STATE OF MISSOURI

PUBLIC SERVICE COMMISSION

TRANSCRIPT OF PROCEEDINGS

Hearing

August 14, 2007
Jefferson City, Missouri
Volume 10

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.

STEVE GAW,
ROBERT M. CLAYTON III,
COMMISSIONERS.

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P R O C E E D I N G S

JUDGE DALE: We are back on the record on ES-2007-0474 on August 14th, 2007, and we're about to begin examination of Mr. Scott. Mr. Scott, will you please raise your right hand.

(Witness sworn.)

JUDGE DALE: Thank you. Ms. Brueggemann?

MR. SCHAEFER: Just before we start, one quick procedural question. Does Mr. Scott, since he's there and not here, does he have any documents with him that we know of?

JUDGE DALE: He should have a full set of documents.

MR. SCHAEFER: Okay. That was my question. Thank you.

JUDGE DALE: So you may inquire.

MS. BRUEGGEMANN: Thank you.

JEFF SCOTT testified as follows:

DIRECT EXAMINATION BY MS. BRUEGGEMANN:

Q. And, Mr. Scott, typically on these video links, there's a bit of a delay. I'm not sure how many seconds of a delay it is. So I'll try to make sure I pause before I ask you the next question to make sure you've finished your answer.

A. Okay.

Q. Okay. Now, who is your current employer?
A. AmerenUE.
Q. And how long have you worked for Ameren?
A. I worked with them in the summer of 2001, and then began my current stint of full-time employment in December of 2001 'til present.
Q. Okay. And where did you start?
A. Started at the Taum Sauk hydropower plant for the summer stint.
Q. And then where after that?
A. Labadie power plant.
Q. How long were you at Labadie?
A. About 18 months.
Q. And then did you transfer to Taum Sauk after that?
A. That's correct.
Q. And about what time frame was that?
A. Around May 2003.
Q. Now, at Taum Sauk in the summer of 2001, what were your duties and what was your title?
A. My title was student engineer, and the project I was supposed to be responsible for was creating an improved hierarchy for our maintenance program. The computer equipment required for that project never arrived, so I just helped around the plant with various

duties.

Q. And at Labadie, what was your title and duties?

A. Electrical engineer, just responsible for maintenance and upgrades of various electrical components.

Q. When you transferred to Taum Sauk, did you apply for that position or was it at your request or someone else's request?

A. I applied for that position.

Q. And what was your title?

A. Supervisor power production/engineering.

Q. Okay. And we'll go back to that in a second. Where are you now?

A. Meramec power plant.

Q. And did you go to Meramec directly after you left Taum Sauk?

A. Yes, ma'am.

Q. And what's your title and duties now?

A. Electrical engineer, and my duties are much the same as they were at Labadie, maintenance and upgrades of station electrical equipment.

Q. And why did you transfer?

A. I just wanted to get back into the engineering aspect. I was done with supervision for the time being.

Q. Did you not feel like you were quite in as much of the engineering aspect when you were supervisor of power production and engineering at Taum Sauk?

A. That's correct.

Q. What did you feel like you were doing?

A. Mostly supervision.

Q. Okay. Who were you supervising?

A. Nine hydro plant technicians.

Q. And what were their primary duties?

A. Preventive maintenance, repairs, monitoring.

Q. Did you have -- along with supervision of power production/engineering, what went along with the slash engineering part?

A. Basically minor engineering as needed, and working with the company's engineering groups out of the downtown office.

Q. So were you the main communicator or liaison with the other engineers coming in?

A. I would say myself along with Rick Cooper, yes.

Q. Did you also supervise things like the Friday plant checks that employees did?

A. Yes.

Q. Okay. Now, were you directly under Rick

Cooper?

A. That's correct.

Q. So would you -- if he was absent, would you fill in and take over his duties temporarily?

A. Some of them, yes.

Q. Okay. What duties would you be able to take over for him?

A. Whatever -- whatever couldn't be deferred until he came back or couldn't be deferred to his boss.

Q. Okay. How often did you have to fill in for Mr. Cooper, let's say, in 2005?

A. I don't remember.

Q. Would you say it was more than one?

A. Yes.

Q. Was it quite a few times?

A. That's a relative term.

Q. Well, you can estimate as you wish.

A. I don't want to speculate.

Q. Okay. Was it more than ten?

A. I don't know.

Q. Okay. Now, on December 14th, were you called by anyone as to the breach at Taum Sauk?

A. Yes, I was.

Q. And who called you?

A. Rick Cooper.

Q. Okay. And how did that discussion go?
A. I don't remember the exact exchange that happened. I just remember he called me. I was in my car on the way in to work, and he just said that the reservoir had failed and that I needed to get in there as soon as I could.
Q. Okay.
A. That's not verbatim.
Q. No problem. Now, what's your educational background?
A. I have a bachelor's in science in electrical engineering.
Q. And where did you get that from?
A. University of Missouri - Rolla.
Q. There's a lot of Rolla grads here. And did you take other classes or continuing education?
A. Just some different trainings that different companies would offer, mostly on the equipment we had in the plants.
Q. Okay. Now, as to Ameren or entities employed by Ameren, what kind of internal training did you get?
A. I had various different kinds of training. I got supervision training. I got some different types of power plant training.

Q. Okay. Did that include hydro plants?
A. The only hydro-specific training I got was a short tutorial on the new control system.
Q. And who gave that?
A. Tony Zamberlan.
Q. Now, on the general power plant training, what did that include or what did that cover?
A. It was mostly an operational-type breakdown of a steam plant. Some principles that are applicable to hydro plants as well, but mostly it was steam plant.
Q. Okay. And your supervisory training, what did that go into?
A. A number of different things. How to handle employees, company policies, that type of thing.
Q. Did it include certain safety policies?
A. I don't recall.
Q. Okay. Do you recall any type of safety training that you would have received?
A. Sure. We got yearly fire, fire school, fire training. I'm sure there were other types of safety training along the way. I just can't recall what they are.
Q. Okay. Was there any type of training for employees as to worker safety on the job?
A. There was a yearly computer-based training

as well.

Q. Could you be more specific?

A. Computer -- computer training program that all employees are required to go through on an annual basis. Talks about different work-related hazards.

Q. Okay. And what about actual plant safety outlining anything having to do with a power plant facility, what kind of training did you receive on that or any -- any type of training that included that as a piece of it?

A. I don't recall anything specific right now.

Q. Okay. Now, when you came to Taum Sauk in May of 2003, how were you integrated into your job?

A. Mostly just on-the-job training from Rick.

Q. Okay. Did you learn that Bagnell Dam operators control the pumping and generation of Taum Sauk?

A. Yes, ma'am.

Q. Okay. And what was your expectation as to what they did at Bagnell Dam in relation to Taum Sauk?

A. I'm not sure if I understand the question.

Q. Well, if they're the ones controlling the pumping and generation at Taum Sauk, were you -- did you have expectations that they would call you or communicate with you as to when that would occur? Did you have expectations as to the type of information they'd be

watching, those types of expectations?

A. I didn't have preconceived expectations when I took the job, but no, they didn't contact us as a general rule before they began pumping and gen'ing.

Q. Okay. Did they read any instrumentation, level instrumentation from Taum Sauk, that you're aware of?

A. They had the capability to do so. I don't know whether they did or not.

Q. Okay. Really quickly, do you have Exhibit No. 7 available to you?

MS. PAKE: I'm just making sure I have the right exhibit.

MS. BRUEGGEMANN: It's the December 2nd, 2004, 1:41 p.m. string that starts out as from Tony Zamberlan at the very top. Do you have Exhibit No. 7 in front of you?

MS. PAKE: Yes, he has it. He's reviewing it.

BY MS. BRUEGGEMANN:

Q. My question isn't necessarily to review it yet. It's at the bottom of the first page, in the cc column where it says -- and this is the December 2nd, 2004, 8:23 a.m. e-mail. It cc's DL Taum Sauk dash everyone. And I was wondering if you could identify who

that group is?

A. It's myself, Rick Cooper, the nine hydro plant technicians, steno, who's Brenda Parks, and other individuals that I'm not sure who they are.

Q. Okay. Now, on the last page of this e-mail, it's the December 1st, 2004, 4:18 p.m. e-mail, do you recall ever seeing this?

A. No, I don't recall.

Q. Okay. Do you see where you're cc'd?

A. I'm not questioning the fact that it was sent to me. I just don't remember it at this point.

Q. Okay. Do you recall being informed about the Warrick probe emergency level trips somewhere in November or December of 2004?

A. No, I don't recall that.

Q. Okay. Were the Warrick probes -- why don't you describe first your knowledge of what the Warrick probes are?

A. The Warrick probes are basically devices which detect water in contact with them, to my understanding, and upon this detection, they can open or close a circuit based on how the relay is configured.

Q. Okay. Now, the hydro plant technicians, were they the ones to go and visually check the water levels and compare that against the computer readings at

Taum Sauk?

A. Yes. They did that every week, at a minimum, on a weekly routine.

Q. Okay. So then the Warrick probes, were they the backup, emergency, if you will, if the water level went too high?

A. That's my understanding, too high or too low.

Q. Okay. So then would this type of e-mail have concerned you if there was a Warrick probe emergency level trip going -- or where the Warrick probes were going out or not working?

A. I'm sure it would have.

Q. Okay. But you don't really recall anything specific as to these incidents?

A. (Inaudible.)

Q. I'm sorry. There was no sound.

A. I'm sorry. At this point, I don't recall, no.

Q. Okay. Could you put Exhibit 19 in front of Mr. Scott, please. On Exhibit 19, if you will take a second to review this document, please.

Okay. Have you had time to review that document?

A. Not the whole thing.

Q. Sorry. Please take your time.
A. Okay.
Q. Okay. My first question is, what would be the typical response if there was no emergency backup? Would extra personnel be put on for a night shift?
A. What are you talking about when you say emergency backup?
Q. Well, in this case, the way that Mr. Cooper is referencing emergency backup.
A. What part of the e-mail are you talking about?
Q. Okay. How about the first page, second paragraph, bolded, before the underlines?
A. Okay. What was your question?
Q. Okay. What would you typically do in response at Taum Sauk to emergency backups going out?
A. I'm not sure there would be a typical response. This is not a typical situation.
Q. Okay. In this situation, were night personnel -- or were personnel put on a night shift to watch?
A. I don't know.
Q. Did this refresh your recollection at all to the Warrick probe incident in November of 2004?
A. I've seen so many e-mails, it's not clear

at this point what I remember and what I've just read.

Q. Okay. What do you believe the situation was?

A. I don't recall. I honestly don't.

Q. What are you aware of now?

A. Apparently they had some trouble with Warrick probes and at least for a night had them out of service to do some work on them.

Q. So would Mr. Cooper not have had discussions with you to go ahead and make sure there were extra protections in place if emergency backups went down?

A. Again, I don't -- I don't recall this situation. I'm not even sure I was there that day.

Q. In general, would Mr. Cooper have discussions with you about this type of situation where emergency backups or other instrumentation failures, or maybe not to the level of failure, but they aren't working properly, would he have discussions about that type of thing with you?

A. Yes.

Q. Okay. And what -- what typically would your job be to do to react to that discussion?

A. Whatever he asked me to do. Like I say, there is no typical in these situations. It's an abnormal enough situation that it doesn't come up frequently.

Q. Is this the type of information that you would need to go tell your nine hydro plant technicians?

A. I'm not sure I understand the question.

Q. You're the nine hydro plant technicians' supervisor, right?

A. Most of the time when I'm there, correct.

Q. So it's part of your job to communicate situations at the Taum Sauk plant with those under your supervision?

A. Yes.

Q. So then, assuming you weren't on vacation, would this be the type of situation that you would be expected to go communicate to your hydro plant technicians?

A. If I was there and nobody else had communicated with them, yes.

Q. Okay. Would you check to see if somebody had communicated with them?

A. If I was there, yes.

Q. Okay. What if you came back from a weekend and it was the next Monday, would you then check to see if they'd been communicated with and update them?

A. Yes.

Q. Did you have any type of weekly or monthly or daily staff meeting with your staff?

A. We had a daily morning meeting.

Q. And what did that consist of?

A. Consisted usually of a brief job safety briefing discussing the hazards associated with the various jobs. It was more of an open forum for discussion of all the day's jobs, and sometimes it would also be kind of a troubleshooting session, if we had a lingering problem that we were trying to get ideas from everybody on.

Q. Okay. Now, I want to skip to a little bit of a different subject. When people have been testifying in the last few weeks that we've been here, the subject of scheduling outages has come up. Was this part of your job to schedule outages?

A. What kind of outage?

Q. Well, any kind of outage.

A. Depends on the type of outage.

Q. Okay. Why don't you tell me which type of outage that you would schedule?

A. If it's a -- if it's a -- if it's an immediate short-term concern, I guess what I'd call an acute outage, I usually called that in. If it was a -- if it was a big, big ticket, major, long duration outage, I'd say Rick typically handled that.

Q. And what would you define as a big ticket

major outage?

A. I don't know if there's a clear-cut way to define that.

Q. Is there an estimate of time that would be considered a major outage? Anything over a month, over a week, over six months?

A. I'd say anything longer than a day, Rick generally handled communicating with energy supply.

Q. When you called in your immediate or acute outages, did you have to get permission to do that from anyone?

A. No. Usually when I called in, it was to tell them that we were in an outage situation.

Q. On a big ticket or major outage, was there anyone that either had to be informed or permission had to be gotten from that was considered a supervisor?

A. Yeah, the power supply supervisor.

Q. And would that be in St. Louis?

A. Yes, ma'am.

Q. So would Warren Witt or Mark Birk or Steven Schoolcraft, would any of those also be informed?

A. Steve Schoolcraft would typically be informed as he worked for Ameren Energy.

Q. Okay. Now, when you called for an immediate or acute outage, describe the process. Besides

just telling them the info, was there anything else that you had to do along with that?

A. No. I usually just told them we were out of service and the reasons why and my best guess at our return to service.

Q. Okay. Now, do you know what Steven Schoolcraft's -- or Mr. Schoolcraft's job was?

A. No. I don't know his title.

Q. Okay. How do you know who he is?

A. I don't recall.

Q. Okay. Did you ever have contact with him for anything?

A. Yes.

Q. And what was that?

A. Usually I would call him if I, for instance, had to call in to tell them about an outage and either the power supply supervisor's line was busy or nobody was answering, they were doing something else.

Q. Okay. And why would you call him?

A. It's just a name that had been given to me.

Q. And what was your expectation, what was he supposed to do?

A. I don't know what his job requirements were.

Q. Well, I'm not asking about what his job

requirements were. I'm just asking what you expected he was supposed to do with the information you were giving him.

A. I didn't have any expectations. I was just always told to inform him or the power supply supervisor.

Q. Okay. Do you know what the power supply supervisor would do with the information?

A. No, I don't.

Q. Okay. If you could hand him Exhibit No. 25, please. Go ahead and review that, and take as much time as you need.

A. Okay.

Q. Okay. Do you recognize that e-mail?

A. No.

Q. Would it surprise you to learn that there's been testimony that this e-mail was integrated into the Taum Sauk operating manual?

A. No.

Q. Okay. Do you recognize the type of information that's within this e-mail?

A. You're going to have to be more specific. I'm not sure what you're talking about.

Q. Well, would this be the type of information that you saw or were informed of from the Taum Sauk operating manual?

A. I'm not sure if the Taum Sauk personnel used the operating manual in the same way as the Osage personnel.

Q. Have you ever seen the Taum Sauk operating manual?

A. I have, but I'm not sure if I ever seen it prior to the breach.

Q. Okay. Were you ever required to review the manual as one of your job duties?

A. I don't believe so.

Q. Okay. Do you know if it was available at the Taum Sauk facility for review if necessary?

A. I do not know.

Q. Okay. Could you hand him Exhibit No. 44, please. Please review.

A. Okay.

Q. Do you recognize this e-mail?

A. No, I don't.

Q. Did Rick Cooper ever pass on this information to you?

A. I don't remember.

Q. Okay. Did you -- were you ever made aware that ESO and trading will generally push to keep a unit on, but the ultimate authority and accountability resides with the plant operating staff?

A. I don't remember.
Q. Well, what did you know as to trading and authority with Taum Sauk when it came to outages?
A. Can you clarify?
Q. Well, was it your experience that trading did generally push to keep a unit on but you could say no?
A. I'm not sure I ever got in that situation with them, so I don't know that I've got a good answer for you on that.
Q. Okay. Were you ever aware of Mr. Cooper being in a situation like that?
A. Can you rephrase that? I'm sorry.
Q. Were you ever aware of Mr. Cooper being in a situation where trading was pushing to keep a unit on?
A. I don't know for sure one way or the other.
Q. Okay. Were you ever aware of any other engineer that was trying to schedule an outage having difficulty scheduling that outage with trading?
A. Steve Bluemner trying to schedule an outage to repair the upper reservoir gauge piping.
Q. Okay. And what type of difficulty were you aware of that he was having?
A. I just knew that he was having difficulty getting it scheduled.
Q. Okay. Did you know a reason why he was

having difficulty getting it scheduled?

A. No.

Q. In your view, was it Mr. Bluemner's job to try to schedule outages?

A. It was a task that he had been given by Mr. Cooper.

Q. Was that typical for Mr. Cooper to assign another engineer to schedule an outage and not you or Mr. Cooper himself?

A. I'd seen it happen one time in three years, so I don't know if you'd say it's typical or atypical.

Q. Okay. That one in three years, was that just Mr. Bluemner?

A. That's correct.

Q. When you said earlier that you called on immediate or acute outages, were you always told by Mr. Cooper to call that in or was it a standing policy that you would call that in?

A. I wasn't necessarily always the one to call it in. He could call it in. But I wasn't always told by him. There were times that he wasn't there.

Q. So was it a standing policy -- you said you had the name Mr. Schoolcraft that you could call. So was it some sort of standing policy that you would call Mr. Schoolcraft?

A. If it's a policy, I'm not aware of the policy.

Q. How did you know to call Mr. Schoolcraft whenever there -- you were in the middle of an immediate or acute outage?

A. That was my direction from Mr. Cooper.

Q. Okay. So was it a standing direction from Mr. Cooper that that's what you did?

A. Yes.

Q. So wouldn't that be a policy?

A. That's semantics.

Q. Okay. Do you know if other people were generally at the Taum Sauk plant allowed to call and schedule outages as a general rule?

A. I don't know.

Q. Okay. Who was next in line in the chain of command at Taum Sauk? It was Mr. Cooper, you, then who?

A. I'm not sure what you mean by command. I was over nine hydro plant technicians who were all of equivalent company status, for lack of a better word.

Q. Okay. So basically, only who you and Mr. Cooper would put in charge would be the next line in the chain of command?

A. Correct.

Q. Okay. Have you ever read any of the

Missouri State Highway Patrol investigation report?

A. I believe I've only read the testimonies of myself.

Q. Okay. Now, would it surprise you if one of Mr. Cooper's interviews stated that Mr. Cooper said he received pressure from supervisors to keep the upper reservoir running?

MS. PAKE: I'll just object to the form of that question. It misstates Mr. Cooper's statement as taken by the Highway Patrol, takes it out of context. I believe he said he never received pressure with respect to this particular incident or with respect to a safety issue.

MS. BRUEGGEMANN: Well, and your Honor, I'm asking in general of the statement, since this goes also beyond Taum Sauk, if he was aware of that statement in general. We can get into the details in a minute.

JUDGE DALE: Tell me what the -- restate your question.

MS. BRUEGGEMANN: The question was if he was aware that Mr. Cooper stated he had received pressure from supervisors to keep the upper reservoir running.

MS. PAKE: Same objection.

MS. BRUEGGEMANN: Her objection --

JUDGE DALE: It's overruled. He can answer

whether or not he's aware of that.

THE WITNESS: Can you ask the question again, please?

MS. BRUEGGEMANN: Absolutely.

BY MS. BRUEGGEMANN:

Q. I just want to know if you were aware that Mr. Cooper stated -- well, let me use the quote that's actually in the Highway Patrol report. It was a question about receiving pressure from supervisors to keep the upper reservoir running. He answered, in this incident, no. In the past, yes. I have been overruled. Were you aware of that pressure from supervisors?

MS. PAKE: I'd just object again that that's not a complete reading of that statement. I believe he says never on a safety issue.

MS. BRUEGGEMANN: Your Honor, that's the rest of --

JUDGE DALE: It's overruled. He can answer the question.

THE WITNESS: I'm still just going to need a little clarification.

JUDGE DALE: The question is, are you aware of those statements or not?

THE WITNESS: No. I didn't read Mr. Cooper's interview. I'm not aware.

JUDGE DALE: Thank you.

BY MS. BRUEGGEMANN:

Q. Were you aware that Warren Witt is Mr. Cooper's supervisor?

A. At what time?

Q. From November 2004 until the breach.

A. I don't believe he was the supervisor at that time.

Q. What do you --

A. To the best of my recollection.

Q. What do you believe Mr. Witt was?

A. To the best of my recollection, Mr. Witt at that time was still the Osage plant manager, and Mr. Cooper was reporting directly to Mr. Mark Birk.

Q. And when do you think that that time frame was?

A. I don't have that memorized. It's public record.

Q. Was it always like that from, let's say, 2004 and 2005?

A. I don't remember.

Q. Are you aware of a time that Mr. Witt ever became Mr. Cooper's supervisor?

A. Absolutely.

Q. Okay. Was that --

A. I just don't recall the date.

Q. Okay. Were you aware that Mr. Cooper had a number of supervisors in the chain of authority above him?

A. Certainly.

Q. Okay. Are you aware of any time that he discussed feeling pressure from those supervisors to keep the upper reservoir running?

A. What do you mean by keeping the upper reservoir running?

Q. Well, I'm assuming that the upper reservoir, since it was used primarily for generation, keeping the upper reservoir running refers to that.

A. You mean keeping the plant running?

Q. Do you look at the plant as just the upper reservoir running or the plant running?

A. The upper reservoir is just a reservoir for water. The plant is the part that actually runs.

Q. Okay. Does the plant generate any energy without the upper reservoir running?

A. No.

Q. Okay.

A. Again, you're saying the upper reservoir running. I'm just -- I'm not trying to get hung up on semantics, but I just want to clarify what you're asking me.

Q. How about we start a little bit broader? Are you aware of Mr. Cooper being under any pressure to keep Taum Sauk, the plant, running?

A. Certainly.

Q. Okay. And what were those general pressures?

A. Just the pressure that any leader in any industry feels to keep production high.

Q. Okay. And production of the actual energy going into the grid?

A. Correct.

Q. You were there in May of 2003 at Taum Sauk, is that what you said earlier?

A. Yeah. Half of May 2003, to the best of my recollection.

Q. Okay. So you were there before the liner was installed in the fall of 2004?

A. That's correct.

Q. Okay. And you were in the same position that whole time?

A. Yes.

Q. Okay. Are you aware of how much Taum Sauk ran to generate power during those time frames, 2003 to 2005?

A. No.

Q. You weren't? Were you ever aware of it on a -- on just one specific day?

A. I'm not sure of your question. Are you asking me to quantify exactly how many hours the units ran? Are you asking me am I aware that the units ran or didn't run? I just need a little more clarification.

Q. I'm just being real general right now. Are you just aware that the units were running from 2003, in May 2003 to 2005, without exceptions?

A. Yes.

Q. Okay. In May 2003, up until the fall of 2004, was that -- was the amount of generation or the plant ran in that time frame different from December 2004 to December 2005?

A. I do not know.

Q. Okay. Did anything change after the liner was installed that you noticed in the operation of the plant?

A. The best of my recollection, the only change after the liner installation was that we went to a year-round constant fill level in the upper reservoir, where we used to have a summer mode and a winter mode.

Q. And the reason for that was what?

A. I had always been told, again to the best of my recollection, that any water that might leak through

the parapet well would quickly become ice on the upper reservoir road, making it dangerous to drive around.

Q. Okay. So that did change after the liner installation?

A. Right. The amount of leakage to the parapet wall went down appreciably, so it was no longer a concern.

Q. Okay. What level was it that year-round level changed to?

A. You're talking about the upper fill level?

Q. Yes. I'm sorry. Yes.

A. To the best of my recollection, 1596.

Q. Okay. And then are you aware of, on September 25th of 2005, an overtopping event that occurred?

A. I'm aware that water was blown over the top of the wall, yes.

Q. Okay. And how were you aware of that?

A. I don't recall how I received the information.

Q. Okay. Did you ever go help investigate that?

A. Yes.

Q. And what did you do in that instance?

A. As memory serves, and I don't recall the

time or date, but Rick Cooper and I went to the top of the upper reservoir, just the two of us in a vehicle, and he wanted to -- he wanted to look at the water level in the reservoir to make sure we weren't overly full. So he wanted to climb on top of the vehicle.

In order for him to do that, I had to pull the vehicle up close to the wall. In doing so, I put myself so close to the wall the door wouldn't open. So I never got out of the vehicle. He took a visual inspection. I just saw it from the vehicle.

Q. What, if at all, did he tell you about his visual inspection?

A. He said that he thought we were a little high.

Q. Okay. So what did you do and what did he do in reaction to that?

A. As I recall, we went down to the plant and looked at the instrumentation from the computer, and by looking at the three submersible transmitters, it appeared that one was far out from the other two. So we removed that transmitter from the calculation, from the average.

And looking at the resulting number, he said he thought we were 4/10 of a foot higher than that in actuality. So we added 4/10 of a foot to the number in the computer to make what was in the reservoir match what

was on the computer screen.

Q. Okay. And why don't we break that down for a minute because there's a couple of important points I think you just said. On the three submersible transmitters that you said you found one was further out than the other two, how did you find that?

A. Within the computer code, you could see each individual transmitter value.

Q. Okay. And what did it show?

A. Showed that one was farther out from the other two.

Q. What do you mean by farther out?

A. Deviated much more significantly from what the other two's value was.

Q. Did you believe that that was a false reading?

A. Yes.

Q. And was there any other information that you relied on besides the other two readings to determine that that was a false reading?

A. I don't recall.

Q. Okay. Would the visual level of the water have come into play at that point also?

A. Yeah. What we used to base what was good and what was not was based on what Rick observed at the

reservoir.

Q. Okay. Do you happen to recall any of those figures?

A. No, I do not.

Q. Okay. Now, when you said there was a 4/10 foot -- I think this is what you said, there was a -- or a .4 foot adjustment, how did that get adjusted?

A. We added 4/10 of a foot to the value in the computer.

Q. And who entered that in?

A. I did.

Q. Okay. And why did you stick with the .4 measurement?

A. That's what I was advised to do by Mr. Cooper.

Q. Okay. Did Mr. Cooper tell you the basis for his reasoning?

A. Visual observation.

Q. Okay. And did .4 seem reasonable to you as an adjustment?

A. I had no reason to question it.

Q. Okay. Did you ever go back and make sure that that .4 adjustment was the correct adjustment, reverify numbers later, anything?

A. Yes.

Q. And what did you do?

A. The HPTs would conduct a weekly inspection in which they'd compare the value in the computer to a visual staff gauge. In addition, I would at irregular intervals check it myself.

Q. Okay. And this was after the September 25th incident in 2005?

A. Yes.

Q. Okay. Did those weekly checks go on before the September 25th incident?

A. I don't recall. I know we had a weekly inspection, but I don't remember if the cross verification with the staff gauge was put in place after the adjustment or before.

Q. Okay. Are you aware of anything else that changed after that September 25th, 2005 event?

A. At some point, and I'm not sure of the exact date or time, we chose to begin operating the max fill in the upper reservoir to a two-foot lower level.

Q. Okay. And why two feet lower?

A. The two foot was Rick's determination. It was just a best guess on what would be a safety margin in case anything further happened to affect the instrumentation. It was sent out to myself and numerous other people. Nobody -- nobody had a complaint or an

argument against it at the time.

Q. So were you comfortable with that best guess, two-foot decrease in level, max level?

A. I had no frame of reference to compare it against.

Q. Well, you'd been out to the top of the reservoir, right, in the upper reservoir?

A. Yes.

Q. And were you aware of how much -- or what the max level in general was for the upper reservoir?

A. Yes.

Q. And what was it that was that general max level?

A. You're talking about before the two-foot drop or after the two-foot drop?

Q. Let's go back to before the two foot drop, what was the max level for the upper reservoir?

A. 1596.

Q. And how far below the top of the wall was that, that you knew about?

A. I'm not sure the exact height at the top of the wall.

Q. How far visually did it appear to be?

A. I am not going to hazard a guess.

Q. Well, was it below the top of the wall?

A. Absolutely.

Q. Was it far enough below the top of the wall that it didn't look like it was going to go over the wall to you?

A. As long as we were not pumping at that point, yes.

Q. Okay. So then the two-foot adjustment down you knew would be lower than the 1596 where you had seen the level at before, correct?

A. Correct. It would be 1594.

Q. So then was that part of the reason you were comfortable with the best guess deviation two feet downward as a safety buffer?

A. Yes.

Q. Okay. Do you know if the Bagnell Dam or St. Louis power dispatcher -- Bagnell Dam operators or St. Louis power dispatcher were ever informed of the two-foot decrease in the max level?

A. Yes.

Q. Okay. And how do you know that?

A. I seen e-mails since the fact.

Q. Okay. Did you know that at the time?

A. I can't say for certain.

Q. Okay.

A. I don't remember at this point.

Q. Do you know if any of the operators were aware of the .4 adjustment that you made?

A. Again, I don't -- I don't remember.

Q. Okay. Whose job would that have been to communicate that?

A. Myself or Rick Cooper.

Q. Okay. Did you communicate that to anybody?

A. I did not.

Q. Okay. And I guess you may not recall this either, but do you recall if Rick Cooper communicated that to anyone?

A. You're right, I don't remember.

Q. Okay. Do you know for the rest of the time period that the Taum Sauk plant upper reservoir ran at the max level, the 1594 at least on the -- on the markers for the level, on the visual markers?

A. We had some distortion here at the beginning of your question. Can you ask it again, please?

Q. Absolutely. Do you know if the Taum Sauk facility continued to run until the day of the breach with the max level at 1594?

A. To my knowledge, yes.

Q. Okay. Now, did you ever have occasion to go up to the upper reservoir and look at any other instrumentalities that may not have been working properly?

A. Can you clarify that question? I'm not sure what you mean.

Q. Well, when we're talking about the piping that encased the piezometers, did you ever go -- in the fall of 2005 have occasion to go look at the piping?

A. Yes, I did.

Q. And why was that?

A. I don't recall what brought me to look at that. I don't know if I was the first one that found it or somebody else brought it to my attention.

Q. Okay. Well, what did you see?

A. I saw that part of the support system had broken and that there was a bow in the piping.

Q. And what did that mean to you?

A. Meant that part of it was broken.

Q. Well, what was that piping holding?

A. Submersible level transmitters.

Q. Okay. And if the piping was broken holding the submersible piezometers, then what did that mean ultimately to you?

A. To me, it seemed to clarify why we needed to put in the .4 foot adjustment. The bowing in the pipe had caused some distortion in the reading, to the best of my reckoning at that point.

Q. Okay. And do you think at that point that

.4 was sufficient to account for the bow in the pipe?

A. As corroborated by visual observation, it was.

Q. Okay. Are you aware of water movement when there's water being pumped up into the upper reservoir?

A. Yes.

Q. Okay. Would that water movement be strong enough to move those pipes if they weren't bracketed down to the side of the reservoir?

A. I don't know.

Q. You don't know if the water would be strong enough to move the pipes?

A. That's correct.

Q. Do you know if anybody would know something like that at the reservoir?

A. No. No, I don't.

Q. Okay. Were you at -- well, let me back up for a second. Now, I need to probably start this way. On September 26, 2005, are you aware there was an IEEE awards ceremony at the Taum Sauk plant?

A. Yes, I was.

Q. Were you there?

A. Yes.

Q. Okay. And did you see Mr. Witt or Mr. Birk or any other supervisors at that event?

A. Yes.
Q. Okay. Did you think to talk to them or have opportunity to talk to them about the wave action overtopping from the day before?
A. I don't recall.
Q. Okay. Moving to Exhibit 16, if you could place that in front of Mr. Scott. If you want to review that, take your time.
A. Okay. I have.
Q. Do you recognize this e-mail?
A. Yes.
Q. Okay. And how do you recognize it?
A. In the course of several investigations, we've looked at it.
Q. Okay. Do you know if you ever answered this question?
A. No, I don't.
Q. Would you have answered this question, or would there be a reason why you wouldn't have answered this question?
A. I can't think of a reason I wouldn't have answered it, unless it was answered by Rick before I got to it or perhaps I had a face-to-face conversation where I replied so the e-mail was unnecessary or a phone call.
Q. And the question being, for those who might

not have the exhibit in front of them, were the high and high-high Warrick relays picked up at the UR when the water was up Sunday? What's the answer to that question?

A. I don't know.

Q. So you didn't know the answer to the question at the time either?

A. I didn't say that. At present, I don't know.

Q. Okay. When you were dealing with outages in your supervisory capacity, did the budget of the Taum Sauk facility, was that ever something that you had to focus on?

A. No.

Q. Okay. Is it something that you had to consider in your position?

A. No.

Q. Would Mr. Cooper have asked you to take it into consideration if you were giving him feedback?

A. No.

Q. Could you please place Exhibit No. 11 in front of Mr. Scoot. Would you take the time to review that, please.

A. Okay.

Q. Okay. Do you recognize either of this string of e-mails or the actual string of e-mails?

A. Yes.

Q. And how do you recognize these e-mails?

A. Again, through the various investigations, these have come up.

Q. Okay. On that November 14th, 2005, 1:56 p.m. e-mail from Richard Cooper in which you were cc'd, I believe the main part of this e-mail is discussing Taum Sauk's scheduling for spring 2006 outages. Could you turn to the second page, please, and the second to last paragraph, second -- or the first sentence after he's outlined a number of issues that would need to be taken out of in the outage, does he say, I'm asking that each of you think about the possibility of modifying the current schedules, what is the cost involved. I don't have extra money in my budget to cover extensive runner repairs, upper reservoir liner repairs and tunnel liner repairs. The inlet valve flange is capital work, but I don't have money budgeted for that work either.

Is that what he says?

A. That's what I'm reading, yes.

Q. Why would he ask you to take that into consideration?

A. I don't believe he was asking me to take that into consideration as I was cc'd on this. I think the people on the to line is who he was asking for advice,

in my opinion.

Q. Okay. So he wouldn't ever ask you for information or input on things like this?

A. Not about scheduling an outage like that, no.

Q. Okay. He wouldn't generally ask you about just his budget or cost involved and ways to deal with the Taum Sauk budget and keeping in line with that?

A. No.

Q. Okay. So did you take into account in your job, did you have to take into account for the different types of small-scale outages you dealt with costs to the Taum Sauk facility?

A. Cost was never really a consideration in anything I did there, no.

Q. So what would be the considerations, then?

A. I'm not sure I understand your question.

Q. I'm just asking for further explanation of your answer. You said cost wasn't one of the considerations that you would -- you would specify for outages. What were some of the considerations?

A. Outage necessity.

Q. Okay. Would you consider anything else as to the timing of when you were trying to schedule outages?

A. I'm not sure we're going down a path here

that -- again, let me clarify. Any time I called an outage, it was usually a short term, immediate declaration of an outage. I had very little, if any, that I recall, scheduling an outage.

Q. Would you ever give updates as to outage scheduling and other issues that might arise?

A. I could, yes.

Q. Would those updates include other circumstances that could affect what the -- what you had just taken care of?

A. Again, I'm not sure I understand what you're trying to ask me. I apologize.

Q. Okay. Why don't we just skip forward. This is not a labeled exhibit, but I think the person with you may have this e-mail. Otherwise, I can read it. It's Friday, December 9th, 2005, 12:35 p.m.

MS. PAKE: Let me look for it.

(STAFF EXHIBIT NO. 49 WAS MARKED FOR IDENTIFICATION BY THE REPORTER.)

MS. PAKE: We don't seem to have that one here.

JUDGE DALE: What is it?

MS. BRUEGGEMANN: It's a short e-mail from Mr. Scott. I'm not sure if the proper thing to do would to be fax that to them at break and I can come back to it.

MR. BYRNE: Is it short enough you can read it to them?

MS. BRUEGGEMANN: If that's acceptable. She has all of my extra copies after she marks the exhibit. And this has now been marked as Exhibit No. 49.

JUDGE DALE: Ms. Brueggemann, can we have bench copies?

MS. BRUEGGEMANN: I'm so sorry. Is it going to be acceptable that I just read that to him?

JUDGE DALE: We're going to have to take a break fairly soon because the video's about to time out and we'll have to reboot that. Perhaps it would be best to take the break now, figure out how to get it to him in hard copy.

MR. HAAR: We'll contact Ms. Pake and see if there is a fax machine.

JUDGE DALE: In that case, we will go on break for about ten minutes and let the system get set back up and figure out how to get this document to the gentleman. With that, we will go off the record and reconvene in ten minutes.

(A BREAK WAS TAKEN.)

(STAFF EXHIBIT NOS. 50 AND 51 WERE MARKED FOR IDENTIFICATION BY THE REPORTER.)

JUDGE DALE: We're ready to go back on the

record and resume with Staff's questions.
BY MS. BRUEGGEMANN:
Q. Do you have in front of you an e-mail from December 9th, 2005, 12:35 p.m. from you to a number of individuals?
A. Yes.
Q. Have you had a chance to read that?
A. Yes, ma'am.
Q. Okay. Could you tell us what a red day is where it says, given the volatile market prices and the fact that today is a red day, my plan is to monitor the pump during today's start and also during tonight's on the PM/OWL?
A. Yeah. A red day, the company basically -- I don't know at what point in time they started this doing this, several years ago, started designating days as either green, yellow or red. Red day basically means that system stability is an issue or that market prices are high or both.
Q. How do you learn if it's a red day or a green day?
A. That's a company website that's accessible to myself or Rick or -- I don't know where the limitation stops on who can view it and who can't, but I know that everybody at the plant can view it.

Q. And why did you check whether or not it was a red day or a green day?

A. As a general rule, I check it pretty well every day to see what kind of day it was.

Q. What does that information tell you that assists you in your job?

A. There are some guidelines, which I don't have memorized, as to what type of activities you should be doing if it's a green day versus a yellow day or a red day. Red day, I think they try to discourage any unnecessary system alterations or maintenance.

Q. What do you mean by system alterations?

A. Changing any configuration at the plant.

Q. Configurations that would lead to? Could you just explain that a little further, please?

A. Could be anything, operation of a valve or changing of a switch position, anything that's not necessarily necessary and for which an adverse outcome might cause the unit to upset or trip.

Q. Okay. So on red days, essentially they don't want to risk the facility going down for any reason or having an outage?

A. That's correct.

Q. Okay. So were you expected to then pay attention to volatile market prices?

A. I wouldn't say that I had ever been told it was part of my job to monitor market prices at all. We more watch the red day, yellow day, green day indicator.

Q. Okay. So then why did you reference it in the e-mail? How did it assist your readers?

A. I don't know.

Q. Well, then --

A. I should say I don't remember at this point.

Q. Okay. I seem to have lost an exhibit. Why don't we skip really quickly to just something that will be necessary to do for me. Were you interviewed by the Missouri State Highway Patrol?

A. Yes.

Q. And were you interviewed twice?

A. Yes.

Q. Okay. Do you have or does someone there have those two interviews that they --

A. Yes.

Q. -- could hand to you?

Okay. I have premarked the interview from December 20th, 2005 as No. 50, and the interview from April 4th, 2007 as No. 51. And do you have No. 50 in front of you, which is that December 20th, 2005 exhibit?

A. Yes.

Q. Now, have you had an opportunity to review this document?

A. Yes.

Q. Okay. And knowing that before it gets entered as an exhibit, we would take out references to your date of birth, to your personal address, to your telephone number, knowing that, are there any corrections that you need to make to this summary or this synopsis of your interview?

A. Yes.

Q. What are those?

A. At the end of paragraph No. 1, it says I'm employed as a hydro plant technician. That should read supervisor power production/engineering.

In paragraph No. 3, second sentence, says Mr. Scott said that there had been higher than normal winds in October. That should read September.

And near the bottom of paragraph No. 3, it has a quote saying, nothing was done. It should read, nothing yet was done. That's all I have.

Q. Okay. And then on Exhibit No. 51, knowing we'll redact the same information, do you have any corrections?

A. Yes. In paragraph No. 3, near the bottom it says, he's currently assigned to Labadie power plant.

It should read Meramec power plant.

Q. Okay. Anything else?

A. Not that I've been able to catch.

MS. BRUEGGEMANN: And I would just ask to go ahead and admit into evidence Exhibits No. 50 and 51.

MS. PAKE: Subject to our standing objection, your Honor.

JUDGE DALE: Certainly. Subject to that objection, 50 and 51 will be admitted.

(STAFF EXHIBIT NOS. 50 AND 51 WERE RECEIVED INTO EVIDENCE.)

MS. BRUEGGEMANN: And then at this time I think is a good time to go ahead and ask to admit Exhibit No. 49.

JUDGE DALE: Are there any objections?

MS. PAKE: No objection.

JUDGE DALE: Thank you. Exhibit No. 49 will be admitted.

(STAFF EXHIBIT NO. 49 WAS RECEIVED INTO EVIDENCE.)

MS. BRUEGGEMANN: Now, do you have Exhibit No. 41 available there?

MS. PAKE: Yes.

BY MS. BRUEGGEMANN:

Q. Would you take a moment to review that,

Mr. Scott.

A. Okay.

Q. Okay. On that, what's my second page, but it's a December 2nd, 2005, 7:44 a.m. e-mail from Warren Witt to Mark Birk, apparently Mr. Witt writes, Mark, I have been at Taum Sauk most of this week and talked with Rick and Jeff and others about the outage. Do you remember what that discussion entailed?

A. No, I don't remember that discussion.

Q. Do you remember discussing the outages in general?

A. With Warren on this particular date, no, but I have discussed outages before, yes.

Q. Okay. Do you remember discussing the spring 2006 outages?

A. No.

Q. So you don't remember any discussions as to the spring of 2006 outages?

A. I'm not questioning whether or not they happened. I just don't remember the particulars.

Q. Okay. But not remembering the particulars and remembering at least generally that you had discussions are two different things. Do you remember --

A. I do remember that there were general discussions, yes.

Q. Okay. And do you remember generally what those discussions were about?

A. Just about when -- when the outage was going to be and what all work was going to take place.

Q. Okay. Do you remember included in that conversation the discussion about the gauges and repairing the brackets to the piping and things like that?

A. No.

Q. Okay. As power production supervisor, how would the spring outage have affected your job?

A. No differently than if it was any other time of the year.

Q. How would it at any other time of the year or this one affect your job?

A. The daily activities would be quite a bit different, doing different types of jobs, jobs that can only be done during outage time.

Q. Okay. Would your hydro plant technicians still be working full-time but on different projects?

A. Yes. That's correct.

Q. Okay. And then a quick question about Exhibit No. 31. Please review that when you have it in front of you.

MS. PAKE: Just to clarify, is that the October 9, 2005 e-mail from Rick Cooper to Steve Bluemner?

MS. BRUEGGEMANN: Yes.

THE WITNESS: Okay.

BY MS. BRUEGGEMANN:

Q. In that second sentence, the first sentence is talking about the diver to inspect, but the second sentence says, the lower max level we are keeping in the upper reservoir amounts to some MWs, and I'm sure everyone, quote/unquote, wants to know what we are going to do.

Who was Richard Cooper talking about when he put in quotations everyone?

A. I don't know.

Q. Had you worked with him for about a year and a half by this time?

A. About two and a half years.

Q. Okay. Who would be the types of individuals he would be referring to that would want to know what he's going to do on something like this?

A. I still don't know.

Q. You don't have any idea who would be interested in knowing the upper reservoir amounts and the megawattage subject, who would be interested in that?

A. Any number of people in the company would be interested. I just don't know who he was inferring when he said everyone.

Q. Okay. Who are the type of people in the company that would be interested?

A. Ameren Energy, people at the plant, people at Osage plant, Rick's superiors.

MS. BRUEGGEMANN: I'm looking for the November 23rd, 2005 e-mail, but I'm not sure what exhibit number it is, if you have that available to Mr. Scott.

MS. PAKE: I have that. I think it's Exhibit 11.

BY MS. BRUEGGEMANN:

Q. We talked about earlier -- or I'm sorry, Mr. Scott. If you want to review Exhibit 11.

A. Okay. The bottom part's the same thing as what we've seen already, I guess, I'm assuming?

Q. Yes, just to make sure that you recognize it.

A. Okay.

Q. Okay. In that first November 23rd, top e-mail where you're cc'd, and it's actually from Steve Bluemner to Richard Cooper and a number of others, he's talking about, in that second paragraph, why he couldn't get the outage scheduled in November. Do you recall this?

A. Yes.

Q. Okay. Now, we spoke earlier about the two-foot adjustment down to 1594 after the September 25th

wave action overtopping, right?

A. Yes.

Q. Okay. So knowing that it was -- it appeared to be an indeterminate amount of time before repairs could be done, and knowing what you knew about the brackets being broken and only two of the actual transducers working, were you still comfortable with the two-foot adjustment down?

A. Yes. To our understanding, the movement in the pipes had -- I guess it settled into a place where, with the .4 foot adjustment, we were getting an accurate reading. That accurate reading, to our knowledge, never wavered in that time. There was nothing to lead us to believe that two feet was not a safe margin.

MS. BRUEGGEMANN: Okay. Nothing further for me at this time, your Honor. Thank you, Mr. Scott.

THE WITNESS: Thank you.

JUDGE DALE: Thank you. OPC?

MR. MILLS: Yes. Thank you.

CROSS-EXAMINATION BY MR. MILLS:

Q. Good morning, Mr. Scott. My name is Lewis Mills. I represent the Office of the Public Counsel in this matter. I've just got some general questions for you to start out.

Can you sort of compare and contrast your

role with Mr. Cooper's role at Taum Sauk?

A. I would say in general I handled more of the small daily issues, administrative issues, purchasing of parts and materials, scheduling daily work. Whereas, in contrast with that, I would say Rick's role was more of a broad communicating the status of the plant and the needs of the plant to the rest of the company.

Q. Okay. So your job was more along the lines of scheduling daily tasks for the nine hydro power techs?

A. Right.

Q. And his job was looking after the plant?

A. Well, we both looked after the plant.

Q. Whose responsibility was the big picture, sort of, of the plant?

A. I would say that was both of ours, as well as -- as well as the manager of hydro.

Q. And the manager of hydro was who?

A. Different people at different times. Prior to Warren Witt, it was Chris Iselin.

Q. So from the time you began, it was Chris Iselin until sometime in the spring of 2005 when Mr. Witt came in?

A. I'm not sure about that date, but Warren Witt did succeed Chris Iselin.

Q. Was Mr. Witt the supervisor of hydro or

the -- is that his title, supervisor of hydro?

A. Manager.

Q. Manager of hydro. Was he the manager of hydro in the fall of 2005 both when the September overtopping occurred and when the breach occurred?

A. Again, as I answered earlier, I don't remember that, what the dates were.

Q. So you don't remember whether or not he was manager of hydro when the overtopping occurred in late September?

A. That's correct.

Q. How about when the breach occurred a month or so later?

A. That's correct.

Q. Two months later. You don't remember whether he was the manager at that time?

A. Yeah. That's what I said.

Q. Okay. So if you and Mr. Cooper were both responsible for sort of the big picture at Taum Sauk, how do you explain having missed a number of signals that could have indicated that there were some problems going on with the instrumentation in both systems?

A. Can you tell me which signals you're talking about?

Q. Well, you knew that the plant blew over the

top and, in the words of at least one employee, looked like Niagara Falls on September 25th; is that correct?

A. Correct. And that employee later said that Niagara Falls was an exaggeration, but yes.

Q. But at the time, his first impression was it looked like Niagara Falls?

A. I'm not going to try to get in his head. I don't know why he said those words.

Q. Well, shortly following the overtopping on September 25th, did not one of your hydro plant technicians have to go and repair the road with a bulldozer and a load of gravel?

A. Yes, they did.

Q. Okay. Does that seem like it would take a fairly significant amount of water to wash out the road such that it would have to be repaired with a bulldozer and a load of gravel?

A. I don't know.

Q. So you knew about the overtopping on September 25th?

A. Correct.

Q. Or within a day or so afterwards?

A. Correct. Yes.

Q. All right. And then within a matter of a week or so after that, you knew that there was a problem

with the gauge piping on the transducers?

A. Correct.

Q. You knew that there was at least some brackets that had come loose and there was a bow in the pipes?

A. Right.

Q. Now, were you aware that, when the liner was installed, that Steve Bluemner surveyed the top of the wall?

A. Yes, I'm aware of that. I don't recall at this point whether I knew that at the time or I become aware after the fact.

Q. Do you know whether in the fall of 2005 you knew that portions of the wall were lower than other portions?

A. Common sense would tell you that it's not perfectly even all the way around. I didn't know what the deviation was.

Q. Did you know that there was a significant deviation in the matter of a foot or more?

A. I don't believe I knew that.

Q. Did you know at the time that the -- that the gauge house was at one of the higher points on the wall?

A. I didn't know where the high spot and low

spot was.

Q. If you were jointly responsible with Mr. Cooper for sort of the big picture of the plant, isn't that something that you should have known?

A. I don't know.

Q. Now, with regard to the placing of the high and the high-high Warrick probes, were you aware that, after the overtopping event, that Tom -- do you pronounce it Pierie?

A. Pierie.

Q. Pierie -- that Tom Pierie was concerned about the placement of the high and the high-high Warrick probes and whether or not they picked up water on the overtopping event?

A. I've become aware after the fact, yes.

Q. What do you mean by after the fact?

A. Well, since the -- since the event, I've seen e-mails questioning the placement of the probes.

Q. And what do you mean by the event?

A. The water blowing over the wall event.

Q. And you're referring now to the October 10th e-mail from Tom Pierie about that?

A. I don't know. I'd have to see the e-mail.

Q. Well, I think you just did. It's one that Ms. Brueggemann asked you about dated September 28th, 2005

that says, Jeff, were the high and high-high Warrick relays picked up at the UR when the water was up Sunday? Tom.

A. Okay. What's your question?

Q. My question was, were you not aware that at least Mr. Pierie had a concern about the placement of the Warrick probes almost immediately after the overtopping event?

A. I'm assuming I received that e-mail, and as I told her, I don't know what happened as a result of it.

Q. Okay. You don't recall any specific action that you took to investigate his concerns?

A. No, I don't. Not to say it didn't happen. I don't remember at this point what happened.

Q. And do you remember whether anyone else responded to that e-mail or looked into that question for him?

A. No. I don't remember at this point what happened.

Q. Okay. Did you ever hear anything more from Mr. Pierie about that question?

A. I don't remember.

Q. Did you ever hear that question raised by anyone else?

A. I don't remember.

Q. In your mind, what was the function of the high and the high-high Warrick probes?

A. To my understanding, they were emergency stops that were installed to prevent overpumping of the wall in the event that the submersible transmitters malfunctioned.

Q. And at least in early October of 2005, you were aware that the submersible probes were not functioning as they were designed to; is that correct?

A. We had found at one point that they were not functioning as they were designed to. However, the corrections we made put them back in a situation where at that point they were functioning as they were designed to.

Q. Well, now, let me see if I can dissect this statement. You think that by programming in a 4/10 of a foot fudge factor, that's the way they were designed to operate?

A. Yeah. We didn't change the operation of the transmitters at all.

Q. You changed the programming so that the programming would actually add to what the -- or subtract from what the probes were actually sending out into the program; is that correct?

A. No. It was add to, and, yeah, that's -- that's a modification for a physical constraint change.

That's not a change in the way the electronics themselves function.

Q. So it's your testimony that after you programmed in that 4/10 of a foot fudge factor, that the probes were working as they were designed to?

A. Yes.

Q. Okay.

COMMISSIONER GAW: Mr. Mills, may I interrupt --

MR. MILLS: Certainly.

COMMISSIONER GAW: -- just a moment, because I'm a little confused about what he's -- which probes he's talking about. And I think you -- I think he answered a question toward the end that was clear.

Mr. Scott, when you made the statement that the probes were not functioning like they were designed to initially when you started this conversation with Mr. Mills, were you talking about the transducers at that time or the Warrick probes?

THE WITNESS: I believe I was talking about the transducers.

COMMISSIONER GAW: All the way through conversation with Mr. Mills, those were the --

THE WITNESS: Yes.

COMMISSIONER GAW: -- instruments you were

discussing?

THE WITNESS: Yes.

COMMISSIONER GAW: All right. Thank you, Mr. Mills.

MR. MILLS: You're welcome. I appreciate your clarification, because we've talked about both sets of probes throughout these proceedings, and it's always good to be clear which ones we're talking about.

BY MR. MILLS:

Q. Okay. But also in early October of 2005, you were aware that the gauge piping had come loose; is that correct?

A. Portions of it, yes.

Q. And what do you mean by portions of it?

A. It was still attached in some parts. Other parts it had broke loose.

Q. Let me talk about this. When did you first personally see that some of the attachment points on the four gauge pipes had come loose?

A. I was asked by the previous attorney. I don't remember.

Q. And do you remember whether you were the one that discovered that or whether you inspected it based on a report from someone else that there was a problem?

A. As I stated before, I don't remember

whether I discovered it or somebody else did.

Q. And do you remember roughly what time period it was that you first looked at that gauge piping when it had a problem?

A. That would have been in the fall of '05. That's about the best I can do.

Q. You don't know whether it was October, November, December?

A. I really don't remember the date.

Q. After the first time that you discovered there was a problem, how frequently did you check to see if the problem was getting worse or staying the same?

A. As I stated before, HPTs did weekly inspections. I would check it on an informal basis, as I believe Rick would, too. I'm not certain on that.

Q. You would specifically check the piping on an occasional basis?

A. Correct.

Q. And would you log the results of your inspection?

A. No.

Q. Okay. And when you say on an occasional or irregular basis, how frequently are you talking about?

A. Irregularly.

Q. Does that --

A. You want --

Q. Do you mean --

A. I don't know. Sometimes -- sometimes it might be two or three times a week. Sometimes it might be once a week.

Q. So at least once a week you made a specific trip up there to look at the gauge piping?

A. I didn't say that. I might be gone for entire weeks in a row. But when I was there, I tried to get up there at least once a week.

Q. Let me -- let me ask you about that last statement. What was your typical schedule at Taum Sauk?

A. I didn't have a typical schedule. I'd be gone for vacation or training at irregular intervals.

Q. So were there many times at which you were gone for weeks in a row?

A. What do you mean by many?

Q. During the fall of 2005, from say mid September until the breach, how many times were you gone for weeks in a row?

A. I don't remember. You can check with the security guards. They'd have me coming in and out.

Q. So at least as far as you knew, based on your trip to the top of the reservoir, the changes you made to the programming system, the changes you are aware

of that the operators were doing in terms of the level of the reservoir and the gauge piping, you knew that there were some issues with the transducers; is that correct?

A. Correct. Yes.

Q. Now, let's talk about what you knew about the Warrick probes.

A. Okay.

Q. Why you -- is it your understanding that when the -- that system was first implemented, that the low and low-low Warrick probes were generating false trips?

A. I don't remember that from the time. Since then, I've seen e-mails to remind me, but I don't remember that.

Q. You have seen e-mails that were -- when were the e-mails sent?

A. I don't know.

Q. Were they sent after the breach or were they sent back at the time when the Warrick probes --

A. Would have been back at the time.

Q. Okay. So you've seen e-mails since then that lead you to believe that there may have been problems with the low and the low-low Warrick probes or you just don't recall at all?

A. Yes.

Q. And what were the nature of those problems?
A. I just remember the e-mails mentioning spurious malfunctions. I don't know the exact nature.
Q. If there were -- well, what would happen if either the low or the low-low or both Warrick probes gave a false trip?
A. If everything was set up as designed, it should have tripped.
Q. Okay. And what would happen in the event of a trip? Would there be an alarm?
A. I don't know for certain.
Q. Would there be a fairly instantaneous shutdown of generation?
A. Yes.
Q. Is there a difference in terms of the way the shutdown proceeds if it's done by the Warrick probes or done in the normal course of events through the signals from the transducers?
A. To the best of my recollection, there is.
Q. And what are those differences?
A. I think the trips from the transmitters -- shouldn't really call them trips. They're more shutdown. They're treated just like an operator shutdown, slowly close the wicket gates and shut the unit down. Whereas, the emergency trips were more of an immediate shutdown,

such that they'd close the inlet valve and shut off the water to the turbines.

Q. And is there a reason that you wouldn't want to do the emergency trip on a regular basis?

A. My understanding is it's harder on the unit. It tends to overspeed the unit, and it can be harder on bearings.

Q. And as an additional factor, if there is a false trip from the Warrick probes, would that mean that perhaps generation stopped before the level at which you would have hoped to generate?

A. That's my understanding.

Q. Okay. Now, at that time, was there any indication that there was a similar problem with the high and/or the high-high Warrick probes?

A. Not to my recollection.

Q. Have you seen anything since the fact that would indicate that there was a similar problem?

A. Not that I can recall.

Q. Okay. What was done to address the problem with the low and low-low Warrick probes?

A. I don't know.

Q. Was there any change made to the high or high-high Warrick probes in response to those problems?

A. I do not know.

Q. In terms of your responsibilities for the big picture at Taum Sauk, would it not have been your responsibility to understand how the instrumentation worked and how the emergency stops were supposed to function?

A. I do understand how they're supposed to function.

Q. Okay. Is it your understanding that something was done in response to the false trips on the low and low-low probes?

A. Yes.

Q. Okay. But you don't know what that was?

A. I don't recall what that was.

Q. As a result of whatever was done, did the false trips stop?

A. From what I recall, yes.

Q. Okay. And did from that -- at whatever point the problem was fixed, did you subsequently over the next year and a half or so have any -- or year or so, have any issues with false trips?

A. Not that I can recall.

Q. Do you recall ever having since the -- well, let me ask you this: Do you know whether the Warrick probes were a part of the instrumentation prior to the liner install in the fall of 2004?

A. I believe they were, but I'm not certain.
Q. Okay. Were there also float switches and relays as part of the system that was in place before the liner install?
A. It's my understanding there were.
Q. You were the plant supervisor for a time before the liner install; is that correct?
A. That's correct.
Q. And were you familiar with the instrumentation as part of your duties before the liner install?
A. To an extent, yes.
Q. And what extent is that?
A. At the time, I understood what we had there. There was also an auxiliary or stand-alone PLC looking at a transmitter. I understood its functionality, but it was kind of a specialized piece of equipment that we had to have the engineer who installed it come in and look at it, I believe, once when I was there.
Q. And in that last answer you were speaking about before the system was changed somewhat with the liner installed?
A. Yes.
Q. Okay. And you refer to the acronym PLC in that answer. Can you define for me what that term is?

A. It's a programable logic controller.
Q. And prior to the liner install, there was one PLC system?
A. That's my understanding, yes.
Q. And what was it designed to do?
A. Measure level in the upper reservoir.
Q. And was that -- was that a system that was redundant to the relays and the float system that was the primary instrumentation before the liner install?
A. I don't recall at this point.
Q. Now, in the fall of 2005, were you aware of where the Warrick probes were placed with respect to the top of the parapet wall?
A. I don't believe I had a full understanding of it at the time. Since then, I've become aware of it.
Q. And what is your understanding now of where they were placed in the fall of 2005?
A. From e-mails I've read, I believe they were four and seven inches from the top of the wall at the gauge house.
Q. And I believe you said earlier that you had at least some understanding that the level of the parapet wall wasn't uniform around the entire circumference; is that correct?
A. Right.

Q. Did you ever take it upon yourself to investigate whether or not the parapet wall was more than four inches out of level?

A. No, I did not.

Q. Did you ever take it upon yourself to investigate whether the gauge house was at a low point or a high point or a midpoint?

A. No, I did not.

Q. At the time, did you think that's something you should have done?

A. No, I did not, because I had no reason to believe that the Warrick probes weren't set properly.

Q. Whose responsibility would it have been to ensure that the Warrick probes were installed properly and functioning properly?

A. I don't know. It would have been -- would have been the installers of the controls upgrade.

Q. And that would have been a team led by Mr. Bluemner?

A. Combination effort of Mr. Bluemner and Mr. Pierie.

Q. Now, were either of those individuals assigned to Taum Sauk permanently?

A. No.

Q. Okay. But nonetheless, you believe it was

their responsibility to ensure in the fall of 2005 that those gauges were -- that the Warrick probes were installed properly and functioning properly?

A. It was their responsibility upon installation to ensure that they were installed properly.

Q. Whose responsibility would it be to ensure that they continued to function properly?

A. There was no reason they shouldn't continue to function properly if they're installed properly.

Q. That wasn't my question. Whose responsibility is it to ensure that that is the case?

A. I don't know.

Q. Do you believe it may have been yours?

A. That was never designated to me.

Q. Do you believe -- well, are there issues and responsibilities with respect to the big picture of the operation of the Taum Sauk plant that would have been yours without them having been specifically delineated to you?

A. I don't believe so.

Q. Did anybody ever tell you it would have been your responsibility to fix things if lightning struck the gauge house?

A. Yes.

Q. That was specifically delineated to you?

A. Yes.

Q. Did anybody ever -- did you ever do anything that you thought should have been your responsibility that wasn't specifically delineated to you as a responsibility?

A. Absolutely.

Q. But you don't believe that ensuring that the emergency backup Warrick probe gauges were functioning properly was one of those sorts of things?

A. I think I could have done it, if I had reason to believe that they weren't functioning properly.

Q. Now, when the reservoir overtopped on the 25th and you got an e-mail from Tom Pierie on the 28th asking you about those particular probes, shouldn't that have given you reason to believe there was an issue there?

A. As I said, I don't know what the result of that e-mail was.

Q. Did you have any reason to think that there was any result of that e-mail?

A. I don't know one way or the other.

Q. You don't know of -- you don't recall doing anything yourself in response to that e-mail; is that correct?

A. I very well may have. It's been two years. I don't remember.

Q. And you don't know that anyone else took any action as a result of that e-mail?
A. Again, I don't remember.
Q. Was anyone, other than yourself and Mr. Cooper, copied on that e-mail?
A. I don't know. Show me the e-mail. No.
Q. Can you repeat that? I don't think we picked it up here.
A. No.
Q. Now, what specifically was your relationship with Mr. Pierie?
A. He was a generation engineering project engineer.
Q. And what projects was he running for Taum Sauk at the time you were there?
A. Controls upgrade.
Q. The controls upgrade that was part of the liner install, or was there a proposed second controls upgrade?
A. There was also a proposed second controls upgrade.
Q. And which of those two was Mr. Pierie in charge of?
A. The first phase.
Q. So he was in charge of the controls upgrade

having to do with the liner install?

A. Yes.

Q. Okay. And what was Mr. Bluemner's role in terms of the controls upgrade as part of the liner install?

A. I believe he assisted Mr. Pierie with the conduits going into the reservoir.

Q. So Mr. Bluemner's role was essentially, at least in terms of the controls upgrade, limited to the actual placement of the controls and the control, the system that secured the controls in the reservoir; is that correct?

A. That's correct.

Q. And Mr. Pierie was in charge of all other respects of the controls upgrade?

A. Yes.

Q. And during -- did both of those projects take place concurrently?

A. Yes.

Q. What was -- what was your role in either or both of those projects, if they differed from project to project?

A. I had no involvement at all in the liner or the conduit installation. I had no formal role in the controls upgrade. I followed it around in its various

different stages trying to learn as much about it as I could, just so that somebody from the plant would know something of the controls.

Q. Was any of the actual work done on either of those projects done by the hydro plant technicians under your supervision?

A. Not to my knowledge.

Q. So during those two projects, what were your duties and what were -- well, let me start there. What were your duties?

A. I had no formal duties in those projects.

Q. What were your duties at the plant while those projects were going on?

A. I had no duties. We had -- we had allocated one of the HPTs to take over my normal duties for the most part. I still assisted him a little bit, but he did most of my daily duties of supervising the crew and ordering materials. I had no real duties at that point. My only -- my only daily activity was to follow Tom and Tony and try to absorb some of what they were doing as far as the controls upgrade.

Q. And for how many weeks did that go on?

A. I don't recall.

Q. Several at least, do you recall that much?

A. Yeah, I guess. What do you mean by

several?

Q. More than one or two.

A. Yes.

Q. And how was it determined that that should be your daily activity during that period of time?

A. I don't recall how we came to that decision.

Q. Was it something you volunteered for?

A. I don't recall.

Q. Are controls and instrumentation something that you have a particular expertise in as a result of your training and experience?

A. I have a knowledge of. I wouldn't say I'm an expert.

Q. Do you have an interest in that aspect of electrical engineering?

A. Yes.

Q. Did you -- in college, did you focus on that area?

A. No, I wouldn't say I focused on it.

Q. Now, with respect to the control system in general, and I'm talking about the control system as it existed at the time of the breach and after the liner install, was there anyone who was at the plant on a regular basis who was able to make modifications to that

system other than you?

A. Yeah. I'd say Tony Zamberlan was in and out of there several times. Chris Hawkins was also there.

Q. So those two and you?

A. Yeah.

Q. Okay. Were either of -- were either Mr. Zamberlan or Mr. Hawkins assigned to Taum Sauk full-time?

A. No.

Q. And clarify, if you will, for me the role that Chris Hawkins had in the design of the system as compared to the role that Tony Zamberlan had.

A. My understanding, which may not be entirely accurate, is that Tony Zamberlan was responsible for the logic and the hardware, and that Chris Hawkins was responsible for the network and communications.

Q. The network and the communications between where and where?

A. Between the plant and Osage, St. Louis.

Q. Between the Taum Sauk plant and Osage and St. Louis?

A. Correct.

Q. Okay. And you started your answer by saying that it's your understanding, and you don't know whether it's correct. Do you have any reason to believe

that that is an incorrect understanding?

A. I don't.

Q. Now, from the time that the liner was installed and the reservoir was back to functioning as normal in the fall of 2004, on how many occasions was the programming in the PLCs in the system changed?

A. I don't know.

Q. Was it a routine thing that Tony would come in all the time and make changes and tweaks, or was it a very rare occasion?

A. I'd say it's rare.

Q. Did the -- did the frequency of those occasions decline as time went by? That is, was there more action when the system was first implemented or was it steady throughout the time that that system was in place?

A. I don't recall.

Q. On how many occasions did you change that system?

A. The only -- the only times I can for sure recall changing the system was putting in the .4 adjustment and then another unrelated issue we had at the lower reservoir. Two times for sure.

Q. And do you think there may have been other times and you just don't remember, or are you confident

that there were only those two?

A. I don't remember any other times.

Q. How confident are you in your memory?

A. Fairly confident. Let me add, I just remembered one other time. I did install a startup or shutdown sequence. It was basically mimicking the operator's push button from Osage. So three times.

Q. And tell me about that last one you just thought of. What was that change?

A. To my recollection, there was an LDS cabinet that brought over a hardwired start or stop to the relay panel, and we -- myself and the hydro plant technicians installed a cable over to the PCS and ran it to an input that would pick up the input out of the LDS and give the generators or pumps a start or stop that basically mimicked the one that they got from Osage. I don't recall why we did it at this point. I don't remember what the reason was.

Q. And the acronym that you used, LDS, is that load dispatch system?

A. Yes.

Q. And the purpose of that change was to allow someone at Taum Sauk to start and stop the units?

A. No, that wasn't it, but as I said, I don't recall what the reason for the change was.

Q. Do you know what the change accomplished?
A. No.
Q. So you don't -- you don't know what changes were as a result of -- what changes to the operation of the system resulted from making that change to the programming?
A. No, I don't remember.
Q. Okay. Who directed that change?
A. I don't remember.
Q. Okay. How about the other -- one of the other changes you made had to do with the gauges at the lower reservoir; is that correct?
A. No, nothing about gauges at the lower reservoir.
Q. What did you do with respect to making changes about something with the lower reservoir?
A. We had a lower reservoir PLC that would periodically lose communications, and the only way to basically get the thing communicating again was to reset it. I installed a circuit that would automatically reset it upon loss of communication.
Q. And those are the only three occasions that you can recall?
A. That's correct.
Q. Now, with respect to the first one you

mentioned, which is the .4, is there a better term than fudge factor to call that? I don't want to use what may be inferred as a derogatory term. What do you call that .4 change?

A. It doesn't really matter.

Q. So with respect to 4/10 of a foot fudge factor, that was done directly in response to a visit that you and Mr. Cooper took to the upper reservoir after the overtopping in late September 2005; is that correct?

A. Yes. That's my recollection.

Q. Now, let me talk about that trip. You and Mr. -- you drove, Mr. Cooper was the passenger?

A. That's correct.

Q. And you stopped right next to the parapet wall?

A. Yes.

Q. Where on the parapet wall were you?

A. I don't know. I was somewhere between the top of the ramp and the gauge house. I don't know exactly where we were.

Q. And so from that side of the reservoir, if you were along between the top of the ramp and the gauge house, you would be almost directly opposite of where the breach ultimately occurred; is that correct?

A. That's not my understanding.

Q. Okay. Where is the gauge house with respect to where the breach occurred?

A. I don't have a picture of the reservoir, and I don't really remember what direction north and south was. But if you come up the top of the ramp and you go in a counterclockwise direction, you know, you eventually get to the reservoir about halfway around. As I said, we were somewhere between the top of the ramp and the gauge house.

Q. Is the top of the ramp roughly where the tunnel is?

A. The top of the ramp is to the right of the tunnel.

Q. Okay. So on that side of the reservoir, Mr. Cooper climbed out on top of your vehicle and was able to actually look over the top of the parapet wall in that way?

A. Yes.

Q. And is it your understanding that when he did that, he discovered that the level of the water was over the batten strip?

A. That's my understanding, yes.

Q. And how far down from the top of the parapet wall was the batten strip?

A. I don't know.

Q. Do you know whether the batten strip is

level or whether it follows the top of the parapet wall?

A. I don't know.

Q. I'm sorry. I didn't hear that.

A. I do not know.

Q. Now, as a result of that trip, did you go down and make those programming changes that same day?

A. I don't recall.

Q. Either that day or within a short number of days thereafter?

A. To the best of my recollection, yes.

Q. Now, in relation to that change, at what time did you make the change to essentially take the third transducer out of the loop?

A. As far as I recall, we did that at the same time.

Q. That was at the same time. Okay. Now, I believe in response to earlier questions, you said you did that because one transducer was way out; is that correct?

A. Yeah.

Q. And what do you mean by way out?

A. Deviated significantly from the other two.

Q. Okay. Was it -- was it showing more water in the reservoir or less water in the reservoir than the other two?

A. I don't remember.

Q. And by deviated significantly, do you mean it was off a few inches, off a 100 feet? What do you mean by that?

A. I would say at least a foot. I'm not certain, again, on the exact amount.

Q. And did you observe that it was -- that it was way out at that particular point in time, or did you go back and look at the history of the readings to determine that it had been consistently way out?

A. I don't remember.

Q. So it's possible that it was just out at that particular moment and you decided to take it out of the loop based on that one reading?

A. I don't remember.

Q. Based on what you now know about the way the gauge piping was bowed, is it possible that one transducer was actually at a different level than the other three?

A. It's doubtful. To my understanding, they were tied together in a common bundle. The difference should have been inches or fractions of inches.

Q. So all three transducers were within one of the pipes?

A. That's my understanding.

Q. Now, also as a result of the overtopping

and the visit to the top of the upper reservoir, the operator's took it upon -- well, the operators began operating the upper reservoir to only fill up to 1594; is that correct?

A. Yes.

Q. And who determined that two feet was the appropriate safety margin?

A. I don't recall for certain who came up with that number.

Q. Do you think it may have been you?

A. No.

Q. Do you think you would have had any input into that?

A. I think anybody could have had input into that, yes.

Q. Do you think that you did?

A. No. I don't recall saying anything one way or the other about it.

Q. Based upon who was involved in the inspection at that time, would it likely have been Mr. Cooper that made that determination that two foot was the appropriate safety factor?

A. It's possible, yes.

Q. Do you think it's likely?

A. I would say it's probably likely.

Q. Do you have any knowledge about how it was determined that two foot was enough of a safety margin at that time?

A. No, I don't.

Q. Do you know whether any particular calculations were performed to determine --

A. No, I don't.

Q. -- the two foot?

JUDGE DALE: Mr. Mills?

MR. MILLS: Yes?

JUDGE DALE: How much more do you have?

MR. MILLS: 15 minutes, maybe less. Do you want me to keep going?

JUDGE DALE: Yes, please.

BY MR. MILLS:

Q. Now, in terms to the changes that you made to the PLC code, did you call either Tony Zamberlan or Chris Hawkins about those changes either before, after or while you made them?

A. I don't recall.

Q. Would it have been part of your normal responsibilities to let either of those people know that the changes had been made to that code?

A. I wouldn't say it's part of my normal responsibilities, but I would say it's probably

characteristic of what I would do if I'd made one of those changes. However, I don't know whether or not I did at this point. I don't recall.

Q. Now, with respect to what you're monitoring actually at Taum Sauk, does the staff at Taum Sauk have the same kinds of screens that the operators at Osage and the dispatchers in St. Louis have?

A. It's my understanding that we have the same screens as the operators at Osage. I don't know what the dispatchers at St. Louis have.

Q. Okay. Do you have more information than the operators at Osage or less or the same?

A. I would say on the whole we have more operation -- or more information because we have not only the screens but just physical visual observations.

Q. Now, the screens at Osage include both a digital readout of the actual upper reservoir level, the lower reservoir level, as well as a graph that shows the trends in those levels; is that your understanding?

A. Yes.

Q. And that's displayed at Taum Sauk as well?

A. Yes. That's accessible.

Q. Is it displayed continuously?

A. Not necessarily.

Q. And where actually at Taum Sauk is it

accessible?

A. You can get that at either of the two HMI stations or at the configuration computer or at any other control network access point using a laptop.

Q. And does that include Mr. Cooper's house?

A. I'm not certain, but I believe it does.

Q. Okay. Are any of those access points continuously monitored at Taum Sauk?

A. No.

Q. Is there any protocol about when that information is monitored or not monitored?

A. No.

Q. Is it monitored rarely, regularly?

A. At least daily. At least daily on the weekdays, I should say.

Q. Now, just a few more questions. At what point did you leave Taum Sauk and go to Labadie?

A. I didn't leave Taum Sauk and go to Labadie.

Q. I'm sorry. Meramec. At what point did you leave Taum Sauk and go to Meramec?

A. August of '06.

Q. Okay. And was that a lateral move, a promotion?

A. Lateral move.

Q. And when you began at Labadie and then

moved to Taum Sauk, was that a lateral move or a promotion?

A. That was a promotion.

Q. Now, do you recall that in the last week of November and the first few days of December 2005, that Warren Witt was at Taum Sauk for about a week?

A. I don't recall that.

Q. Was Mr. Witt routinely at Taum Sauk?

A. I'd say he was there at least once or twice a month.

Q. Do you recall a period of time in the fall of 2005 when Mr. Witt was there for about a week?

A. I recall him being there in the fall of 2005. I don't know for sure whether it was for a week.

Q. Do you recall any specifics of his visit, what he was doing there, what interaction you had with him?

A. I do recall at one point, and again, I don't know what day this was, but at some point in the fall of 2005, Mr. Witt and I observed the bowed transmitter conduits at the upper reservoir.

Q. And did you have any conversation about that, those bows and the problems with those conduits while you were with Mr. Witt?

A. I'm sure I did.

Q. Do you recall any specifics about what you talked about?

A. No.

Q. Do you recall any generality about what you talked about?

A. No.

Q. Were you involved with the scheduling of a diver to look at those conduits?

A. No.

Q. Did you ever have any discussions with Steve Bluemner about the repairs to take care of those bows in the piping?

A. I don't believe so.

Q. Did you ever have any conversations with Mr. Bluemner about the design of that system to begin with?

A. Not to my recollection, no.

MR. MILLS: That's all I have for now. Thank you.

JUDGE DALE: Thank you. How long do you think your questions will go?

MR. SCHAEFER: About an hour.

COMMISSIONER GAW: It'll be at least an hour.

JUDGE DALE: Well, that still allows us, I

think, to have lunch until -- if we return at 1:30, getting back at that time, I think we'll still have time to finish at a reasonable hour. So let's go ahead and recess until 1:30, and we'll begin with questions from DNR. Thank you. We're off the record.

(A BREAK WAS TAKEN.)

(DNR EXHIBIT NO. 52 WAS MARKED FOR IDENTIFICATION BY THE REPORTER.)

JUDGE DALE: Back on the record. We are ready for DNR to begin inquiring of the witness.

MR. SCHAEFER: Thank you, Judge.

CROSS-EXAMINATION BY MR. SCHAEFER:

Q. Mr. Scott, I want to go back and ask you about the time frame from November and December of 2004 when you were assisting with the project to install the new liner. I think you said at that time you were -- one thing you were doing is you were following Mr. Pierie and Mr. Zamberlan to see some of the things that they were doing; is that correct?

A. That's correct.

Q. And have you still got Exhibit 19 in front of you? That's the e-mail from Mr. Cooper dated November 30th, 2004, 10:05 p.m., to several people, including Mr. Zamberlan and Mr. Pierie, and a copy sent to you.

A. Yes.

Q. Okay. Before I ask you about that, let me ask you this: Did the Taum Sauk facility have an emergency action plan that was required by FERC?

A. Yes.

Q. And what was that emergency action plan?

A. It was just a document that described the responses to various methods of failure for the upper or lower reservoirs.

Q. Okay. Did that document specifically dictate when the emergency action plan was to be followed, or is that something that was up to the discretion of someone there at the plant?

A. To the best of my recollection, there were guidelines in there for when it was to be followed.

Q. And for lack of a better term, was it supposed to be followed when there was an unsafe condition at the facility?

A. I honestly don't remember what the guidelines were as far as when to use it.

Q. Do you recall, was part of that emergency action plan actually a call list of people that were to be called if there was a serious situation there at the facility?

A. Yes.

Q. And are you familiar with Jerry Toops?
A. I'm sorry. I didn't hear.
Q. Sorry about that. We've got a little noise here. Are you familiar with Jerry Toops?
A. I know him, yes.
Q. And do you know Mr. Toops to be the superintendent of Johnson Shut-In State Park?
A. Yes. I know that was his title, yes.
Q. When you were down there working at Taum Sauk, did you know Jerry, Mr. Toops? Did you talk to him ever?
A. I had met him before. I wouldn't say I was real familiar with him.
Q. But you, in fact, knew that he lived right down the hill from the upper reservoir in the park, correct?
A. Yes. That's correct.
Q. And the emergency action plan required that should there be an emergency circumstance, one of the first five people what were supposed to be called by the facility was Mr. Toops; isn't that correct?
A. I don't remember what the plan looked like. I'll take your word for it.
Q. Okay. Do you know why the emergency action plan required that Mr. Toops be called in an emergency

situation?

A. To get him out -- to allow him to get out of harm's way and contact anybody else that needed to be contacted.

Q. Would that be anybody else that may happen to be in the park?

A. Yes.

Q. Okay. If you look at Exhibit 19.

A. Yes.

Q. You see the second full paragraph, which is in bold and underlined apparently from the original e-mail, and in this e-mail Mr. Cooper says, we have temporarily disabled the Warrick probes in both the generate and pump modes for tonight only. And then if you go down about three more sentences, there is a sentence that is underlined that said, in addition, if you lose upper reservoir communications, no level's being displayed, and the last reading you saw was up near the top in pump or near the bottom in generate, you need to shut down the units immediately. Do you see where I read that?

A. Yes.

Q. And then again, about three lines up from the bottom, underlined again, it said, we do not have Warrick probes backing us up now. Do you see where I read

that?

A. Yes.

Q. Do you recall when this incident took place in November of 2004?

A. It looks like November 30th.

Q. Okay. Aside from looking at the e-mail, I'm asking you if you have any independent recollection of the event that this e-mail is talking about?

A. I don't any more, but I'm sure that's due to the passage of time. It's been almost three years.

Q. Okay. Mr. Scott, do you have any medical condition that affects your memory in any way?

MS. PAKE: Objection, argumentative.

JUDGE DALE: I'm sorry. I'll overrule it. He's --

THE WITNESS: Absolutely not.

BY MR. SCHAEFER:

Q. Very similar question. Do you take any medication that any way affects your memory?

A. No, I do not.

Q. Are there any circumstances today that are in any way impeding your ability to recall things?

A. No, there are not.

Q. Okay. Now, back on November 30th of 2004, were you involved in the decision to turn off the Warrick

probes?

A. I do not recall.

Q. Okay. What did you do, if anything, at that time to satisfy yourself that that was not going to cause a harmful or dangerous situation?

A. I do not recall.

Q. Did you call Jerry Toops and tell him, hey, tonight we're not going to have any safety switches on?

A. No, I didn't.

Q. Okay. Did you contact FERC and tell FERC that you were going to operate the facility without the Warrick probes engaged?

A. No, I didn't.

Q. Why didn't you do that?

A. I didn't.

Q. I'm asking you, as you sit here today, do you know why you didn't do that?

A. No. I just didn't. I didn't feel that it was -- first of all, I don't even know if I was at the plant at this time. Secondly, at the time we thought we had adequately informed the operators to be able to perform their operations to still safely operate the plant.

Q. I understand it appears the operators were informed, but the operators don't live under the plant, do

they?

A. Not to my knowledge.

Q. So what did you do, if anything, to inform those that may live below the plant that the plant was going to be operated without the Warrick probes engaged?

A. What's your question?

Q. What did you do, if anything, to let those know who live below the plant there in Reynolds County that you were going to operate it without the Warrick probes engaged?

A. Nothing.

Q. Did you have any concern for the safety of those people that might be below the facility?

A. There again, I'm not even sure I was here at this time. I have serious doubts as to whether I was at the plant on this day.

Q. Do you have any reason to believe that you didn't get this e-mail, which is Exhibit 19?

A. Yes, I do. I have reason to believe that I was gone and didn't get it until after that night.

Q. Okay. What leads you to believe that?

A. Because I've looked back at logs I have, and I was gone on training on that week.

Q. Okay. Do you recall what kind of training you were in at that time?

A. No, I do not.
Q. Where was that log that you looked at to see that you weren't there?
A. In the computer.
Q. That's something in a computer that's maintained by Ameren?
A. Yes.
Q. When did you go back and look at that?
A. I don't recall.
Q. Was it in the last year?
A. I don't recall.
Q. Was it after the breach on December 14th, 2005?
A. After the breach in 2005? Yes, I've reviewed all my training since then.
Q. Okay. Do you have any reason to believe that you didn't see this e-mail when you got back?
A. No.
Q. When you got back, did you tell Mr. Cooper that you had any concerns about operating the facility without the Warrick probes on?
A. I don't recall.
Q. Did you ask Mr. Cooper what he might have done to make sure that the people who live below the facility were safeguarded?

A. No, I didn't.
Q. If you'll turn to the second page of Exhibit 19, and there's a chart there on the operating levels for the upper reservoir. Do you see that?
A. Yes.
Q. Do you see it says UR? Do you understand that to mean upper reservoir?
A. Yes.
Q. And below that it says 1596.5. Is that the operating level?
A. I think that's the emergency stop with the Warrick probes, if I understand this correctly.
Q. Okay. And let me ask you this, because immediately after that 1596.5 in parentheses there's a statement, there are Warrick probes above 1596.5. Do you see that?
A. Yes.
Q. Do you know where that information comes from?
A. No, I don't.
Q. But on November 30th of 2004, Mr. Cooper sent an e-mail to several people, including you, that says there are Warrick probes above 1596.5; is that correct?
A. Yeah.
Q. Mr. Scott, do you have Exhibit 20 in front

of you? That's the Tuesday, September 27, 2005 e-mail from Mr. Cooper to Mr. Pierie and Mr. Hawkins copied to you, Mr. Bluemner, Mr. Ferguson and Mr. Witt.

A. Yes.

Q. Do you recall receiving this e-mail on or about September 27th of 2005?

A. Yes.

Q. And do you see in the -- well, in the first paragraph it says, last weekend, Sunday, I had a couple of guys here on overtime on the a.m. getting ready for a ceremony we had Monday at the plant. The guys also did a walk down of the plant to make sure everything was okay for us to ignore the plant on Monday. Do you see where I read that?

A. Yes.

Q. Do you know what guys Mr. Cooper is referring to in that e-mail?

A. Hydro plant technicians.

Q. And specifically what are the names of the hydro plant technicians that he is referring to?

A. I don't remember for certain, but I believe it was Mr. Ron Robbs and Mr. Chris Yordy.

Q. I'm sorry. Can you spell the last names of both those people for me, please?

A. Robbs is R-o-b-b-s. Yordy is Y-o-r-d-y.

Q. Thank you. The next paragraph says, when the guys went up to the upper reservoir, they witnessed what they described as a Niagara Falls at the northwest corner of the reservoir. Do you see where I read that?

A. Yes.

Q. Did Mr. Robbs or Mr. Yordy discuss with you the Niagara Falls that they had seen?

A. Yes. They described the overtopping. I don't really remember any particulars about it anymore.

Q. Okay. But at least they told you about it?

A. They told everybody about it, yes.

Q. And would that have been right around that time of September 27, 2005, the date of this e-mail?

A. Yes. Sometime that week, yes.

Q. Okay. It says that they saw that at the northwest corner of the reservoir. Are you aware of the section of the reservoir that breached on December 14th, 2005?

A. Yes.

Q. Okay. And, in fact, the reservoir has panels on the parapet wall, correct?

A. Yes.

Q. And the breach was from approximately panel 88 through panel 99; isn't that correct?

A. I don't know.

Q. You don't know that --
A. No.
Q. -- as you sit here today?
A. That's correct.
Q. Okay. By direction, where are panels 88 through 99?
A. I could not tell you.
Q. Well --
A. I'm sorry. If I had a picture of it, I could show you the approximate area where it breached. I don't have the panel numbers memorized by any means.
Q. If I tell you that the -- that the tunnel where you drove into the reservoir was on the north side and the control box for the piping for the gauges was on the south side --
A. Right.
Q. -- does that sound correct to you?
A. Well, let's assume for the moment it is. I don't know any different.
Q. Okay. So would that put panels 88 through 99 in the northwest corner of the reservoir?
A. I still don't know how this correlates to the numbers. I'm just not familiar with the way the numbers are.
Q. Okay. Did the breach occur in the

northwest corner of the reservoir?

A. I believe that's right, yes.

Q. Now, the fact that you -- that you heard that there was water coming over the top in September, did that cause you any concern?

A. Yes.

Q. What concern did that cause you?

A. I never heard of water being over the top of the wall before, so it was -- you know, it was a considerable concern. The fact of the water going over the wall, coupled with the washing on the road was something I had never heard of or observed before.

Q. Right. Because as was pointed out previously, the washing of the road required a bulldozer and additional material to be brought up to fill in that erosion, correct?

A. Yeah. They had to bring up some rock. I'm not sure if they used a bulldozer or little tractor. I don't know what they used to smooth it out with.

Q. This facility was never designed to overflow, correct?

A. That's correct. To my knowledge, that's correct.

Q. Okay. Now, there's been some indication that possibly the water coming over, that they had --

these that Mr. Robbs and Mr. Yordy had witnessed was caused by wind. Have you heard that?

A. Yes.

Q. Do you have any personal knowledge that the day that they saw that water coming over was any more windy than any other normal day down there at the facility?

A. To the best of my knowledge, I recall those guys saying it was really windy that day. I can't tell you it was the windiest day on record or anything like that, but yes.

Q. Isn't it pretty common for it to always be windy up there?

A. Yeah. I'd say in general it's windier up there than it is in the surrounding more low-lying areas, yeah.

Q. Okay. Then skipping down to the fourth paragraph in Exhibit 20, it says, this morning Jeff and I went up to the upper reservoir when the controls indicated we were at 1596 elevation. There were no waves on the surface, but we could see a couple of wet areas on the west side of the reservoir parapet walls. Do you see where I read that? It's the fourth paragraph down from the top.

A. Okay.

Q. What time of the day was that that you were up there with Mr. Cooper?

A. Morning.

Q. Do you know what time?

A. No, I really don't.

Q. It says that you observed some -- there were no waves, but you observed some wet areas on the west side of the parapet wall. Do you see that?

A. Yes.

Q. Can you describe for me, please, what those wet areas looked like?

A. Just look like some water on the surface of the concrete on the parapet wall.

Q. Was the facility -- were you in pump mode at that point when you were up there?

A. I don't know for certain, but I don't believe so.

Q. And usually when this facility fills at night, it starts filling at about midnight or so and gets done about five in the morning, correct?

A. Yeah, plus or minus a couple hours on either end.

Q. But it wasn't pumping when you were up there that morning on the 27th of September with Mr. Cooper, correct?

A. Again, I don't know for certain, but I don't believe it was.

Q. Okay. So you had no idea how much water came over the top to make those wet spots, did you?

A. No.

Q. Did you do anything to satisfy yourself so that you would have an understanding of how much water came over that morning?

A. Such as?

Q. Such as go back and look at pump-back records or look at any of the graphs that show the rise of the level of the water in the reservoir compared to the pumps.

A. Certainly we looked at the -- at the level indication in the computer compared to what Rick visually saw. That's how we came up with the 4/10 differential.

Q. Okay. We'll get to that in just a second. What else could you have done to determine how much water came over the top that morning on September 27th?

A. I don't know. I don't know any way you could easily quantify that.

Q. But you agree with me if you wanted to visually see how much water was coming over the top, you'd actually have to have somebody up there during pump-back, correct?

A. You could observe -- if there was water going over the top, having somebody up there would allow you to observe it, but I'm still not sure how you'd quantify how much water you have, you know, coming over the top.

Q. Fair enough. Continuing on that same paragraph on Exhibit 20, Mr. Cooper states, it was above the top batten strip holding the vinyl on. This level is at least six inches higher than what I remember from when we first came back from the controls upgrade last fall. Do you know what level he's talking about there?

A. There again, I'm not certain, but I believe he's referring to the 1596.

Q. Okay. The next sentence says, Jeff looked at the level transmitters when we got back to the plant and found one of the three reading a foot higher than the other two, correct?

A. Right.

Q. And you already testified with Mr. Mills that, as a result of that, you took that one transmitter that was reading the higher level and you basically took that out of the equation of information that was being fed into the computer, correct?

A. Right.

Q. Okay. What did you do, if anything, to

satisfy yourself that that transmitter that you took out was, in fact, giving faulty information?

A. Well, let me clarify here. He says it's reading a foot higher. I'm not positive that was the case. I don't remember if it was reading a foot higher or a foot lower. Either way, all three were together, so all three should have been reading pretty much the same level. You had to go with something is good, so rather than knock out two of them and keep the one that was different, which would have been dangerous, knock out the one that appears to be incorrect, keep the two. That way they can average against each other.

Q. Right. But other than the fact that there were two that were relatively the same and one that was different, other than just saying there were two one way and one the other way so I'm going to take out the one, was there anything else you did to actually determine that those two were reading a correct reading, in other words, giving an accurate water level, and the one you took out was giving a false water level?

A. I believe I looked at graphs of the three different transmitters, and there was something that led me to take that one out, but at this point I don't recall if it was inconsistent or what.

Q. And you have no recollection as you sit

here today what that was?

A. No, I still don't.

Q. Did you document that anywhere?

A. Not as far as I know.

Q. Going down below that, Mr. Cooper says, I still feel we are about .4 feet higher than that. Jeff then added a .4 adjustment to the two remaining transmitter average, making the current level now read 1996.6. Did I read that correctly?

A. Yes.

Q. And is that, in fact, something that you did?

A. Yes.

Q. All right. I want to ask you about that. Is that something that you did actually on September 27th, the same day that you and Mr. Cooper had been up to the upper reservoir?

A. I believe so, but I'm not certain.

Q. Okay. Now, in as much detail as you can tell me, how did you make that change? Physically where did you go? Did you go to the power plant? Where did you go to access a computer?

A. Power plant, and the power plant in the supervisor's office, to the best of my recollection.

Q. Okay. And so tell me, how did you make

that change? What program did you have to get into in order to make that change?

A. There's a program called RS Logics that allows you to look at the logic of the PLC. I got in there. There's a block that averages the three transmitters. The output of that average is what is fed to the displays and the shutdown controls. I removed the one transmitter that we believed to be in error, and between -- and again, this is -- this is to the best of my recollection. Between the output and the averaging block, I added a .4 adder.

Q. Okay. So at the -- while you were there at the computer, you took out all the information that was coming from the one transducer that was reading a higher level, correct?

A. Correct.

Q. And then you changed the data in the program --

A. Let me clarify.

Q. Okay.

A. You said it was reading a foot higher. I still don't know that to be true. I don't recall if it was a foot higher or a foot lower. Proceed.

Q. Okay. Whatever it was, you -- you basically voided out that information, correct?

A. That's correct.

Q. And then, correct me if I'm wrong, what you've got, then, is you've got a program that is being fed information from the two remaining transmitters, correct?

A. That's correct.

Q. And it averages those together and then gives you an average which is an average of those two probes which you use to dictate or to see what the water level is, correct?

A. That's correct.

Q. So it's not a real time reading from either one of those individual transmitters, it's an average between the two, correct?

A. That's correct.

Q. And then you changed the logic so that the average would be something other than what was actually being calculated as the average between those two transmitters, correct?

A. Yeah. We added in a .4 safety buffer, that's correct.

Q. And tell me again what you mean. You say you added a safety buffer. Is there a program that says add safety buffer, or how do you actually make that change?

A. As I described before, we just put in an add block and added .4.

Q. So in other words, you added a block to the equation so that the computer program would take that averaged number and then add something to it, correct?

A. That's correct.

Q. And what you programmed in at that time was an additional 4/10 of a foot?

A. That's correct.

Q. Why did you tell the computer to add 4/10 of a foot?

A. That was on the recommendation from Rick Cooper's visual observation.

Q. Okay. So is it your testimony that Rick Cooper came up with 4/10 of a foot to put in the add block?

A. Yes.

Q. But you were actually making the change yourself? Mr. Cooper wasn't making it, was he?

A. That's correct.

Q. What did you do to satisfy yourself that adding that 4/10 was a reasonable move to compensate for what you guys had seen?

A. After the change was made, went up and visually compared what was on the markings on the side of

the wall to what was then at the time reading on the computer, and henceforth from then on, every week assigned an HPT to check that reading, as well as checking it myself at some intervals.

Q. Let's talk about that. Did you go back up there and look at the upper reservoir again that same day on the 27th?

A. I don't recall.

Q. Okay. Was it the next day?

A. I don't recall.

Q. But it's your testimony that at some point you went up there to see if the .4 addition did what? Again, I don't understand.

A. Made -- made the reading on the computer match what was on the side of the reservoir, what was marked on the side of the reservoir.

Q. Okay.

A. And again, I -- you know, I think that I probably did go up that day. I just can't tell you for absolute 100 percent certain.

Q. But you agree with me, if you went up that day, later that day, it was sometime later in the day on the 27th, correct?

A. If I did, yes.

Q. Was the facility generating on the 27th?

A. I don't remember.
Q. Do you recall, where was the water level when you went and looked at it that first time after you made the change?
A. No, I don't.
Q. So you don't recall if it was half full or completely full?
A. No, I don't.
Q. Do you know what the staff gauge is on the upper reservoir?
A. Yes.
Q. The staff gauge is, in fact, it's a series of marks going up the side, the inside of the reservoir that show you footage above sea level, correct?
A. That's my understanding, yes.
Q. Did you look at the staff gauge to determine what the actual water level was in the reservoir?
A. Yes.
Q. And did you compare that against the reading that you were getting off the computer?
A. Yes.
Q. And were they exactly the same?
A. To the amount of resolution you can get on the staff gauge, yes.

Q. Because the staff gauge measures every foot, correct?

A. I don't recall if it's every foot, every six inches. I don't know.

Q. And at that time the operating level was 1596, correct?

A. Again, I don't know what it was when I looked at it.

Q. No. I'm asking you, what was the normal operating level at that time?

A. As far as I know, 1596.

Q. And the staff gauge only went up to 1595, didn't it?

A. I honestly don't remember.

Q. In fact, the staff gauge didn't go all the way to the top of the parapet wall, did it?

A. The liner doesn't go to the top of the parapet wall, and it was painted on the liner, so it's not possible.

Q. The staff gauge didn't even go to the top of the liner, did it?

A. I don't know.

Q. How often did you look at the staff gauge on the upper reservoir?

A. Again, it varied. Sometimes I'd do it

three or four times a week. Sometimes once a week.

Q. So is it your testimony it wasn't unusual for you to look at the staff gauge?

A. That's true.

Q. But as you sit here today, you don't recall how high the staff gauge went up on the reservoir wall?

A. There's good reason for that. Usually I'd look at it in the afternoon after we'd been generating for a while. The place I was looking was somewhat farther down.

Q. Right. Because when the reservoir was low down, you can see the staff gauge and several feet above the staff gauge, correct?

A. Correct.

Q. But the staff gauge -- let me ask you this: When you were at normal operating level at the facility, when the facility was full, could you see the staff gauge?

A. I don't recall what the top of it is.

Q. In fact, the staff gauge stopped at least a foot before the top of the operating level; isn't that correct?

A. I still don't know.

Q. Let me ask you this: What did you do, if anything, to ever satisfy yourself that this staff gauge was correct?

A. Nothing.

Q. Wouldn't it be important to you to know whether or not the staff gauge which was painted on the liner was actually correctly surveyed?

A. The same person that had the staff gauge installed was the person who got the survey done, so I -- it's one of those things you have to take on faith.

Q. Going down on Exhibit 20, there's a short paragraph that says, Jeff hasn't looked into the program that much yet, but we need to know or alarm when one of the transmitters is out of range of the other two. A foot difference is too much for one transmitter to be out. Do you see where I read that?

A. Yes.

Q. Did you ever look into the program to set an alarm --

A. Yes.

Q. -- or do anything else that would make someone aware when one of the transmitters was out of sync with the others?

A. I looked into it. I don't think I changed anything.

Q. And why didn't you change anything?

A. I don't recall exactly. I was probably waiting to get an opinion from one of the other engineers

as to what was the best way to do it. I don't know. It may have got changed. It may not have. I don't recall.

Q. And I think I already asked you this, but other than just taking the instruction from Mr. Cooper, you didn't do anything to satisfy yourself that, at the time you made the .4 adjustment, that that .4 was actually a reasonable adjustment?

A. Again, just visual observations.

Q. That would have been after you made the adjustment, correct?

A. That's correct.

Q. And did you ever look at the reservoir when it was completely full at the maximum operating level to see if it was in sync with what you were getting from the estimate out of the computer?

A. I don't recall whether I'd done that or not. Usually they start generating in the morning, and I didn't get freed up to go up and look at it 'til in the afternoon.

Q. Let me ask you this: The hydro technicians that you said on a weekly basis would go look at the upper reservoir to see where the water level was?

A. That's correct.

Q. Was that Mr. Robbs and Mr. Yordy or was that someone else?

A. They're two out of the nine possible guys.
Q. Now, there's nobody there at Taum Sauk in the middle of the night, is there?
A. Rick has a residence on the property. Other than that, there's nobody there on a regular basis.
Q. Okay. The hydro technicians, like Mr. Robbs and Mr. Yordy, what time does their shift begin in the morning?
A. 7:30.
Q. Did you instruct them to go look at the upper reservoir when it was at maximum fill capacity before it was drained at all for generation?
A. No.
Q. Do you know what time of day that those technicians went up there and actually looked to see what the levels were at?
A. Typically I think that would be in the afternoon.
Q. And that would be after some generation would take place?
A. Typically.
Q. As you sit here today, do you know of anyone who ever went up after you made that adjustment and looked at where the levels actually were when the facility was filled up to its maximum level?

A. No, I couldn't say for certain.
Q. The last paragraph on the first page of Exhibit 20, Mr. Cooper says, moving the current operating level from 1596 to 1595 wouldn't be popular. I'm not sure what that would mean in, and then dollar signs of generation. But we need to add additional monitoring and tighten up existing controls if we are going to continue to operate it at 1596. Do you see where I read that?
A. Yes.
Q. Can you tell me, did you ever add any additional monitoring or tighten up existing controls in order to continue operating at 1596?
A. Not beyond the .4 foot adjustment.
Q. And Mr. Cooper goes on to say, I'm asking for some help in direction. Do you see where I read that?
A. Yes.
Q. Did Mr. Cooper express to you that, given the situation as it existed on September 27, that he wanted some help and direction from others at Ameren?
A. I guess he was asking Tom Pierie and Chris Hawkins for assistance on that.
Q. Okay. Do you know if they ever gave it to him?
A. I do not know.
Q. Did anyone ever --

A. As far as I know -- I'm sorry. Go ahead.
Q. No. I'm sorry. Go ahead.
A. As far as I know, there was a planned installation of wind detection equipment by Tom Pierie to allow us to continue to fill to that height while giving us the capability to hurry up and drop the level if we did get a high amount of wind up there. I don't know if that -- I don't believe this was ever installed prior to the breach.
Q. When was that decision made to install the wind equipment?
A. Sometime after the overtopping event but prior to the breach.
Q. Sometime about in October?
A. I don't know if that was the time frame or not. Sometime between whenever it happened in September and December 14th.
Q. Okay. Now, Exhibit 20 that we just looked at, that's dated September 27, 2005 at 4:35 p.m., correct?
A. Yes.
Q. Do you have Exhibit 16 there with you? Exhibit 16 is from the very next day at 7:59 a.m. That would be September 28, 2005, and it's from Mr. Pierie to you.
A. Okay.

Q. Do you have that e-mail?
A. Yes.
Q. Okay. Do you recall receiving this e-mail around September 28, 2005?
A. I don't recall that time frame, but since then I've reviewed it several times.
Q. Do you have any reason to believe that you didn't receive this e-mail on or about September 28, 2005?
A. No. No.
Q. And in the e-mail, Mr. Perry says to you, Jeff, the high and high-high Warrick relays picked up -- or were the high and the high-high Warrick relays picked up at the UR when the water was up Sunday?
Did I read that correctly?
A. Yes.
Q. Why do you think Mr. Pierie wanted to know if the high and the high-high Warrick probes picked up that water that was coming over the side as described in Mr. Cooper's e-mail the day before?
A. He probably just wanted to make sure that the system was functioning as he intended.
Q. Because if water was coming over the top, as you-all knew it was, it would be important to know that the Warrick probes were working, correct?
A. Correct.

Q. Did you do anything in response, either before or after you got this e-mail from Mr. Pierie on the 28th, to make sure that the high and the high-high Warrick probes were working?

A. As I've said before, I don't recall what happened as a result of this e-mail.

Q. And I'm not asking as a result of the e-mail. I'm asking whether it was from the e-mail or whether just because it was a concern to you, did you check the high and the high-high Warrick probes after you knew water was coming over in late September?

A. Not to my recollection, no.

Q. Why didn't you do that?

A. I don't recall what the circumstances were at the time. I don't know if I was there, if maybe Rick checked them. We believed it to be a localized phenomenon on that end of the reservoir pushing the water over the top from the wind. So I don't think that we thought that the Warrick probes would have picked up in that circumstance.

Q. Wouldn't you be concerned if you knew water was, in fact, coming over, that you should adjust the Warrick probes so they would pick up that exact occurrence?

A. To my knowledge, the Warrick probes were

set where they were supposed to be, and I didn't think it was something that required adjusting.

Q. What did you do to satisfy yourself that the Warrick probes were set where they were supposed to be?

A. Nothing.

Q. What did you think those settings were supposed to be?

A. I didn't know where they were set.

Q. But at the time you were, in fact, the supervisor for both preventative maintenance and monitoring, correct?

A. That's correct.

Q. Was there a maintenance schedule for those Warrick probes?

A. No, there wasn't.

Q. Was there any protocol or any routine for checking them on any kind of periodic basis?

A. We did not have periodic checks for that detection system yet.

Q. Would they just sit there until they disintegrated?

MS. PAKE: Objection, argumentative.

BY MR. SCHAEFER:

Q. I'm trying to figure out what would cause

you as the supervisor of preventative maintenance and monitoring to actually go look and see where those probes were set or if they were working at all?

A. That's not my title.

Q. Whose job would that be, then?

A. To do what?

Q. To actually check those probes on some kind of basis to make sure they weren't corroded, that somebody hadn't gone out there and tampered with them, to make sure they were actually in the water where they were supposed to be.

A. The decision to install that equipment was not my decision, and I didn't have knowledge of what the maintenance interval was.

Q. I understand, because Ameren Services, which is a separate corporation, they installed them, correct?

A. A contractor installed them under their direction.

Q. That contractor and Ameren Services weren't responsible for the daily maintenance and operation of the Taum Sauk facility, were they?

A. Correct.

Q. That was your responsibility, correct?

A. Correct. It's the plant's responsibility

for plant regular maintenance, yes.

Q. Yet you had -- you had no schedule, you had nothing to cause you to on a periodic basis check those probes, correct?

A. Not at that point, no.

Q. So looking at Exhibit 16, do you know if anyone ever discussed with Mr. Pierie his concern expressed in this e-mail?

A. I don't -- I don't know.

Q. Now, if you could have Ms. Pake, your counsel there, find Exhibits 17, 31 and 18.

A. Okay.

Q. If you could start with Exhibit 17, and if you could keep all three of them in front of you because I'm going to have you go back and forth, but if you could start with Exhibit 17, and if you look at the second e-mail in the string, which is about a quarter of the way down the page, it's an e-mail to Mr. Pierie dated October 7, 2005 at 12:56 p.m. to Mr. Cooper and to you. Do you see that?

A. Yes.

Q. Do you recall receiving this e-mail?

A. I don't recall, but I believe I was.

Q. So you think you got it around that time that it's dated?

A. I believe it was sent around that time. I don't know when I read it, but yeah.

Q. Okay. Do you have any reason to believe you didn't get it around that time?

A. Again, the only thing I can think of is if I wasn't in the office at that time. I don't recall whether I was or not.

Q. Okay. The e-mail says, guys, we're going to install a wind speed transmitter at the upper reservoir. The value will show on the HMI and will have an associated alarm. We can also incorporate an automatic gen start to bring down the reservoir level to some set point if we feel the need. Do you see that?

A. Yes.

Q. The next paragraph says, an additional Warrick probe set two inches below the pump stop set point, 1596, will be installed so that the level transmitters can be checked from time to time. Do you see where I read that?

A. Yes.

Q. Was there a plan at this point to install a third Warrick probe at the top of the upper reservoir?

A. That's my understanding from this e-mail.

Q. Okay. Why was there going to be a third Warrick probe installed at the top of the upper reservoir?

A. I think -- I think the line of reasoning was it was a check against the level transmitters.

Q. Do you recall where that was going to be, at what level that would be set?

A. Pierie's e-mail says it's going to be two inches below 1596.

Q. Can you tell me, at that point in time, why wasn't the high Warrick probe just lowered to two inches between 1596?

A. I can't tell you his logic behind that.

Q. Do you see any reason why that couldn't be done?

A. No. The only thing I can think of is the more probes you have up there, the safer. So he may have been trying to increase safety.

Q. The third paragraph says, with the PVC pipes housing the upper reservoir level transmitters moving off or blowing out of the unit strut supports by at least five feet, picture attached, caused the transmitter to rise in the pipe, which moved up the reference point. Do you see where I read that?

A. Yes, I do.

Q. Steve B. will be lining up a diver to refasten the types to the unit strut. Once this is done, we can see if there is a drop in the level reading, and

then we can readjust the reading. See where I read that?

A. Yes.

Q. Okay. Do you recall, was there a picture attached to this e-mail when you got it?

A. I don't recall. I don't think there was because there's not a deal on here that says attachment, which there usually is when there's a picture.

Q. And you see where Mr. Pierie says that the strut supports are off by at least five feet? Do you see that?

A. Yes.

Q. Did you ever do anything to determine how far off the accuracy of the transmitters would be if, in fact, the pipe gauges were bowed out at least five feet?

A. Just the visual confirmation.

Q. Let me ask you this: When you got this e-mail around this time, October 7, 2005, you knew at that point that the gauge pipes were malfunctioning, correct?

A. I knew that they had, yes.

Q. And what was your understanding of what it is they were doing?

A. My understanding was that some of the supports had failed and that they were laying in a bowed fashion and not straight as they were supposed to.

Q. Okay. Did you have any reason to believe

that they were permanently affixed in that bowed state where they were?

A. The only thing that led me to believe that was that continued monitoring proved to be consistent.

Q. And which monitoring are you referring to?

A. The cross check between the visual check and the computer reading.

Q. Right. But you don't know that those checks were ever done when the water was actually at the top of the reservoir, correct?

A. That's true.

Q. Did you have any understanding of how the water level in the reservoir may affect how far off the transmitters were?

A. From everything we could see, points observed at various different levels, it seemed to be fairly consistent.

Q. And what do you base that statement on?

A. Operator checks at various different levels.

Q. Let me ask you this: Are you -- you're familiar with the computer program that supplies the information to the dispatcher and the power plant operator at Bagnell Dam, correct?

A. I wouldn't say I'm real familiar with it,

no.

Q. Okay. Are you familiar that one screen they can look at is actually a graph that shows the water level as it's rising over time?

A. Sure.

Q. Do you know, is there something built into the program that rounds off the numbers?

A. No, I don't know for sure. I'm assuming it does some form of rounding because it's capturing analog data and scaling it inside the computer. There's got to be rounding at some point, but I don't know the level to which that rounding occurs. I don't know if it's in the tenths, thousandths, hundredths.

Q. Are you aware of whether or not to what level it gets rounded can be adjusted?

A. No, I'm not aware of that.

Q. The next paragraph on Exhibit 17 he says, the high and high-high Warrick probes are seven inches and four inches from the top of the wall respectively. So if on 9/27 the level was four inches below the wall, the high level Warrick should have picked it up. Do you see where I read that?

A. Yes.

Q. Okay. So at this point, based on the information in this e-mail anyway, isn't it correct you

knew that the transmitters were malfunctioning, correct?

A. The transmitters?

Q. Yes.

A. Yes. We knew we had at least one malfunctioning and that we had to make the correction, yes.

Q. And you also knew that the gauge piping was bowed out and, therefore, supplying an incorrect reading, correct?

A. It was no longer supplying an incorrect reading because we adjusted for that.

Q. First of all, did you yourself ever actually go look to verify when the reservoir was full that the readings you were getting when the reservoir was full were correct with the readings you were getting from the transmitters?

A. I don't know for certain if I looked at it when it was totally full.

Q. You also knew about this time, October 10th, that the high and the high-high Warrick probes were seven inches and four inches from the top of the wall, correct?

A. That's what the e-mail says, yes.

Q. Now, you knew that you had to make some form of artificial adjustment to the information that was

being provided from the transmitters, correct?

A. Right. Yes.

Q. Because you were compensating for what the transmitters were supposedly really telling you, correct?

A. Right.

Q. And you knew that the high and the high-high Warrick probes were seven inches and four inches from the top of the wall, correct?

A. I don't know if I realized that before I got this e-mail.

Q. Did you know it after you got the e-mail?

A. Yes. I'm not certain, again, that -- I don't know what action was taken as a result of this e-mail or if anybody even really put two and two together when they got this e-mail.

Q. But all the information you needed to know is right there in this one e-mail, isn't it?

A. There again, I don't know what the thinking was at the time. When they said four and seven inches from the top of the wall, I don't know if we understood that to mean the low spot of the wall or the spot where the probes were. I couldn't tell you.

Q. That's a good point. What did you do to satisfy yourself that that was actually from any given point on the wall?

A. I don't recall what I did.
Q. Do you recall that you actually did something?
A. I don't recall, no.
Q. Let's follow through with these exhibits. On Exhibit 17 where you were just looking, that's the e-mail you received from Mr. Pierie. That's October 7th at 12:56 p.m. If you'll turn to Exhibit 31, and in the middle of the page there's an e-mail from Mr. Pierie to you and Mr. Cooper and a few other people, and that's dated just two minutes later. That's Friday, October 7th, 2005 at 12:58 p.m., correct?
A. Yes.
Q. Do you recall getting that e-mail?
A. I don't, but I believe it.
Q. Do you have any reason to believe that you didn't get that e-mail around that time?
A. No.
Q. This e-mail says, sorry, guys. Pipe drawing attached. Do you see that?
A. Yes.
Q. And I don't have the attachment. My question to you is, what pipe drawing was Mr. Pierie sending you?
A. I don't know for certain, but I'd have to

assume he's talking about the pipes or conduits that the transmitters are housed in.

Q. Do you recall getting that drawing from Mr. Pierie?

A. No, I don't, but I have to believe that I did.

Q. Okay. And why did you think he was sending you that?

A. It's tough to infer from this e-mail. I don't really know what the -- what the aim was there.

Q. Now, if you'll look at Exhibit 3 -- I'm sorry -- Exhibit 18, the string that starts at the bottom of the first page, that's another e-mail from October 7, 2005, that same day as the other ones we've been looking at. This one's at 7:31 p.m. Do you see that?

A. Yes.

Q. And that's an e-mail from Rick Cooper to Warren Witt, Power Supply, Mark Birk, several other people, and it's copied to you and several other people, correct?

A. Yes.

Q. And Mr. Cooper says, on the same day as these other e-mails, if we make it through the weekend, we will address them on Monday. And it goes on to say below that, and this is in the -- there's a paragraph number,

No. 1, and about halfway down there's a sentence that says, this bend in the pipes gives us a false reading and causes the reservoir level to look lower than it actually is. Do you see where I read that?

A. Yes.

Q. And it goes on to say, until these pipes can be reattached, we are lowering the pump-back shutdown set points to 1594 down from 1996. We want to give ourselves enough cushion so we won't pump over the reservoir walls. Do you see where I read that?

A. Yes.

Q. So you were aware at this time that the operating point was being set from 1596 to 1594, correct?

A. Correct.

Q. Who actually made that change?

A. I don't know. It could have been anybody, any one of the operators or myself or Rick. Anybody has access to that screen.

Q. Could that have been you that made that change?

A. Could have been.

Q. As you sit here, do you remember making that change?

A. No, I do not.

Q. Whoever made that change, would that be

recorded somewhere?

A. No, unless they -- unless the Osage operator logged it. I think they had a paper log book they kept.

Q. Okay. Were you involved in making the determination that a two-foot adjustment was enough cushion?

A. I didn't determine the two feet, but I had no reason to believe that it wasn't safe.

Q. You had no reason to believe that it was not safe?

A. Correct.

Q. My question to you is, what did you do to satisfy yourself that that was, in fact, safe?

A. Continued visual observations.

Q. Again, were any of those observations when the reservoir was actually full?

A. No, but I -- as far as I remember, they're in enough varied different places up the wall that you could extrapolate the linear relationship.

Q. Did you ever check the levels while the facility was actually in the pump-back mode?

A. I don't believe so.

Q. Wouldn't it be important if you knew these things were loose -- let's stop back.

Have you ever been at the upper reservoir and actually seen what it looks like in that thing when both pumps are pumping water into the reservoir?

A. I can't say with 100 percent certainty, but I believe that I have.

Q. And what's it look like when both pumps are on and they're pumping water up in there? Is the water turbid or is it calm?

A. Depends on the level of the reservoir. The lower it is, the more turbid it is. The higher it is, the calmer it is on the surface.

Q. Okay. And where is the tunnel that actually pumps the water back up in there in relation to the gauge piping?

A. It's on the same end as the gauge piping.

Q. Did you do anything to make sure that those loose pipes weren't moving even more when the thing was in pump-back mode and the water was churning around in there?

A. No.

Q. So when you say that you are confident that that was enough -- that two feet was enough cushion to not overfill the top of the wall in the pump-back mode, you never went up there and actually looked at the top of the wall while it was in pump-back mode, did you?

A. I looked at the top of the wall, but I

never looked at the top of the wall when the water was at the top of the wall, necessarily. I may have. I don't remember for certain.

Q. Okay. If you would have done that, would you have written it down somewhere?

A. Possibly.

Q. Have you ever seen anything in reviewing for this case or any of the other investigations that indicate to you that you actually did that?

A. No.

Q. Do you know if anybody else at the plant did that?

A. I do not.

Q. If you'll look at Exhibit 31 again, the e-mail on the top, it's the same day as the one we were just looking -- I'm sorry. I take that back. It's October 9th at 7:16 p.m. Do you see that?

A. Yes.

Q. And it's from Rick Cooper to Mr. Bluemner, and it's copied to you along with some other people. Do you see that?

A. Yes.

Q. It says, Steve, we need the diver to inspect this ASAP, even if he has to make a special trip. The lower max level we are keeping in the upper reservoir

amounts to some MWs, and I'm sure, quote, everyone, close quote, wants to know what we are going to do. Do you see where I read that?

A. Yes.

Q. What are MWs?

A. Megawatts.

Q. What was it -- what was your understanding of what Mr. Cooper was referring to there by referencing megawatts?

A. I think he was just talking about the fact that the difference between the normal operating level and what we had changed to amounted to some amount of time of lost generation.

Q. Well, let me ask you this: Because at this point, if I understand correctly, you've already made the decision to install a wind transmitter, correct?

A. Yes.

Q. And you've already made the .4 foot adjustment in the logic of the computer, correct?

A. Yes.

Q. And you already made an adjustment of two feet on the operating level, correct?

A. Correct.

Q. Why didn't somebody just go in and fix the gauges instead of making all those changes?

A. I don't know.
Q. And let me ask you this: I believe you said that you thought that the .4 foot adjustment was adequate to adjust for the problem?
A. Yes.
Q. Then subsequently why was a decision made to drop it an additional two feet?
A. I think it was just a hedge against any further failure, mechanical failure of the gauge piping.
Q. Why would that be necessary if the .4 adjustment you made was adequate to address the problem?
A. Because we couldn't predict what was going to happen in the future with it.
Q. In September when you found out about the overtopping that was described by the two hydro operators as Niagara Falls, and a couple days later you and Mr. Cooper saw the water on the side, did you notify FERC that water had come over the top of the wall?
A. No.
Q. Why not?
A. I generally don't have contact with FERC.
Q. Whose responsibility would that be?
A. Typically it would be Mr. Cooper's.
Q. Did you ever discuss that with him, whether or not it was necessary to contact FERC?

A. Not that I recall.

Q. Now, when Mr. Robbs and Mr. Yordy on Sunday stated that they had seen water coming over the side, did you notify Jerry Toops?

A. There again, I didn't.

Q. Do you know how many people were in Johnson Shut-In State Park on that day, the 25th of September?

A. No.

Q. Were you concerned at all about how many people were in the park, knowing that water had come over the top of the wall?

A. Not at that point, because we just believed it was a minimal amount due to wind, wave action.

Q. In your opinion, does it make a difference if water comes over the top from wind as opposed to coming over the top from simply being pumped over?

A. Sure. From wind, it was a minimal amount, and it wasn't able to do the kind of erosion damage that the overpumping needed the severe amount of water to be able to do that damage.

Q. Are you a dam safety engineer?

A. Yeah.

Q. How much overtopping can the parapet wall stand before it gives way?

A. I don't know if I can quantify that for

you.

Q. But it's your belief that wind blowing water over the top would never be enough for that to happen?

A. It would have to be a lot of wind. Again, I don't know if I could quantify that. Let me just say, in hindsight, after everything that's happened and transpired, I believe the proper action would have been to contact FERC and let them know about the wind-induced overtopping.

Q. Okay. Why do you say that now?

A. That's -- that's the belief that we've come to, that we didn't contact them soon enough.

Q. Right. But you know now that the gauges were disconnected or the gauge piping had come loose and wasn't working correctly, right? You knew that before the breach, correct?

A. Correct.

Q. And you knew that the Warrick probes were set four inches from the top of the wall, correct?

A. Again, I don't know if anybody put that together before the fact, but it had been put out there, yes.

Q. What additional information do you have today that you didn't have before the breach that allows

you to say, in hindsight, we should have done something different?

A. I don't know if it's additional information. It's just viewing it through the prism of time, you get to put all the facts together in a more controlled manner.

Q. It's because it failed; isn't that correct?

A. That's correct.

Q. If I told you on September 25th there were over a thousand people in that park that morning, would that surprise you?

MR. PAKE: Objection, your Honor. This is getting repetitive.

JUDGE DALE: It also is --

MR. SCHAEFER: I'll withdraw the question, your Honor.

JUDGE DALE: Thank you. You weren't in the room yesterday when I discussed that this hearing is limited to the jurisdiction of the Public Service Commission and does not involve damages, consequential, direct or otherwise.

MR. SCHAEFER: I understand that, your Honor. I'm trying to keep my questions specifically to the issues of safe operation of the facility.

JUDGE DALE: Yes. And the population below

the dam would not pertain thereto.

MR. SCHAEFER: I withdrew the question, your Honor.

JUDGE DALE: Thank you.

BY MR. SCHAEFER:

Q. Mr. Scott, did you ever -- were you ever present when FERC did an inspection of the facility?

A. Yes.

Q. Did you ever accompany FERC on an inspection of the facility?

A. Yes.

Q. Now, I believe -- didn't FERC do an inspection in August of 2005?

A. I don't recall.

Q. What's the last inspection from FERC that you recall at the facility?

A. I don't. I know that it happened, I believe, annually, but I don't remember exactly when any of them happened.

Q. Okay. But have you -- have you accompanied FERC on inspections more than once?

A. I don't believe so.

Q. Do you know, are all FERC inspections in the facility the same, or does FERC have different levels of inspection that they perform?

A. I believe there's a couple of different levels. I couldn't tell you exactly what the interval is or what the difference is.

Q. Okay. Do you know what level inspection FERC performed in August of 2005?

A. No, I don't.

Q. Do you know if FERC ever went to the upper reservoir during their inspection in August of 2005?

A. No, I don't.

Q. Now, on December 14, 2005 when the reservoir failed, where were you?

A. I was in my vehicle on the way in to work.

Q. Okay. And I believe you said that you received a call from Mr. Cooper, correct?

A. Correct.

Q. And do you know what time that was?

A. It was probably sometime around 6 a.m., but I'm not certain.

Q. How far were you from the facility at that point when you received that call?

A. Probably between 20 and 30 miles. I was in Ironton.

Q. Okay. So that morning when you came to work, you didn't come down Route N by Johnson Shut-Ins State Park, did you?

A. No.
Q. Before you got to work that morning, did you receive calls from anybody else?
A. Doubtful, but I'm not certain.
Q. Did you make any calls to anybody?
A. There again, doubtful, but I'm not positive.
Q. But then after receiving that call from Mr. Cooper, you went straight to work, correct?
A. Yes.
Q. And where did you actually go?
A. To the plant.
Q. And can you tell me, what did you do when you got to the plant?
A. I really don't remember specifics at this point. I know I got there and it was a lot of activity. At some point I got myself and three or four of the HPTs, we got in a company vehicle and went and drove over that way to see if there was anybody that needed help. We were looking to help people that might be trapped or in danger, just give whatever assistance we could.
Q. Okay. Do you recall what time in the morning that was?
A. No, I don't.
Q. And when you say you went over that way,

was that over by the park?

A. Yes.

Q. Do you know, had the Toops family been found yet at that point?

A. Yes, I believe they had.

Q. Okay. After going over there, then what did you do? Did you go back to the plant?

A. Yes.

Q. At some point did you go up to the upper reservoir?

A. Yes.

Q. Was that after you had returned from being over by the park?

A. Yes, to the best of my recollection, it is.

Q. What did you do when you went to the upper reservoir?

A. Just looked at the damage.

Q. Okay. Now, at some point that day on the 14th, did you actually go up to the control box where the gauge pipes run into the box?

A. I don't recall if I went up there that day or not.

Q. Okay. When is the first time you recall actually going up there?

A. Sometime after the breach. They had a -- I

don't know if this is the first time, but I know I'd been up there at least once because they had an investigation to determine the cause, and it was conducted by Siemens, and I accompanied some of the engineers that were going up there to do some testing. I don't know if I was up there any time other than that.

Q. Okay. That was actually the time that Siemens was there at the facility to go up and look at the instrumentation?

A. That's correct.

Q. But as you sit here, you don't recall going up there before that day?

A. I may or may not have. I really don't recall.

Q. Let me ask you this: You were asked about your two interviews with the Highway Patrol earlier today. Do you recall being interviewed by the Highway Patrol?

A. Yes.

Q. Did you ever tell the Highway Patrol that you actually went up to the upper reservoir and removed the probes from the gauge piping on the 14th of December?

A. I don't believe I did.

Q. Are you aware that Ameren has informed the Highway Patrol that you did, in fact, go up on the 14th of December?

MS. PAKE: I object to the form of the question.

MR. SCHAEFER: Let me restate the question.

BY MR. SCHAEFER:

Q. Are you aware of whether or not Ameren has told the Highway Patrol that you moved the gauges on the 14th of December? The Warrick probes. Excuse me.

A. No.

Q. Did you ever have any conversations with anybody who went up there on the 14th and actually examined the control box?

A. Yes.

Q. And who was that?

A. I believe it was Tom Pierie.

Q. You think Mr. Pierie went up there on the 14th?

A. Yes.

Q. Do you know of anyone else who went up and looked at the control box on the 14th?

A. I know he had somebody with him. At this point, I'm not real certain on who it was.

Q. Is there, in fact, another gentleman who works at the plant with the last name of Scott?

A. Yes, there is.

Q. And who's that?

A. Robert Scott.
Q. And what is his title with the plant?
A. Hydro plant technician.
Q. And would that be somebody that's under your supervision?
A. Yes.
Q. Did you ever discuss with Mr. Scott his going up and looking at the probes in the control box on December 14th?
A. I don't recall.
Q. You made some reference to the fact that days were labeled as green, yellow or red by Ameren; is that correct?
A. Yes.
Q. Was December 13th a red day?
A. I don't remember.
Q. Was December 14th a red day?
A. I don't remember.
Q. I have one quick question. In response to an earlier question, you made reference to some programming changes you made in the LDS to basically slow down a stop so it more accurately reflected an operator shutdown. Do you recall that?
A. No, that's -- that's not correct.
Q. Okay. It was one of the programming

changes that you stated that you made at one point in time, but I believe you couldn't recall when you made that change. But I'm trying to figure out, what was that change that you made?

A. As I remember, that change was just basically adding a start or stop command from the LDS to the PLC.

Q. And why was that necessary?

A. As I stated before, I don't remember what precipitated that.

Q. How did you actually make that change?

A. As I stated before, I had an HPT run the wiring from the LDS to the PLC, and then it was just adding a couple inputs and tying them to the start and stops in the PLC.

Q. Which start and stops was that attached to?

A. Generate start, generate stop, pump start, pump stop.

Q. What change would that make to pump stop?

A. Nothing. It would just allow -- just it would allow the pump to start or stop, on an operator command. It wouldn't change the automatic controls whatsoever.

Q. Would it change the nature of the stop, in other words, from a very abrupt stop to a slower stop?

A. No.

Q. And again, you don't recall when that was you made that change?

A. No, I don't.

MR. SCHAEFER: Ms. Pake, did you ever get the fax that I sent?

MS. PAKE: No one has brought it down.

MR. SCHAEFER: I had an exhibit. We faxed it down over the lunch hour, several hours ago. I'm not quite sure why it's not there.

JUDGE DALE: We are at an hour and 40 minutes, so we're 20 minutes away from this timing out anyway. Why don't we go ahead, take a break, ascertain the whereabouts of that.

MR. SCHAEFER: Other than that, I may not have any more questions. When we take this break, I'll look.

JUDGE DALE: If somehow we need to send it again, we may be able to bring it up after Commissioner Gaw's questions or something like that.

MR. SCHAEFER: Thank you.

JUDGE DALE: With that, we'll go off the record for 15 minutes.

(A BREAK WAS TAKEN.)

JUDGE DALE: We just had a few follow-up

questions from DNR, and then we will move on to questions from Commissioner Gaw.

MR. SCHAEFER: Thank you, Judge. Your Honor, I'm going to move for the admission of Exhibit 52, which is -- it's a picture of the inside of the reservoir after the breach, and it shows the staff gauge and it's painted onto the liner, and it's my understanding the parties are going to stipulate to that photo.

MR. HAAR: Judge, based upon the representations by Mr. Schaefer, we have no objection to the exhibit.

JUDGE DALE: In that case, then, Exhibit 52 will be admitted.

(DNR EXHIBIT NO. 52 WAS RECEIVED INTO EVIDENCE.)

MR. SCHAEFER: Thank you, Judge.

BY MR. SCHAEFER:

Q. Mr. Scott, first of all, did you get the fax that we sent which was a photograph?

MS. PAKE: We have it now, yes.

THE WITNESS: Yes, we did.

BY MR. SCHAEFER:

Q. I can't see it very well in front of you. Is it something you can actually see or how did the color come out?

A. It's not color. It's black.

Q. Do you recall, I asked you previously about the staff gauge on the reservoir, on the inside of the reservoir?

A. Yes.

Q. And can you tell if that's what that is? I just can't see what your photo looks like, so I don't know what the quality is.

A. Yes, it appears to be the painted-on staff gauge.

Q. And so when you were referring earlier to looking at a staff gauge or looking at numbers on the reservoir, is that what you would have been looking at?

A. Yes, sir.

MR. SCHAEFER: Okay. So was that admitted, Judge?

JUDGE DALE: Yes.

MR. SCHAEFER: I really don't have any more questions on it. I do have one quick string of questions.

BY MR. SCHAEFER:

Q. Mr. Scott, I believe you said earlier that one of the responsibilities that you would have had in regard to the instrumentation and the monitoring equipment would be that if lightning hit the control box; is that correct?

A. Yes.

Q. Okay. In fact, lightning did apparently hit the control box at some point, didn't it?

A. Which control box are you talking about?

Q. The metal box on top of the parapet wall that the gauge pipes for the Warrick probes and the transducers run into.

A. I'm not aware of that. I know lightning hit a piece of communications equipment on a microwave tower.

Q. Maybe I misunderstood. I thought that one thing you had referenced as being your responsibility was if lightning hit that box, that being the gauge box?

A. If I knew lightning hit that box and I was tasked with doing something, I would have, and I could have been, but to my knowledge, lightning did not hit that box.

Q. Okay. That may be my misunderstanding.

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

JUDGE DALE: Thank you. We'll move on to questions from Commissioner Gaw.

QUESTIONS BY COMMISSIONER GAW:

Q. Good afternoon, Mr. Scott.

A. Good afternoon, Commissioner. And might I

just say right off the bat, I certainly appreciate you making accommodations for my situation. It's very much appreciated.

Q. Believe me, I understand the circumstances are hard, and we try to -- we're trying to deal with it so that it is as inconvenient -- or the inconvenience is lessened for you.

I have -- my questions are going to bounce all over the place. Let me tell you that to begin with, because there have been a number of questions asked of you already, and so I'm going to probably follow up on some of those.

To the extent that you could, just generally describe it for me, and I know you've done this to some extent. I want to know generally what your role was at Taum Sauk.

A. I wouldn't say my role was ever formally defined. It was whatever Rick asked it to be.

Q. Okay.

A. Most of the time it was the scheduling and assignment of jobs to the HPTs, as well as the supervision of those jobs, procuring parts and materials for the jobs, and just helping with anything else, any other administrative type duties that had to be taken care of, arranging overtime, making sure the men got paid, that

kind of thing. That was my typical role.

Q. Okay. Now, can you contrast that with Rick Cooper's position and his role?

A. Rick's position, as I understood it, was to basically be the representative between the plant and the rest of the company, to be the voice to let them know what our situation was, if we needed assistance with anything, you know, our availability, our capabilities and that kind of thing.

Q. Okay. In regard to any time frames when -- was Mr. Cooper ever absent from the site?

A. Certainly.

Q. And when he wasn't there and you were, were you in charge?

A. Yes, although I did have people I could contact if I needed assistance.

Q. Okay. Is that -- would that be different than what he would have if he were there in regard to who he would be contacting for assistance?

A. No. I'd say it's the same pool of people, yes.

Q. Generally, can you give me some of the names of people who you would be looking to if you had issues that came up that you thought you needed assistance on?

A. The engineering group downtown would have -- probably our people there would have been Tom Pierie, Chris Hawkins if there was a civil type issue, Steve Bluemner. General plant questions or help, we could always contact the manager of hydro, which was originally Chris Iselin, but then became Warren Witt. Also, there was people available to help us from Osage plant, Tom Buhr and -- I'm drawing a blank right now. It's been a while.

Q. That's all right. That's helpful. Now, as you're looking through the normal things that you would do when Mr. Cooper wasn't present, can you give me a general idea of what the day would be like?

A. My day when he's not there would typically not be any different unless something out of the ordinary came up.

Q. Describe that day for me as it would normally be for you, then.

A. Okay. For example -- you mean the normal day or the out of the ordinary day?

Q. The normal day first.

A. Okay. As I said, I have a morning meeting with the hydro technicians. Describe the jobs to be worked for the day, kind of anybody's general concerns or safety concerns, suggestions on how to do the jobs. Generally be followed with a general plant walk down,

assess the condition of the plant, ordering of parts and materials if it needed to be done that day, checking in with the men on their jobs, filling out time sheets, making sure that they get paid for the time that they work, making assessment whether there's overtime needed that day or not. If there is, canvass the men for the overtime. That's pretty much a typical day.

Q. Okay. Is there any way of describing an atypical day? Would that just depend upon what the circumstances were, what was making it atypical?

A. It really just depends on the circumstances.

Q. All right. Now, where would you be doing those things? Where in the -- on the property would you generally be when you were having a regular day?

A. It depends on where the men were assigned to work that day.

Q. Okay.

A. Sometimes they would be -- I'd say the bulk of the activities were right there at the plant, but they could be at the lower reservoir, the upper reservoir, the pump-back station, even at the museum or anywhere else on the property.

Q. Okay. And when they were in the plant, generally would that -- when you say plant, is that inside

of a building?

A. Yes.

Q. Okay.

A. Yes.

Q. If they were outside working -- go ahead.

A. I'm sorry. I wasn't saying anything.

Q. That's all right. If they were outside at one of the other places you mentioned, like on the lower reservoir, for instance, what would they be doing typically if they were there?

A. There was any number of things. I mean, there's routine maintenance that has to be done there. For instance, at the lower reservoir there's cooling systems that have to be maintained there. There's periodical piezometer readings they have to take at the dam to ensure that the dam has a good footing at the lower reservoir, anything like that.

Q. When you say a good footing at the lower reservoir with piezometers, what is it that that does when you're taking that reading?

A. I'm not really a dam expert, but to my understanding, there's some tubes or conduits underneath the dam that we check to see if there's water underneath the dam and, if so, what the level of the water is.

Q. Okay. Are those people that are at the

plant on a regular basis taking those measurements?

A. Yes.

Q. Okay. Do they have specific training to do that?

A. To take the readings?

Q. Yes.

A. It's just kind of passed from one man to the next as they hire in.

Q. Okay. Well, how is it that you or Mr. Cooper in being supervisors of these men would know what it is that they were doing to the extent that you could ensure that they were doing their job correctly?

A. There again, I don't know exactly how that's done. My understanding, it's a pretty simple process.

Q. Okay.

A. I've never seen it done, so --

Q. Sure. Okay. Did you ever have any training in regard to that subject that you were describing yourself?

A. No.

Q. Was there some kind of maintenance work done on the upper reservoir as well from time to time?

A. Not on the reservoir itself. There again, the only -- the only kind of routine maintenance I can

think about at the upper reservoir was probably maintaining the cooling system at the gauge house, perhaps spraying for weeds up in that area.

Q. Yeah. The cooling system, was that just an air conditioning system of some sort?

A. Yeah. It was just a window air conditioning unit.

Q. Did that -- did that area need to be kept cool on a regular basis or at some sort of a temperature range?

A. Because of the electronics inside, yeah, we tried to keep the air conditioning up.

Q. Sure. And in the wintertime, was there a heating unit up there as well?

A. Yeah, there was an electric heater.

Q. Was that area staffed with an individual or individuals on a regular basis or was it just checked intermittently?

A. Checked intermittently.

Q. Now, these things that you're describing, these maintenance things, was there any kind of written protocol or written processes that you know of that were written that were kept at the plant?

A. Yes, there was. There was a follow-up to maintain all the cooling systems as well as check the

piezometers.

Q. What was that kept -- what kind of a document was that kept in?

A. That was in our Improve system, which is our computer -- computer program that we use to write all of our jobs and to assign our jobs. It was a periodic follow-up that was automatically generated.

Q. Was that something that recorded the work that was done or something that instructed as to how to do the job?

A. How to do the job, and it also had the capability to record notes or logs from the people who did the job.

Q. Okay. You say that's kept -- is that kept as a data file or in a book of some sort?

A. It's electronic.

Q. Electronic. Okay. Is there a printout of the information on how to do the job somewhere kept in a manual or something like that?

A. It's typically printed out with the job, when the job is printed out from the program.

Q. Okay.

A. It's in the computer.

Q. Okay. Now, along that same line, then, is there -- is there some sort of a manual or are there

written protocols in regard to running the plant that are kept at the plant?

A. There is an operator manual. I'm not positive whether there's a copy of it at the plant. I know there was a copy of it at Osage plant.

Q. Yeah. And I'm going to suspect that that's the same manual that we were discussing with one of the Osage operators yesterday about if that -- is that the only written document, that operating manual, that you know of in regard to that every -- that has to do with Taum Sauk?

A. To my knowledge, that's the only operator manual, yes.

Q. Okay. Do you know whether there was anything regarding written protocols on maintenance of the equipment that was kept at the Taum Sauk plant?

A. Just the follow-ups that were electronically in the computer in the Improve system. There might have also been some paper documentation written down on some of the older stuff, but I couldn't tell you for sure.

COMMISSIONER GAW: All right. Let me ask counsel, do we have anything on that Improve system that he's talking about?

MR. HAAR: I think that in the course of

the Highway Patrol investigation, some of those they requested specific ones, and they may have been produced. I don't know about the FERC study.

COMMISSIONER GAW: Okay. I cannot recall seeing one, but that doesn't mean they're not there.

BY COMMISSIONER GAW:

Q. Do you know -- Mr. Scott, do you know whether or not there was anything in writing at the plant regarding the definition of a safety event that would -- that would give instruction as to whether or not the plant should be shut down?

A. I know there was an EAP, emergency action plan. I don't know how clearly it defined what was an actionable type item. I don't recall at this time. I know at one time I probably knew.

Q. Yeah. That EAP that you're referring to is basically a report -- or excuse me -- a required document that addresses what to do in the event of an emergency, doesn't it?

A. Yes.

Q. And the question I'm asking you is really something that relates to preventing that from occurring to begin with in regard to whether or not there was any written protocol or instruction that might have existed that would have defined for plant superintendents or

managers or anyone that would have had authority at the plant to shut the plant down if certain events occurred. Do you know whether something like that existed?

A. I don't know if that exists on paper. I know that's an implied directive anyway.

Q. You're not aware of any written direction in that regard; would that be accurate?

A. Just the e-mail that Mark Birk sent out saying if there's a safety concern or if you're not certain about the operation, don't hesitate to shut down the plant.

Q. Is that the only thing that you're aware of?

A. That's all I can recall right now.

Q. And that e-mail does not define what a safety concern is; is that correct?

A. I believe that's correct. I believe it's defined as the operations group determines it's a safety concern.

Q. Right. I'm not sure if that's what it says exactly either, but that's your recollection. We can look at the e-mail. What I'm looking for is in addition to that e-mail. Do you know whether -- were you ever given training in regard to a list of events or certain things that might happen specifically that should cause you to

shut a plant down?

A. Specific to Taum Sauk?

Q. Let's start with that, but I want to ask you broader than that afterwards.

A. Okay. No.

Q. Okay. What about --

A. I was not.

Q. What about in other plants that you've worked at?

A. I would have to say, to the best of my recollection, no to that as well.

Q. Okay.

A. Only because I wasn't in the operations group, so I -- they probably received that kind of training, but I did not.

Q. When you say operations group, would you clarify what you mean by that?

A. The other plants, they have -- they have some different groups. They have maintenance and operations, and then separate from that is technical services, which engineering falls under. That's always the part of the plant I work for.

Q. Okay. You're working in the engineering division with Meramec currently, right?

A. That's correct, sir.

Q. Now, who was -- who would be the operations group at Taum Sauk during '04 and '05?

A. I guess that's not real clearly defined. It's probably -- it's probably the plant, anybody at the plant, as well as anybody at Osage who has any supervision of the units or oversees anybody who has supervision of the units.

Q. If Rick Cooper were not present and let's say you identified something that you felt was a safety hazard, would you -- would you then have had the authority to shut the plant down?

A. Yes, I would have.

Q. Okay. But that -- were there any occasions in the fall of '05 up through the day of the breach when you would have been there but Mr. Cooper would not?

A. I don't know for certain.

Q. Okay. Can you describe for me your relationship with Rick Cooper?

A. He was my direct superior for three years.

Q. Okay. I understand that. That's your -- that's how you related as far as the structure is concerned, but did you get along with him?

A. Yes, sir.

Q. Did you find him to be somebody -- you worked alongside of him, as you said, for three years.

How did you view his general judgment about things in regard to the plant?

A. I thought he had -- I thought he had good general judgment. I never -- I never found any extreme flaws in the logic he used or anything. I had no reason to doubt his judgment.

Q. Did you ever disagree with something of significance in regard to running the plant with him?

A. Not that I can recall.

Q. If you would have, would it be normally your -- your way of doing business that you would have raised a concern with a supervisor if you had found some reason to disagree with him?

A. If I had a concern with what he was doing, yes, I would have -- I would have raised a concern with him.

Q. Okay. Was he -- while you worked with him, did you observe him to have -- to be present on the job on a regular basis?

A. He was -- yes. He was there as much as he needed to be. He took vacation like anybody else does, but he didn't have an excessive amount of sick days or anything like that.

Q. Okay. And did he -- did he spend -- did he have a good understanding of how the plant worked and the

intricacies of the plant's running?

A. I believe so.

Q. How frequently during a day when both of you were there did the two of you communicate?

A. I'd say -- I'd say frequently.

Q. During the -- during the time frame when the liner was being installed in 2004, can you describe Rick Cooper's general role in regard to those improvements and then also yours, and if there's overlap there, if you can tell me what that was.

A. I'd say in regard to the liner, Rick or I, neither one had significant involvement with that project. That was undertaken by the civil group out of generation engineering. Steve Bluemner was in charge of that project, and I believe he had some other engineers assisting him, and they pretty much ran the project. I think we went up there a couple times to check in and look at their progress, but they pretty much ran that project.

Q. And when I'm talking about the liner project, I want to also make sure that you understand my question to include all of the other renovations that were going on during that time frame. So if that changes, adds to your answer, go ahead and add to it now.

A. Okay. I mean, there again, the controls, I followed that job. I didn't really add anything as far as

actually installing anything or planning anything, but I followed that installation. As far as specifics of what Rick was doing at that time, I really don't know.

Q. Okay. There was earlier testimony, and would it -- would you agree or disagree with whether the engineers, whether they're contracted with or within the Ameren system, would have communicated with you or Mr. Cooper in regard to the changes that were being made during that renovation?

A. I think in a broad sense they would have. I don't think they would have worked every little detail through us because they would have never got done with the project if they'd done that.

Q. Okay. Was there a scheduled meeting or meetings that took place during the weeks when renovation was going on that involved you or Mr. Cooper and the engineers that were -- that you were dealing with, Bluemner or Pierie or Zamberlan?

A. The only meeting I recall, and it wasn't really even a formal meeting, kind of a sit down, and I believe it was myself, Rick, Tom and Tony, and it was just a discussion of where they wanted to set the shutdown set points for both pump and gen operation. Other than that, I don't recall any other meeting.

Q. Tell me kind of generally what took place

in the meeting that you recall.

A. From what I recall, they just asked where we wanted the set points put. I don't recall really having any input in that. Not that I couldn't have if I wouldn't have wanted to, but to my recollection, Rick told them where he wanted the shutdown set points put, and they went off of that.

Q. All right. Do you know what those -- what those set points were at this point in time?

A. The only one I remember absolutely for certain was the upper last pump stop on the way up was 1596. I don't recall any of the other numbers.

Q. Okay. When you're talking about that number, would that be a number that would be affiliated with the transducers, the piezometers?

A. Yes, sir.

Q. Okay. Do you recall anything in regard to discussion about the setting of the Warrick probes?

A. No. I don't recall where they decided to set those.

Q. Was that discussed in that meeting that you're describing?

A. I really don't recall.

Q. Mr. Cooper would have been in that meeting, correct?

A. Yes, sir.
Q. Mr. Zamberlan, would he have been there?
A. To the best of my recollection, yes.
Q. And Mr. Pierie?
A. Again, to the best of my recollection, yes.
Q. How about Mr. Bluemner, would that have -- would that have been something he would have attended?
A. I don't believe so.
Q. Okay. Now, can you give me a perspective on, relatively speaking, when that meeting might have taken place?
A. Somewhere after the beginning of the outage and before we came back online.
Q. Okay. You came back online toward the end of November, beginning of December, didn't you?
A. I don't remember the exact date, but that sounds about right.
Q. Okay. So to your recollection, there were no regular meetings that were being held between the engineers and you and/or Mr. Cooper during this project?
A. No, I don't think so.
Q. Okay. Was there any specific training that you received or that you knew about regarding the changes that took place during that renovation?
A. There was a week train-- I believe it was a

week. I don't remember if it was a couple days or a week. There was a short training course put together by Mr. Zamberlan and given to all the personnel at the plant.

Q. Was that after the plant was up and running, before, do you know?

A. To my recollection, it was after.

Q. After. Okay. And who would have attended that training in general?

A. I believe it would have been myself, Mr. Cooper and all nine hydro plant technicians, as well as possibly some operators from Osage.

Q. Were there written documents given to you during that training or that you would have been having access to?

A. Yes, there were.

Q. Do you know what those documents were?

A. I think it was a step-by-step synopsis of the training. I couldn't tell you where they're at at this point as I haven't been there in about a year.

Q. Sure. Did you have copies of them at one time?

A. Yes.

Q. Were there copies that were kept at the plant generally?

A. I believe every person who attended had

their own copy, yes.

Q. Did these -- to your recollection, did these documents describe the workings of the different probes?

A. I believe they did.

COMMISSIONER GAW: Okay. I'll ask counsel. Excuse me Mr. Scott. I want to ask counsel whether or not we have copies of those documents.

MR. HAAR: I'm not sure, Commissioner Gaw. We'll have to check.

MR. BYRNE: I'm fairly certain they weren't provided in response to any of the Data Requests in this matter. They might be part of the Highway Patrol report.

BY COMMISSIONER GAW:

Q. Mr. Scott, I'm sorry. I was talking to counsel. You could probably hear me. When we're dealing with -- when you're dealing with this training, was it something that you spent a full day for a week, for a week long going through, or was it 30 minutes a day? Give me a perspective on the time.

A. Sir, I apologize. I don't remember exactly. I think it was full days at a time. I don't remember how many full days.

Q. Okay. But you think around a week?

A. To the best of my recollection, yes.

Q. All right. Now, there was new software installed at the time, correct?

A. Yes.

Q. Was that Wonderware software?

A. Wonderware is the HMI software.

Q. Okay.

A. RS Logics is the PLC software.

Q. Tell me what the difference is.

A. The PLC software is what actually controls the unit. Whereas, Wonderware, the HMI software, basically forms an interface between what the operator sees and what's going on inside the machine.

Q. Okay. Now, yesterday there was an operator from Osage, and I hope I'm not mischaracterizing this, but my recollection is that he was generally suggesting that after the Wonderware was placed in service, that there -- that both an LDS system and the Wonderware system were operating in parallel.

Does that make -- first of all, does that make sense? And second of all, do you know if that's accurate?

A. I believe they had some overlapping capabilities, such as starting and stopping the units, and some indications. I couldn't tell you anything else about the LDS system. I'm not familiar with it. It's not

something we as a plant really got into too much.

Q. Okay. That's because -- tell me why that would be.

A. Well, it's maintained by the system relay group, and they're the ones who maintain that equipment basically.

Q. Do you get --

A. We didn't --

Q. Keep going. That's okay.

A. I'm sorry.

Q. No. No. You didn't get, you were starting to say.

A. We didn't -- we didn't gain any information from that system we didn't already have from our other system. So we didn't -- we didn't really get into it a whole lot.

Q. So at Taum Sauk there wouldn't have been a screen displaying the LDS information?

A. I believe there was at one time before the controls upgrade, but I don't recall whether or not we had anything like that after the controls upgrade.

Q. Okay. Do you know who worked with Tony Zamberlan in regard to setting the Warrick probes?

A. No, I don't, because I wasn't even certain that it was Tony that set the Warrick probes.

Q. Okay. Well, if he testified that he was involved with setting them, do you -- do you know who would have been the appropriate personnel to have been working with him at the plant site in doing that?

A. If it was during the outage, it was most likely Sachs Electric, which was the contractor.

Q. Okay. Who with Sachs Electric generally did you deal with during the outage?

A. I didn't have a whole lot of direct dealings with Sachs Electric during the outage. I talked to their general foreman a little bit, and I can't even recall what his name is at this point.

Q. Okay. Who would they have been dealing with at the plant?

A. I don't know if they would have dealt with anybody at the plant. They would have dealt with the engineer on the project, which would have been Tom or Tony.

Q. Did you have occasion to witness communication between Tony Zamberlan and Tom Pierie?

A. Yes.

Q. And from your standpoint, did the two of them appear to communicate all right together? Did they get along well?

A. Yes, they got along okay. There's times

when they both had deadlines to meet and could feel the pressure, but I'd say on a whole they worked well together.

Q. And how did you work with both of them?

A. Again, it was a little bit different of a relationship as I didn't have any duties to either one of those men. I was more of an observer situation. I got along well with both of them.

Q. Can you tell us today that you recall that you were not informed as to the movement of the Warrick probes up from the original setting of their position in 2004 to a higher location?

A. That's correct, I do not recall movement of the Warrick probes.

Q. Does that mean -- my question was a little bit different than that. My question is, can you tell us that you do not -- let me rephrase it.

Do you know for certain that the Warrick probes were not moved during that time frame?

A. No, I do not know that.

Q. Okay. Is your testimony today that you never knew whether they were moved or that you just simply do not recall today?

A. As far as I recall, I never knew.

Q. Okay. At least until the fall of '05, or

is that -- would that statement have also been true, then, after you received the e-mail regarding the distance of the Warrick probes from the top of the parapet wall?

A. I believe that statement's true, then, as I never really knew exactly where the Warrick probes were set, and also at the same time, seeing those distances, I didn't correlate whether he was talking about the low spot of the wall or at the gauge house.

Q. And when you say he, who are you talking about again?

A. Mr. Pierie.

Q. Whose responsibility would it have been to make that analysis?

A. What analysis?

Q. About the question that you just raised about where the probes were in relationship to what part of the wall. Whose responsibility was that?

A. I don't know.

Q. Would that, then, tell me that there were no Ameren instructions as to that responsibility in regard to those probes?

A. I've never seen any formal instructions on that, correct.

Q. During your training, were you given any instruction in regard to the maintenance of the Warrick

probes?

A. To the best of my recollection, no.

Q. Okay. What about the transducers and the piezometer?

A. Same answer.

Q. Can you give me anything that you can recall about what that training did instruct you about?

A. I really don't recall any specifics on those instruments and the training at this point.

Q. Okay. Does that mean the training wasn't very good?

A. It's just been a while.

Q. But you think Mr. Zamberlan gave that training?

A. Yes, sir.

Q. Okay. Have you had very many discussions with Mr. Cooper about this whole incident?

A. Absolutely.

Q. Now, from my perspective, I've heard a number of people that continue to point at the plant superintendent in regard to making decisions on whether or not a plant should or shouldn't run, and Mr. Cooper so far hasn't been able to give us instruction one way or another as to how he feels about that.

From your perspective in dealing with the

issues, can you tell me what Mr. Cooper has told you in regard to what he's -- his view about what happened with this incident?

A. I hate to speak on his behalf, so I can't state any specifics, but I believe his general opinion is that he's very sorry that it happened. In hindsight, things would have been done differently, but at the time, nobody recognized it as a safety hazard, certainly not himself. He lives right down the hill from the reservoir. If he would have realized that the situation was putting himself and his family in danger every day, he certainly wouldn't have allowed it to go on.

Q. Do you know, did he tell you whether or not he knew about the differences in the height of the parapet wall?

A. He knew there were differences. I don't know if he knew the magnitude of the differences.

Q. And he was aware, was he not, of the -- of that e-mail about the Warrick probes being four and seven inches from the top of the parapet wall?

A. Yes, he received it.

Q. Did he tell you whether or not he was aware about the movement of the Warrick probes during the outage period or sometime after that?

A. No.

Q. He didn't -- he didn't tell you or he didn't know about it?

A. He didn't tell me.

Q. Okay. He was aware of the transducer issue about them -- the conduits being loose from some of the brackets at least sometime beginning in October; would that be correct?

A. Yes, sir.

Q. Did you-all discuss that at the time when you first became aware of that problem?

A. Discuss the conduits being loose?

Q. Yes.

A. Yes, sir.

Q. Can you tell me about that discussion?

A. I believe -- I don't know the exact wording that came about, but I believe, after looking at that, we decided that that probably had something to do with the 4/10 of a foot offset that we had seen in the measurement.

Q. Was there anything else discussed about it that you can recall?

A. I remember -- I remember him getting Steve Bluemner on the phone and discussions about him asking Steve to try and get the outage set up to make the repairs.

Q. Were you involved in any of those

conversations?

A. No, sir, not that I can recall.

Q. Okay. But you did have discussions with Mr. Cooper about that maintenance, correct?

A. Yes, sir.

Q. Okay. What was Mr. Cooper's level of concern in regard to getting that repair done?

A. I believe he was concerned about getting it done due to the fact that we were having to run in an altered condition from what was originally installed. I don't believe he classified it as a safety concern at that point.

Q. You don't believe he did for what reason?

A. Because if he would have believed it was a safety concern, he could have declared an immediate outage.

Q. Can you tell me, define for me -- you've already said there was no definition of a safety concern for the purposes of declaring an outage anywhere that's in Ameren.

A. I don't know that for certain. That's what I believe.

Q. That's okay.

A. I don't recall seeing it.

Q. That's fine. From your standpoint, give me

your analysis of -- let's just talk about this for a moment in regard to these changes as you've already been over them. The .4 adjustment that was done, that was intended to do -- to make an adjustment so that it would put the reading closer to what you thought the actual height of the water was against the wall; is that correct?

A. That's correct, sir.

Q. All right. Then there was another two-foot adjustment that was done subsequent to that; is that correct?

A. That wasn't an adjustment. That was an operational change, changing the operation, the level at which we stopped pumping back.

Q. And did it actually drop the water against the wall on an operational level?

A. Yes, sir.

Q. And you know that because you checked the water level at lower levels, not at full reservoir, correct?

A. We checked it to be full at the 1594 level.

Q. When did you do that?

A. I don't know exactly when, but I know it had been done.

Q. Did you do that?

A. I did it, and HPTs did it.

Q. You went physically up onto the reservoir to check that height?

A. Yes.

Q. I thought that earlier you testified that you had not been up to the reservoir, to your recollection, when that reservoir was full after that adjustment was made. Are you --

A. I don't believe I'd seen -- I'm sorry. I must have misunderstood. I thought I was being asked when it was still being filled to 1596, if I'd seen it at that height.

Q. So what is your testimony, then, Mr. Scott?

A. My testimony is, to the best of my recollection, I can -- I can remember it being at 1594.

Q. And when would that have been that you would have checked it?

A. I do not know.

Q. Would you have logged that?

A. No.

Q. And what time of the day would you have been able to check it at 1594?

A. That would have probably been in the morning, or if it was a day when we didn't generate, it could have been any time during the day.

Q. But there would be something in writing

that indicated you would have done that, to your knowledge?

A. No.

Q. But now you're saying --

A. Again, to the best of -- I'm sorry.

Q. Go ahead.

A. I don't have anything to back that up, but I sincerely believe that I did see it at 1594. I know for certain I never saw it above 1595.

Q. During what time frame are you talking about?

A. The time frame -- which are you asking me about, the 1594 or the other?

Q. That's what I'm trying to understand what you're telling me. You say you never saw it above 1595.

A. I never saw it above 1595 between the time that we made the adjustment and the time we dropped operation two feet. I never -- after that point when we did drop the operation two feet, I do believe I saw 1594.

Q. Is your recollection about being able to -- thinking that you remember seeing it at that, is that recollection as strong as the things that you have not been able to remember today?

A. I would say stronger.

Q. So how many times did you see this water at

1594?

A. It would have just been one or two.

Q. Now, you're aware, are you not, that -- you were aware at that time that the transducers and the conduits that were around them were loose, correct?

A. Yes, sir.

Q. You were also aware that there's turbulence in that water as water's coming in from being pumped into the upper reservoir, correct?

A. Yes, sir.

Q. And you would have been aware, would you not, that that movement could have been -- also the movement in the water could have been moving around those conduits as a result, correct?

A. I don't know whether it was or not.

Q. It could have, though, right?

A. I suppose it could have.

Q. You've got enough engineering -- go ahead. Answer that again.

A. Yes, it could have.

Q. Okay. And while that water was being pumped in there, you do recall that you were not up at the top of the reservoir during the pumping, correct?

A. Yes. To the best of my recollection, yes.

Q. Okay. So what assurance did you have that

there would not have been a bigger deviation in the reading of those piezometers while the water was being pumped up such that your two feet that you think that you had is actually not sufficient? What assurance did you have that that would have been an adequate protection?

A. Don't have an answer for you.

Q. Does that mean there was no assurance?

A. Yes, that's true.

Q. In fact, with those brackets unsecured, isn't it possible that those conduits could have come to rest at varying positions on different days depending upon the happenstance of the friction and the gravity and the flow of the water as it was coming in moving those conduits around?

A. It's possible.

Q. And in fact, Mr. Scott, it is the case that, because of that, there was no way of determining what was the appropriate amount of fudge factor or leeway to build in to ensure that the water was not significantly higher than what the piezometers were reading, correct?

A. Yes. I'm not sure how the two foot was arrived at, yeah.

Q. So with that in -- with that in mind, you said something earlier today that I want to explore just a bit. You made a reference, and I want you to clarify what

you meant by this, to understand -- to the possibility, I think, that you are talking about the possibility that there would be more breakage in the brackets holding those conduits. And I'm not sure if that's what you meant, but can you tell me whether or not you at some point in the fall felt like that was a possibility?

A. I mean, it's always a possibility. Mechanical things, that's the nature. They have loads of failure. So for anything mechanical, to be expected to last forever is unrealistic.

Q. Sure. Well, at least in the first week of October, you had knowledge that some of the brackets had broken loose on holding those conduits, correct?

A. That's correct.

Q. And would that have not given rise to the possibility that there could be additional breakage on any brackets that were still connected to the -- holding those conduits or securing those conduits?

A. That's correct.

Q. At that time, did you consider that possibility?

A. Yes. I believe that's why the two-foot safety margin was put in.

Q. That's what I thought you were referring to. So from the standpoint of that two feet, I believe

you testified that you weren't sure who made that recommendation; is that correct?

A. Yeah, I'm not sure where that came from. Mr. Cooper was the one who decided on two feet, but I don't know how he arrived at that number.

Q. Well, would you think that it would be normal for Mr. Cooper to have made that decision solely based upon his own opinion or that he would normally consult others in making such a decision?

A. I believe -- I believe that when he sent out the e-mail detailing the actions we were taking, he was soliciting responses from others.

Q. Do you know who he would have been soliciting? Are you just talking about the people that were on the e-mails, is what you mean?

A. That's correct, yes, sir. And also asking, I guess, if any of the groups that they represented had an opinion on the matter one way or the other.

Q. Okay. And do you know or were you involved in any of the conversations following up that e-mail?

A. I do not recall.

Q. Would you normally have been involved in such discussions?

A. The repair of that was outside of my scope of normal duties, so I'm not surprised that I wasn't

really in on that.

Q. But you have to run or be a -- participate in running the plant, do you not --

A. That's correct.

Q. -- at that time?

So when you were doing that, wouldn't you have been concerned that the plant would have been able to run in a safe and reliable manner?

A. That's correct.

Q. All right. So would you not normally have involved yourself in those discussions or made yourself aware of what those discussions resulted in?

A. Yeah, I was aware of what happened, but once it got to the point of Rick asking for assistance to repair the piping, it was outside of my realm of capability. We needed outside assistance at that point, and he had asked for that.

Q. But did he then tell you what was going on in regard to that repair work? Did he consult with you?

A. I believe I was probably copied on most of the subsequent e-mails.

Q. But you're in the same plant with him. Did you talk to him about it?

A. I'm sure we did. I don't recall any details at this point.

Q. Do you recall anything about it?
A. I just recall that he was -- had Steve Bluemner working on the project of repairing the piping.
Q. But Mr. Bluemner --
A. And Steve was tasked --
Q. Keep going. I'm sorry.
A. He also tasked Steve with arranging for the outage to repair the piping.
Q. Was that a normal thing for Mr. Cooper to do, to have the engineer making that call to St. Louis to try to arrange that outage?
A. I don't know if I can say it's normal or abnormal. It's the only time it was done in three years, but if something's -- there's things in plants that happen once every five years and it's still a routine thing. It's kind of a relative term.
Q. Was it contrary to proper procedure from your vantage point to have Mr. Bluemner call rather than Mr. Cooper calling himself or having you do it?
A. If there was an established procedure, I'm not aware of it.
Q. Okay. Do you know anything about the diver checking on the conduits in the fall of '05?
A. I know there was a request made for him to do it. I don't know whether he did it or not.

Q. Okay. And Mr. Bluemner at some point in time was reassigned in the fall of '05 to some other job; is that correct?

A. That's my understanding, yes.

Q. Were you aware of it at the time?

A. I don't recall.

Q. Was that because you would not have been involved directly or because you're having a memory problem with that information?

A. I don't know if it's a memory problem, but it's been quite a while.

Q. Would you have been involved?

A. Doubtful.

Q. Okay. When did you first arrive at Taum Sauk again?

A. I worked there during the summer of 2001 and then returned May of 2003.

Q. What did you do during 2001?

A. I was hired on to do a project to organize the plant hierarchy for the Improve system, which was supposedly coming. It never came. So I did what work I could just on paper, and then I just assisted with other plant duties as needed.

Q. Who were you working for at that time?

A. Dave Fitzgerald.

Q. Okay. And then you came back in 2003; is that correct?
A. That's correct.
Q. And your position at that point was what?
A. Supervisor of power production/engineering.
Q. Your degree is in electrical engineering?
A. Yes, sir.
Q. Okay. And where did you go to school?
A. University of Missouri - Rolla.
MS. BRUEGGEMANN: If I could note, Commissioner Gaw, I'm not sure if this was touched on or not, in December 2001 I believe the testimony was he started at Labadie for 18 months. Is that correct, Mr. Scott?
THE WITNESS: Yes, sir -- or yes, ma'am.
MS. BRUEGGEMANN: No problem.
BY COMMISSIONER GAW:
Q. Did you feel that it was important to have that lowering of operating level from 1596 to 1594 when it was done?
A. Yes. I agreed with Rick's intentions, yes.
Q. Was it your understanding at that point in time, was it your belief that that actually was lowering the level against the wall by two feet?
A. Yes, it was.

Q. I believe you testified earlier that you didn't have to focus on the budget at Taum Sauk; is that correct?

A. Yes. It wasn't my general area of concern, that's correct.

Q. Okay. Whose was that?

A. Rick's.

Q. Okay. And did meeting the budget for -- if I -- just a second, Mr. Scott.

COMMISSIONER GAW: If I ask a question regard to his compensation generally on meeting the budget, is that am in-camera or not?

MR. BYRNE: Not if it's just is that one of the factors.

COMMISSIONER GAW: That's what I was going to ask.

BY COMMISSIONER GAW:

Q. Is meeting the budget one of the factors that goes into -- at the time you were at Taum Sauk, that went into your compensation?

A. To the best of my recollection, budget compliance was one of several factors that was computed into determining possible bonus awards.

Q. Okay. So when you say it wasn't something that you -- that you were concerned with or that -- from

that perspective, do you -- you don't mean that it didn't have an impact on you, correct?

A. It didn't have -- it did have an impact on me, although I -- I didn't even know where we were at on a daily basis as far as budget compliance, and I didn't use it to factor in any decisions.

Q. All right. I think you've already testified that you didn't call any emergency outages, but were you involved -- or is that correct?

A. Depends on what you want to call emergency. I mean, I did call some immediate outages on equipment when we've had difficulties with it.

Q. Describe those, please.

A. It's been so long, I don't know if I could tell you any one specific one off the top of my head. There's numerous times that, you know, we would attempt to start a pump or start a generator, and it just wouldn't go because of some type of mechanical failure. At that point it was my -- it was my task to call energy -- or Ameren Energy, I'm sorry, and talk to the power supply supervisor, let him know why we were out, what my best guess on a return to service was and the nature of the problem.

Q. Okay. Did you -- how often do you think that you would have done that? One or two times? More?

A. Probably half a dozen times or so.
Q. Were you made aware of how long it would have taken to have repaired the conduits in the fall of '05?
A. If I was, I don't recall.
Q. Did you have an understanding in regard to what was wrong with the secured or unsecured portion of the conduits?
A. Yes, I believe so.
Q. Do you have any concept about the work that it would have taken to have fixed that?
A. All I know is that it involved getting the diver in to do some repair work and getting in some material to put on a new style bracket or method of securing it. I don't really recall the details.
Q. So today as you're talking to us, you do not have any idea about what that outage would have required on time?
A. No, I don't.
Q. Would Mr. Cooper have known that?
A. Possibly. I'm not certain.
Q. Did he ever talk to you about it?
A. He probably did, but I don't recall anything at this moment.
Q. Mr. Scott, I've got to ask you this because

this has come up over and over again today in regard to your ability to recall things. Can you tell me at what point in time you have failed -- have started failing to recall these matters that we're discussing today? Is that something that you've lost memory of in the last few months? Is it something that you just never did know? I'm trying to understand why we're having so much difficulty in getting some information because of a lack of recollection.

A. Some of these things happened almost three years ago, some of them almost two years ago. I've been in a different job since then. I don't -- I just don't remember some of them. I don't know what you want me to tell you.

Q. Well, for one thing, of course we want you to tell the truth, and you're --

A. Absolutely.

Q. -- required to, but it doesn't -- and that means that if you have any knowledge about these things and you tell us I don't recall, that's not being completely truthful, at least from my standpoint. I want to make sure that we're getting this information so that we can best assess what it is that, in this Commission's world, that we should do.

And you're the only one so far that has

been accessible to us from the plant perspective. So it's really important to get that perspective, particularly in light of what testimony we've heard up to this point in time. So do you -- can you answer about when this issue started fading on you in general?

A. If I can remember that, I could probably remember the facts.

Q. Well, were you involved in --

A. I apologize that I can't be more specific, but if you're asking me to be truthful, that's all I can be is truthful.

Q. At what point in time -- were you involved in any of the investigations with FERC or with Siemens and Rizzo? I think you said Siemens a little earlier. Were you involved --

A. Yes.

Q. -- in those investigations?

A. Yes.

Q. Did you give testimony or information to any of those entities?

A. Yes.

Q. Okay. On the issues that you have testified today that you don't have recollection about, in the information that you provided to those other entities, would you have recalled that information at that point in

time?

A. I don't -- I don't know.

Q. Have you --

A. Those can be reviewed.

Q. Do you have access to the information that you gave those other entities either through testimony or otherwise?

A. I don't know if I do or not.

Q. Did you review anything coming in for this testimony today? Did you review any material?

A. Yes. I reviewed the Highway Patrol reports and the FERC report. Just briefly on the FERC report, though. Not too in depth. I reviewed both Highway Patrol reports.

Q. The staff FERC report or the independent panel of consultants' report?

MS. PAKE: I think he's referring to the transcript of his FERC testimony.

THE WITNESS: Yes, FERC testimony.

BY COMMISSIONER GAW:

Q. Which I don't have access to at this point. So can you tell me whether or not you have made any other statements besides to the FERC, the Highway Patrol, excluding any statements you might have made to your own counsel, have you made any other statements other than

those?

A. I'm not sure if I talked to anybody else or not. I don't remember.

Q. Do you know when the diver checked the brackets, how many of the brackets were broken?

A. No, sir, I don't.

Q. Do you know how many were broken after the breach?

A. No, sir, I don't.

Q. You probably already covered this territory, but I want to ask it one more time. In regard to the instrumentation, was there a person or entity that was assigned to the maintenance of the Warrick probes and the piezometers?

A. No.

Q. And who was responsible in regard to the maintenance question? If you don't know -- you said no one was responsible, if I'm tracking you. Explain that to me.

A. Maintenance parameters were never determined on that equipment yet.

Q. Whose responsibility was it to see that that occurred?

A. It could have been myself, Rick Cooper or the engineers installing.

Q. Okay.
A. Anyone could have done it.
Q. But no one did, you're testifying, correct?
A. Not to my knowledge.
Q. All right. No one set up the protocol for who was to perform the maintenance?
A. That's correct. That's correct, to my knowledge.
Q. All right. Was there any written protocol or other protocol that you're aware of that was given to the plants in Ameren to say, when you have a renovation, there should be something -- some individuals or entities assigned to ensure that maintenance is done on those new instruments?
A. My understanding is that's part of all new generation projects, but I'm not certain on that.
Q. You mean something's changed since Taum Sauk's breach?
A. No. It's my understanding that that was always the process, but again, I'm not positive on that.
Q. Well, if it was the part -- if it was part of the process, why wouldn't it have occurred at Taum Sauk?
A. I don't know.
Q. Who would be responsible for checking to

ensure that it occurred outside of the plant?

A. My understanding is it's the engineering group that installs the equipment.

Q. That they're supposed to set up the protocol for maintenance?

A. I believe they're supposed to make recommendations on maintenance intervals.

Q. Okay.

A. That's my belief.

Q. And whose responsibility is it to ensure that that occurs, if you know?

A. I do not know. I do not know.

Q. Do you keep logs or notes in regard to your activity, or did you at the time you were at Taum Sauk?

A. I'm sorry. I didn't hear part of your question.

Q. That's fine. Did you keep logs or notes in regard to your activities while you were working at Taum Sauk?

A. Not anything that would have been probably outside the realm of what was in Improve.

Q. And again, the Improve information should be continued to be housed somewhere within Ameren?

A. Yes.

Q. So there may be some writings and

documentations that might be within that information?

A. There may be, yes.

Q. Whose responsibility was it to check the security of the parapet walls in the reservoir itself?

A. I believe, and I'm not certain, but I believe there was an annual inspection done by the civil group.

Q. And who would have been the civil group?

A. I don't know who all the engineers were that worked for that group, but usually we dealt with Steve Bluemner.

Q. Now, at the time that the -- that the liner was put in, there was a change, wasn't there, in regard to the operating level during wintertime?

A. That's correct.

Q. And can you tell me why that change was made?

A. Basically, prior to the liner, any amount of leakage that would go through the sections of the parapet walls, in the winter there was a fear of the water freezing on the road, making it very dangerous to drive on. After the liner was installed, there was no more leakage through the parapet wall sections, so that was no longer a concern.

Q. Did you ever hear anyone suggest that there

was some concern that the freezing might somehow cause damage to the walls themselves because of expansion?

A. I guess that's a possibility, too. I'm not sure if I ever heard that or not.

Q. Okay. Would that concern have been less after the installation of the liner?

A. Yes.

Q. And explain that, please.

A. It is my understanding the liner's a nonpermeable material that wouldn't have allowed water to get through it to the concrete.

Q. Do you know how much flexibility was built into that liner?

A. No, I don't.

Q. Do you know how much flexibility actually could be forced upon the liner as a result of the volume of water that was being held in the reservoir during full pool?

A. No, I don't.

Q. Are you aware of any changes to any of the written documents within the Taum Sauk plant subsequent to the installation of the liner and the related other changes?

A. Not that I can recall, no.

Q. Do you know about the old system of the

probes that were used prior to the liner's installation?

A. Very sketchy on details on what was up there before the liner at this point.

Q. Why is that, because you didn't know at the time or you don't recall now?

A. Because I don't recall now.

Q. Was there something called a skate system?

A. Yes, I've heard of that before.

Q. Do you know what it is?

A. I believe it was some kind of mechanism that road up and down in a tube, and there was some kind of a spool that the wire rolled up on. I don't know if there was a system of cams or what, but it was basically some kind of floating level detection, I'd say.

Q. Do you know whether or not there was an alarm on that system?

A. I don't know.

Q. Do you know whether or not there was an alarm that went off on the morning of December the 14th?

A. I don't know.

Q. Have you ever -- did you ever look at the graphs representing the filling of the upper reservoir during the time frame in the fall of '05?

A. I looked at the graphs all the time, well, intermittently since we had installed the system.

Q. Okay. And were those -- did those graphs represent the level of the pool as it was being pumped full?

A. Yes. You could display a graph that showed that, yes.

Q. And is that what you were saying you looked at?

A. Among other things, yes.

Q. Did you notice the increasing jaggedness of the lines upon fill during the time frame of '05?

A. I can't say that I noticed that, no.

Q. Have you seen the information that's contained in the independent panel of consultants report that shows the graphs of the filling and inconsistencies in water levels reflected?

A. I have looked at that report. I didn't read it word for word, and it's been over a year since I looked at it.

Q. Well, we could look at it now if you have a copy of it there. Do you have it in front of you?

A. Yes, sir.

Q. Why don't you take a look there at Figure 7-10 first. It's towards the back. There are a number of figures that have a 7 dash certain numbers afterwards. Have you got it?

A. Okay.

Q. Okay. That's represented as a Hurricane Rita event. Of course, Hurricane Rita was no longer a hurricane when it passed through, right?

A. I don't know how they classify the wind speeds.

Q. Okay. I guess I should have expected that. Now, when you get to this figure, can you tell me what that appears to represent, if you know?

A. The axes aren't labeled, but it appears to be upper reservoir level.

Q. Now, is that anything like you have seen before in regard to just the general nature of the diagram?

A. I would say the general overall shape is consistent, yes.

Q. Okay. The jaggedness that we see on those lines, what does that represent?

A. Represents a change in water height as seen by the transmitters.

Q. Okay. Can you tell me why that might have been occurring on that date?

A. Might have been occurring due to waves.

Q. All right. Now, why would waves be impacting the pressure level on those transducers if they

were secure?

A. Transducers measure the water directly above them. There's a crest and a downward slope passes over it, the height of water changes.

Q. And you think that's what's accounting for this jaggedness?

A. It could be, yes.

Q. Is it also possible that it's as a result of the fact that those transducers themselves might be moving?

A. It's possible, but doubtful. If you look at the point where both pumps are off, they're still oscillating by a few inches at a time. If there's no mode of force there to move the level transmitters, then what's causing them to move?

Q. Well, if you're correct and there's turbulence as a result of the pressure and they're loose, would they not also be moving as a result of that if they're not secure?

A. If there's no pumps on, why would they be moving?

Q. I don't know. That's what I'm asking you. These pressure gauges are way below the surface of the water, correct?

A. (Witness nodded.)

Q. Is that correct?
A. That's right.
Q. Okay.
A. That's right.
Q. Well, let's look at some others. Look at 7-13. It represents December 1st and 2nd, a time frame in that area, of '05. Do you see that?
A. Okay.
Q. Now, you see the jagged nature to that line?
A. Yes.
Q. Okay. How would you explain that?
A. I don't know for certain what caused this. There again, it could be waves. Could be -- could be the pipes moving as a result of turbulence from the pumps being on.
Q. Would it surprise you to know that the independent panel of consultants believed it was as a result of the conduits moving around?
A. That wouldn't surprise me, no.
Q. In fact, as the -- as we're looking there, after you get into about one, two o'clock in the morning on December the 2nd, the level appears to actually be dropping and then rising rapidly and then dropping again, doesn't it?

A. Yes.

Q. Now, what would that tell you, looking at this, about the reliability of those transducers in giving you an accurate reading about the actual depth of the water level?

A. I don't know if I have a frame of reference to compare it against to say whether it's normal or abnormal.

Q. Well, you were testifying earlier that you looked at these types of graphs, if I recall correctly. Did you see anything like this while you were looking at the graphs during the fall of '05?

A. I don't recall seeing this, no.

Q. If you would have seen this, what would you have done?

A. I don't know.

Q. Take a look at Figure 7-23 for me. That's December the 10th, right, of '05?

A. Yes.

Q. Can you explain that to me?

A. Which part?

Q. Well, explain the whole thing, if you can.

A. I don't know if I can. I don't know what the units are doing. It's not labeled well enough to tell me.

Q. Doesn't it say that both units are off there for the --

A. Yes, and then it says two gen, but it doesn't tell me where both units off and the two gen starts.

Q. Well, let's just assume both units are off until there's a dramatic decrease there. I suppose that that could be something different. That would be a matter of record we could check.

If there's a significant jump up with both units off, if you assume that that jump up occurs right there since the language both units off appears right underneath that jump, right, what does that tell if you that's the case?

A. I can't explain that.

Q. If you saw that, what would you do if you observed that on your machines?

A. I would probably investigate as to what caused that.

Q. Okay. It's not normal, is it?

A. I would say it's not, no.

Q. Okay. Would that have caused you concern on December the 10th if you had looked at it knowing what you would have known on December the 10th regarding the transducers?

A. Yes.
Q. You would have had access to this information, correct?
A. Yes.
Q. Is anyone at the plant assigned to watch this particular bit of information more closely after it was discovered that the transducers were not reading accurately at the beginning of October of '05?
A. Not to my recollection.
Q. Whose responsibility would it have been to do that?
A. To watch it more closely?
Q. To have assigned someone to do that.
A. It would have been myself, Rick Cooper or the Osage operator supervision.
Q. Have you been to the St. Louis dispatch area?
A. Yes, I believe I have.
Q. Have you ever observed the screens dealing with Taum Sauk when you were there?
A. No, I have not.
Q. Have you looked at Figure 7-24 before?
A. Okay.
Q. Have you seen that before today?
A. Yes, I believe I have.

Q. Is there anything on that particular graph that you would say would be unusual or abnormal?

A. I don't know why the upper reservoir level dropped when the second pump started.

Q. Would that cause you concern if you would have seen it?

A. Yes.

Q. Okay. Can you tell from this graph -- it may not be easy to do that, but can you tell at about what height it appears to show the reservoir level when it drops, drops off their toward the right-hand side?

A. Looks to be about 1594 or so.

Q. Okay. And that was the height that the pumps were designed to have both shut down by, correct?

A. Correct.

Q. And this graph also is illustrative of the December 14th breach. That would indicate that the piezometers were showing 1594 when the breach occurred, at least according to the best you can read this graph?

A. That's true.

Q. Okay. Are you aware of the fact that there at least was some finding in the investigation that the amount of the fluctuation on the piezometers could have been at least four feet?

A. No, I'm not.

Q. No one's ever told you about that subsequent to the breach?

A. No.

Q. Does that surprise you?

A. You're talking about four foot during regular operation or during the breach period?

Q. I'm not sure I understand your distinction. Go ahead and tell me what you mean.

A. You mentioned there could be a four-foot deviation. Are you talking about in the operation of the transducers themselves during normal operation or during the breach event?

Q. I'm talking about during the time frame after it was clear that the transducers were not secure.

A. No, I didn't realize there could be a four-foot deviation.

Q. What was your information in regard to the amount of variation that could occur?

A. I wasn't aware of what the tolerance was.

Q. And yet you were willing to accept this two feet lowering as a sufficient safety -- safety catch or safety ledge without knowing how much variation might actually exist in the piezometer readings; is that true?

A. I didn't have any reason, nor did anyone else, to believe that two foot wasn't sufficient at the

time.

Q. And to rephrase that, then, what reason did you have to believe it was sufficient? What was the rationale that you were aware of that went into making that a safe hedge?

A. We had never seen anything near two feet worth of deviation in all of our visual observations.

Q. And you are not sure, but you think you might have seen the level at 1594 once or twice, but you're not sure about that, correct?

A. That's correct.

Q. And you don't -- you don't ever remember looking at the pool as it was on pump mode subsequent to the discovery that the transducers were loose, correct?

A. That's correct. That's correct.

Q. Okay. Did Mr. Cooper ever tell you that he was aware of where the lowest points of the parapet wall were?

A. I'm sorry. I'm having audio trouble here.

MS. PAKE: Excuse me, Judge. It's breaking up a little bit, Commissioner Gaw. If you could just state it once more.

COMMISSIONER GAW: Sure.

BY COMMISSIONER GAW:

Q. Did Mr. Cooper ever tell you that he knew

where the lowest points were on the parapet wall?

A. Not to my recollection.

Q. I heard you testifying several times that you were following around the engineers during the installation to try to learn things, I assume, but can you just tell me why -- were you assigned to do that or was that something else? Why were you doing that?

A. I don't recall -- I don't recall whether Rick assigned me to do that, requested me to do that, or if I requested of him to be able to do that.

Q. What was your purpose in doing it?

A. I knew that after the outage was over and we were left with this new equipment, we had to be able to interface with it at some point to be able to troubleshoot what was happening at the plant, and no training had been given prior to the outage. So I figured that it's best that somebody follow to at least in a general sense know how the thing operated to be able to talk somewhat intelligently with people trying to troubleshoot the equipment.

Q. Okay. And who would be trying to troubleshoot the equipment?

A. Myself and the HPTs.

Q. HPTs meaning what?

A. Hydro plant technicians.

Q. And did you provide any subsequent training to others as a result of the information that you gained in following the engineers around?

A. Nothing formal. It was just on an as-needed basis when problems would arise.

Q. And what particularly were you told while you were following around these individuals regarding the Warrick probes?

A. I don't recall being told anything specific about the Warrick probes.

Q. How about the piezometers?

A. There again, aside from the description of how they're supposed to work, I don't recall anything specifically about as far as training on those instruments.

Q. Okay. What is it that you were focusing in on, then, if it wasn't -- I know there were a lot of other things, but what was it that you were mainly focused on? Is it software? Did it have to do with other things?

A. Mainly the software, and the general overall system configuration; in other words, how all the remote locations communicated back to the plant, how you could access the logic to try and troubleshoot problems, things of that nature.

Q. I think earlier today you made a statement

about knocking out two of the transducers being dangerous as opposed to knocking out one. Could you explain what you meant by that? And if I mischaracterized that, you can state it in your own words.

A. I just said that knocking out two of them was less dangerous than knocking out one, because at least you have an averaging feature, meaning if you have one transmitter that goes out of line and you're only relying on one transmitter, your reading's totally bad. If you're averaging it with one that's good, you're closer to being right.

Q. What if the two probes that you were keeping in were giving you the wrong level as opposed to the one you were throwing out, how would you know that when you were doing this?

A. If they were giving a wrong level, then once we made the .4 foot compensation, we wouldn't have been able to continue to observe them to be correct through visual observations.

Q. And again, those visual observations depended upon the piezometers that were there not having a problem about what depth they were actually located at at the time a reading was being taken, correct?

A. I'm not sure I understand the question, sir.

Q. Well, if the piezometers were moving around, that factor would have caused them to be incorrect because they depended on being at a set depth, correct?

A. Yes.

Q. You had no indication, did you, that the piezometers were not able to move around once you were aware that the brackets were broken?

A. That's true.

JUDGE DALE: We're going to have to time out soon. Let's go ahead and take a 15-minute break so we can time out the video and restart it, and hopefully we won't go much longer.

(A BREAK WAS TAKEN.)

COMMISSIONER GAW: Thank you, Judge.

BY COMMISSIONER GAW:

Q. Mr. Scott, I want to read you a portion of a transcript from earlier in this hearing, and this is from -- I don't know if you have a copy of the transcript down there or not. If you do, you can read along. If not, I'll just try to read it.

MS. PAKE: We do not, Commissioner.

BY COMMISSIONER GAW:

Q. This is in hearing, Volume 2, dated July the 25th of 2007, and I just -- this is from Tony Zamberlan's testimony, I'll represent to you. I just want

to get your reaction to see whether or not you agree or disagree. Okay?

Question: This is starting at page 221, line 17. And at what point in time did the issue come up, to your recollection, about doing something about reprogramming those probes from parallel to series?

Answer: It was sometime after that, but I don't recall the time frame. It was sometime between December and February of '05, 2005.

Question: In some of your statements, I believe there's some reference to the early part of December. Is that today your recollection or do you have some other recollection?

Answer: I believe some issues started around the beginning of December, but continued through December and into January, because it was a difficult problem to determine what was going on with those probes.

And I'll stop there for the moment. I'm going to get to the part I'm going to ask you a little more detail about, but do you recall a problem with any of the probes during that time frame?

A. Yes, I do recall problems with the probes. I don't recall the exact nature.

Q. Let me keep going here. Question: Now, the difficulty with the probes, were you ever given any

records or material that demonstrated that there had been a problem with the probes?

Answer: No, sir.

Question: How did you know again that there were problems?

Answer: Working with the plant staff, they would tell me they were having problems with the probes. I'd verify that the alarms were coming in, that it was showing a problem, verified that the computer systems, the PLCs were working properly. They thought they would be replacing certain parts and pieces up on the Warrick probes to see if that would be a resolution to the problem. I continued on with my stuff while they addressed those issues.

Question: Who were they?

Answer: They would be Rick Cooper, Jeff Scott and the plant maintenance staff.

Do you disagree with that last portion in regard to who he would be working with or talking about, talking with?

A. I disagree with it insofar that I don't recall personally ever sending anybody to work on the probes.

Q. So your disagreement is that you don't believe you were in any way involved with this matter that

he's describing relating to the Warrick probes?

A. I don't recall the nature of the problem, and I -- I do remember that there were problems, but I don't recall ever assigning anybody to work on the problems. Not to say it wasn't done. It may have been done at a time when I wasn't there. I don't know.

Q. Well, are you saying you don't recall whether or not you were involved with it or that you recall that you were not involved with it and you're giving us an explanation about why you wouldn't have been involved?

A. I need a little clarification. I'm not sure.

Q. I'm trying to understand if this is a memory issue for you today or whether or not you are disagreeing with Mr. Zamberlan's statement.

A. To the best of my recollection, I cannot remember assigning anyone to work with him on the probes.

Q. To the best of your recollection -- are you saying to the best of your recollection, you did not or that you don't remember?

A. That I did not.

Q. Let me continue. And the plant maintenance staff being? You don't have to name them, but generally what are you talking about when you say the maintenance

staff?

Answer: These guys are maintenance technicians, electricians. They were the guys that physically did the work at the plant.

Question: Now, at some point in time did you go back down to Taum Sauk to reprogram or to work on the programming of these Warrick probes?

Answer: Well, on that logic, yes, sir.

Question: Yeah, and who did you talk to, if you can tell me, when you went back down there to deal with the probes at that time?

Answer: Again, my recollection is not completely clear, but it would have been making sure Rick Cooper and Jeff Scott -- and I don't remember if Tom Pierie was down there at the time or not -- make sure they were all aware of what was going on, what the programming changes were, how they would be implemented, what it would take to do it, maybe to give me permission to make the change or not.

Do you disagree or agree with the portion that relates there to your involvement?

A. There were times that Tony made changes and talked to us about them. I don't know if he always talked to us about everything he did or not.

Q. Well, he is specifically talking here about

the programming changes that were made to the Warrick probes, and in particular to the changing of the logic from parallel to series -- yes, parallel to series.

A. I don't know if he talked to Rick about that or Tom about that, but I don't believe he talked to me about that. I saw that change after the fact and remember being quite surprised by it.

Q. After the fact being when?

A. After the breach.

Q. So you -- you believe that Mr. Zamberlan is not being truthful with his statement that I just read to you or do you -- or something else?

A. I don't believe he's attempting to be untruthful. He said his recollection wasn't totally clear, so --

Q. Well, he says, again my recollection is not completely clear, but it would have been making sure Rick Cooper and Jeff Scott, make sure they were all aware of what was going on, of what the programming changes were, how they would be implemented.

A. I believe he's mistaken on that point.

Q. I'm over on page 225, same volume. At this time, what we're discussing, you made a change to the logic or to the programming, and I want you to describe that for me. Although you already testified about it,

tell me what you did.

Answer: The programming change was taking the two data points for the low and low-low probes and the two data points for the high and high-high probes and putting them in series for the tripping functions so that both points would have to be active in order to generate a trip of the plant.

Question: And you did that for both the low and low-low probes and the high and the high-high probes?

Answer: Yes, sir.

Question: And did you discuss making that change with anybody at Ameren?

Answer: Oh, definitely. I don't make changes in somebody else's plant without their approval.

Question: Who did you talk to about that?

Answer: Again, that was, as we had just discussed, it was Rick Cooper, Jeff Scott, Tom Pierie, if he was available.

Do you agree or disagree with what I just read to you?

A. I disagree with it at least on my part. I don't know who else he talked to.

Q. Well, he says Rick Cooper and Tom Pierie, if he was available.

A. Yes. I'm sorry. Is there a question?

Q. Yes. My question is, you've said that you disagree in regard to your involvement. Do you know, do you have any information in regard to his having discussed the matter with Rick Cooper or Tom Pierie?

A. No, I do not.

Q. I'm on page 229, line 17. Question: How important was it for Mr. Pierie to know what might have been done in regard to the safety features of the plant, particularly these probes?

Answer: It was his project overall. The majority of the knowledge needed to remain with Rick Cooper and Jeff Scott since they were operating the plant, maintaining the plant, continuing down with the road with the plant. It is quite possible that Tom Pierie would have gotten another project somewhere else and not had to do anything further with the plant.

Do you agree or disagree with that?

A. I agree.

Q. I'm on page 233, and on line 18. I'm not asking you whether you were up there with these -- the probes at this point. I'm asking you whether or not you would have been involved in some way in checking the probes after they were moved or something with the programming. Would there have been any function that you

would have had responsibility for?

Answer: I may have checked the programming in the upper PLC and common PLC to make sure the points were still there, still valid. Other than that, I don't recall anything else.

Question: And what would have been important -- excuse me. And that would have been important because? If you would explain.

Answer: Just to verify that the signals were still present, that there wasn't a problem with the PLC.

Question: Okay. Who would have been in the discussion with you about moving those probes?

Answer: Again, it was Rick Cooper, Jeff Scott, Tom Pierie if he was available. If they sought any other advice, I have no idea.

Do you agree or disagree with what I just read to you in regard to moving the probes?

A. Again, same answer. From my perspective, I was not contacted about moving probes. I had no knowledge of probes being moved to the best of my recollection.

Q. While I'm looking here, Mr. Scott, I want to ask you about the .4 adjustment that was made in regard to the reading, there's a little confusion in regard, I think, to what that actually did to the water level, if

anything. First, can you answer that question?

A. I believe, to the best of my knowledge, it caused us to stop pumping .4 feet earlier than what we were prior to the adjustment.

Q. Okay. And then subsequent to that, there was a lowering to a certain level, and what I want to know is whether that lowering of two feet that's referred to by a number of people includes or excludes that .4 adjustment.

A. That's exclusive of the .4 adjustment. Overall, we lowered it 2.4 feet.

Q. You're sure about that?

A. To my understanding, yes, sir.

Q. Well, okay. When you say to your understanding, what do you base that upon?

A. My understanding of the way the control system works.

Q. Did you make those adjustments yourself?

A. I made the .4 foot adjustment myself. I'm not sure who made the two-foot adjustment.

Q. So do you know for certain that that adjustment was made leaving in your .4 adjustment?

A. Yes.

Q. How do you know that?

A. Because the two-foot adjustment was made

from the operator screen, and the .4 -- excuse me. The .4 adjustment was made from inside the program itself.

Q. And which program was that?

A. The control program, RS Logics.

Q. Would that program have impacted the LDS screens?

A. The RS Logics program?

Q. Yes.

A. To my understanding, no, it would not.

Q. So if the -- if the operators in St. Louis and Osage were running off of the LDS screen, would they have seen a different figure in regard to the water levels than would have been seen on a screen that you would have been reading off of the logic or the software that you adjusted?

A. I don't know exactly what -- I'm not real clear on how the LDS works. I'm not sure where they got the data from.

Q. So you can't say for certain here today that there was not a different level indicator on the LDS screens that were being displayed in Osage and in St. Louis, correct?

A. I can say with some degree of certainty that they would have seen the same level, but not total certainty.

Q. Well, describe the level of certainty you do have and why you have it.

A. I'm 75 percent sure that the information they pick up for reservoir level comes from the same PLC, but there again, I'm not totally sure.

Q. You don't know for sure because you're not familiar with the LDS system, correct?

A. Right.

Q. And you don't know --

A. Right.

Q. -- how this adjustment that was made interacts with it, correct?

A. That's correct, but it's also known that the LDS didn't have control and automatic operation.

Q. And how do you know that?

A. Because the plant PLC had control and automatic operation.

Q. Who has control over an automatic shutdown -- over a manual shut down of the pumps when it's pumped up?

A. Operators either at Taum Sauk or Osage plant.

Q. And if they -- if you're -- if the LDS screen was reading at a different figure than the other screen and they were going off the LDS screen, that could

have resulted in an additional piece of inaccurate information regard to the height of the water level, could it not?

A. Not being certain about where the LDS picks up its information, I would have to say that that's possible.

Q. On the day of the breach, Mr. Scott, were you in any way involved in looking at the piezometers or the Warrick probes?

A. I can't recall for certain, sir.

Q. Were you with Mr. Pierie at all that day?

A. Yes.

Q. And what were you doing with him?

A. I just -- the only time I remember for certain seeing him was at the plant and just talking to him.

Q. Okay. And do you recall what that conversation was?

A. I don't remember specifics, but just in general just kind of shock and wondering what happened to cause the collapse.

Q. Okay. And generally was there any postulating done about what might have occurred?

A. No. We were at that point still trying to determine whether it was just a structural failure or

instrumentation failure.

Q. Did Mr. Pierie suggest that possibility that it was an instrumentation failure?

A. He had that question, yes.

Q. Did you have a question of that sort as well?

A. Sure. Everybody did at that point.

Q. Was there -- did you have any information from Mr. Pierie in regard to the location of the Warrick probes on that day, the day of the breach?

A. I don't recall receiving anything from him on the location on that day.

Q. Okay. In any kind of communication?

A. Yeah. I don't -- I don't remember there being anything like that.

Q. And I believe you testified earlier that you didn't have any -- that you knew about the proposal to add an additional Warrick probe after it was discovered that there was a -- that these problems were in existence in the fall with the plant probes and measurement devices, correct?

A. Yes. I remember reading that e-mail.

Q. Did you have any discussion in regard to that with anybody?

A. I don't recall any discussion, no.

Q. Would you have known how to move the Warrick probes yourself?

A. I don't know. I hadn't seen them up until that point, but I'm sure it's probably fairly straightforward.

Q. Do you know if Mr. Cooper knew how to do it?

A. No, I don't.

Q. Do you know if anyone else at the plant knew how to do it?

A. No, I don't.

Q. Do you know if anyone else at the plant had ever moved or been around when the Warrick probes were checked?

A. No, I don't. Actually, I believe there was HPTs with Mr. Pierie when they were checked on the day of the breach. Other than that, no, I don't.

Q. But you weren't up there with Mr. Pierie at that time?

A. I don't believe so.

Q. You know so or don't believe so? Was that your answer, you don't believe so?

A. 99 percent certain I was not.

Q. Okay. I want to just make sure to clarify something else. Earlier there was some reference to you

having seen the water level at the upper reservoir at, I believe you said, 1595 feet. Is that accurate or not?

A. No. I believe I said 1594 feet.

Q. Did you ever see it at a higher level than that, ever?

A. Yes.

Q. When?

A. I don't recall the date.

Q. Give me --

A. I don't even know if it was prior to the controls or after the controls.

Q. After the controls in -- that were added in during the liner installation, is that what you mean?

A. That's correct.

Q. Well, was there any reference points on the wall prior to the liner being installed?

A. Not to my knowledge. There was a staff gauge installed externally from the wall, but it was not on the wall.

Q. Tell me how that looked. Describe it for me.

A. It was a series of, for lack of a better word, sticks coming up out of the reservoir slope. I believe each one was either eight or ten feet in height. They were staggered at different increments up the wall to

be able to see where the water level was.

Q. And were there numbers on those sticks?

A. As I recall, I believe there were.

Q. Okay. What was the highest stick, do you know, measurement?

A. I don't recall, no.

Q. Once again, you don't have any idea as to whether or not the measurements that were shown on the liner had any accuracy in regard to the actual sea level that they represented, right, of your own knowledge?

A. No.

COMMISSIONER GAW: Judge, considering the hour and the fact that in order for me to figure out whether I have more questions for this witness it's going to take me some more time and I don't want to take more time this evening, and I'm sure Mr. Scott has other things that he would like to attend to, so with the caveat about recalling witnesses, I'm going to stop.

JUDGE DALE: Do you want to establish a time now when we'll recall this witness?

COMMISSIONER GAW: No. Let me look and see whether I want to do that or not. And Mr. Scott, thank you, and good luck on everything.

THE WITNESS: Thank you, sir.

JUDGE DALE: Mr. Scott, you're dismissed

for now, but you are subject to being recalled if there are further questions for you. So for now, you're released, but we can always call you back under the same subpoena that you have already been issued.

Is there any other matter that I need to address before we go off the record?

MR. BYRNE: We don't have any questions.

JUDGE DALE: I'm sorry. Then with that, we'll go off the record and reconvene on Thursday. On Thursday we will be in 310.

WHEREUPON, the hearing of this case was recessed until August 16, 2007.

I N D E X

EXHIBITS INDEX

C E R T I F I C A T E

STATE OF MISSOURI)
) ss.
COUNTY OF COLE)

I, Kellene K. Feddersen, Certified Shorthand Reporter with the firm of Midwest Litigation Services, and Notary Public within and for the State of Missouri, do hereby certify that I was personally present at the proceedings had in the above-entitled cause at the time and place set forth in the caption sheet thereof; that I then and there took down in Stenotype the proceedings had; and that the foregoing is a full, true and correct transcript of such Stenotype notes so made at such time and place.

Given at my office in the City of Jefferson, County of Cole, State of Missouri.

_____
Kellene K. Feddersen, RPR, CSR, CCR
Notary Public (County of Cole)
My commission expires March 28, 2009.