basically, that's the way that -- that it's always been handled as far as I'm aware of.

Now, you know, the policy that Trading and Dispatch has out there kind of goes through the mechanics of how you do it, but from as early as 1996 when I was in Energy Supply, when I went into Energy Supply, I mean, that's always the way it's been handled.

Q But --

A The plants have an understanding of that.

Q But Trading isn't part of UE, right?

A It is currently. It is now.

Q Well, it wasn't in 2005?

A It was not -- it was -- it was Ameren Services,

and they trade for the JDA assets is what they did.

Q So how do supervisors know that their plants have a handle on or an understanding of that?

A I -- can you repeat the question? I don't understand the question. I'm sorry.

Q You just said that the plants -- it's always been done that way, the plants have an understanding.

A Uh-huh.

Q So how does a -- a supervisor, an administrator, an executive know that the plant has a handle on that or an understanding of that?

A Well, there -- there is a -- there is a system operating manual that -- that AmerenUE has that designates the plant as the custodial and functional authority of the equipment, basically gives the plant the right, the responsibility, the accountability to make -- to make those calls. I mean, that's -- that's a documented manual.

Q Okay. So anybody coming into a superintendent's job should be very familiar with that manual?

A I don't know that I would say that everybody coming into it would be very familiar with it. But -- but that -- it is our system operating manual. They should be familiar with it. Yes.

Q Okay. Going on a wider scale, do you --

A Uh-huh.

Q Are you aware -- and through testimony, you may be very aware, of what Taum Sauk's main purpose within the UE system was at -- in 2005?

A Yes.

Q And what was that?

A Basically, it was used as a peaking facility.

Q Now, did you hear some of the testimony that it -- it may not be just a peaking facility, it's not necessarily a base load facility because it can't run all the time. But because it was being run by the end twice a day, it was more than maybe just a normal peaking facility?

A I think it's a matter of semantics. I mean, you have a limited amount of generation that you can get out of the plant in any given period. From my experience, it was predominantly operated as a peaking facility.

Q And what does a peaking facility mean to you?

A Basically, it would be brought on at -- at times of -- of higher system demand based upon the economics associated with the plant.

So in the stacking order, typically, hydro plants because, for all intents and purposes, the water is free, although we do pay FERC a head water benefits charge, basically staff the hydro plants, then Callaway,

then the fossil plants. And, typically, Taum Sauk would be the next plant after the fossil plants before you got into gas peaking generation and then oil peaking generation. And it was based upon economics. It's the fundamental economic dispatch model.

Q Okay. Okay. What I've just handed you is premarked as Exhibit 42. Do you recognize this document?

A Yes, I do.

Q And can you describe what it is?

A It is an incident report to FERC. And it's set up in a chronologically based order.

Q Okay. Now, did you create this document?

A No, I did not.

Q Did you create any of the pieces of it?

A I reviewed it, and -- and I was involved in -- in its development. But I didn't fully create it, no.

Q Okay. Now, when you started as VP of Power Operations, what month was it?

A September 2004.

Q Okay. Were you familiar already with everything in the chronology in your experience as -- as Vice President of Power Operations from September of 2004 until December of 2005? Were you already familiar with everything listed in the chronology of Taum Sauk?

A Not in great detail.

Q Okay. Let's say, for example, on page -- what's numbered as page 2 -- I think it's actually page 3 --

A Okay.

Q -- where it talks about September of 2004, which would have been the month you started in your position. They're talking about the upper reservoir being offline for the liner replacement and level control upgrade project. Were you aware of that?

A Yes.

Q And in October of 2004, specifically October 6th, they're talking about the gauge piping design not being adequate for anchoring and could compromise the integrity and the liner and gauge piping. Were you aware of that?

A No, I was not.

Q Okay. When did you become aware of that?

A After the breach.

Q Okay. Were you aware of the height differentials that the surveys for FERC had revealed as to the elevation, the top elevations of the dam walls?

A No, I was not.

Q Okay. Were you aware of what Taum Sauk was operating at, the normal operating water level?

A 1596 was the normal operating level.

Q So you were aware of that sometime after you

came in?

A Actually, before, because, as I mentioned earlier, I was in Energy Supply Operations, so we -- we were involved in the operation of that -- of that plant.

Q Okay. Now, with all of these improvements and -- and let me ask you a real quick background question. Were you also familiar with the turbine -- the new turbines installed in 1999?

A Not with the details of them. I knew they were -- I knew they were installed. As I said, I was in Energy Supply Operations for part of the time. So I knew that they had been placed, but I was not familiar with the details.

Q Okay. So you were aware of the '99 turbines being installed. You were aware of the liner replacement in 2004, and that -- and the upgrade to -- of the level control system?

A I was not aware of the details of the level control system.

Q But you were aware of it generally?

A Generally, I knew it was being replaced. But I didn't know the details of it.

Q Okay. Then I guess my question is, going back to your Highway Patrol interview, when -- when you make the reference, he stated that -- approximately -- this is

the correction, Approximately 500,000 megawatts are produced by Taum Sauk a year. Some of the other power plants produce that much in a month. He stated that there was no financial reason to keep Taum Sauk running until the spring of 2006 outage.

Why would as much money have been put into the upgrading of Taum Sauk if it -- there wasn't a financial reason to keep it running in general?

A Well, the -- when you talk about -- what upgrades are you talking about?

Q The series of upgrades from 1999 through the end of 2004.

A Well, I think -- I think one thing you have to realize is that in 19 -- that the runner replacement had caused a -- an operational change in Taum Sauk because you went from -- from a facility that took about 1.7 megawatt hours of pump for every megawatt hour of gen you've got to a facility that took about 1.4 megawatt hours a pump for every megawatt of gen.

Q And we have an obligation to operate our system in a prudent and economic manner. And as such, what that upgrade did, the runner replacement was to make Taum Sauk a -- a much more economically viable facility, which ultimately benefited our customers and our ratepayers.

So that -- that was one thing that was done.

The liner replacement project was done for -- for a completely different reason in 2004. It was done to address leakage that we had on the facility.

Okay? So when you talk about spending that much money, that was to -- was done to protect the asset. Okay? It was not -- that -- that wasn't -- if you look at even losing a foot to a foot and a half of water a day through leakage, you could probably never justify what was spent to put that liner in. That liner was put in there to protect that asset and -- and to cut down on the leakage and make it a safer asset.

Q Okay. Go into that a little bit more for me when you say protect the asset and make it a safer asset. Elaborate as to what you true mean.

A Well, when -- when the facility was designed, it was a -- you know, it's a -- it's a compact, rock-filled dam. And it was assumed that it would have some leakage.

And that was actually monitored and tracked. We watched that. And we actually reported those leakage levels to FERC. One of the things that -- as we monitored it, it got apparent to us that the seams in the walls, the expansion joint type seams were causing leakage through the reservoir.

So what we did, what we wanted to do with the liner project was to cut down on that leakage. And as

such, you know, you don't -- you don't -- you know, even a rock-filled dam is designed to leak, you prefer not to have significant leakage through it. So a liner was put in place to cut down on that leakage.

Q So what did you or other experts within your organization foresee the leakage ultimately leading to, if anything?

A I can't speculate on that.

Q But you were protecting the asset?

A Correct.

Q So you felt that the -- the leaks were doing damage to the reservoir?

A We thought that the reservoir had leaks since it was constructed. And as we did monitor it, the leakage had increased at other times. We felt that this was a prudent thing to do to protect the facility.

It's not unlike anything else we would do at any of our other plants that we felt needed a particular component replaced. We -- we had worked for years to try and stop the leakage in a number of different ways, by caulking, you know, by doing all kinds of different things. And this was another -- another attempt to try and control the leakage.

Q Because the leakage could have ultimately caused damage to the facility?

A I'm not -- I'm not a civil or a dam engineer, so I probably shouldn't speculate on that.

Q Was there a cost analysis done when assessing whether or not to put in the liner replacement?

A I'm not sure about that. I believe there -- typically, our projects would have justifications associated with them.

Q Okay. And you never saw figures relating to that?

A I did not.

Q Do you know if the goal was met -- do you know what the goal was in installing the liner replacement and if that goal was met since you were the VP of Power Operations when it was completed?

A I believe the goal was met. The -- the leakage was cut down significantly once the liner was installed.

Q Now, I think you touched on this a little bit, but I'd like to ask you a couple more questions about it. Mr. Witt told the Missouri State Highway Patrol that Taum Sauk ran more in the last five years than in the previous 35. Do you know if that's true?

A I believe that's true.

Q Okay. And, again, I think we touched on it a little bit. But can you explain what -- why that is?

A It has to do with the -- the difference between

off peak -- the cost of off peak power and on peak power -- or on peak energy.

Normally, Taum Sauk would be pumped back off peak using our coal facilities. So you could make an assumption that in order to pump it back, if we have a unit that's generating -- a coal unit that's generating something in the mid teens per megawatt hour, you could take and multiply that by 1.4.

And if the on peak dispatch cost was going to be higher than that, you would go ahead and -- and pump the facility back and have it available because it would be one of your economic resources at that point.

Q Okay. Because you were in Trading, you were generally aware of the economic pressures that Commissioner Gaw and Mr. Schoolcraft went into as to the -- the market and selling power and commitments to MISO, things like that?

A Yes.

Q Okay. Did you ever give any guidance to your managers or training to your personnel as to this balance of the commitment to provide energy or power for generation and to operate efficiently?

A Yes, I did.

Q Okay. And what was that?

A I -- when I became -- shortly after I became VP

of Power Operations, I sent an e-mail to -- to all of my managers and superintendents indicating that -- you know, that there would be -- you know, there's -- there's effectively, at times, going to be a balance.

But, ultimately, they are required to run it -- operate the plant in a safe manner, and they have the final call to take it off. And I -- I indicated at that point, you know, there -- there will always be some discussion among Trading and Dispatch. But, ultimately, the plant has the final say and must make decisions in a safe manner.

Q Do you feel you brought any changes into the position that you were in that followed suit to the different plants?

A I truly believe that -- that the managers and superintendents that work for me make decisions based upon the safety of their personnel and their facility first and -- and look at economics second. I truly believe that.

Q Okay. But do you believe you brought any changes into the position that you filled as VP of Power Operations when you came in in September of '04?

A Changes as far as what?

Q Culturally, operationally, managerially. Just general changes.

A I think there have been some changes, yes.

Q What do you think those are?

A I think we have made changes at various plants to focus -- to change the focus on some things. You know, for instance, if -- we didn't feel at a particular plant that our engineering resources were providing the type of support that we felt we needed, I'm talking about the plant engineering resources, we would make changes associated with that. And we have -- we have done some of that.

We -- we continue to evaluate and try and improve -- I think, you know, part of Ameren's values -- one of their significant values is stewardship. And, you know, if I'm not going to make improvements to the area that I'm coming into, then I shouldn't be in that area. So, you know, I think I'll continue to look for improvements.

Q Okay. Now, I think you've been around for a little bit of the testimony into bonus targets and incentives and disincentives in general.

A Only a little bit of the testimony. Is that how you characterize it?

Q Maybe my time frames are a little off. But you've been around for some testimony?

A Yes, I have.

Q Okay. Now, when Mr. Fitzgerald was talking

about the criteria that we re-listed a few minutes earlier, the ones he listed off for plant performance in general were safety, availability, overall and availability, I think he said, equivalent?

A Equivalent availability. Uh-huh.

Q And -- and budgetary as the fourth?

A Yeah. Let me -- let me go through the objectives that the managers, superintendents had since I've been involved in Power Operations. Okay?

I've sent this out each year to them. But, basically, safety. And when we talk about safety, that's really personnel safety. It has to do with lost workdays away, stuff like that that we have in the plant.

So, obviously, we don't want -- you know, our first priority is not to have anyone get hurt, both in the public or in our facilities some. Okay? I mean, we -- we want to operate first -- safe first and foremost, period.

Equivalent availability, when you talk about that, that is a measure of in the total period of time, let's say a total year how much the unit is available to run. It doesn't necessarily tell you how many megawatt hours were generated off of it.

We could have a plant, a gas peaking plant, that has a hundred percent equivalent availability for the year and doesn't generate one megawatt hour. All it says is

the plant was available for the full year to run. So that's a measurement that we have.

Budget compliance, both O&M and capital, environmental. Obviously, with any fossil or hydro plants, our -- our gas peaking facility, it's very important that -- that we meet all of our environmental requirements, personal development, organizational effectiveness.

This is what I'm personally rating the managers on. Okay? That's what I'm telling you. When I give them their performance appraisals and when I consider them for bonuses, this is what I'm -- and I rate these things equally, development and organizational effectiveness.

And this is really a more subjective measure. And it's based on my observations of -- of how they're developing their employees and how we're identifying future leaders in our organization and what we're doing to develop future leaders.

MISO Day 2 communication and flexibility and response. I think one of the things that Steve had indicated in his testimony was since we went into MISO in April of 2005, it's important that we meet our commitments.

And, you know, if a unit's supposed to be on. It should be on when we say it's going to be on. And if

we're taking it off, it should be off when we say we're going to take it off. So it's meeting commitments. That's important.

Team work. And, really, that's based upon how we share information, not only inside the plant, but amongst other plants. So that's something I rate the managers on.

And the last thing I rate them on is asset preservation. And, really, that has to do with continuing to improve, you know, the plant operating maintenance and maintenance personnel and procedures while preserving the assets of the facility.

So -- so those are the items that I look at. And I equally weight those when I go to give each of my managers performance appraisals, and, also, when I determine what -- what I determine the incentive count that I have control over, which is 50 percent of their incentive count. And, again, those are weighted equally.

Q Okay. And I don't want to you tell me who because I think if we get into specifics, we need to go in-camera. And at this point, I don't want to delve that deep into it.

But because Taum Sauk, as of December 14, 2005, was no longer available and because the asset obviously had not been preserves, which may not be the -- under the

same category, I understand, and because of what's been discussed in much of the testimony that you've been present for that human error --

A Uh-huh.

Q -- was very much involved in the actual breach that occurred, then did any incentive compensation amounts get reduced?

A Yes, it did.

Q Okay.

A Yes, it did.

Q Okay.

A And at some point if you want to go in-camera, we can discuss that.

MS. BRUEGGEMANN: I don't know. Do we want to -- is that going to come up later? Should I go into that now?

JUDGE DALE: Will you have questions about that? Will you have questions about compensation?

COMMISSIONER GAW: Perhaps.

MS. BRUEGGEMANN: Later?

COMMISSIONER GAW: Whatever you want to do.

Q (By Ms. Brueggemann) I guess my -- also, my general question is -- was -- so was Taum Sauk kept -- or was availability kept as a measurement, then, for personnel that you were weighting it against?

A Equivalent availability?

Q Yes.

A Yes. Uh-huh. I think one thing to realize about equivalent availability, and I've heard some discussion on that in the system, is that the idea that taking an outage for a day or a week is going to significantly impact someone's key performance indicator or someone's objective, that's really not true.

We -- we have -- we don't have goals that we set that are impractical for these plants. So the hydro plants, typically, their equivalent availabilities are in the mid 90s, which are -- they're -- they're reobtainable with having a few outages a year.

Our fossil plants, their goals tend to be in the -- the low 90s -- high 80s to low 90s, which are very good in the industry, but they're not going to push a manager not to take a facility off because a couple day outage isn't going to have a significant impact on that equivalent availability number.

MS. BRUEGGEMANN: Okay. I think that's all I have for you now. Thank you.

MR. BIRK: You're welcome.

JUDGE DALE: Ms. -- let's seize the moment and have a short break.

(Break in proceedings.)

JUDGE DALE: All right. We're ready for questioning of the witness by OPC.

MS. BAKER: Thank you.

CROSS-EXAMINATION

BY MS. BAKER:

Q All right. Do you participate in looking at the unscheduled outages after they occur?

A By unscheduled, did you mean forced outages?

Q Right. Emergency outages or safety-based outages.

A I typically -- I'm aware of them. When you say look at them, what do you mean?

Q Use them for your performance appraisals, use them for any other -- or auditing type issues.

A The only thing that we typically look at other than how it factors into the equivalent availability, like I answered you before, if a unit goes off, it does factor into the equivalent availability.

The only thing we look at are trips. And, basically, trips are when a unit comes off unexpectedly. We have a -- a goal in each of our plants, fossil plants, that no more than -- no more than three trips per -- per year per unit.

Q Okay. Is there a determination made of whether a safety issue outage was appropriate, say, whenever

you're looking at your equivalent availability?

A No, there's not.

Q Okay. Is there any auditing done whatsoever as to whether a safety issue outage was appropriate that you know of?

A No, there is not. Basically, if the -- if the plant manager or the plant operating group deems that the unit needs to be off for safety, the unit comes off.

Q Are there any task forces or determinations made after a safety issue outage to prevent this from occurring again?

A Definitely. I wouldn't call it a task force. But -- but say you have a unit that is brought off for a -- a safety concern. We had -- we had a Labadie unit that came off this past week, Labadie Unit 4.

The -- the operators determined that they had a problem with the seal oil system. Basically, the seal oil holds the hydrogen and the generator. If it fails, the hydrogen goes out, and you can have bad things happen.

The -- the operators took action, took the unit off. It was done overnight. So it was -- that decision was -- was made by the rating department on site.

And after the unit came off, engineers then looked at -- and trouble-shot the determination of that problem. Not only that, then they looked at other

applicable generators on the AmerenUE system that could have had a problem. So when you say do we look at it, yes, we do.

Q All right. What would happen if it was determined that a safety issue outage was inappropriate, say, they could have done something else besides taking the plant offline? What would happen?

A I have told my managers that if the operating people deem that it is a safety issue and they take the unit off, there will be no repercussions for that.

And, and what's, you know, what I've asked them to do is review the information the best you can, make the best decision you can at the time, and I'll support that decision. So there's -- I've never second-guessed the decision they've made.

Q All right. You -- you had made the statement when we were looking at Exhibit 11 about Mr. Bluemner being an engineer and that engineers are not usually the -- the person who makes a scheduled -- or requests for a scheduled outage; is that correct?

A That is correct.

Q Okay. When -- when engineers like Mr. Bluemner make a request for an outage, is that request scheduled differently?

A Not to my knowledge.

Q Do engineers know that scheduling an outage could be bypassed as a -- a safety issue outage?

A I don't believe in the Taum Sauk case that it was ever deemed to be a safety issue. I don't believe that Steve Bluemner, nor do I believe that Rick Cooper ever felt that this was a safety issue.

Q Okay.

A And I believe that's why it was not elevated when the request was made.

Q But do you know if engineers know that -- that outages could be -- could bypass the scheduling if it was a safety issue?

A If an engineer deemed it was a safety issue -- and I think -- you know, I can -- I can refer to the -- the event that was mentioned earlier, the Rush Island event, I believe, where we actually had Rush Island Unit 2 off.

This was a couple weeks ago. And I think Mr. Bluemner alluded to this. But the unit was actually off. The plant -- one of the plant operating people found a piece of concrete in the stack. There's stack liners in the smoke stacks. There's one common stack for both units at Rush Island.

The plant reported that chunk of concrete to

engineering because they had a concern about, A, it's not normal that you find pieces of concrete laying in the bottom.

Engineering reviewed it. It's my understanding that what the plant was not happy about is they had found that concrete fairly early on when -- within the window of that unit being off, and they were doing other maintenance repairs on the unit.

They were about ready to bring the unit back on. And Engineering came and said, You can't put the unit back on because it could be a safety issue. I think what -- what upset the plant a little bit was, Hey, we told you about this three days ago. Why are you telling us this now?

Now, what ultimately happened is the unit was never brought back on. We delayed the -- the return to service of that unit by three or four days while we did the repair.

And that would be an example where an engineer came up and basically said, It's a safety issue, we don't believe you should run the plant. The plant operators ultimately agreed with that and basically kept the plant out of service.

Q Do you know of any examples of that happening about the breach?

A I believe -- yes. And, typically, what they have to deal with, at least the ones I have been aware of, are more turbine generator type issues, more bigger components in the plant where we would have -- we have a turbine engineering groups that's in our common services organization. They typically provide support to our plants.

Engineering support, on a more technical basis. And they have made recommendations to take units off before. We have proactively taken units off that had valve problems and other things based upon recommendations of engineers. Definitely. We need their input on things.

Q Is there a protocol where an engineer can insist that a safety issue outage be taken?

A The way that the -- the Dam Safety Group is set up right now for the hydro plants, anyone in the Dam Safety Group can basically make a review and make a determination that there is something unsafe in a plant in a hydro plant and they can order the plant shut down. So they're completely independent from -- from the normal operating organization.

Q It's my understanding that the Dam Safety Group was put into place after the breach; is that correct?

A That is correct. That is correct.

Q Was there a protocol before the breach?

A Before the breach, if there was an issue that an engineer found, he would or she would have taken that to plant management. And plant management would have made the determination. As I said earlier, they are the functional authority, and they ultimately are accountable and responsible for the safe operation of that plant.

So if an engineer sees something -- just like if I see something at that plant, I would probably opt to go -- you know, if I'm out doing a walk -- walk-around of a plant and I see something I don't like, I would go talk to the operating folks or I would talk to the plant manager and say, Hey, what -- this -- this doesn't look right to me. What are you doing about it?

And we'd talk about it. And, ultimately, if we determined the thing should come off, it comes off. And in the grand scheme of things, a couple day outage on any one of our facilities does not have a financial impact on Ameren. It doesn't.

Q What happens if the plant manager does not agree with the engineer that it is a safety issue or has a -- a fix that maybe the engineer does not agree with or that is much more temporary than what the engineer would agree to?

A Well, realize, in -- in engineering, as in a lot of other professions, there's debate. There's going to be some debate.

Ultimately, the plant manager is the one that has the responsibility and the accountability. So if -- if an engineer comes forward and says, I'm really concerned about this, and the plant manager reviews it with his people and makes a determination that in this case, I don't believe that that engineer is -- is correct, the plant manager has the ultimate authority. And if it works out that -- that the engineer was correct, then the plant manager is accountable to me. That's the way it works.

Q There's no other safety protocol rung to go on for the engineer?

A Well, what could happen, potentially, is if that engineer after discussions -- and, typically, you know, each -- each plant that their own engineering staff, also.

So after discussions with the manager, if they still don't get what they believe to be reasonable resolution, they can ultimately come to me. And, ultimately, you know, I have had stuff brought up to me before, and I have looked at it.

And, ultimately, then I guess it's my decision. But I don't get involved in many of those.

Q It's very rare?

A Uh-huh. Very rare.

Q Okay. In your understanding, you had stated

that -- that a plant manager's bonus or -- or performance appraisal would be based on plant availability; is that correct?

A That's one of the components.

Q One of the components. Yes. All right. Would a project engineer, maybe one that is moving between plant to plant on different project for different plants, would they have their bonus or their performance appraisal based on a specific plant's availability or non-availability?

A I don't believe they would.

Q So whenever we're looking at a -- at an outage or a safety-based outage, the plant managers' bonus and appraisals might depend upon that, but the -- the engineer's might not?

A As I mentioned earlier, the equivalent availability targets are set such that there is adequate margin to take units off for periods of time to do repairs.

In fact, most of our units in the fossil fleet typically have a couple of outages a year associated with tube leak repairs. We have boilers that are -- our newest unit is 30 years old. So we typically have a lot of tube leak type repairs on unit.

So there is adequate margin in those equivalent availability targets to make those decisions. And, quite

frankly, I have never had a manager come to me concerned about, Oh, if I take this unit off, it's going to ding me from an equivalent availability standpoint.

I have never had one of them, in the two and a half years that I've been in this position, concerned about that.

Q But wouldn't you agree that decisions that are -- that are done on a day-to-day basis, equivalent availability would be in the -- in the manager's mind when they're making that -- those decisions?

A I -- I don't agree with that. I think that -- and the reason I don't is because, like I said, I've never had one of them bring that up to me and because, you know, taking a unit off -- just like this Labadie, for example. I had the units off for a day or day and a half. That doesn't even affect equivalent availability. Maybe -- maybe less than a third of a percent. So it's -- it's really inconsequential.

Q But there's no other -- other performance-based criteria that you look at that states specifically the --

A Well, ultimately --

Q -- the safety of the people around the plant besides the workers?

A The -- well, the equivalent availability also looks at that. Let's face it. If -- if on this Labadie,

for example, I was using, if the operators didn't take that action and we blew the hydrogen out of the machine, the machine would be off for six months or a year. So that would severely impact the equivalent availability numbers.

So, ultimately, the conservative, safe way to do things is -- is going to lead you to make your targets more than risky type of operations that just don't work.

Q But sometimes, as in the breach, in this, sometimes the best plans don't always go correct?

A Yeah. But I don't -- I don't believe in this case, as I said before, that they ever felt it was a safety issue. I think what they felt -- you know, the way our plants are operated, you know, as I mentioned, if -- if -- if it's safety related, equipment related, environmental related, the plant has the call on that.

If the plant makes a determination it's not one of those three and they're looking to take something out of service, then they will work with Trading to schedule it based upon or parameters such as system conditions, load requirements, other economics. It all plays in.

But -- but the first criteria you've got to have is the plant management has to be convinced and they have to believe that it's not a safety issue, that it's not a significant equipment issue and it's not an environmental

issue.

If -- if they're -- believe that, then there's -- then there's give and take with Trading on when to take it off.

Q But you would agree with me, looking back on it, it was a safety issue?

A Hindsight is 20/20. But definitely. Yeah. Yeah. Looking back on it, you know, I think there were things that we could have and should have done differently. I agree with that.

Q And the -- the engineer who was pushing for an outage maybe saw that it was more of a safety issue than the plant manager did, would you believe?

A I really don't agree with that. I mean, you know, as you've said, I've sat through all this stuff. I don't believe in Steve Bluemner's testimony that he ever felt it was a safety issue.

I believe he -- he had a job. I believe he wanted to get the -- the gauge piping repaired. But I don't believe, as he did in the Rush Island event on Unit 2 where he said, Hey, you can't put the unit back on, I don't believe he ever said that associated with the Taum Sauk plant.

Q But Rush Island was post breach when there is a more heightened awareness of the consequences of the

decisions that are made as far as safety, correct?

A It -- I don't know that -- you know, I think where -- we have definitely changed some things. And as I mentioned before, we're trying to continuously improve things. But I don't believe even before the breach that we operated things unsafely.

In hindsight at Taum Sauk, like you said, there were things that could have and should have been done differently. But I'm not prepared to say that we were operating things unsafely before the breach.

MS. BAKER: No further questions.

JUDGE DALE: Thank you. DNR?

MR. SCHAEFER: Thank you, your Honor.

CROSS-EXAMINATION

BY MR. SCHAEFER:

Q Mr. Birk, do you still have Exhibit 18 up there in front of you? Do you still have Exhibit 18? That's -- that's -- at the top, it's Richard Cooper's e-mail dated October 11, 2005 at 3:59 p.m.

A Yeah. Let me -- let me look through, and I'll find it. That's the Appling 181, if I remember correctly.

JUDGE DALE: Yeah. You were supposed to ignore the Appling.

A Yeah. I know. I remember you said that. I just want to make sure we're all looking at the same

thing. Yes.

Q (By Mr. Schaefer) And I'll direct your attention to the -- to the last e-mail string, that first page. That's the one from Richard Cooper to -- to OSAG and Warren Witt, Power Supply Supervisor, and you. It's October 7, 2005, at 7:31 p.m. Do you see that one?

A Yes, sir.

Q Okay. What did you do -- well, first of all, around -- around the time that you first saw this e-mail around October 7th of 2005, I think you said, what did you do to satisfy yourself that the actions taken as stated by Mr. Cooper in this e-mail that he was lowering the set point, what did you do to satisfy yourself that that was a reasonable and prudent response to the situation?

A Basically, what I did was I read through the e-mail. And I think what -- you know, at the time, if I recall, what -- what convinced me is -- is Cooper's -- Rick's statement that we feel confident that lowering the upper reservoir level's shutdown set point will keep us from pumping -- keep us from overpumping the reservoir wall.

Q So Other than just reading the e-mail, you didn't do anything else to satisfy yourself that it was reasonable and prudent?

A That's correct.

Q All right. Do you have Exhibit 20 up there? I can't remember if you were asked about that or not. It's an e-mail from Richard Cooper. It's not -- you're not in the string. It's Tuesday, September 27th, 2005 at 4:35 p.m.

A I don't believe I do.

Q I can help find it for you.

A Oh, is it laying up here somewhere?

Q It should be.

MS. BRUEGGEMANN: I think Judge has it. I don't think I pulled that one.

JUDGE DALE: Oh, well let's see what I've got.

MS. BRUEGGEMANN: That is the Niagara Falls that we almost pulled.

JUDGE DALE: Let's look in my spares.

A Yeah. Here's the -- here's what I've got. If you know what it looks like --

Q (By Mr. Schaefer) Yeah. I don't think you have it up here.

A Okay.

MS. HOUSE: I have an extra copy if you want to use this.

Q (By Mr. Schaefer) I was going to find the one that was marked, but -- do we not have it? Have you got an extra copy? I'll hand you that.

A Thank you. Is this the marked one?

Q It's not the marked one. I'll represent to you it appears to be the same as the marked one. We can't seem to find the marked one.

A It appears to be the same. Okay.

Q Mr. Birk, I've handed you a copy of what's been marked as Exhibit 20. It's -- it's an e-mail from Richard Cooper to Thomas Pierie and Chris Hawkins. It's dated September 27th, 2005, at 4:35 p.m. And cc'd on that e-mail are Jeffrey Scott, Steven Bluemner, Robert Ferguson and Warren Witt. Do you see that?

A Yes, I do.

Q Now, I take it by now, at this point in time, you've probably seen this e-mail before, correct?

A Yes, I have.

Q Okay. Prior to the beach, had you ever seen this e-mail?

A No, I had not.

Q Okay. And this is dated September 27th, 2005. In that time, you were actually Mr. Cooper's supervisor, weren't you?

A That is correct.

Q Okay. Do you know -- do you know why, even though you were Mr. Cooper's supervisor at this time, he did not send you this e-mail?

A I believe, at the time prior to this period, it may have been a month or two prior, Chris Iselin was actually the Director of Hydro Operations. Chris moved over to HR to our Human Resources group.

We had -- I had made a decision to put Warren over the entire hydro and kind of take Chris's spot. And it wasn't officially announced yet, but I believe people were aware of it.

Q But that's not Chris Hawkins or Chris --

A No. Chris Iselin. Not Chris Hawkins. Chris Iselin.

Q And Chris -- Chris Iselin is not in this e-mail either, is he?

A No, he's not. That's correct. So -- but I believe you were asking me why I wasn't on it and why Warren was; is that correct?

Q No. I'm just asking you. You may not know. I'm just asking you why you're not on the e-mail.

A I don't know. I don't know.

Q Okay. In fact, the September 26 awards ceremony that was down at the Taum Sauk facility, were there people outside of Ameren employees that were also there at that ceremony?

A Yes, sir.

Q Just engineers that were part of that

organization?

A Part of what organization?

Q I don't remember the acronym. What was the engineering group?

A IEEE.

Q The engineering group that actually gave out the award? EEE?

A Yes. I and three Es. IEEE.

Q And what does IEEE stand for, if you know?

A I don't know.

Q Okay.

A I mean, I -- I could guess, but I don't want -- I don't want to guess.

Q Okay. Did that ceremony -- did it involve giving a tour of the facility?

A I am not sure about that.

Q Okay.

A I did not go on a tour if it did.

Q Okay. How -- how long were you Rick Cooper's supervisor?

A Direct supervisor? It was probably about two months.

Q Okay. So for those -- did you give him any evaluations in those two months?

A No, I did not.

Q But at some -- at some point, were you involved in evaluating his performance?

A I would -- as my duties as Vice President of Power Operations, I would sign off on the performance appraisals -- on his supervisor's recommendation on the performance appraisals.

Q Okay. Did you find him to be a good supervisor?

A I would prefer, if we were going to talk about that, to go in-camera.

Q Let's hold that for a minute. I --

COMMISSIONER GAW: I'm sorry. This is almost meaningless. For the record, IEEE stands for, I believe, the Institute of Electrical and Electronic Engineers.

A I would concur with that. That sounds correct.

COMMISSIONER GAW: Sorry.

MR. SCHAEFER: Thank you.

MR. BIRK: Thank you.

Q (By Mr. Schaefer) I -- I assume that you know by now that, at the time of the breach on December 14th, 2005, that the high and the high-high warrick probes were set at 4 and 7 inches from the top of the wall; is that correct?

A Yes, I do.

Q When did you first learn that?

A It was a couple weeks after the breach.

Q Did you ever discuss that fact with Mr. Cooper?
A I don't recall.
Q Do you recall specifically whether Mr. Cooper ever told you how they got set to that point?
A I don't recall Mr. Cooper was aware that they were set at that point.
Q As you sit here today, do you know who set the high and the high-high probes at 4 and 7 inches from the top of the wall?
A I do not.
Q Okay. And other than who, do you know why they were set at 4 inches and 7 inches from the top of the wall?
A I do not.
Q And one more related question. Do you know when they were set to 4 inches and 7 inches from the top of the wall?
A I do not.
Q I -- I believe you said that you don't think that Mr. Bluemner or Mr. Cooper or anyone else who knew of the situation thought that the dislocation of the gauge piping was a safety issue.
And my question to you is, did any of those people ever tell you prior to the breach that they didn't think it was a safety issue?

A No, they did not. But subsequent to the breach, I have had discussions with them. And that's what they have indicated to me.

Q You would agree it was a safety issue, correct?

A Obviously, if the probes are set above the low point on the wall, it's a safety issue.

Q So someone knew that those probes were set at those elevations -- well, strike that.

MR. SCHAEFER: Are we up to Exhibit 43 --

JUDGE DALE: Yes.

MR. SCHAEFER: -- Judge Dale?

MS. BRUEGGEMANN: While he's handing out Exhibit 43, can we take up something I haven't yet done and ask to have Exhibits 40 through 42 admitted into evidence?

JUDGE DALE: Certainly. Objections, including standing?

MR. BYRNE: The standing one on the Highway Patrol statement and no other objections.

Q (By MR. Schaefer) Mr. Birk, I've handed you what's been marked as exhibit --

JUDGE DALE: Wait just a second.

MR. SCHAEFER: I'm sorry, Judge.

JUDGE DALE: Those three exhibits are admitted subject to standing objection.

(Exhibit Nos. 40, 41 and 42 were offered and

admitted into evidence.)

Q (By Mr. Schaefer) Mr. Birk, I've handed you what's been marked as Exhibit 43. And it starts out as an e-mail from Jerry Lee Simpson to you, Allen Kelly and Robert Powers. It's dated Friday, September 30th, 2005, at 8:32 a.m. Did you see that?

A Yes, I do.

Q And if you go up to the e-mail immediately below that's the second one in the string from the top of the page, that's an e-mail from you to Jerry Lee Simpson, Allen Kelly and Robert Powers is dated September 30th, 2005, at 7:35 a.m. Do you see that?

A Yes, I do.

Q And it says, Attached is my list with my recommendations; is that correct?

A Yes, sir.

Q What were -- these were your recommendations to what?

A As the e-mail says, possible capital budget cuts.

Q Okay. Why were you making recommendations for capital budget cuts?

A Because I am the AmerenUE Vice President and representative for these plants. And I was asked to -- to review and come up with some recommended reductions in the

2006 capital budget.

Q Okay. And that was -- was that just -- that was part of your job to make recommendations for capital cuts to, what, save money in the budget?

A Yes. It was part of my job to -- basically, to make budget recommendations.

Q Okay. Including -- including cuts in the capital improvements?

A It would be improvements or cuts. We -- we recommend both things.

Q That next sentence says, I believe we should remove all of the money for a pumped storage facility, $3.7 M, which I assume is million?

A Uh-huh.

Q That's not currently the corporate plan, and a facility of that type ranks below gas or fossil as the chosen option at this point. Do you see where I read that?

A Yes.

Q What -- what pump storage facility is that that you're referring to the $3.7 million for?

A That would be in reference to an additional pump storage facility, not Taum Sauk.

Q Okay. Where specifically was that facility to be located?

MR. BYRNE: I just -- your Honor, I just wonder if any of this is confidential and might need to go in -camera. I'm not sure. Mr. Birk would know.

A It would -- it would probably be better to go in-camera.

Q That's fine because I'm almost done, and I can ask him the rest of this stuff in-camera, too.

A As it has to do with our generation plants.

JUDGE DALE: Okay. Let's go in-camera, and then everybody who has questions that have been proprietary or confidential in nature should ask them then.

MR. LEONARD: And how is the press going to know when you're back in session?

JUDGE DALE: Mr. Byrne will come and tell you.

MR. BYRNE: I will. Unless I forget.

MR. LEONARD: That would violate the Sunshine Law, so let's hope that doesn't happen.

MR. SCHAEFER: Yeah. I don't think this is -- I don't -- other people's questions, my questions aren't going to take very long.

REPORTER'S NOTE: At this point, an in-camera session was held, which is contained in Vol. 8, pages 1492 through 1509.

MS. BAKER: I have a question about Exhibit 43. Is that going to be marked as highly confidential, or is it going to stay as it is?

MS. HOUSE: I think that was a budget decision.

MR. BIRK: Pardon me?

MS. HOUSE: Do you think the numbers in here are proprietary?

MR. BIRK: Yeah. I think it ought to be proprietary. I do they think we -- it ought to be proprietary.

JUDGE DALE: Then -- then let us mark it as 43-P.

MR. BIRK: Good question.

MR. SCHAEFER: Are we ready? I think Exhibit 43 is the only one that I got in that wasn't already in. And I would now move for the admission of Exhibit 43.

JUDGE DALE: Any objection?

MR. BYRNE: No, your Honor.

JUDGE DALE: Thank you. It's admitted and designated now as 43-P.

(Exhibit No. 43-P was offered and admitted into evidence.)

MR. SCHAEFER: Thank you.

CONTINUED CROSS-EXAMINATION OF MARK BIRK

BY MR. SCHAEFER:

Q (By Mr. Schaefer) Looking back on it now, Mr. Birk, can you list for me, please, all the things Ameren should have done differently prior to the breach?

A All of the things?

Q Yes, please.

A In reflecting upon it -- and as you know, I've sat through most of the -- the testimony. I've been involved in the FERC Independent Panel review, FERC staff, Missouri Highway Patrol, Rizzo report, Sieman's report.

This is the sixth investigation we've gone through on this. And so I've had -- I've had a good amount of time and a lot of data to review and to reflect.

And what I think went wrong, I believe we had poor communication and coordination between our Engineering and Operations organizations. I think we had a lack of the proper understanding of the design basis of the facility.

I think -- and this was mentioned earlier. I think we -- we failed to -- to recognize the severity of the problem. And we didn't act in as -- in as conservative of a manner as I would have preferred.

And I believe the initial construction of the facility wasn't -- I think it's suspect. And I don't think it's as we thought it was.

MR. SCHAEFER: I don't have anything further,

Judge.

THE COURT REPORTER: Excuse me. I need to change paper before we start.

JUDGE DALE: Okay. Go ahead.

(Break in proceedings.)

JUDGE DALE: Okay. And now we're back on the record.

CROSS-EXAMINATION

BY COMMISSIONER GAW:

Q All right. Very good. Let me -- let me start with basics on hierarchy and organization, aside from what you've already covered, hopefully.

One of the things I am not clear on right now has to do with -- and I guess we'll -- we'll deal with this as it is currently structured. The generation side of Ameren is separated from the transmission side to some degree; is that correct?

A Are you talking about -- yeah. It is now.

Q When -- do you know when that occurred? That's Been in effect for a while, hasn't it?

A Yes. That split occurred -- it's been a couple years.

Q Before Taum Sauk's breach, right?

A Oh, definitely. Yes. Yes. And part of what was -- what was driving that was the FERC open access.

Q Right.
A And then the transmission being segregated from the generation.
Q And this is a little bit of a side line here that I'm on. But I'm trying to understand how that fits in with the structures we've been talking about in regard to -- to issues on -- on dealing with -- with your shop and down and then issues, of course, dealing with -- with trading and -- and energy trading. Is that all on the generation side?
A Energy trading -- currently or in '05 or prior?
Q I want you to tell me both in -- in both cases. And, gosh, if we're going to get -- if this changes between '05 and '04, that's going to be another question. But --
A No. Let me tell you about -- let me tell you about how we were structured during -- at the time of the breach. And then I'll tell you --
Q That would be fine.
A -- how things changed the first of this year.
Q That would be fine. Go ahead.
A At the time of the breach, we -- we had a generation organization. I was over AmerenUE Power Operations. I reported to Allen Kelly, who was the Senior VP of Generation.

At the same time, the regulated generation arm under Jerry Simpson also reported to Allen Kelly. Okay? The -- Allen Kelly then reported to Tom Voss, who was Chief Operating Officer of Ameren.

So you had the generation organization reporting up through that.

Q Okay.

A The trading organization, Ameren Energy, reported to Andy Serri, who at that time also reported up through Tom Voss.

Q Okay.

A Okay? So they were -- they were separate. The transmission organization -- is that important to you because I can't exactly recall.

Q I'm looking for generalities on that part of it. So just -- just to the extent -- I'm -- I want -- I think you've already pretty much cleared up my major question. But on the transmission side, just generally speaking, do you know how -- how that graduated?

A Generally, they reported up through -- they reported up through Tom Voss who was the CO -- the CO -- or the Chief Operating Officer at that point in time.

So the operating organizations reported up there through there. They were functionally separate due to the FERC code of conduct issues and stuff.

Q Yes.
A So --
Q Now -- now, that was during the -- the time frame around prior to the breach --
A Yes.
Q -- correct? Now, that subsequently changed?
A Beginning of this year.
Q All right. And now describe the changes in regard to what you were talking about in '04 and '05.
A Okay. At the beginning of this year, there were four distinct business lines, which isn't a good term, but four distinct businesses created. And there were Presidents and CEOs for each of those that reported up to Gary Rainwater.

We had Warner Baxter, who was President and CEO of the Services Organization, which has things such as financial, you know, accounting stuff like that.

Q Okay.
A We had Scott Sissell who was President and -- who became President and CEO of the Illinois Energy Delivery regulated organization. So in other words, that would have been the old SIPS, Silco, IP, T&D system.
Q Okay.
A Basically the distribution system.
Q Yes.

A So he -- so he's President and CEO of Illinois regulated.

Q Okay.

A We had -- have Allen Kelly, who is President and CEO of Ameren Energy Resources, which are basically the unregulated generation located in Illinois.

Q Yes. Okay.

A He also has -- Allen Kelly also has the unregulated trading arm that reports to him now.

Q Okay.

A And then the last person was Tom Voss, who is President and CEO of AmerenUE. And, basically, Tom has -- I report to Tom. Chuck Naslund in Nuclear reports to Tom. Richard Mark, who is the Senior VP of Energy Delivery, reports to Tom. And Lynn Barnes, who is the Controller for AmerenUE. So, basically, Tom is the -- the AmerenUE President and CEO. And all four of those Presidents and CEOs report to Gary Rainwater.

Q Okay.

A So that's how we are right now.

Q All right. Where did Rainwater fit into the equation in -- in -- at the time of the breach?

A He -- he was -- he's -- he was President and CEO of Ameren. And Tom Voss, as Chief Operating Officer, reported to Gary Rainwater.

Q Okay. Was Gary Rainwater also a President of AmerenUE at the time?

A I am not sure about that. I'm not sure about that.

Q Okay. That's something we would be able to find out from sources, I suppose?

A Yes. Yes, we could.

Q Okay. Now, in regard to the -- the examination of where operations fit in with -- with trading in '05, the trading arm did not go through UE in '05?

A The -- in '05, we had the Joint Dispatch Agreement still in place.

Q Yes.

A So we were jointly dispatching both the regulated and unregulated -- the SIPS units --

Q Yes.

A -- in that. And Ameren Energy, that reported up through Andy Serri who --

Q Yes.

A -- ultimately reported to Tom Voss. But it did not go through UE.

Q Okay. So let's -- let's talk about prior to April of '05 and that -- in that regard before the MISO market opened.

A Correct.

Q And I don't know if that's a significant event in my questions, but we'll find out.

A Uh-huh.

Q But -- prior to that time, was there -- the decision as to when to dispatch units and whether to dispatch units, safety aside for the time, who made those decisions?

A Basically, if the unit was deemed operable by the plant.

Q Yes.

A You know, yes.

Q I know you need to get that in?

A You understand --

Q But it's operable in this -- in this question?

A Assuming it's operable, then it would be -- basically, what would happen is prior to the MISO market, those units would be put into a dispatch log rhythm.

In other words, you'd make -- you'd make a load forecast for the next day, and it was a load forecast for the JDA assets. So it looked at joint UE and SIPS load. And then you take all the availabilities of the unit, and you throw it into the dispatch log rhythm.

And it would -- it would basically dispatch the units based upon lowest marginal cost.

Q Okay. And -- but whose -- whose department was

doing that?

A That was done by the dispatch trading organization.

Q Okay. Which, again, was not UE?

A That's correct.

Q So the UE units were being dispatched on -- by this Ameren affiliate?

A Ameren Services affiliate. Uh-huh. Yes.

Q Okay. And they were also in charge of dispatching the Illinois generation units that were owned by the other Ameren affiliate?

A That's exactly right. And that's the way it was since the merger with SIPS. It had been that way since like 1998.

Q Do you know when the JDA was originally entered into?

A It was in -- it was when the -- the merger of SIPS took place, which I think was 1998, if I recall correctly.

Q So that far back?

A Oh, yeah.

Q I wasn't sure about that.

A Yeah.

Q Okay. And so during that entire time frame, from that period forward to when the JDA was extinguished,

for lack of a better word, the -- the dispatch was handled in the same fashion?

A That's correct.

Q Okay.

A Uh-huh.

Q Now, what happened, if anything, in regard to the -- the dispatch -- handling of the dispatch of the units subsequent to the opening of the MISO market as far as decisions were concerned, if anything?

A It was -- it was a different -- a significant change in the way it operated. And I'll give an example. Prior to the MISO market, we'd have -- you know, we'd run a dispatch log, and we'd have certain units on.

If we lost a unit prior to the MISO market, we would be responsible for covering that unit. So if we had a 600 megawatt unit trip, we had to -- by we, our trading organization had to go out and buy something or we had to put on other generation to cover that.

After -- subsequent to the MISO market, what we did is on a daily -- on a daily basis -- the MISO market is a two settlement market. Day ahead and real time. Sep -- they sell completely separate.

So in the MISO market on a day ahead basis, you bid in your load; in other words, what your load forecast is. And then you designate to the MISO which units are

available for dispatch and how much -- you know, what their values are. And you designate a cost for dispatching them.

MISO then -- if you can imagine how we were doing it for the Joint Dispatch for UE and SIPS, now you're doing it for a much bigger footprint. So MISO throws all that information in, looks at cost, looks at transmission constraints, looks at it all and comes up with a day ahead dispatch.

Q Okay.

A And so I think, typically, we have to designate what units are available by like 11:00 in the morning the day before. And sometime in the afternoon, MISO gives us the dispatch order for those units for the next day.

Q Okay. Now, the next day rolls around. What happens on that day?

A We -- we try and meet what the dispatch order that we got for MISO is. Because if you don't meet it, you -- you incur RSG charges, revenue insufficiency and other charges.

So in MISO, there's always a benefit to generating what you say you're going to generate.

Q Okay. I -- now, I don't know if you want to tackle this or not. But if -- can you -- can you explain the significance of the -- the bidding in the day ahead

market as compared to what -- and how -- how that's done in regard to -- to those units?

A You mean how we bid them in?

Q Yes.

A Yes. Basically -- I mean, right now -- and I think this is -- we've done this since the initial market started. We -- we bid -- on camera to say -- it's a bidding strategy. I don't know that we want --

Q Can you be more general than --

A Basically, we designate what we believe the -- the value of each -- each unit is.

Q That's fine.

A And we bid that value into the market.

Q Okay. Now, do you make any assumptions in regard to whether or not you're going to run those units or not when you bid -- bid in?

A No, we do not. But in reality, if you have fossil units that are on, you're not -- for all intents and purposes, you're not going to take them off.

Q Sure.

A So you assume that they're going to be on what their capability is, and you bid it in at a certain value.

Q Okay. And what I'm -- I guess what I'm driving at is if the next day you have made those assumptions and you bid those units in, if a unit that you bid in is

unavailable, then what occurs, first of all, in regard to -- to the financial end?

A Well, it's a two-settlement system. So let's say you bid it in at 11:00, and the unit's on.

Q Yeah.

A And the unit clears in the market for the next day. At -- you know, and when you get the dispatch back, well, you're going to get paid for whatever at that unit cleared for the next day. So if that unit's not there the next day, then you're still collecting what you had day ahead, but you have to make those megawatts up in real-time. And, typically, you're making them up from buying them from the MISO.

Q And is it likely that the MISO clearing price will be higher than the incremental price?

A The real-time price or the --

Q Yeah. Well, no, no. No, no. That's another issue, I realize. But what I'm specifically talking about right now is if -- if we assume that this is -- that the unit that you bid in is anything other than a gas peaking unit, is it -- is it --

A Yes.

Q -- more likely that the cost of that replacement on the MISO market the next day is going to be higher than what -- what your incremental costs were running the unit

that didn't get run? That's really long.

A Yes. It is more likely.

Q Can you explain that so it's more understandable than my question?

A The only thing is -- let's -- let's say you -- I I'm using an example.

Q That would be good.

A You bid for 20 bucks. You bid it in at 600 megawatt units at $20 a megawatt.

Q Okay.

A It goes and clears the next day in the market at $50 a megawatt. The unit's not there.

Q Yes.

A So you're minus 600 megawatts. You have to go buy on an hourly basis in the real-time market. Now, you've already collected that $50. Okay? So if the real-time market is trading at $60, you're buying it back at 60 bucks. If the real-time market is trading at $40, you're buying it back at 40 bucks. So it can go either way. And it -- it isn't always predictable.

Q Yes.

A It's not easily predictable. And I've seen it go both ways where -- because they take into account transmission constraints. There's all kinds of bidding strategies where some people don't bid their full amount

of load in. There's a -- there's a number of factors in the market that can cause it to go either way.

So in reality, the vast majority of the time, if we bid a unit in and it's there the next day, we're probably going to -- we're probably going to benefit more than if we bid it in and it's not there the next day from a financial standpoint.

Q I understand. Now, let's look at that -- at that profit margin under both of those scenarios that you gave us, one where it actually cleared a little higher --

A Uh-huh.

Q -- in the real-time and one where it cleared a little lower than the real-time in the day ahead. But make the same suggestion as you did in regard to your incremental cost of running that unit. Or let's say what you bid it in at, which was 20 bucks.

A It's a two settlement system. So -- so you're -- you're assuming it's going to cost you 20 bucks to generate. That's what you're bidding in at. Okay.

Q Yes.

A It settles at 50. The unit's not there. Real-time is 60. You're losing money. You're losing $10 a megawatt unit on that unit because you were paid $50 yesterday to have it there, and you're paying $60 to replace it today.

Q Okay.

A And the reverse of that, if you pay -- you know, if you -- if you get $50 a day before and-real time it's trading $40, you're making $10 an hour on that megawatt unit.

Q Now ---

A That $10 isn't necessarily as much as you could have made, in which case you'd be making $30.

Q Well, now, that's what I want you to do next. I want you to tell me when the unit is available and what your profit margins are in that same scenario that you just delivered to me.

A Well, if -- you know --

Q It's pretty easy math, I think. Go ahead.

A Yeah. You can do it. I mean, if the unit is available and you bid it in at $20 and it clears for $50 day ahead and you produce everything you said, you're going to make $30 a megawatt hour on the thing if that -- you know, these are hourly prices, and they vary hourly. So I'm just -- you know, these are just rough estimates. Okay?

Q That's all I'm looking for right now.

A Okay. Okay.

Q Okay. Now, in -- so in regard to the way that whole system was working subsequent to the MISO market,

was it -- was -- was there a significant difference in -- strike that. Let me start over again.

Prior to the MISO market being implemented, if you were doing off system sales with the UE units and -- and I -- those would be bilateral transactions, right?

A Yes. They would have been.

Q Okay. Now, in -- in those -- in the event of that occurring -- and I'm -- let's ignore the -- the JDA for a moment, and we're going to say we're dispatching outside of the Ameren system itself on this transaction.

What -- first of all, give me the base scenario. What happens when you dispatch to your own native load under that system?

A Prior to MISO?

Q Financially.

A We're dispatching to our own native load.

Q Yes.

A Basically, you know, our rates are set for, you know, cents per KW, kilowatt hour. And, basically, what you're -- what you're getting is the difference between what you're generating at and -- now, naturally, there's other costs imbedded in those rates. There's T&D costs and everything else.

But -- but you're supplying your native load with -- you know, with your lowest cost generation.

Q Okay. And if you're doing off system sales, is it a pretty straightforward transaction? You have -- you agree with some third party to sell the energy, and they pay you for -- for that --

A It's a bilateral agreement. So you agree on what the -- you agree on what the price was and you have to provide that energy then. You're committed to provide that energy.

Q Okay. Now, in regard to the transactions that took place across the company lines, if -- if you provided energy from the -- from UE to an Ameren affiliate in Illinois under the JDA, prior to MISO, what -- what sets the price on that transaction?

A Well, the way -- I mean, the way the Joint Dispatch Agreement was -- was set up was, basically, you know, it was based on the incremental cost to the unit.

Q Okay.

A Both ways.

Q It worked both directions?

A Worked both directions. Uh-huh.

Q Yeah. Was there -- was there more generation -- low cost generation available on the UE system or on the Illinois side?

A It varied based upon the time of year and the loads.

Q Did you ever see the figures on -- on which side benefited from that agreement the most?

A No. I cannot recall on that. Huh-uh.

Q Okay. Now, let's go post MISO again and, first of all, tell me how that transaction works financially in that environment under the -- under the JDA in the MISO market.

A Well, the JDA is no longer in operation now. But you're talking about --

Q Today. But I'm talking about post -- post April '05 up until the termination of the JDA.

A I really don't know the details -- I really don't know the details of the financial side during that point because I was -- I was no longer in trading, and I was no longer in dispatch. I was in the plan side, so I didn't --

Q So we still need Schukar, don't we?

A It sounds that way.

Q Okay. So -- and would that -- would you be unable to answer the question about off system sales outside of the JDA?

A Well, I think -- I mean, I think it was always -- I don't think fundamentally it changed in a way that -- that -- that they were always wrapped up. Native load got the lowest generation, and it was native load of the joint

dispatch for both UE and SIPS. And then it was stacked above that.

Q Okay.

A So --

Q So, in essence, the end result after you did all of the math should have been fairly close --

A Right.

Q -- after -- after the MISO market?

A Correct. In theory, with the whole MISO thing, if, you know, you're bidding in for generation and then you're bidding your load in and you're getting paid for your generation and your loads, it should all wash. It should all theoretically wash or be pretty close.

Q Okay. Now, let's -- let's get specifically to Taum Sauk for a moment and how that -- how that worked on settlements.

I want to make sure that what I heard earlier from Mr. Schoolcraft was -- is accurate. I'm not clear on what happened prior to the MISO market in regard to the -- what financially would have been booked as the price of energy for pumping MISO -- pumping MISO -- pumping Taum Sauk.

A I can tell you the way we did it when I was in Trading.

Q That would be good.

A Basically, what you look at is we knew it took roughly one and a half megawatts --

Q Yes.

A -- of pump for every megawatt of general. So you -- you take a prediction on where you think your -- you know, what the cost of energy you were going to be pumping back for that night.

Q Okay.

A So like tonight, I'd look at it and say, okay, I think off peak energy is going to be here or my units are going to be down at this level. Typically, you look at the units and say, It looks like I'm going to have margin on Labadie and pump-back on Labadie generation.

Q Okay.

A And that's what I used to set the price for the next day on what to sell it for or what to dispatch it for. So it could go either way. So, you know, let's say Labadie's generating at 20 bucks and it's one and a half times. You'd say, Okay, my dispatch order, Taum Sauk's failure mark is $30. Okay. So either you went to native loads at 30 bucks or if it -- you know, if you stacked everything and it was higher than the native load stack, it went to off system sales at 30 bucks.

Q Okay. All right. So, in essence, you set your purchase price based upon the incremental cost of some --

one of your plants that was running at night?

A Typically, you try to determine what plant -- or which plants -- roughly where your system economics would be. You know, it's an estimate.

Q Sure. Sure. But I -- I think I've got that picture.

A Uh-huh.

Q Now, did that change, if you know, after the MISO market in regard to how that was done?

A I don't believe it significantly changed. I think they may have looked at kind of the off peak, but that would be something you'll really need to talk to the Trading people.

Q I'll do that because I heard from Schoolcraft, I thought, and I don't know if you were in here or not, that they look directly and figure off the MISO market price as opposed to what you're talking about was done before --

A Before -- correct. Right. Realize, once we had the MISO in place, we had a specific known price.

Q That's --

A So you could go to Taum Sauk, and you could tell what the price was going to be for each hour. And you could see where the off -- kind of the off peak prices are going to be just based upon where day ahead cleared. So you've got an idea of what it's going to be.

Q What I'm curious about, and I'll just ask when we get to -- get somebody in here that's familiar with that time frame, would have to do with whether or not that changed the incremental profits attributable to Taum Sauk, not necessarily where -- I'm not necessarily talking about the change in overall profits, but whether it changed incremental profits at Taum Sauk.

A Probably best to ask the Trading group that.

Q Okay. All right. There have been -- there's been a lot of discussion in regard to this -- this safety issue with you and that you've heard over the last few days.

And one more time here, are you aware of any definition of the term "safety" in regard to taking units offline that is written down somewhere today or has been in the past in -- in protocols or directives from or within Ameren?

A Well, as I mentioned before -- I mentioned a little bit before, I had sent a directive out to my direct reports in an e-mail. And subsequent to the breach, Tom Voss has also put a directive out to all the operating organizations.

Q He --

A I mean, I can -- if you want, I can read the directive to you because I've got it here.

Q How long is it?

A It's just -- it's a paragraph.

Q Sure. Go ahead. I hope it's not like my paragraphs --

A No, it's not.

Q -- multiple pages.

A "All AmerenUE employees are entrusted with the responsibility and privilege to operate AmerenUE plants, substations and other facilities and equipment in a safe, reliable and efficient manner. Our daily operating practices must always place public safety, personnel safety and environmental compliance above all other performance goals of our company. Operations management has the responsibility and authority to implement the standard throughout the operating organization."

Q Okay. When was that issued?

A That was issued -- the copy I have was issued this year when we broke AmerenUE -- when it became AmerenUE. I had issued something prior to that after the Taum Sauk breach for Ameren generation.

Q Okay.

A So we -- we revised this for AmerenUE --

Q Okay.

A -- in January of this year.

Q Do you -- do you have the previous language?

A I don't have it with me. But it was pretty much similar. This is an AmerenUE as opposed to Ameren Generation.

Q That's an overall policy statement, right?

A Uh-huh.

Q And -- and, again, my question is, is there a definition of safety for purposes of determining whether or not a plant should be taken out of service that's in a written form at Ameren today or in the past?

A I believe the nature of the potential occurrences that could happen make it really tough to have one definition, you know, of safety. We --

Q So first -- before you keep going, which I won't -- won't keep you from doing, but my -- the answer to my question is no?

A No.

Q Okay. Now go ahead. You can explain it.

A It's -- you know, we -- our plant managers and our operating people have to make that evaluation, you know, at the plants. And -- and our -- our plant managers, our engineers -- we have engineers on staff. We have experienced operating people on staff.

And, you know, there are a number of things that could come up. You could not go into detail on every potential occurrence. People have to be able -- they have

to be well-trained, and they have to be able to evaluate and make decisions.

Q And what I'm asking about right now has to do with understanding that your -- your point that there -- that there may be lots of nuances.

Where's the skeleton frame work in writing within Ameren that gives your engineers and your other -- your other personnel direction on when something should be viewed as a safety risk in a plant?

A Well, what -- what they have for -- typically, for each of our plants, we have things that are called job instruction bulletins. Effectively, they're -- they're operating procedures --

Q Okay.

A -- and policies. So in those, you know, if you're looking at a particular -- particular system, it would give you an indication on -- on what the normal parameters are for operating that system --

Q Yes.

A -- and -- and give you some idea on what to do should things happen in that system.

Q Okay.

A So you almost have to look at it on a system by system basis.

Q Okay. That's -- I understand what you're

saying.

A Is that you're asking?

Q Well, at least it's giving me something more than what I think I got before.

A Yeah.

Q When -- what is -- what is it that -- where is it that I would find that in regard to Taum Sauk?

A There should be -- well, you have the Taum Sauk operating manual, which I believe is located at Taum Sauk and down at Osage.

Q Okay.

A And then there are Taum Sauk design basis information that's located down in Taum Sauk.

Q Okay. Have you been through that manual?

A I've been through the Osage operating manual. Yes.

Q Manuals, I understand. Multiple volumes?

A I think we're -- I think what Mr. Witt was talking about were training manuals.

Q Oh, okay.

A I'm talking about an operating manual that would set the parameters.

Q Okay. Well, you have been through it?

A The operating manual, yes.

Q How long is it? Do you know?

A It's actually a part of the -- the record. I believe it's in the -- in the Highway Patrol report.

Q Is it?

MS. HOUSE: I believe it is. If it's not part of the Highway Patrol report, it was part of one of the data requests by the Staff, and it's been submitted.

COMMISSIONER GAW: Can -- can someone give us a copy of that some way?

MR. BYRNE: Yes.

COMMISSIONER GAW: Thank you. I -- it very well could be that I have it within the Highway Patrol information, but -- but I just don't remember it.

MR. BIRK: I think it is.

Q (By Commissioner Gaw) Okay. Do you know whether or not in that operating manual there are provisions dealing with in the event of X, the plant needs to come offline? Does it have any kind of directive like that that you're aware of?

A No. I don't believe it does.

Q Do you think there's anything, if you remember -- and the manual would be the best evidence. I understand that. But to the extent that you -- that you -- anything that you recall that would stand out to you as a -- as something that would give a -- a superintendent or -- or workers there or the manager some concept of this --

these -- these things are important factors from a safety standpoint at this plant.

A I don't -- I believe the operating manual, when you go through it --

Q Yes.

A -- it talks about each component like the lower reservoir.

Q Right.

A It talks about the upper reservoir. Talks about the power block. It talks about -- and it gives some detail on each of those things. I don't think you're going to find in there where it says, you know, if this happens, you need to do this.

Q Okay.

A I don't think that's the case.

Q Okay.

A That's one of the things coming out of the breach that we identified internally that -- that we don't have as good of understanding on design basis as we should have.

Q Okay.

A In other words you know, design basis -- an important design basis, you know, I think for Taum Sauk is I think there was no emergency relief structure. It was very important that -- you know, there's only one way you

could overtop it, and that's mechanical pumping. So, I mean, that's the type of thing that -- that we realize we need to improve upon.

Q Okay. Is that being done now with the operating manual?

A With the current operating manual --

Q Yes.

A -- or with what we're looking to revise and improve?

Q Yeah. First of all, has it been done up to this point with --

A Um --

Q That would be my first question.

A Subsequent to the breach?

Q Yes.

A Basically, what we've done subsequent to the breach, is -- is part of our quality management system which was implemented after the breach. We are doing design -- design basis training -- design basis training for all of our facilities.

Q Okay.

A Including -- and, actually, I've been through the hydro -- I've been through the dam safety training myself already, which is something that I did not -- hadn't had before.

Q All right. Okay. Now, is there more being done to -- to -- in regard to this going forward?

A Yes. Yes.

Q Tell me what that would be.

A Yes. Basically, what we are doing, also, at our fossil facilities -- I mentioned we have job instruction bulletins. We went through and we've reviewed those. And we would like to improve the format of those to make them a little more operator friendly.

And that -- we have -- we have started that and at our Rush Island facility.

Q Yes.

A And we have a plan to roll that through the rest of our plants. We want to get the format down, get it so it's something that's workable and good for the operators.

Like I say, we currently have job instruction bulletins. We have operating procedures we want to get them into a common format that we think is kind of the best format.

Q Okay.

A So, yes, we're working on that.

Q The operating manual on Taum Sauk, do you know whether or not it was updated to take into account the changes that were done in the fall of 2004?

A With regard to the -- to the liner?

Q To the liner, to the probes, to anything else that was done to change it from what it had been before.

A I don't -- in looking through it, I don't remember -- I don't recall that that much had been changed.

Q Okay. So, to your recollection, it wasn't changed, or that -- it wasn't changed much?

A It wasn't changed that much if it was changed. Yeah. I can't -- I can't recall exactly.

Q Would that -- would we be able to see the version that was in effect at that time frame of '05? Would that be something that is available?

A I believe it would be.

Q Okay.

A Uh-huh.

Q And that's kind of what I'm looking for. I think is that --

MR. BYRNE: The '05 version -- at the time of the breach, what was the Taum Sauk operating manual?

COMMISSIONER GAW: Yes.

MS. HOUSE: And that is what has been provided.

COMMISSIONER GAW: Been provided?

A Yeah. It's pretty similar.

Q (By Commissioner Gaw) Okay. Do you know whether or not at the time that the changes were made in

'04 to the Taum Sauk plant there was any kind of a training session for these -- for the Ameren employees who worked at the plant or worked in relation to the plant on other sites as to -- to the changes that were made?

A I do not know. I do not know.

Q Who would have been responsible for ensuring that that kind of training was done?

A Typically, in projects of that type of magnitude, that is usually coordinated between the plant and the engineering group. So they'll -- they'll work it out such that this -- there's, you know, if we put a new component in or something in a plant, they usually coordinate with each other.

And, usually, the engineering function takes the responsibility for setting up the training for the event or somebody comes in and the plant people would attend that.

Q Well, we've got different engineers doing different things on this project, right?

A Uh-huh.

Q So -- so who would -- who should have been coordinating all of that?

A It probably would have had to have been coordinated through -- probably the lead engineer on it.

Q Who was that? Do you know?

A I would probably say -- this is my opinion. But the magnitude of this project, I would probably say it would have been Steve Bluemner. The bulk of the work was in the liner work.

Q Okay. It was not clear to me in the testimony who was ultimately in charge of this project.

A Because we had electricals and mechanicals involved?

Q Yes.

A Uh-huh.

Q And do you see that as -- as a potential problem in -- in regard to communication, that there was not one engineer in charge of the entire project?

A I think that could cause a potential problem, yes.

Q Okay. Now, I'm -- I'm still on this question -- this liner questioning for a moment. In that training, there would -- there are individuals, as we know, who are not at that plant, but who run the plant, in essence, both at Bagnell or Osage and in St. Louis.

Would -- would it -- would your answer be the same in regard to training for those individuals as it was for the ones at the plant?

A I think in what was done, there was probably -- from an operating perspective at Osage, they probably saw,

at least outwardly, very little change in the way they were operating the facility, you know, because they -- before the liner job, they had got level indication, you know, remotely from the plant. After the liner job, they got level indication from the plant.

Q Right.

A But I don't see that there was a whole lot of change. Now, there was some alarming change probably associated with the warrick probes and stuff like that.

Q Yeah.

A But it would have been minor. Overall operation probably wouldn't have changed that greatly.

Q It's not clear to me at this point what -- what the changes would have been as far as the visibility to the operators at Osage. Or for that matter, the people in position to -- to observe in order dispatch at Taum Sauk. And -- and in regard to the alarms, do you know that -- any of that information in regard to what might have changed before and after?

A The details that changed?

Q Yes.

A No, I do not.

Q Who would have that information?

A That would typically reside -- would have resided with Tom Pierie or -- or Chris on the alarming on

the electronics side.

Q Well, I guess what I'm asking -- and I understand what you're saying. That's really -- you're really answering my question. But in regard to -- to -- to knowing what -- what was going on at the -- at those off-site facilities, would the operating -- would an operator there be aware of the change, do you think?

A Not until it was -- I mean, not until it was communicated to them.

Q Okay.

A Uh-huh. Typically, what happens, as I mentioned earlier, you know, there's all plant meetings and there's operational meetings.

Q Yes.

A Typically, what happens is if you have some change like that, that may be discussed in one of those meetings where, Hey, you know, Taum Sauk is getting a new liner. You know, there will be some more information that will be forthcoming, you know, stuff like that just so operators have an understanding of what could be coming down the road.

Q Okay. And -- and there was nothing that you know of in regard to -- well, you don't know whether there was any training done for those individuals on the changes, right?

A I do not.

COMMISSIONER GAW: Okay. Judge, you asked me to have a short break. I can break at this point.

JUDGE DALE: Okay. Let's go off the record and take a ten-minute break.

(Break in proceedings.)

JUDGE DALE: Are we ready? Back on the record.

Q (Commissioner Gaw) Oh, I know what I was going to ask you about. There was a -- back to the structure and the hierarchy, the FERC made some recommendation or requirement that I think played out in a stipulation regarding the structure of Ameren. Do you recall anything about that?

A You're talking about in creation of the Dam Safety Group?

Q Actually, I'm not talking about that, although that was a part of the recommendation, wasn't it?

A Yes, it was.

Q But in addition to that, was -- was there not a structural separation that was required in that stipulation, if you know?

A Well, it was really --

Q Between the -- the sales arm and the -- and the power portion? Have you -- does that strike any familiarity with you?

A I cannot recall that.

Q Oh, I can find it. Maybe I can find it in a little bit here if I can.

A Was that -- was that related to Taum Sauk?

Q Yes. If I can find my Stip., I'll ask you about it. Okay.

COMMISSIONER GAW: I don't suppose anyone has a copy of the FERC stipulation, do they?

MR. BYRNE: I don't think we do, unfortunately.

COMMISSIONER GAW: Well, maybe you shouldn't say unfortunately.

MR. BYRNE: Well, fortunately.

Q (By Commissioner Gaw) Well, I have it somewhere, but I don't see it with me right now. So we'll move on. And then if I find it, I'll, I'll ask you about it.

A Okay. That's fine.

Q And if you don't -- if it doesn't strike any familiarity with you, it may not -- it may not be that it -- you can help me with it anyway. This -- now, you've just -- have you described some of the -- some of the things that -- that occur generally in regard to -- to bonuses? And some of that was done in the highly confidential session, but I want to going a little bit outside of that for the time being.

Does Ameren generate reports regarding generating units as to their efficiency numbers that are delivered throughout -- throughout any part of the company?

A Their equivalent availability numbers? Is that what --

Q Tell me -- yeah. Does -- let me ask the question generally. Are there reports generated with generating units?

A Yes, there are.

Q Okay. Tell me what those reports reflect.

A Basically, I see a -- a monthly equivalent availability report on the units, so it goes month to month what their equivalent availabilities are.

Q Okay.

A I see a monthly report that provides for a comparison of budgeted megawatt hours to actual megawatt hours. There are also -- when we do our incremental costing for the units, those have heat rates listed, rough heat rates, so we have an idea of what those are.

Q Okay.

A And there's a number of other things that you could look at on our electronic, what we call our Genesis system.

Q Okay. And are those reports, if they're

available on the Genesis system, they're available to anyone within the Ameren group?

A Within the Generation organization, subject to code of conduct requirements.

Q Okay. So if I'm -- now, can I -- can I see other things about those generating units such as can I see anything in regard to numbers on revenues generated?

A Not that I'm aware of.

Q Okay. Any other matter that might be available information if --

A Budgeting information.

Q Budgeting?

A Uh-huh.

Q What happens in regard to budgeting? How it's that work as it relates to generating facilities?

A Basically, we set a -- a yearly budget, both -- both an O&M budget, Operations & Maintenance, and a capital budget. And it's done on a plant by plant basis.

Q Okay. And if -- is that budget something that's important for the company?

A It's a prudent way of running -- of running the business just as any other company would try and do.

Q And, again, I -- did you -- did you say or did someone else testify as to whether or not meeting that budget or -- or -- or the actual numbers that -- that are

incurred for -- for generating units, how that relates to compensation?

A Budgeting -- meeting a budget is one of the things we look at. And I will say that there is a -- a waiver process in place whereby, you know, plant makes their best estimate of what they think they're going to spend the next year and if something completely unknown comes up.

I'll give you an example. I mentioned the Rush Island 1 outage that we had earlier this spring. We got into it. We opened up the unit. We found out that we had some cracking on two of our turbine valves.

Well, that's not cheap to repair. It was several hundred thousand dollars, obviously, unbudgeted because, you know, you wouldn't know that until you got in and did an inspection, checked it out.

And the plant will get a -- a variance for that amount that they've spent. So it will not affect, you know, their -- their incentive comp.

Q Who approves that variance?

A I do.

Q And do you have to go to anybody above you to get it?

A Typically, I'll submit those up to Tom Voss.

Q Okay. So he would sign off on it --

A Correct.
Q -- based on your recommendation generally?
A Generally. Yes.
Q Okay.
A Uh-huh.
Q Have you ever had him turn you down on one?
A Not that I can recall. No.
Q Okay. I don't know why I cannot keep straight this -- you just mentioned it, the plant that -- that had the -- the issue about shutdown. Which one was it again? Rush Island?
A Rush Island.
Q Now, is it your understanding that there was some disagreement between the engineer, Tom Pierie, and the plant people on that --
A You're talking about the Rush Island event?
Q I'm trying to figure out if I'm talking about the right one, first of all.
A The Rush Island one was one that Steve Bluemner was involved in.
Q Oh, that was Steve Bluemner?
A Yeah. He testified. I believe he's the one that mentioned that in his testimony.
Q Thank you for clarifying that. Is it your understanding that there was some disagreement about the

plant shutdown between Mr. Bluemner and the plant personnel?

A Yeah. It was my understanding that -- basically, the plant was shut down. The unit was off for maintenance.

Q Okay.

A And the -- the plant -- one of the plant operating people found some concrete in the stack --

Q Yeah.

A -- on normal --

Q Yes.

A And I believe that, in talking with the plant, the real disagreement was why didn't you let us know earlier, you know, when it wouldn't have impacted the plant coming back, when it wouldn't have impacted the schedule? Because if we'd have looked at it a little earlier, we could have been fixing it while we were doing the other maintenance work and, you know, the unit would have been back online sooner.

Now, what we ended up doing was we delayed the unit coming back by three or four days while we did this repair. And I think really -- it was my understanding -- because at the time, I did talk to the plant about it. It was my understanding that what the plant was not happy about was, We told you about this early, we wished you

would have jumped on it earlier and given us the recommendation earlier than -- than later. They still did what the recommendation was.

Q Okay. Now, were you in here when Mr. Bluemner was describing that incident?

A Yes.

Q Do you think that what you just stated as your understanding of what occurred matches with what Mr. Bluemner's testimony was?

A I don't think it's exactly the same. No.

Q Okay.

A Uh-huh.

Q Do you remember, did Mr. Bluemner say he had to go to his supervisor on this issue?

A He went and talked with -- with Carl Gouse (ph.), who was his supervisor.

Q Okay. Do you know what occurred after that?

A I believe that Carl talked to the plant -- Carl, he also talked to me about it.

Q Okay.

A Uh-huh.

Q What was your view about it when you heard it -- heard it the first time?

A My view was that we were going to fix it before we put the unit back on. And that's what we ultimately

did.

Q Sure. Now --

A But -- but I will say, the decision had already been made even because I had -- I contacted the plant manager late -- later to say, Hey, you know, I've heard -- he said, We've already made the decision to fix it.

Q Okay.

A So the decision was already made before I got involved in it.

Q Okay. Would you agree with me that, evidently, there was some degree of disagreement about fixing it at the time with the -- with the plant superintendent people and Mr. Bluemner?

A I think when -- when I talked to the plant about it later, what they indicated to me was that they were just not happy that they couldn't have fixed it earlier because they felt, Hey, we found it earlier, we could have been working on this earlier.

You know, we -- we try very hard to run a safe, economic system. I mean, that's part of what -- you know, I believe that -- that even this Commission would want us to do.

And Rush Island is one of our cheapest generating plants. And I don't think it benefits anyone, our ratepayers, our customers or our shareholders to have

that unit off a few extra days if we could have done something in a more efficient manner.

It wasn't neglecting safety at all. It was just saying, Hey, we had an opportunity, we could have scheduled this better and got it done.

Q Sure. I understand.

A That's the frustration.

Q Of course, your explanation of what occurred, again, you agree with me is -- is different than Mr. Bluemner's explanation?

A Correct. And the reason I'm pretty confident in mine is because I asked the plant about it after -- right around the time frame because I -- after we've gone through all the Taum Sauk stuff and everything, I wanted to kind of figure out the decision process.

And if there was some friction, I wanted to know what it was. And what I got back was, We're just not happy we couldn't schedule it more efficiently. So -- yeah. I think there was some of that.

Q Okay. Can you describe for me -- and I understand what your position is going to be where the balance is. But what I'd like for you to tell me is all of the incentives that you know of that exist for a plant manager or superintendent to keep a plant running.

A All of the incentives to keep the plant running?

Q Yes. And I'm not just talking about monetary, but including that.

A Well, when you talk about -- are you talking about incentives specifically for a plant manager or just the benefits in keeping a plant running?

Q I am -- at this moment, talking about a plant manager superintendent.

A Okay. Basically, the -- the one that comes to mind initially is the equivalent availability. You know, because the way -- the way it's set up, you have safety, which is really personnel safety. Okay? That's essentially people getting hurt or not getting hurt in your plant and how we manage that.

Q Okay.

A That's -- that's a significant part. Equivalent availability. So when I say -- when I say significant, if you look at our key performance indicators, for the vast majority of the management, my employees in the plant, other than the manager because I've given earlier my specifics of what I look for in managers.

Q Yes.

A But the vast majority of the employees in the plant, management employees, would -- you know, the equivalent availability would be about 20 percent of their incentive comp. And safety equivalent availability, but

environmental, which --

Q Yes. Now, the environmental works how again?

A Meaning we -- we have NOX requirements.

Q Yes.

A We have SO2 requirements. We have PASSE (ph.) requirements. We have MPDS requirements.

Q What is that?

A That's basically what we're discharging to rivers.

Q Okay.

A And lakes. So --

Q That's enough?

A So, obviously, we don't want to violate any of that. So that's -- that's an important part of the incentive. And then the other significant piece is -- is the budgeting piece.

Q Okay.

A O&M and capital. So --

Q Aside from -- from those things that you mentioned that relate to bonuses, right?

A Uh-huh. Correct.

Q Are there other incentives to -- for a plant manager to keep a plant running that may not be quite as -- as obvious in regard to -- to money? For instance, for instance, I'll give you --

A Yeah. Give an example.

Q -- an example just to get you to thinking a little bit broader.

A Uh-huh.

Q For instance, could it have some impact on how that superintendent is viewed for the sake of future promotions or -- or performance evaluations, et cetera?

A Well, I think performance evaluations can take into account, you know, how the plant is operated. But -- but generally, where -- in my experience, where we have concerns from a performance standpoint, it's been when we felt people didn't operate as conservatively as they should have.

In other words, we made a decision, and we kept something on we shouldn't have kept on. And we incurred additional damage to something that we shouldn't have. That's -- that's really -- I mean, it affects more negative than positive.

Q Okay. And is there a -- is there some track record of that that -- that you know of that would be in writing?

A What do you mean track record?

Q Something that would give us some indication that that -- that that generally would be the case within the company. Is it -- it's more specific than just --

just your general statement about it.

A Typically, it's -- that's one of the things that we -- you know, it's one of the things that we take into account. It's in our performance appraisals is --

Q Okay.

A -- is conservative decision-making.

Q Okay.

A So. I mean, you -- that's one of the things you look at.

Q Tell me what you mean when you say conservative decision-making.

A Well, basically, in my mind, and what I've conveyed to my managers is, and my expectation is that you -- you look at all the facts.

You know, something comes up. Let's say we have an operating organization. Something comes up at midnight. They want to try to evaluate something the best they can. And if in doubt, take the unit off.

Clearly, you may look at it and there's going to be cases where you've got to take the unit off right away. There's no decision-making process to that.

Q Yes.

A But there's going to be other times where, you know, you can weigh it. And we've -- you know, I've instructed my managers and they've instructed their

operating people we want to err on the conservative side.

So what we'll do is, you know, when occurrences come up, and, you know, we operate 24 hours a day, seven days a week, number of generating plants and they're pretty intricate pieces of -- machines. Machines.

So that's -- my understanding is if you have something come up and you're uncertain about what you're saying, you're uncertain about what's happening, get the unit in a safe condition. We can always bring it back. It doesn't -- you know, it's not always easy to bring it back.

Q Yes.

A But, typically, you can turn it around within a day. I'd much rather trip it than risk damaging anything.

Q Now, is any of what you just said in any written form somewhere?

A I have a -- I have an e-mail that I sent out shortly after I -- to our managers talking about operating responsibility.

Q When did that go out?

A It went out November 10th, 2004. It was within a month of when I became VP.

Q Is that in the -- do we have that?

A Not in record yet.

Q But is it a -- is it in some of the documents

that we have?

MR. BYRNE: I'll -- I'm going to put -- I'm planning on putting it into the record when I get to ask him some questions.

COMMISSIONER GAW: That would be great. Since you have it, why don't you let me see it?

MS. HOUSE: Do you have a copy, Tom, or --

MR. BYRNE: Yeah. Do you want to mark it now?

COMMISSIONER GAW: You might as well.

JUDGE DALE: It's 44. 44.

Q (By Commissioner Gaw) Do you have it in front of you now?

A Yes, I do.

Q Okay.

COMMISSIONER GAW: What did we mark this as, Judge?

JUDGE DALE: 44.

Q (By Commissioner Gaw) Okay. Now, this is an e-mail that you sent out along with a response from Mr. Voss saying he's proud of you, right?

A Yes, sir.

Q Okay. Now, what caused you to send this e-mail out?

A We had a sequence of events -- as I mentioned in the first sentence, we had a sequence of events that

occurred on Rush Island 1 where we were -- we were having a voltage regulator problem on that unit.

We had Engineering in helping us to fix it. And we had some -- they were in the process of doing some troubleshooting. And we had a subsequent trip on the unit. And felt that we didn't do things in a conservative enough manner.

Q Okay.

A So I wanted to make sure that people clearly understood my expectations.

Q Okay. Now, let's see. You sent this out to all of your managers and -- and superintendents or --

A It went out to -- at the time, Mr. Witt was the manager of Osage. Carl Blank was the manager of Kiakuck plant. Chris Bruzing was the manager of Sioux. Rick Cooper, Taum Sauk. Superintendent, Dave Tox (ph.) was Labadie plant manager.

Chris Iselin was the hydro director so the hydro folks reported to him. Osbert Lomax was the Meramac manager. Bob Minors was the Rush Island manager. And Matt Wallace was the manager of the CTG fleet.

Q Okay.

A So it went to all of them.

Q All right. Tell me what this -- what this means in here if tripping of equipment or the unit is warranted

due to safety or asset preservation requirements, that decision must be made in a timely manner by the operating group aside from any requirements Trading, Generation Services or the ESO may have.

A ESO is Energy Supply Operations. They're the dispatch arm.

Q Okay. Was there a concern in regard to the Rush Island event -- and let me -- let me -- before I ask that question, the next sentence says, ESO and Trading will generally push to keep a unit on, but the time -- ultimate authority and accountability resides with the plant operating staff. Did I read those two sentences correctly?

A Yes, you did, sir.

Q Did -- did you believe when you sent this e-mail out that there had been pressure from Trading, Generation Services or ESO in the Rush Island event?

A What -- the reason I had sent it out was because Generation Services -- the engineer -- engineering group was providing -- like I said, they were providing some recommendations to the plant.

I don't think the plant was clearly -- didn't have a clear understanding of what Generation Services was asking them to do. And it was, you know, kind of a coordination issue. So that's why I -- that's why I

worded it the way I did. Yes.

Q Okay. What -- what did you understand Generation Services to be asking them to do?

A Okay. They were -- they were asking them to -- to perform some -- some testing effectively putting the regulator back in auto -- trying to do some testing while the unit was online.

And something that -- that, ultimately, like I said, elected to trip, and, like I said, I felt we were taking more risk than we should be taking. You know, that was my opinion on that.

Q So at that time, did Rush Island do what -- was it -- did you say Generation Services had asked?

A At that point, they had a technical services engineer working with them. And what -- this is what I believe happened --

Q Okay.

A -- that was that the engineer had made some recommendations. I don't believe the operating groups fully understood what the engineer was asking, and they went and did it without understanding it.

And I just wanted to make sure that going forward that people realize that, Hey, you know, the plant is responsible and accountable, and, you know, they have ultimate authority.

Q Okay. You say here, The Operating group cannot be afraid to push back and challenge any request that they feel doesn't make sense or could potentially incur unwarranted risk.

Did you feel like that some in the Operating group were afraid to push back and challenge such requests?

A I did not. But I wanted to make sure that it was -- that -- that they realize that they had the authority to be able to do that.

I wanted that to be clear, that -- you know, part of what I wanted to instill was that, you are the Operating group and the plant and you're responsible. So you need to ask questions if you -- you know, if you don't understand.

Q Okay. And did you get any response to this e-mail?

A I discussed it with my managers at the next manager meeting.

Q Tell me about that discussion.

A I went through it and basically told them that -- again, reiterated any expectation that -- that this is the way that we are going to operate.

Q Okay. Can you -- can you be any more specific than that?

A No. I did not get any -- if you're asking if I got any push back from the plants on this --

Q Not specifically. I'm asking right now the best of your recollection about your conversation when you had the meeting.

A I don't -- I don't recall any -- any more than -- than just following up on this. And -- and -- and this is something, you know, that I continue -- continue to stress.

Q And did you have any e-mails back replying to this e-mail?

A I don't recall whether I did or not.

Q Have -- have you turned over all of your e-mails regarding Taum Sauk or e-mails to you regarding Taum Sauk to the Commission staff?

A To the Commission staff or --

Q Yes.

A I don't know. Tom, do you know?

MR. BYRNE: I -- I don't believe -- you know, we got 34 data requests. I think we've gotten some more. We've answered the ones -- the first batch. I'm not sure it asked for every single e-mail.

Now, those -- I'm pretty sure in terms of FERC investigation and the Highway -- I mean, all those -- all those have been turned over in -- in various -- in various

forms, including the Highway Patrol investigation.

But I just -- I just don't think that was one of the data requests we got from -- from this proceeding.

COMMISSIONER GAW: Okay.

MS. BRUEGGEMANN: It wasn't, Commissioner Gaw.

COMMISSIONER GAW: It was not?

MS. BRUEGGEMANN: No. We were going to wait to determine the persons and e-mails that we actually needed after this proceeding.

COMMISSIONER GAW: It appears we might need this one.

MS. BRUEGGEMANN: Uh-huh.

Q (By Commissioner Gaw) Although this doesn't particularly pertain to Taum Sauk, does it?

A Mr. Cooper was the -- was the plant superintendent. It pertained to every plant that was -- that was under me.

Q So if we would have asked for e-mails pertaining to Taum Sauk, would this have shown up?

A It may not have.

Q Okay. Was Rick Cooper at this meeting that you just described?

A I would have to go back and look at -- at the record to -- to see on that.

Q Could you check on that, please?

A Yeah.
Q He was the superintendent at the time, correct?
A That's correct.
Q But I think I heard earlier that not always did the superintendents attend these managers meetings. And so I'm not -- that's why -- why I'm asking. Of course, he could have just been absent anyway.
A Yes.
Q So if you would check on that for me?
A Okay.
Q Did you send any other e-mails of a similar nature out subsequent to this?
A Not that I can recall.
Q Okay. Now, this was in November of '04, correct?
A Yes, sir.
Q Okay. And the events that we're talking about in regard to the -- to the discoveries that occurred in the latter part of September, beginning of October were in '05, right, at Taum Sauk?
A That's correct. Uh-huh.
Q All right. Does the company itself have any -- well, let's -- let's deal with this for a moment. In regard to the Generation Services or ESO or the Trading at the time, '04/'05, did they -- did they push generally in

regard to margins and trying to -- to increase profit for -- for the company?

A Well, I think --

Q I'm not -- I'm not really talking about did they push operations right now. I'm just talking about generally. Did they have an attitude as a -- as a department or group of employees about trying to maximize profits for the company?

A Well, I think -- I think ESO -- I can speak about when I worked down there.

Q Okay.

A Part of what we wanted to do and part of what we felt our obligation was was to operate an economic system. So you wanted your most economic generation providing for, you know, the majority of the load. And you wanted to be able to stack it that way.

Q Sure.

A So generally, you're going to want to try and maintain that balance the best you can.

Q Okay. And that attitude that you -- that you might have in working around that -- that group, was that in any way motivated by personal financial incentives?

A I never felt when I was in Energy Supply Operations that it was -- that it was personal financial. I felt that as part of the job responsibilities --

Q Yes.

A -- of that organization, I mean, that was what you were trained on.

Q Right.

A We wanted to dispatch an economic system. So as part of doing your job, well, you want to dispatch economically as possible.

Q When you say dispatch economically, how does that relate to profits for the company?

A Well --

Q For the company, now. I'm not talking about individuals.

A Well, obviously, the more economic you dispatch, you know, to supply a given load, you're -- you're going to be more profitable, also.

Q I understand. I'm not trying to be critical right now.

A No. No. I'm just saying --

Q You're right.

A I'm just --

Q Now, in regard to the -- to the incentive on the -- on a personal basis, did any -- did that group in any of these three groups that you mentioned, did they have a -- did their bonuses or their salaries in any way relate to any of those profit margins that you were describing,

if you know?

A In -- in Energy Supply, in Generation Services, you know, theirs would have been as we talked about where it's based upon an earnings -- you know, it's funded on an earnings per share basis with whatever particular key performance indicators they had for their department.

Q And I guess what I'm looking for is, if you know, what their key performance indicators might be.

A I do not recall what they were in ESO.

Q Okay.

A I don't -- you know, I don't -- I don't remember them being in ESO where there was a drive to keep plants on or anything like that. It was more of a reliability nature there.

Q Well, I understand what your perception is. Right now, I'm asking a more specific question about what those financial incentives were in those three areas that you describe in your letter.

A Yeah.

Q And you don't remember I think is what you're saying?

A Yeah. I don't recall in ESO. I don't know in Generation Services.

Q Okay. That's fair enough. Point of clarification, just so I'm clear about your -- that

changing role -- that hat that changed in -- I think in '05 regarding your relationship with personnel at Taum Sauk, there was a -- a few months when you actually supervised that -- that plant -- at least, well, that's not a good way of putting it.

You were -- the superintendent directly reported to you?

A Yes. That's correct.

Q And that was -- do you remember which months, again?

A I think it was roughly September and October.

Q Of '05?

A Uh-huh.

Q Yes?

A Yes.

Q Sorry.

A Yes. Sorry yes.

Q She just needs to take it down.

A Yes. Yes.

Q Okay. Now -- and just before that in -- what were you doing in relation to Taum Sauk?

A Just before that, Rick Cooper reported to Chris Iselin, who was the Director -- kind of -- kind of Warren Witt's equivalent now.

Q Okay.

A He was the Director of Hydro.
Q Okay.
A And Chris reported to me.
Q So he was in between the two of you?
A Correct.
Q And then right after that, what -- what happened in regard --
A Warren -- Warren basically took Chris's role.
Q Okay.
A And he became the Manager of Hydro so the plants reported to him.
Q Okay. And you don't remember any -- okay. Again, what was it that you were told when you -- when you were directly supervising Rick in regard to what was going on at Taum Sauk as to the events in September and October?
A Basically, what I'm aware of is what I was on the e-mails for. I really didn't have a whole lot of verbal discussion. I don't remember any about the -- you know, the gauge piping. What I got was what I saw on the e-mails.
Q Okay. You were down there on the IEEE celebration?
A Yes, I was.
Q Awards day, right?
A Yes, I was.

Q Did you go up and look at the reservoir?
A No, I did not.
Q Okay. Did you hear anybody talking about the overtopping?
A No, I did not.
Q Nobody said anything to you about that?
A No, they did not.
Q Did you talk to Rick Cooper that day?
A Yes, I did.
Q Do you know -- was -- do you know whether Steve Bluemner was there that day?
A I don't recall whether Steve was there that day.
Q What about Tom Pierie?
A I don't recall whether Tom was there that day.
Q Jeff Scott?
A Jeff would have been there that day. That's where he -- you know, his home plant was. So he was there.
Q Anybody else you can remember being there that day?
A Yeah. There were -- there were a number of people from Ameren Corporate that were there that day.
Q Like who?
A My secretary was there that day.
Q Okay.

A Allen Kelly was there that day. Tom.
Q Okay.
A Tom Voss was there that day.
Q Okay.
A So --
Q Have you had conversations with them subsequently about whether they were -- they had any discussion about the overtopping event on that -- on that day?
A I have with Mr. Voss.
Q Does he recall anyone talking to him about it?
A No. And that was one of the things that me and him were surprised about is nobody said anything that day.
Q If you had been told about it, what would you have done with that information?
A It's speculative, but if I had been told, I would have wanted to go up and look at it and evaluate it and probably would have wanted to know more of the details.

And I probably would have went and talked to some other former Taum Sauk employees to see if -- like Carl Blank, who was a manager down there, to see if that was something that had happened in the past.

Q Okay. Anything further?
A I would have, like I said, probably discussed it

probably with Carl because, like I said, he had quite a bit of experience. And then --

Q Carl who again?

A Blank.

Q Thank you.

A And I would have probably gone with his recommendations on it because, you know, he has much more experience than I ever did. And if he told me, Hey, that's never happened before, then I would have been, obviously, very alarmed about it.

Q Again, what was his position at that time?

A He was actually up at Kiakuck as the manager of Kiakuck plant.

Q And was he -- was he down there that day, the celebration?

A I cannot recall.

Q Okay.

A I cannot recall whether he was or not.

Q All right. And when was the first time you were made aware of the -- the setting of the warrick probes at 4 and 7 inches from the top of the parapet wall?

A It was after the breach.

Q Afterwards?

A After the breach. And -- yes.

Q Okay. Were you aware of the fact that there

were measurements taken of the parapet wall by surveyors in the past to meet FERC requirements?

A Just associated with the normal five-year licensing.

Q And were you -- where were those surveys -- where was that survey information housed at Ameren?

A I'm not sure.

Q Okay.

A I'm not sure.

Q Was that information something that was important in regard to the operation of the reservoir?

A I think in hindsight, yeah, it definitely was. And I think, obviously, after -- you know, I know that subsequent to the breach because I've reviewed a lot of information, looked through a lot of things.

But, obviously, you know, after the reservoir was built, there was some initial settling, and it appeared to have tapered off based upon the information I received. I did not know any of that prior to the breach. But I know a lot more about it now.

Q Who should have been well aware of that information?

A Well, I think -- I think there were people that were aware of it. You know, I think Mr. Cooper. I think Mr. Bluemner. I think, you know, the people that -- that

are the engineering and -- and plant operating people were aware of it.

Q Okay. And, again, do you consider it important -- would you consider it important, not in hindsight, but at -- you know, while you were operating that plant to know what the low point on at that parapet wall was?

A Yes.

Q Okay.

A Yes.

Q And can you explain for me why I don't seem to -- why so far we haven't seen any evidence that anyone that was working around that plant did anything in regard to -- to ensuring that that low point was a factor in considering how -- how to run that reservoir?

A Well, I believe -- yeah. I believe when they looked to set the warrick probes, initially, I think there was some discussion between Bluemner and Pierie as to where the low point on the wall was --

Q Yes.

A -- and what the low point was. Obviously, you know, when you go to set the probes, or the emergency shut-offs, whatever you want to call them, it would be important then to know where the low point on the wall was. I mean, that's -- that's probably the most important thing to know --

Q Yes.
A -- when you go and set the protection.
Q I would think so, too. And yet wouldn't you agree with me that when -- when we heard the testimony from -- from Mr. Pierie, he could not tell us how he determined at what height to set those probes initially, according to the design?
I'm not talking about after they were moved. I'm talking about initially. Would you agree with me?
A I would agree that that's -- that's what Tom said.
Q Can you -- can you give me any explanation of where those numbers came from?
A I can give you my impression or my belief --
Q Go ahead.
A -- based upon -- based upon my past engineering experience.
Q Okay.
A I would believe that you would go back and look at the existing schematics and determine -- because on there it would indicate where the -- emergency shut-off, where the overflow switches were set.
Q Okay.
A And you'd probably go and set the -- the new probes relatively close to where the old emergency

shut-offs were set.

Q Okay. And when you say that, is that based upon a height above sea level or a mark on the wall?

A Basically, I think when -- when those things were initially set, when the plant was designed --

Q Yes.

A -- and put into service, they were probably the same.

Q I -- explain that, what you just said. I didn't follow that.

A When the --

Q I think I do now, but go ahead and explain it anyway.

A When the -- when the schematic -- when you go and put the system in service --

Q Yes.

A -- and you -- you set the emergency float switches, when you put it on the schematic back in the '60s --

Q Yes.

A -- the height that was shown on the staff gauge was probably the height that was -- the mean sea level height --

Q Okay.

A -- over the years.

Q Go ahead.

A I think. As the testimony has indicated, the -- the entire upper reservoir had settled a foot to a foot and a half over time. So your staff gauge would have settled with that. Your old emergency shut-off floats would have settled with that, also.

So four years later, what you have on a schematic as an indicated level is not equivalent probably to what the -- if you went out and surveyed it what that true level is.

Q Is it prudent engineering practice to make the assumption that there would not have been any change in this height?

A I don't believe that assumption was made. I think what -- what had happened was --

Q Okay.

A I believe --

Q Answer my question first, and then go ahead and speculate about what you believe. Would that have been prudent engineering practice to have made the assumption that the height at which you measured the wall and the setting based upon that in the 19 -- early 1960s would have remained the same over the course of 40-plus years?

A Not based upon the amount of settle -- the settlement that we had seen.

Q And in -- and couple that with the fact that there was knowledge, was there not, that the walls had settled?

A That is correct.

Q Okay. Now, you go ahead and speculate about what you think happened.

A Well, I think as I -- as I had mentioned earlier, you know, I think one of the things that we realized in this is that we -- we did have some poor coordination and communication amongst the groups.

We did not have -- you know, the -- the person that was -- was doing the survey, we -- we didn't put it all together. I mean, you know, the failure here is people had certain pieces of information, but we -- but nobody had all of it.

Q Well, I -- I understand that -- that that's an element -- or several -- several elements here. But I'm -- I'm trying to focus in just a little bit on this -- on what you get before you get to the communication issues.

Is it your understanding -- do you agree with what appears in the report, I think it's a FERC report, not the Rizzo report, in regard to the operating level prior to the installation of the liner as compared to the operating level subsequent to the installation of the liner being about a foot different?

A That is -- that's -- you're referring to what was in the FERC staff report?

Q I think it was, if you've read that and know what I'm talking about. I think -- would you --

A I would agree with that.

Q The FERC report seems to state -- the staff report seems to indicate that the actual operating level prior to the installation of the liner was somewhere around 1595.

A I would agree with that.

Q And then, subsequently, it was about 1596. This was before all of the instrument problems.

A I would agree with that.

Q Okay. And they attribute that to something which -- that you were talking about a while ago in part. And that is, initially, the gauges that were being used prior to the installation of that liner were actually tied to a point on the wall itself?

A They were -- they were affixed to the wall. That is correct.

Q And so as the wall was settling, so did the gauges settle down with them, correct?

A That's correct.

Q And so even though they may have been reading 1596 still as they might have thought they were 30 or 40

years ago, they were -- they were actually running somewhere consistently with -- with the edge of the wall and probably consistently with where the operating level had been with the reservoir in relation to the top of that point of the wall for quite some time?

A That's correct.

Q Okay. And then when you get to the point where you get out after that, then we get -- an assumption is made that the original point of operation at 1596 was still the point above sea level that the operation should be conducted at, correct?

A You're correct.

Q And -- and that failed to take into account the settling of the wall where the gauge had been attached prior to the -- the insertion of the liner?

A That's correct.

Q Okay. And then at this point, we're not talking about settling the walls around in other parts. We're just talking about that place where the gauges are, right?

A That's correct.

Q All right. Do you know whether or not this plant generated more megawatts after that liner was installed than it did just prior to it?

A I think, actually, one of the staff data requests addresses what was generated in kind of the

'03/'04 time frame and was generated in '05.

Q Okay. Did you look at that? Do you recall what it indicates?

A Yeah.

Q Because I haven't seen it because it's a data request.

A It indicates that -- in looking at it, it indicates that we generated more in '05 than we did in '04 and '03. Now, there's a lot of things that can play into that --

Q Yes.

A -- you know, economics and everything else. So I don't know that I could infer that the -- let's say you're operating an additional foot higher, that it's going to amount to, you know, the difference in megawatt hours that you'd see between one year and the next.

Q Right. There's a couple of things going on in that change, right, I mean, at least that I can identify? One is you no longer have the same amount of leakage, correct?

A Definitely.

Q So -- and that could be a factor in how many megawatts you're generating?

A That's correct.

Q The other could be that foot difference in the

operating level, correct?

A Correct.

Q And both of them may have contributed to that increase, if, indeed, we found -- found that that was the case?

A Correct. And you have to realize that there is also a limitation in the lower reservoir that you have a total volume. So even if you increase --

Q Yes. Yes, yes. And I'm glad you brought that up because I've been trying to understand how that interrelates in this case, and I -- I want you to -- to talk about that a little bit.

Do you know whether or not there -- there was a difference in the level of the lower reservoir on -- when -- when the generation was completed as in comparing before and after the insertion of the liner?

A Well, when you monitored, you know, you couldn't generate above 749 and a half in the lower reservoir.

Q Right.

A The lower reservoir dam is at 750.

Q Yes. Thank you.

A The top of it. So you go down to 749 and a half. So, basically, with that, you could only pump up to about 736 because you'd start -- as the low -- I'm talking about the lower reservoir got to about 736 --

Q Yeah.

A -- you had a potential of sucking rocks through -- through the runners, which you don't want to do.

Q Yes.

A So you had -- you had a set volume in there.

Q Yes.

A Whether -- whether or not there was additional volume, I -- I don't know.

Q I don't know if -- I wondered whether or not you provided that information when you were providing the information on the upper reservoir.

A We provided information to FERC and to others --

Q Yes.

A -- on the whole volume thing. When you get into the volume measurement, it can get -- it gets kind of tricky to look at because you get in-flow volume, too. So you get --

Q On the lower reservoir?

A Yes. So if you have a big rain event sometimes -- or even some rain --

Q Good point.

A -- I mean, we had the thing totally drained earlier this year. And we had one big rain, and the thing filled back up. So it's tough.

Q Okay?

A So that may not be a good indicator. It's hard.
Q What might be a better indicator is whether or not there was a consistency in upper level -- upper reservoir at the low level in comparing before and after?
A At the lower -- you mean generating all the way down to the low level?
Q Yes.
A And how many megawatt hours it would have been?
Q Well, and, particularly, whether or not the low level after the insertion of the liner was the same as the low level before because that would make it a constant, correct?
A Correct.
Q And if there was actually more volume added on top, then you would assume that there would be more megawatts produced?
A Correct. Correct.
Q Okay. You know, this is -- this is off the point. You mentioned a call that you got regarding the Taum Sauk failure on December the 14th.
A Yes.
Q And who called you?
A Mr. Cooper did.
Q And he -- now, did you know there was an emergency action plan --

A Yes, I did.

Q -- drill scheduled for that day?

A Yes, I did. Uh-huh.

Q And when he called you, tell me what that conversation was like. You're already anticipating a call, right, at some point that day?

A He actually had left me -- he left -- left it on my answering machine at home.

Q He did?

A Yeah. So I just -- I picked it up, and I called him back. And that's when he told me it wasn't -- it wasn't a drill. So --

Q Okay. When he did leave it on your answering machine, did he tell you it was not a drill?

A He -- he indicated it was a real failure.

Q Okay.

A They believed it was.

Q Okay. What else did he tell you on that call?

A Basically, it was a pretty short conversation because he had a number of other -- number of other people to call.

Q Yes.

A They weren't sure what happened. He indicated, you know, he was called to the plant, and he's still evaluating it. And I told him I -- you know, I'd be on my

way down.

Q Okay. Did you drive down?

A Yes. I drove down with -- with Allen Kelly.

Q Okay. It -- did -- did Mr. Kelly have any more information about the breach at that time?

A No, he did not.

Q Okay. Did you all talk to anyone on cell phones on the way down?

A No one that I can recall that -- at the plant proper. We may have talked to some of our corporate communications people --

Q Okay.

A -- just to kind of fill them in on what we knew to that point.

Q Okay.

A It was hard for -- we didn't really have any more information than other people did at that point.

Q I understand. Who called Mr. Voss?

A I am not sure about that.

Q You didn't?

A I know I let Mr. -- Mr. Kelly was my direct supervisor at that point. I let Tom -- I let Allen know. And I did not call Tom.

Q Okay. The same with Mr. Rainwater?

A Yeah. I -- yeah. I believe Allen may -- Allen

Kelly may have called Mr. Rainwater.

Q Okay. Oh, subsequent to the breach with Taum Sauk -- I assume that -- that -- that Taum Sauk power was -- was used -- well, we know it was used on a pretty much daily basis --

A Yes.

Q -- with some exceptions.

A Uh-huh.

Q What's replaced that power lost?

A Right now, it's probably being replaced by gas peaking generation.

Q Okay. Did -- has Ameren needed to acquire any additional resources in order to deal with that loss of -- of Taum Sauk during this period?

A Not yet.

Q Not yet?

A Huh-uh.

Q Do you anticipate needing to?

A If we -- preliminarily. Things can change because of the forecasts and everything else. But --

Q Again, if we get into anything close to HC --

A I can address this. At this point, I think what we're looking at is if we don't have the plant back in operation by 2010, then we may have to look at going out and --

Q Okay.
A -- purchasing additional resources.
Q In the meantime, the loss of the plant itself and its availability has a financial impact. Would that be correct?
A That's correct.
Q Because would it not be true that -- that the power that you're substituting for Taum Sauk is generally more expensive power?
A Generally.
Q Okay. I'm trying to hurry. There's this notion that you mentioned earlier about being conservative.
A Yes.
Q Now, this is a stereotypical statement I'm going to make. Would you generally agree with me that there is a stereotype about engineers being conservative by nature?
A I would agree with that.
Q Do you think that stereotype is generally accurate?
A I think it's generally accurate.
Q Okay. And is that a result of personality traits or training?
A Am I going to get to ask the same question about lawyers?
Q No.

MS. BAKER: I would ask if I can object to statements like that, but I won't.

COMMISSIONER GAW: Yeah. You should.

A I think, generally, it would be by training because I think, as you go through school, you're -- you're trained to evaluate and look at scenarios and design things with a -- with a reasonable margin of error because people realize, you know, you're not perfect in what you do.

So I think -- I think, typically, your training makes you more conservative.

Q (By Commissioner Gaw) Okay. Well, this is bothering me a lot about this case, and -- and I'm perplexed. And I'm going to run through some of those lists with you.

A Okay.

Q Okay. We're dealing with a reservoir that was originally designed without any spillway, correct?

A That's correct.

Q So there's not a fail-safe mechanical device built into the system?

A You're talking emergency relief structure spillway?

Q Yes.

A Okay. Correct.

Q We know that the operating level of the reservoir was at -- at a true 1596 above sea level within how close to the low point of the parapet wall? Do you recall?

A That would be a foot. The low point of the parapet wall was Panel 72, 1596.99.

Q Very good?

A That's -- engineers do good with numbers.

Q That's very good. So then, so then -- that's -- that's 12 inches or so --

A Correct.

Q -- of distance from the top of that wall, right?

A Correct. Correct.

Q We know that the parapet wall measurements were taken and known by some of the -- some of the engineers or at least -- at least two of the engineers that we're aware of and that information was stored within Ameren and at FERC in regard to the measurement of the low points of the wall. We know that, correct?

A I believe when -- when the surveys were done for FERC, from what I recall, there are surveys around like 20 points around -- I don't know that they actually surveyed where the specific low point of any given panel was or not. I don't know that.

Q We know that Steve Bluemner took a particular

survey of Panel 72 just prior to the liner installation in '04?

A Yes, he did.

Q And that that information was given to Mr. Pierie? Pierie? Pierie?

A Pierie.

Q Right?

A Correct.

Q Okay. Now, we're all -- we're dealing with engineers right now, right?

A Correct.

Q Now -- now, so far, I'm trying to see the conservative nature of this. So keep following me. We know that the setting of the warrick probes in the original design were set at a height that Mr. Pierie cannot tell us where he got that number. We know that, correct?

A Correct.

Q We also know that those warrick probes were subsequently moved up to a distance of 4 to 7 inches from the top of the that parapet wall, correct?

A Correct.

Q Okay. Would -- we know that beginning sometime in August or September, there are graphs showing that as the volume is increasing during the pump -- pumping of

water up into the upper reservoir that there is some erratic motion that's showing up on -- on what we have in graphs indicating that there's some movement of some sort going on with those -- with the pressure reducers?

A Yeah. I would say, you know, when -- when I was in energy supply --

Q Yes.

A -- and we actually the -- we actually pumped with the old skate system --

Q Yes.

A -- it wasn't as smooth of a line as you would be led to believe, that it just went like this. There was -- there was some -- there was some erraticness to it. And part of it may have been due to the turbulence when you were pumping and stuff like that.

Q Okay. But we know that that existed in -- in an increasing fashion as you move from January into the end of '05, right? We know that. It's in the FERC report or the -- as an attachment.

A Okay.

Q All right. We also know that in -- in September, the end of the September that there was an overtopping event, correct, maybe events?

A That we -- no, I don't -- I don't believe there were ever events. I believe that we had waves that went

over on September 25th. I believe that we had waves that went over.

And the reason I believe that is I have -- I have talked to employees involved, and -- and they have -- neither one of them had been there and indicated there was water, you know, running over. They thought it was wave action. That's what they truly believe.

Q I understand what you've been told and what they now believe. But at the time they described it, some of them were describing it as Niagara Falls, correct?

A I understand that.

Q And do you agree --

A That's one of the reasons I asked them about it is because I wanted to get it clear in my mind.

Q I understand. But the fact that those -- is that water was coming over the top of those walls, correct?

A That's correct.

Q Okay. We also know that -- and I believe that -- that -- and you correct me if this is wrong, that after that, there were some wet spots around the walls, not affiliated with that specific overtopping event. Do you know that?

A I do not know that.

Q That's fine. That's fair. We also know that

either at the end of September and perhaps -- or the beginning of October that, No. 1, there is a -- at least one individual who identifies that the warrick probes are set 4 to -- and 7 inches from the top of the parapet wall, correct?

A Yes. Correct.

Q We also know that those -- those warrick probes have been reprogrammed, probably back several months before, so that -- that it required both of them to get wet. But we'll leave that out of the equation other than we know that that was the case subsequently. Correct?

A Subsequently, we do. Correct.

Q But at the time there were -- there were individuals, engineers, with Ameren who saw these two probes setting up there 4 to 7 inches from the top of the wall, correct?

A Correct.

Q We also know that about that same time frame, it was discovered that the conduits going down into the water were -- had a bend in them, correct?

A That's correct.

Q And that -- that that was likely causing a misreading of the actual depth of the reservoir.

A That would cause some inaccuracy, correct.

Q Yes. Now --

A I'm waiting for the question.

Q My question is -- it's not very significant as it may lead up to be. But I'm trying to understand, knowing the conservative nature of engineers that you say tends to exist, how is it possible for all of those decisions and possibility -- possible points of decisions to have been decided in a non-conservative fashion? Can you explain that to me?

A I've given that a lot of thought myself. And the only reasonable thing I can come up with is that people had various bits of information, but nobody had the -- the full story.

It didn't register. It just didn't register. You had a -- you had a civil engineer that understood the heights of the wall. You had an electrical engineer that was doing controls.

You know, we -- on the operating side, we did not have a clear understanding of our system. And, you know, it -- it led to a situation where, unfortunately, everything lined up in a bad way.

And, you know, I understand what you're saying. I can't explain it. You know, hindsight is -- is always 20/20. And you can look at it pretty clearly right now, and it's -- it's -- it's fairly easy to understand. At the time, you know, I think it just -- it just wasn't all

put together. No one person put it all together.

Q Do you -- do you view the actions that I've just described as -- as being conservative in the way they were handled?

A Not conservative enough.

Q Okay. And if -- if you -- if you're looking at this -- this whole picture -- I know everyone -- not just you. Several people that have been up here keep referring to hindsight. I'm having a difficult time seeing how -- it would have been difficult with the information that was available for this not to have been an obvious problem, at least by the time it was discovered that the transducers were loose and the warrick probes were so high on the wall.

A I agree.

Q I'm -- the only other thing I wanted to just -- I think that was this was the only other thing I wanted to catch up with. And it was just a comment that you made in regard to the installation of the liner.

I -- I'm not clear about what you were telling us in regard to the importance of the installation of the liner from a safety standpoint. And I'm not sure that you used that word. But I got the impression that you thought that the -- it was important to put that liner in for reasons other than just trying to make the plant more

efficient. Can you -- can you tell me what you meant?

A Yes.

Q And if I'm mischaracterizing what -- what you said, go ahead and use your own words.

A You're not. You know, as -- you know, Taum Sauk, I think it's been well documented, has had a history of leakage since it was -- it was designed, since it was built.

And I think what -- what we had seen over time -- and realize, I wasn't in my current position when the decision was even made to -- to go ahead and line it.

Q Yes.

A But -- but what we've seen over time was that the leakage was increasing. We realized that we had a problem with -- with the joints between the concrete panels and the joints on the parapet wall.

Q Yes.

A As -- as FERC had done, the -- the five-year in the annual inspections, it was a concern with them --

Q Okay.

A -- as the leakage increased. One of the things we wanted to do was -- although we didn't feel the leakage was necessarily a structural issue --

Q Okay.

A -- we wanted to feel more comfortable that we

were doing everything we can -- could to try and stop that leakage. You know, when you look at losing a foot to foot and a half a day, from an economic standpoint, it's pretty hard to justify doing a $5 million job losing a foot to foot and a half a day, especially when you had, you know, the pony pumps that would pump it back up.

Q Yes.

A So we based it on more than just the economics of losing the water on the upper reservoir. We felt it was something that was -- would ultimately lead to, let's say -- for the upper reservoir is what it amounted to. And I think subsequently when you look at FERC reports --

Q Okay. Yes.

A -- they had even done some analysis on the liner, and they determined that, I believe it was, you know, actually better to have a liner in there.

Q Was -- was there a concern about the leakage degrading the support system of the reservoir at the time? Do you know?

A Not at the -- not at the time because the belief at the time -- I'm sorry. The belief at the time was that -- that the upper reservoir was built out of -- you know, it was rock-filled. And, typically, you're going to have leakage through rock-filled.

Now, I would say subsequent to the breach and

what we've seen in the walls, you know, leakage would cause you to -- cause you more concern if you have more fines than that in the facility than what we thought was there.

So, yeah, if you ask me that question now, I would say, yeah, I'd be more concerned about the leakage now than I would have been even before.

Q But there was some concern about -- about it just not to the level that you just now based upon the new information from FERC?

A Correct. Correct.

Q And the original -- originally, that liner was supposed to go in two years before it actually did, correct?

A That is correct.

Q But at least from a safety standpoint, it wasn't viewed as a high enough safety risk to -- to get it done sooner than that?

A FERC -- you know, FERC was aware. And it was one of the things that was, like I said, discussed on the annual inspections and that. And it was something that we committed to -- to try and do what we could to stop the leakage.

Q Okay.

A So it -- it wasn't -- the liner was a successful

project as far as stopping the leakage. It met its objectives.

COMMISSIONER GAW: Thank you. That's all.

MR. BIRK: You're welcome.

JUDGE DALE: Ameren?

MR. BYRNE: I -- I do have a few questions for Mr. Birk.

CROSS-EXAMINATION

BY MR. BYRNE:

Q Mr. Birk, do you recall at the beginning of this proceeding last week Mr. Alexander from the Department of Natural Resources said there were some questions that he had that -- that he believed were unanswered about the Taum Sauk failure?

A Yes, I do.

Q I'd like to briefly run through the questions that Mr. Alexander asked and -- and see if there are answers to those questions.

A Okay.

Q The -- the first question Mr. Alexander had was, At the time of the failure, what were the elevations of the high and the high-high probes? Do you know what the answer to that question is?

A Yes, I do.

Q What's the answer?

A Basically, based upon, you know, investigations we've done and -- the high-high was at 1597.7 and the high probe was at 1597.4.

Q Okay.

A And -- and that information had been given in the IPOC report and the FERC staff report and the Rizzo report.

Q Okay. Mr. Alexander's second question was, How many times were the elevations of the high and the high-high probes adjusted? Do you know the answer to that question?

A We believe that they were adjusted just once on December 1st, 2004.

Q And was that information provided in any of the other investigations?

A It was provided in the FERC staff report and the Rizzo report.

Q Okay. Question 2, subquestion A was, What are the dates when the probes were adjusted? Did you have an answer to that question?

A We -- we believe they were initially set -- set during initial commissioning, and then they were adjusted on December 1st, 2004. And that's the only time they were adjusted.

Q Was that information provided in any of the

other investigations?

A FERC staff and Rizzo report.

Q Okay. Question 2-B, how was it determined that the probes were malfunctioning and, thus, needed adjusting? Do you know the answer to that question?

A We believe that we had a trip while pumping on Unit 2 on the high probe. It tripped at level 1595. And we feel that that occurred on November 30th of '04. And we feel the probes were adjusted.

People believe those -- they were set too low and they were adjusted after that.

Q Was that information provided in any of the previous reports?

A The FERC staff report.

Q Okay. Question 2-C, what was the reservoir level gauge reading in the control center each time the pump-back was halted by the high and high-high probes? Do you know the answer to that question?

A Again, we believe we had the -- the one high trip on November 30th, '04. And, basically, the control center read 1595 elevation.

Q Was that information provided in any of the other investigations?

A I believe it was provided in the -- the FERC staff report.

Q Question 2-D, Was the reservoir elevation visually confirmed after any of the premature shutdowns prior to water being released for generating purposes? Do you know the answer to that question?

A I do not know.

Q Okay. Question 2-E, what were the settings each time they were adjusted? Do you know the answer to that question?

A We believe based upon the e-mails and based upon what I've seen they were, the probes were moved once after the November 30th trip. And per e-mail correspondence, they were moved up to 1596.5.

Q Okay. Question 2-F is, What procedure was used to verify that the probes would perform as intended at the adjusted elevations? Do you --

A It was -- pardon me.

Q Do you know the answer to that question?

A There was no procedure that I was aware of that was used.

Q Okay. Question No. 3, On the morning of December 14th, 2005, at what time were the probes removed?

A Basically, they were -- in the morning, they were pulled up by Tom Pierie and Bob Scott. And then later on in the day, Tom Pierie, Bob Lee and James Witges actually removed them and put them in a bucket of water to

test them.

Q Were they ever taken down from the gauge house?

A Not initially. They were -- the probes were actually at the gauge house for -- for several weeks after the event.

Q Okay. Who ordered the probes remove is Question 4.

A Basically, when you say removed, James Witges, the Manager of Generation Engineers, has to have those pulled out and tested in a bucket of water.

Q But they were still left in the gauge house?

A That's correct.

Q Who order them removed from the gauge house weeks later, if you know?

A I do not know.

Q Okay. What was the rationale to removing the probes is Question 5.

A The rationale was to -- to test them. Obviously, you know, we had a significant event. And we wanted to determine why the -- the probes did not shut off the pumps.

Q Question 6 is, How often was the reservoir elevation compared to the instrument readings at the control center?

A There was a weekly routine as there has been for

the life of the facility where hydro HBTs, hydro plant technicians went out, and they physically repaired where the water level was to the reading that they were receiving on the control system.

Q So the answer is -- would the answer be weekly, then?

A Yes. On a weekly basis.

Q Okay. Mr. Alexander also provided quite a bit of testimony during his slide show presentation. Did you find any inaccuracies in Mr. Alexander's presentation?

A Yes. I believe that -- there are a couple of things that I would like to -- to point out or highlight. I think one of the things that he mentioned was that there was no elevation indication up on the parapet wall.

I believe that is incorrect. In fact, I -- I visually remember seeing the elevations painted on the liner. And there is a big 1595 painted right on the parapet wall. And then there's another mark a foot above it where 1596 would be.

Q And Mr. Alexander said those didn't exist; is that right?

A Yeah. He -- he indicated that there was -- there was no indication up on the parapet wall.

Q Okay. Anything else of significance?

A The -- I think when we talked about -- he

indicated the overtoppings and indication of a number of overtoppings. And we don't believe that there were -- was ever anything other than the wave action and what occurred on December 14th.

Q You don't believe there were ever any other -- ever any overtopping events besides the wave action?

A Correct.

Q Okay. A third issue that Mr. Alexander raised is he said that you and Mr. Witt had told him that the warrick probes were on a table at the pump house -- or at the power house. Do you -- on December 29th, 2005. Do you remember that?

A Yes, I do.

Q Is that true?

A That -- that is not accurate. Actually, what was -- what was located on the table of were the -- the piezometers or the transducers. The -- as I mentioned earlier, the actual warrick probes remained up in the cabinet for, you know, a number of -- a number of weeks later.

Q Okay. Let me ask you this: What one of the commissioners who -- who shall remain nameless has suggested it might be a good idea for us to explain what ways we are being accountable for this failure and -- and what things we are doing to show our accountability.

Could you -- could you briefly explain the steps that we're taking to show our accountability for this failure?

A Yes. What I'd like to -- I think I mentioned earlier what -- you know, in thinking through this whole event, what I believe went wrong and -- I'd like to go through that a little bit and then kind of discuss what we have done since then.

But as I mentioned before, I believe we had poor communication between our Engineering and Operating groups. As Commissioner Gaw had -- had pointed out, we didn't -- the low point on the wall, even though they were -- were measured and some people knew about them, it wasn't something that -- that, obviously, one person knew about and one person had control over.

I think the second item I'd like to -- to bring out is the lack of a proper understanding concerning the design basis. In earlier testimony and in -- in a number of the reports, FERC staff report and that, it talks about 2 foot of free board.

We did not have a good understanding of the -- of the requirement of the 2 foot of free board. We also had a -- a failure to recognize the severity of the problem and to -- to act in a conservative manner.

And as I had mentioned before, the initial construction is still quite suspect. And I think the more

we remove panels and remove parts of the upper reservoir, the more we realize that we have many more vines in there than we ever thought we did.

In these -- in these initial things that we believe went wrong, we believe that we can address them through dam safety procedures, through formation of the Dam Safety group. We've also implemented a quality management system. And that's not only applicable to our hydro units, but all of them.

Q I'm sorry, Mr. Birk. Could you just explain what these are as you go through them? What's the -- you skipped over the Dam Safety Group. Just briefly, what's the Dam Safety Group?

A Okay. Basically, the Dam Safety Group is a -- a group of engineers headed by a Chief Dam Safety Engineer, and they operate completely separate from the operating organization.

And what they're charged with is design review, procedure development, training. Not only that, facility inspections. And they have the ability to come in and shut a facility down if they feel it's being operated unsafely.

So we -- we've made a -- kind of a fundamental shift where we've taken some of the -- we've given a second group safety responsibilities. So not only is the

-- is the operating group at the plant responsible for it, but now we have another independent group that is responsible for it.

Q And was this group formed as a direct consequence of the Taum Sauk failure?

A Yes. It was subsequent -- as a direct consequence of the Taum Sauk failure.

Q Okay. What else?

A We also have developed a quality management system, which helps us by providing training on design basis, as I mentioned earlier.

What design basis is is really understanding why the plant was designed the way it was and what the important nuances are associated with that plant.

It also takes into account procedure development, training and looks at a number of other things. This not only is applicable to our hydro units, but it's also applicable to our fossil units.

Q And, again, is this a direct result of the Taum Sauk failure?

A Yes, it is.

Q Please continue.

A As far as the -- the failure to -- to recognize the severity of the problem and to act in a conservative manner, we believe that we've put procedures in place, one

of them being the Tom Voss memo to our operating organizations. And we've reiterated, again, our philosophy in a conservative approach and in always making the safe decision.

And as to improve upon the -- the initial construction problems we believe that are there, we have an Ameren Board of Consultants. We have Rizzo Engineering firm along with other -- the FERC and -- and others that are helping us in the redesign of the new facility.

And so we believe that -- that we've addressed what are the significant issues that -- that went wrong at Taum Sauk.

In addition to that, one of the things that I think openly everyone realizes is we've been fully cooperative in all the investigations. And we've had a number of them. And we -- we took responsibility for the effects of the breach.

The day of the breach, we came out and said that we over-pumped. And since then, I think we've been completely open and honest in all of our dealings in trying to explain what happened and to try and realize and improve upon what we can at Ameren to prevent this from ever happening again.

We also have reached a settlement with the Toose family.

Q Yeah. Just to -- just to have a break, are there -- are there financial ways that we've -- that we've been responsible and accountable for our failure?

A Yes, we have. We -- to date, we've -- we've spent over $40 million in the restoration of Johnson shut-ins and the Black River.

Q And is that restoration effort continuing?

A It is continuing. And we have committed to -- to continue it, to get the park back in what -- what was deemed to be acceptable shape.

We -- we have been fined by the FERC $10 million. We've also spent an additional $5 million associated with -- with that -- that FERC settlement on projects to enhance the area around Taum Sauk.

A number of projects. And those projects will directly benefit the communities involved. We've continued to support the local community via the property taxes even though the plant's not operable.

And we've removed the effects of Taum Sauk, lack of generation on -- on the ratepayers and customers of Missouri.

Q And how -- how have we done that in the context of the rate case, if you know? Modeled the system as though --

A Correct. From -- from my understanding of it,

Tom, we've modeled the system as though Taum Sauk is still -- is still there.

Q So to the extent there are financial benefits from Taum Sauk, they should be reflected in the rates?

A That's correct.

Q Okay. And I cut you off on settlement with the Toose family --

A Yes.

Q -- is that correct?

A That's correct. And we've -- we've also met with -- with local business people and established claims offices. And we've promoted the region pretty heavily done in -- in Reynolds county.

In other areas that -- that -- that aren't maybe quite as visible to the public, we've performed safety stabilization work on the upper reservoir. We've also, as I mentioned earlier, established the Dam Safety Program, which has been approved by FERC.

I mentioned creation of the quality management department. And we also did a risk analysis of all of our generating plants, went through with a team of people and determined where there would be -- could be other potential risks.

And as I mentioned earlier, we have made many organizational changes.

Q Okay. Is there anything else you can think of that indicates our accountability?

A Not at this time.

MR. BYRNE: Okay. Thank you very much, Mr. Birk. I don't have any other questions. But I would like to offer Exhibit 44.

JUDGE DALE: Are there any objections?

MS. BRUEGGEMANN: No

JUDGE DALE: Then Exhibit No. 44 will be admitted.

(Exhibit No. 44 was offered and admitted into evidence.)

COMMISSIONER GAW: Judge, I apologize.

RECROSS EXAMINATION

BY COMMISSIONER GAW:

Q I want to ask just a follow-up in regard to the markings that you mentioned that you were describing on the wall.

A Yes. Yes, sir.

Q Give me a little bit more about -- perspective of what that is that you're describing.

A It's basically in white -- in white spray paint. They've --

Q Is it on the liner or --

A It's on the line.

Q Does it go above the liner?

A What do you mean above? I don't understand. Above --

Q Do the marks go above the liner?

A They're physically on the liner.

Q Oh.

A Physically on the liner.

Q Do you know whether those markings were measured in any way for accuracy at any point?

A I believe they were surveyed before they were painted on. So those are the mean sea level markings that you're talking about.

Q They're the what again?

A They're the mean -- you said mean sea level earlier.

Q Yes, yes.

A Those are -- those are the survey markings. Those are painted based upon survey.

Q Do they go -- again, you say they're on the liner. But where the liner ends, are there markings above that?

A No, there are not.

Q And you -- so if the water was up to the top of the liner, were those -- were those markings visible or not?

A They would not have been visible. I mean, if it was up to the -- the top of the liner is about a foot below the top of the wall. That's where the bat strip is. So, you know, it depends where you're at at that time.

Q You're --

A But in most locations, those markings would not be visible.

COMMISSIONER GAW: Okay. That's, that's all. I just needed that cleared up. Thank you.

MR. BIRK: You're welcome.

JUDGE DALE: Before we finally adjourn, it's the Commission's preference that we continue on the 9th and 10th if that will --

MR. BYRNE: Your Honor, could I -- could I address that?

JUDGE DALE: Yes, please.

MR. BYRNE: Your Honor, I would like a motion to close this docket. And I'd like the Commission to consider that motion before it rescheduled -- or schedules additional hearings in this matter.

And if I could briefly address and explain why I think that's appropriate. I would like to. We originally resisted opening of this docket on a number of grounds, your Honor.

One ground was there had already been five

investigations of this incident, and this would have been the sixth.

A second ground was we didn't -- we didn't really think the Missouri Public Service Commission had jurisdiction over the facility or the incident because it's a federally licensed facility, regulated by FERC.

And -- and, third, we felt that an extended additional investigation would actually be harmful in trying to reach a settlement with the State. The State has -- we're engaged in lawsuits down in Reynolds County, reaching a settlement with the state and trying to get the facility rebuilt, which we believe would help our -- our system, our customers and people down in Reynolds County.

Not withstanding our objections the Commission opened this investigation. And at the time the investigation was opened, there were a number of questions.

And -- and actually a pretty limited number of questions that the Commission errs discussed at agenda and -- and that they felt were -- were unanswered. In particular, the Commissioners talked about movement of the warrick probes, you know, both -- both before -- when they were first set up and when they were moved and after the breach. They were unclear about exactly what had happened or who moved the probes or where they were moved or when.

There was also an allegation that -- that Mr. Alexander -- well, it had been reported, attributed to Mr. Alexander, that we had jacked with the evidence, and, specifically, the warrick probes following the breach.

Mr. Alexander, of course, at the beginning of this proceeding raised his six unanswered questions. And over the past two weeks, we have made every effort to cooperate in this investigation.

We've -- we've provided witnesses and information in response to data requests. There's been an exhaustive examination of Mr. Zamberlan and Mr. Pierie, the two people who were involved in the placing and moving the warrick probes.

Mr. Pierie provided a comprehensive explanation of what happened, and so did Mr. Birk just now, what happened to the warrick probes after the breach. So those questions have all been answered.

In addition, Mr. Bluemner, who is the main person involved in the -- in the dislocation of pipe holding the transducers has -- has explained at length what happened with that.

AmerenUE has accepted responsibility for the effect of this breach, and we believe all the -- all the questions that were raised at the beginning of this investigation have -- have been fully answered.

So we would ask to close the hearings in this case and for the Commission to take whatever action it -- it believes is warranted in response to this investigation.

I understand that my motion to close this docket may not be granted. If it's not, we would ask that a proceeding be established where we know who the witnesses are that the Commission wants to ask, where we know the timing of the hearing, where they get some notice so they can be available.

And -- and we'd also like to know a scope of the hearing, a timing with a beginning and an end. Thank you.

JUDGE DALE: As you are probably aware, I don't have the authority to grant or deny that motion. I will have to poll the Commission. That having been said, it would be wise to reserve the 9th and 10th as well as the 16th and 17th.

MR. BYRNE: Okay.

JUDGE DALE: Are there any other matters that I need to address before we adjourn at least indefinitely? Or I guess recess indefinitely?

MR. SCHAEFER: Well, I -- go ahead. I'll go last. I think somebody else was leaning towards their microphone.

JUDGE DALE: No. I think they're all just

picking up there stuff.

MR. SCHAEFER: Okay. I've got something briefly, and I would like to respond to that. But I do think that it is -- it is a mischaracterization that these issues that are paramount to this Commission have been investigated by previous investigations.

I think it's appropriate to point out that the Rizzo report was prepared by Ameren and its attorneys, Foley & Lardner. I think it's also important to point out that, for example, in the FERC's staff report, the information in the FERC's staff report comes from the information that Ameren supplied directly to them.

And so, for example, Ameren's responses to FERC about who actually moved the high and high-high probes to 4 and 7 inches from the top all come back to -- and, again, I'm looking at Exhibit 42, which was Ameren's statement to FERC's staff that according to Mr. Zamberlan's December 2nd e-mail -- it's the same response they gave the Highway Patrol.

But as my questions as I asked them today to Mr. Birk, he cannot tell me, nor has anyone at Ameren been able to say how those probes -- why the probes were moved, who moved them or when they moved them.

And I would point out that, specifically, no one has examined up until this process why this was allowed to

happen. And, for example, in the FERC Independent Panel report, they make it very clear that their objective is to evaluate the cause solely from why did -- why did the water leak out.

And their conclusion was it was because there was no control over the level gauges and then the safety probes were turned off. But I'll direct your attention to Exhibit 3 which is that FERC Independent Panel report.

At and page 16, it specifically says, The question of when and why the high and high-high probes were raised to the post-breach as found elevations is an interesting one, but it is not one -- but it does not affect the analysis of the cause for the reservoir breach.

And that's because they didn't get into why this was allowed to happen. They only -- they simply got into why it happened. And, additionally, I'll point out in the FERC Independent Panel report which is Exhibit 3 at page 26, the FERC Independent Panel specifically stated we received no documents or interview responses indicating why or when the conductivity probes were raised to these elevations.

There are serious questions that -- that the public is entitled to know, that ratepayers are entitled to know, that the State of Missouri is entitled to know that simply have not been answered.

So, therefore, I think it's appropriate for this Commission to continue to look into those issues. And I think the other -- one other issue I would like to raise is that the Ameren witnesses, numerous Ameren witnesses, when asked questions of whose responsibility this is and why this happened have all pointed to Mr. Cooper.

And I understand that Mr. Cooper can't be here. But the issue that comes up is no witnesses that this Commission heard from are actually witnesses from the plant. They're all from other Ameren entities.

I think until this Commission hears from somebody who was at that plant, somebody, let's say, like Mr. Jeffrey Scott -- if Mr. Cooper's not available, I don't think this Commission has a full picture of what was going on at that plant.

MR. BYRNE: Well, your Honor, they certainly have heard from people from the plant. Mr. Pierie was down at the plant. Mr. Bluemner was down at the plant. Mr. Birk has been at the plant. Mr. Witt has been at the plant.

And -- and I -- you know, to my mind, on the question of -- of the warrick probes and who moved them and how they were set at a certain level, we've spent the last two weeks exploring that issue with the very people who were involved in it. So to say that, you know, there's more that can be gained is not right.

JUDGE DALE: Gentlemen, it's very late. Tempers are building. I will poll the Commission and let you all know what happens. Yes?

MS. BRUEGGEMANN: I need one quick response just to point out that the -- the broadness of the investigatory docket that was established as being ignored at this point, I think it was briefed. So I don't think I need to reiterate.

And if there are additional things we need to put in a response on Monday, we can do that. But it's to also look at safety for the overall system in regard to operation of Ameren's facilities.

JUDGE DALE: Thank you.

MS. BRUEGGEMANN: Thank you.

JUDGE DALE: We're off the record.

REPORTER'S CERTIFICATE

STATE OF MISSOURI)
)ss.
COUNTY OF OSAGE)

I, Monnie S. Vanzant, Certified Shorthand Reporter, Certified Court Reporter #0538, and Registered Professional Reporter, and Notary Public, within and for the State of Missouri, do hereby certify that I was personally present at the proceedings as set forth in the caption sheet hereof; that I then and there took down in stenotype the proceedings had at said time and was thereafter transcribed by me, and is fully and accurately set forth in the preceding pages.

IN WITNESS WHEREOF, I have hereunto set my hand and seal on August 8, 2007.

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Monnie S. VanZant, CSR, CCR #0539
Registered Professional Reporter

I N D E X

I N D E X (CONTINUED)

E X H I B I T S

EXHIBIT	DESCRIPTION	OFFERED	ADMITTED
33	Missouri State Highway Patrol Report	1226	1226
34	Diagram	1278	1278
35	9/9/05 E-Mail	1278	1278
36	12/8/05 E-Mail	1278	1278
37	11/10/05 E-Mail	1276	1276
38	Chart	1356	1356
39	Chart	1356	1356
40	Missouri State Highway Patrol Report	1488	1488
41	12/6/05 E-Mail	1488	1488
42	1/27/06 Letter	1488	1488
43-P	E-Mail	1510	1510
44	11/10/04 E-Mail	1618	1618

(Original exhibits were retained by Judge Dale.)