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STATE OF MISSOURI
PUBLIC SERVICE COMMISSION

HEARING

January 22, 2002
Jefferson City, Missouri
Volume 4

Zoltek Corporation,)
Complainant,) Case No. EC-2001-345
vs.)
Union Electric Company,)
doing Business as AmerenUE,)
Respondent.)

BEFORE:

KEVIN A. THOMPSON, Presiding,
DEPUTY CHIEF REGULATORY LAW JUDGE.
KELVIN SIMMONS, Chair
SHEILA LUMPE,
STEVE GAW,
BRYAN FORBIS,
COMMISSIONERS.

REPORTED BY:

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23 Commission.

24

25

1 P R O C E E D I N G S

2 (Written Entries of Appearance filed.)

3 JUDGE THOMPSON: This is case EC-2001-345,
4 Zoltek Corporation versus Union Electric Company,
5 doing business as AmerenUE.

6 My name is Kevin Thompson. I'm the
7 Regulatory Law Judge assigned to this matter.

8 We will take at this time shortened entries
9 of appearance from the parties. Don't bother to give
10 your address. Simply let me know who you are and who
11 you represent.

12 We will begin with the Complainant.

13 MR. MAY: Good morning, Judge.

14 Brian May for Zoltek Corporation.

15 MR. ALLEN: Terry Allen for Zoltek. I have
16 some hoarseness. I'm sorry.

17 JUDGE THOMPSON: Thank you, Mr. Allen.

18 Thank you, Mr. May.

19 For Respondent?

20 MR. VITALE: Good morning, your Honor.

21 Michael Vitale for AmerenUE.

22 MR. PETERS: Good morning.

23 Dan Peters for AmerenUE.

24 MS. COOK: Jim Cook and Dave Hennen for
25 Ameren.

1 JUDGE THOMPSON: Thank you very much.
2 Staff of the Public Service Commission?
3 MS. SHEMWELL: Good morning.
4 Lera Shemwell representing the Staff of the
5 Public Service Commission.
6 JUDGE THOMPSON: And I see that --
7 MS. SHEMWELL: No. Sorry.
8 JUDGE THOMPSON: I see that the Public
9 Counsel has not joined us this morning.
10 We will begin immediately with opening
11 statements, but I have one matter to take up before we
12 do that. One of the Commissioners has come to the
13 realization that he is part of an investment club that
14 owns some shares of Zoltek Corporation. Upon making
15 this disclosure, we invite the parties to make any
16 motions that they feel they need to, or if you need
17 time to discuss that matter, you can do that after
18 opening statements.
19 Mr. Vitale?
20 MR. VITALE: We would like to take some time
21 after opening statements.
22 JUDGE THOMPSON: Very well. We will take it
23 up after opening statements.
24 We will begin with opening statements at
25 this time.

1 Mr. May.

2 MR. MAY: Thank you, your Honor.

3 Good morning.

4 As I previously noted, my name is Brian May,
5 here on behalf of Zoltek Corporation.

6 I won't -- I believe our Direct Testimony
7 and Surrebuttal Testimony that we filed in this matter
8 accurately provides insight into our case and provides
9 an excellent summary of the matter, but, nonetheless,
10 I'll start by saying that Zoltek is a manufacturer of
11 carbon fiber products located at the Missouri Research
12 Park, is one of its facilities, and there, as I said,
13 they produce carbon fiber. Carbon fiber is an
14 advanced technology. It's in everything from race
15 cars to airplanes to fire suits. Everything that is
16 high tech has some element of carbon fiber.

17 We have provided testimony that details the
18 process by which the carbon fiber is taken from its
19 raw stage until some finished products.

20 Zoltek decided in approximately 1991 to move
21 to -- or open, I should say, a location at the
22 Missouri Research Park. Construction began in 1991,
23 and construction of the facility was ended or
24 completed in 1992 and the process began to begin after
25 that.

1 In 1988 there was an agreement between Union
2 Electric and University of Missouri whereby Union
3 Electric would provide electrical service to the
4 tenants of the Missouri Research Park. Just to be
5 clear, the University of Missouri owns the Missouri
6 Research Park.

7 In this contract, the testimony indicates,
8 and I'm sure you'll hear some more today, there was a
9 discussion about reliability of the system that would
10 serve the folks at the Research Park. Our testimony
11 indicates that Zoltek, through Mr. Rummy of Zoltek
12 Corporation, the president, had seen that agreement
13 and had relied upon the statements within that
14 agreement when making a decision to locate to the
15 Missouri Research Park.

16 Since 1993 -- is when the recording began --
17 until present there have been over 270 service quality
18 incidents at the Missouri Research Park facility. The
19 Direct Testimony details those and also sets forth
20 what really a service quality incident is. Most
21 importantly, though, it sets out what happens when
22 there is a service quality incident; specifically, the
23 effect that it has on the equipment, as well as the
24 manufacturing process.

25 Now, I understand that this Commission has

1 no, I guess, jurisdiction with respect to money
2 damages, but, nonetheless, there is an economic impact
3 that is put upon Zoltek whenever there is a service
4 quality incident. As I said, our Direct Testimony
5 lists that.

6 I would just summarize and close by saying
7 that it is important to focus on, I believe, the
8 nature of the agreement between University of Missouri
9 and Union Electric, the nature of the agreement
10 between Union Electric and Zoltek corporation, also to
11 look at these 270-some-odd service quality incidents
12 and the effect that it's had on Zoltek Corporation.

13 I would say as we, you know, progress
14 through the years here, technology is very important
15 to the state of Missouri. Zoltek Corporation is such
16 a company that the state of Missouri wants to attract
17 and keep in its state. Therefore, it's crucial that
18 they have quality power service.

19 The evidence in this case will indicate
20 there has not been quality electrical power provided
21 to Zoltek and has worked to their detriment and made
22 it difficult for them to do business in this state.

23 Thank you.

24 JUDGE THOMPSON: Thank you, Mr. May.

25 Mr. Vitale?

1 COMMISSIONER GAW: May I ask counsel a
2 question?

3 JUDGE THOMPSON: Excuse me, Mr. Vitale.

4 Mr. May, will you please come back to the
5 podium? We have a question from the Bench for you.

6 MR. MAY: Yes, your Honor.

7 JUDGE THOMPSON: Commissioner.

8 COMMISSIONER GAW: Mr. May, please forgive
9 me for the interruption, but -- and I want to ask
10 other counsel this question too.

11 I'm interested in what the parties believe
12 the standard of law is in this case in regard to our
13 review. Is it based upon the contracts that you
14 referred to? Is it purely contract law, or is it
15 something that is -- that is in addition to that,
16 also -- also about what is not specifically stated in
17 the four corners of the contracts that you referred to
18 as well? Are there some sort of warranties that we
19 should be looking at?

20 And I'm -- I'm not -- I'm not sure if I want
21 to go beyond that, but I'm interested in knowing what
22 it is that the parties believe that this Commission
23 should be examining from a legal perspective when
24 we're looking at the facts in the case.

25 MR. MAY: Thank you.

1 That's an excellent question, something that
2 does need to be addressed, and I was going to address
3 that in full. I assume that there is a briefing
4 process at the conclusion of the trial.

5 COMMISSIONER GAW: There is, but it would
6 help me in advance of hearing the facts of this case
7 to understand the parameters that we're examining from
8 a legal basis.

9 MR. MAY: I think it's important in
10 answering your question that we look at the history of
11 this particular litigation, and most of the history
12 predates my involvement, so I'm going off of what I've
13 read.

14 There initially was a cause of action
15 brought in the Circuit Court in the City of St. Louis
16 that was premised, in essence, on a breach of
17 warranty, breach of contract, and I believe there may
18 have been some tort. I can't recall exactly. I
19 wasn't involved with the case. Nonetheless, there
20 was a motion filed at the Circuit Court level that
21 removed -- successfully removed the case to this
22 Commission.

23 We have been somewhat constrained, because
24 it is my understanding from reading the case law that
25 this Commission's jurisdiction does not extend to the

1 review of contracts other than contracts for services
2 or something. But in regard to whether there has been
3 a breach of contract or promise, the Commission
4 doesn't have sufficient jurisdiction, is my
5 understanding. At the same time it does have
6 jurisdiction over issues pertaining to service,
7 reliability of service, the quality of service, the
8 safety, things of that nature.

9 We've tried to do both things, I guess. We
10 have attempted to show that the service has been
11 unreliable and at times has been unsafe; in other
12 words, in violation of Union Electric's duty to its
13 customer pursuant to your regulations.

14 At no time, however, have we abandoned and
15 do not intend to abandon our claims that this is a
16 breach of contract case. In light of the fact that
17 the law seems to suggest, and we'll brief this more
18 fully, that this Commission would not have
19 jurisdiction over that, it would seem appropriate that
20 this case be back before the St. Louis City Circuit
21 Court where it began, and it's my understanding that
22 that case was held in abeyance, that it has not been
23 dismissed, that it is, in essence, waiting. The court
24 would receive the case back, in other words.

25 So along those lines, I would say that the

1 testimony -- the Direct Testimony indicates, and I'm
2 not that familiar with the process here, but I think
3 on cross-examination of Mr. Rummy specifically, you
4 will see, hopefully, that there was an understanding,
5 a reliance upon either the 1988 agreement or
6 conversations and promises and what have you that were
7 made to entice Zoltek to come to the plant and Union
8 Electric's promises to them, as well as to the
9 University of Missouri.

10 So I think that -- I guess the answer to
11 your question is yes to both, that we are prepared and
12 I think we've made a case with respect to the
13 regulations of the PSC, and our expert will clarify
14 that, but at the same time, we believe this is a
15 breach of contract case and is better to be heard in
16 the Circuit Court.

17 COMMISSIONER GAW: And one follow-up to
18 that.

19 In the Circuit Court process, was the
20 University of Missouri a party?

21 MR. MAY: I do not believe it was, and
22 that's just from my memory. I think it was just
23 Zoltek and Union Electric.

24 COMMISSIONER GAW: Thank you, Mr. May.

25 Thank you, Judge.

1 JUDGE THOMPSON: Excuse me, Mr. May.

2 MR. MAY: Yes.

3 JUDGE THOMPSON: Other questions from the
4 Bench?

5 (No response.)

6 JUDGE THOMPSON: Thank you.

7 MR. MAY: Thank you.

8 JUDGE THOMPSON: Mr. Vitale?

9 MR. VITALE: May it please the Commission,
10 my name is Michael Vitale. I'm with the firm of
11 Herzog, Crebs and McGhee. I'm here today representing
12 AmerenUE, along with my associate, Dan Peters. And
13 James Cook of AmerenUE is here as well.

14 We're here today, as you know, to address
15 the complaint of Zoltek Corporation with respect to
16 its claim that UE has provided unreliable electric
17 service to its Missouri Research Park facilities. And
18 as the Commission is aware from the prefiled
19 testimony, this case has a very long history, going
20 back to 1993 when Zoltek first began to complain about
21 the electric service it was receiving.

22 Those complaints have continued for eight
23 years and they continue today, and there have been
24 numerous discussions, communications and letters back
25 and forth, some of which are in the prefiled

1 testimony, some of which you'll hear over the next
2 several days, all of which led to a lawsuit being
3 filed in St. Louis City Circuit Court by Zoltek in
4 September 1999. And the park -- to answer I think it
5 was Mr. Gaw's question, the park was not a party to
6 that litigation.

7 That lawsuit was stayed in October 2000 by
8 order of the Circuit Court, and the matter was
9 remanded to this Commission to answer all questions
10 regarding the sufficiency and adequacy of service, as
11 well as the sufficiency of the equipment that AmerenUE
12 used to supply that service. And so going back to
13 Mr. Gaw's question, we think the contract is before
14 this Commission.

15 The Commission obviously has -- regularly
16 hears matters relating to the reliability of service
17 provided by utilities. This case is no different from
18 any of those. There is no special level of service
19 being sought here. Zoltek has contended they are only
20 entitled to the same reliability of service that other
21 customers of AmerenUE receive, and we believe we've
22 provided that, and the evidence will show that.

23 With respect to the contract, as the
24 Commission will hear, Zoltek was not a party to that
25 contract, is not a third-party beneficiary to that

1 contract, and that contract related to a specific type
2 of equipment that was to be put into service at the
3 park at the University's request and timing and cost
4 and that was done pursuant to what the contract
5 provided. And to the extent that that contract
6 somehow relates to the reliability of service, which I
7 think it does, that issue is before the Commission.

8 More importantly, the evidence will show
9 that Zoltek has no evidence, no credible evidence,
10 proving that any of the incidents about which it
11 complains have anything to do with the reliability of
12 Union Electric service. Essentially, it's claim is
13 based on 277 service quality incidents as they define
14 those incidents and the impact of problems that they
15 have had at the Missouri Research Park facility.

16 They blame UE for that. Why? Because UE
17 supplies the electricity. That's basically their
18 complaint. We supply the electricity; therefore, if
19 they have problems with electric, it has to be UE's
20 fault.

21 Depending on the one who you listen to at
22 Zoltek, and you'll hear a little bit of conflicting
23 testimony, these incidents either all have an effect
24 on the manufacturing processes at Zoltek or only a
25 small number have an effect.

1 Now, believing the problem is UE's, Zoltek
2 has refused to allow Union Electric to do the kind of
3 power quality monitoring that it has asked to do and
4 that it has done for numerous other customers
5 throughout the years. At the same time, Zoltek has
6 refused to do any internal power quality monitoring of
7 its own.

8 UE, left to its own devices, has looked at
9 its side of the fence, so to speak, and has looked at
10 its equipment and the history of outages and other
11 things in its records and has found nothing to
12 substantiate all of the incidents, at least on its --
13 again, on its side of the fence that -- about which
14 Zoltek complains.

15 We're not saying they didn't happen. We're
16 not saying there wasn't some impact from some of these
17 on the processes at Zoltek's plants. We're just
18 saying it's not something within the control of Union
19 Electric that caused those incidents, and, again, we
20 don't believe Zoltek has any proof that that's what
21 caused those incidents.

22 Now, fortunately, as you'll hear in the
23 evidence, Zoltek has taken UE's request to go in and
24 look at the equipment and monitor it as somehow a
25 finger-pointing exercise and an issue of blame that

1 Zoltek is somehow at fault for these incidents, and
2 that's not what we're saying here.

3 The simple fact is that Union Electric has
4 been unable to document most of the incidents, again,
5 on its equipment, about which Zoltek complains and has
6 asked to see if there might be an issue inside the
7 plan.

8 Now, Zoltek claims here it's not seeking any
9 more reliable service than UE provides its other
10 customers, and the testimony will be that that
11 agreement, as we talked about, with Missouri Research
12 Park doesn't change that in any way. And I think the
13 Commission is going to have to decide based on the
14 evidence it hears that Union Electric's service to
15 Zoltek has been and continues to be reliable and meets
16 the standards required by the Commission.

17 We will present a number of witnesses who
18 have attempted over the years to deal with and respond
19 to Zoltek's complaints and concerns, and you'll hear
20 two experts from the electric industry who will
21 testify as to the reliability of UE's service.

22 Thank you.

23 JUDGE THOMPSON: Before you step away,
24 Mr. Vitale, questions from the Bench?

25 COMMISSIONER GAW: I believe he addressed

1 the questions I had.

2 JUDGE THOMPSON: Very well.

3 Thank you, Mr. Vitale.

4 MR. VITALE: Thank you.

5 JUDGE THOMPSON: Ms. Shemwell?

6 MS. SHEMWELL: Good morning. Thank you.

7 Good morning. May it please the Commission?

8 Staff did not file testimony in this case,
9 as I'm sure you've noticed, but we did actively
10 research the issues. We went and visited Zoltek, saw
11 the plan, discussed with some of their people their
12 concerns, the history of the case, saw the
13 manufacturing process and how they were affected by
14 interruptions in electrical service.

15 We also visited with Ameren's people who
16 have been involved in this case to see steps that they
17 have taken to try to resolve the issues raised, and we
18 will, of course, be briefing this after hearing.

19 In terms of jurisdiction, I believe that by
20 statute the Commission may decide those things that
21 were within its statutory authority such as whether or
22 not service has been safe and adequate and in all
23 respects just and reasonable.

24 The Commission has certain safety standards.
25 We rely primarily upon the National Electric Safety

1 Code, and the NFPA, National Fire Protection
2 Association, for safety standards. And we will, of
3 course, brief whether or not the service has been
4 within the Commission's standards.

5 In terms of contract issues, the Commission
6 does sometimes review contracts as we've seen with
7 other electrical providers, but there is lots of case
8 law that says that the Commission cannot construe or
9 enforce contracts. And I don't think the Commission
10 can determine warranty or those sorts of issues,
11 promises. I believe that those third-party
12 beneficiary issues are outside the Commission's
13 jurisdiction.

14 That's all I have. Thank you.

15 JUDGE THOMPSON: Any questions from the
16 Bench?

17 (No response.)

18 JUDGE THOMPSON: Hearing none, you may be
19 excused.

20 MS. SHEMWELL: Thank you.

21 JUDGE THOMPSON: At this time we will take
22 up those preliminary matters that we normally take up
23 prior to opening statements. To the extent that we
24 deal with motions and the like, we will do this on the
25 record, but when we mark exhibits and things of that

1 sort, of course, we will go off the record for that.

2 At this time I will ask the parties if they
3 have any motions or other preliminary matters to bring
4 to the attention of the Commission at this time?

5 MR. VITALE: None from the Respondent, your
6 Honor.

7 MR. MAY: None from the Complainant, your
8 Honor.

9 JUDGE THOMPSON: With respect to the
10 disclosure that one of the Commissioners is involved
11 in an investing club that makes -- owns some amount --
12 small amount of Zoltek shares, do we have any motion
13 with respect to that disclosure?

14 MS. COOK: Your Honor, if it's okay, I would
15 like to have a few moments to check back at St. Louis.
16 I don't think it's going to be a problem, but I like
17 my job.

18 JUDGE THOMPSON: I understand perfectly
19 well, Mr. Cook. How long do you think you'll need?

20 MS. COOK: About five years until I retire.
21 I'm sorry.

22 JUDGE THOMPSON: Well, take whatever steps
23 you need to to ensure that you get those five years,
24 Mr. Cook.

25 MS. COOK: Thank you.

1 JUDGE THOMPSON: Why don't we go ahead and
2 recess for, say, fifteen minutes.

3 MS. COOK: That would be fine.

4 JUDGE THOMPSON: Thank you very much.

5 (A recess was taken.)

6 JUDGE THOMPSON: We'll go back on the
7 record.

8 Mr. Cook, I think we were talking about the
9 disclosure we made with respect to some Zoltek shares
10 owned by one of the Commissioners as part of an
11 investment club, and you were going to consult with
12 your home office.

13 MR. COOK: Yes. I checked with my boss,
14 general counsel, and we have no problem with that. To
15 the extent we need to waive anything, we waive it.

16 JUDGE THOMPSON: Very good. Thank you very
17 much.

18 Do you have any other preliminary matters at
19 this time?

20 (No response.)

21 JUDGE THOMPSON: Why don't we go ahead and
22 mark exhibits. We can go off the record while we mark
23 exhibits.

24 (A recess was taken.)

25 (EXHIBIT NOS. 1 THROUGH 17 WERE MARKED FOR

1 IDENTIFICATION.)

2 JUDGE THOMPSON: I assume as far as the
3 transcript goes, the normal turnaround period of two
4 weeks is acceptable?

5 MR. VITALE: Yes, sir.

6 JUDGE THOMPSON: If you want anything
7 quicker, you've got to let her know that.

8 Very well. If we don't have anything else,
9 we'll go ahead and get to that first witness.

10 Mr. Rummy, if you would step forward, please.
11 Right over there behind the reporter, if you would.
12 And just turn around and raise your right hand.

13 (Witness sworn.)

14 JUDGE THOMPSON: Thank you, sir. Please
15 take your seat, and state your name for the reporter.

16 THE WITNESS: My name is Zsolt Rummy.

17 JUDGE THOMPSON: Would you please spell
18 that?

19 THE WITNESS: Z-s-o-l-t, R-u-m-y.

20 JUDGE THOMPSON: Thank you.

21 Proceed.

22 ZSOLT RUMMY testified as follows:

23 DIRECT EXAMINATION BY MR. MAY:

24 Q. Mr. Rummy, could you state your employer for
25 the record, please.

1 A. Zoltek Corporation.

2 Q. And what is your position with Zoltek
3 Corporation.

4 A. CEO and president.

5 MR. MAY: If I may approach the witness?

6 JUDGE THOMPSON: You may approach.

7 BY MR. MAY:

8 Q. Mr. Rummy, I've just handed to you what's
9 been marked as Complainant Exhibit -- or, I'm sorry,
10 Exhibit No. 1.

11 Could you review that for a second, please?

12 A. Okay.

13 Q. And could you identify that for the
14 Commission, please?

15 A. Yes. This is my testimony, the deposition.

16 Q. Is that your Direct Testimony that you have
17 prefiled in this matter?

18 A. Yes.

19 Q. And is that your signature that appears at
20 the back?

21 A. Yes, sir.

22 Q. And there are no corrections that are
23 necessary to your Direct Testimony; is that correct?

24 A. No. That's correct.

25 JUDGE THOMPSON: Customarily, you would ask

1 him if he were asked those same questions now, would
2 give the same answers.

3 MR. MAY: I'll do that. Thank you.

4 BY MR. MAY:

5 Q. Mr. Rummy, if you were asked those same
6 questions, would you give substantially the same
7 answers that you have in your prefiled testimony?

8 A. Yes.

9 MR. MAY: Thank you.

10 JUDGE THOMPSON: Would you like that to be
11 admitted?

12 MR. MAY: Yeah. I move to the admission of
13 Exhibit 1, please.

14 JUDGE THOMPSON: Do I hear any objections to
15 the admission of Exhibit 1?

16 MR. VITALE: No objection, your Honor.

17 JUDGE THOMPSON: Thank you.

18 Hearing no objection, Exhibit 1 is admitted
19 and made a part of the record of this proceeding.

20 (EXHIBIT NO. 1 WAS RECEIVED INTO EVIDENCE.)

21 JUDGE THOMPSON: Do you tender?

22 MR. MAY: I do.

23 JUDGE THOMPSON: Thank you.

24 MR. MAY: Thank you.

25 JUDGE THOMPSON: Cross-examination. I

1 believe -- let's see what the order is.

2 Actually, Staff goes first since Public

3 Counsel is not with us.

4 MS. SHEMWELL: No questions.

5 Thank you, your Honor.

6 JUDGE THOMPSON: Thank you.

7 Mr. Vitale.

8 I didn't mean to catch you off guard.

9 MR. VITALE: That's fine.

10 JUDGE THOMPSON: Mr. Rummy, if I could ask

11 you to speak up into the microphone so we can hear

12 you.

13 Please, proceed.

14 CROSS-EXAMINATION BY MR. VITALE:

15 Q. Good morning Mr. Rummy.

16 A. Good morning.

17 Q. Mr. Rummy, I would like to draw your

18 attention to -- and I don't know that the schedules

19 are numbered. I guess it's marked as ZR-3. It's the

20 summary of service quality incidents that's a schedule

21 to your Direct Testimony, Exhibit 1.

22 A. Okay.

23 Q. Do you have that before you?

24 A. Yep.

25 Q. Can you tell me, Mr. Rummy, how was this

1 document prepared?

2 A. Well, I believe it was prepared by our plant
3 people, plant operations people.

4 Q. This isn't your document?

5 A. This is not my document, no.

6 Q. Okay. And do you know the source of the
7 information that was used to prepare this document?

8 A. Usually, it's the production logbook.

9 Q. Okay. And do you know when this document
10 was prepared?

11 A. Not exactly, but it's -- it's dated 1993, so
12 it was sometime in the case.

13 Q. Well, the document continues through the end
14 of 200-- or through June 3, 2001.

15 A. Well, we have this document or this kind of
16 information every day. So when this particular
17 document was assembled, I'm not sure.

18 Q. So it's -- the underlying source documents
19 from which this document was created are things that
20 are kept in the plant?

21 A. Right.

22 Q. Okay. Sir, did you witness any of the
23 incidents that are listed on this --

24 A. I have witnessed several of them, yes.

25 Q. How many of the 2-- I think there's 277

1 listed?

2 A. Not very many, because I don't work at the
3 plant. My office is somewhere else.

4 Q. Okay. And that was going to be my next
5 question.

6 Where is your office located?

7 A. It's at McKelvey, 3101 McKelvey.

8 Q. Okay. And how often are you at the Missouri
9 Research Park facility? And let me have you go
10 through from 1993 to June 30, 2001, which is the
11 information you provided.

12 A. We built the plant in 1991-92. It started
13 up in late '92, I believe, '93. At that time I spent
14 quite a bit of time there. And since that time our
15 company has grown significantly, and right now I spend
16 very little time there.

17 Q. Okay. So for the -- I'm just trying to
18 understand.

19 For the period that this log was created and
20 the information that's presented in there, from
21 January '93 to June 2001, how often were you at the
22 Missouri Research Park facility?

23 A. Like I said, in early times, I was there
24 quite a bit, which means maybe at least three or four
25 times a week for several hours.

1 Q. And approximately what percentage, did you
2 say, of these incidents that you observed yourself?

3 A. Well, I -- probably initially a fairly
4 significant number of them, and lately I haven't
5 witnessed any of them.

6 I think the key to these incidents is that
7 they vary in severity to our operation. Although
8 our -- our people see every one of them and it has
9 some effect on them, what precipitated this lawsuit
10 and my decision to sue Union Electric was not
11 necessarily any one of these particular incidents.

12 MR. VITALE: Your Honor, I'm going to
13 object. It's not responsive to my question. My
14 question was very simply how many did he see, and I
15 think that was -- I think he's answered that.

16 His decision why he filed suit and things
17 like that are -- if he wanted to have that as Direct
18 Testimony, that wasn't my question.

19 JUDGE THOMPSON: Thank you, Mr. Vitale.

20 Mr. Rummy, if the question is a yes or no
21 question, then you need to answer yes or no, or I
22 don't know, if, in fact, you don't know. And your
23 counsel will have an opportunity on redirect to bring
24 out any explanation or other information that is
25 necessary. Thank you, sir.

1 THE WITNESS: Okay. Thank you.

2 BY MR. VITALE:

3 Q. Okay. For any -- can you specifically
4 identify from your list any of the incidents that you
5 personally observed?

6 A. I wouldn't -- I can't recollect back to '93.

7 Q. Okay. Let me ask you this: The incidents
8 that you observed were the -- were the acts or the
9 events all the same each time?

10 A. Most of my observations were really the
11 results of these incidents --

12 Q. Okay.

13 A. -- because that's usually when I get called
14 out there.

15 Q. So you didn't observe the beginning of the
16 incidents, if you will?

17 A. I -- in '93, yes, I have. And, you know, if
18 you're trying to get which particular one of these
19 incidents, I wouldn't remember.

20 Q. Okay. I'm trying --

21 A. Most of the time with the severe incidents,
22 I was involved with the aftermath of cleaning up and
23 correcting the problems and safety issues and all of
24 those kind of things.

25 Q. Right now I guess what I'm trying to get at

1 is for the Commission to understand and for me to
2 understand as well the onset of the incident as
3 opposed to the aftermath, which I'll ask you some
4 questions about later.

5 But in terms of the incidents, there are
6 some incidents that you witnessed that you observed
7 from the beginning of the incident?

8 A. Sure.

9 Q. Okay. And what did you observe? What was
10 the incident?

11 A. The lights dim, the entire plant gets shut
12 down. Everybody is running around. Fires are
13 starting and those kinds of things.

14 Q. So the entire plant gets shut down for all
15 of the incidents you saw?

16 A. No, not all. That's what I was trying to
17 tell you. Not all of these incidents.

18 The cumulative effect of all of these
19 incidents is tremendously interruptive and costly.
20 The particular incidents that have caused us
21 tremendous damage and safety issues are the outages
22 that were done which not -- it's a small percentage of
23 the total, but those are the ones that have really
24 caused most of the problems.

25 JUDGE THOMPSON: If I could interject just

1 for a moment, the Commission's agenda is beginning at
2 10 a.m., so please don't be alarmed if you see the
3 Commissioners leave. And when they are done with the
4 agenda business, I'm sure they will be back.

5 Thank you.

6 MR. VITALE: Thank you.

7 JUDGE THOMPSON: You may proceed.

8 BY MR. VITALE:

9 Q. Okay. You describe the incidents as the
10 lights dim and the plant goes dark. Did that happen
11 all 277 times or just the incidents you saw?

12 A. I believe I said that it didn't. I believe
13 I mentioned that some of those were incidents -- the
14 cumulative effect of all of those incidents is very
15 serious; however, the serious incidents, the
16 particular incidents, are the outages.

17 Q. Okay. And how many of -- how do you define
18 an outage when you use that term?

19 A. When Union Electric shuts off the
20 electricity.

21 Q. And how do you know that Union Electric shut
22 off the electricity? On what basis do you make that
23 statement?

24 A. Some of them were incidents that happened
25 and some of them were actually done voluntarily by

1 Union Electric.

2 Q. Can you give me some more information? How
3 many? What's the basis for your statement? It's
4 an --

5 A. Well, there were a number of them, and at
6 the particular time when I was still involved fairly
7 heavily, I believe there was somewhere -- nine or ten
8 incidents, and the last one was actually a voluntary
9 shutdown by Union Electric. When they -- when a new
10 customer was connected, they shut our electricity off.

11 And in that particular case, this has
12 been -- this was after many discussions we had about
13 the problems and the safety problems that outages
14 could create, and even after that number of
15 discussions, they did a discretionary shutdown of our
16 facility --

17 Q. Okay.

18 A. -- without notification.

19 Q. When did that occur?

20 A. I believe this was in '94, '95. This was --
21 Nike's plant, when they were turned on, that's the
22 particular incident.

23 Q. Okay. Any other of the 277 -- and do you
24 know what incident that's listed on this list --

25 A. No, I'm not sure.

1 Q. -- that occurred?

2 A. I'm not sure.

3 Q. Any other incidents that you can identify
4 where Union Electric shut off the power?

5 A. Well, there were some particular incidents
6 where we were actually in a rural system which is
7 another issue that I'm sure we'll get into later, and
8 the competence of the -- of the people, the
9 maintenance people was rather questionable.

10 One particular evening we had a wind storm
11 and, apparently, some -- some switch got blown out.
12 Apparently, the wires touched each other, and the way
13 they fixed it is that five times they tried to connect
14 it. Five times the electricity came back and five
15 times it was disconnected again. That was a real
16 disaster for us.

17 A. There were some other --

18 Q. Can I stop you before you get -- are you
19 going on to another incident?

20 A. Yes.

21 Q. Can we stop with that incident?

22 Can you identify that incident on this?

23 A. I'm not -- our engineering guys will be able
24 to.

25 Q. And these five attempts to reconnect, is

1 that something you saw Union Electric do, or are you
2 testifying based on what you saw happening in the
3 plant?

4 A. Actually, I'm testifying based on what
5 happened in the plant and testifying on the basis of
6 our conversation with Union Electric where there is no
7 question that that situation happened as we saw it.

8 Q. And then --

9 A. And, by the way, there has never been a
10 controversy between Union Electric and us on the
11 particular outages. They had always had record of the
12 same outages at the same time.

13 Q. In your opinion, sir, how many of these
14 incidents of the 277 do you believe to be outages
15 where there is no power?

16 A. Probably at least a dozen or so.

17 Q. And the other 265, if my subtraction very
18 quickly works, were basically where the lights dimmed
19 and the power didn't go out completely?

20 A. That's correct. And some surges and dims
21 and whatever.

22 Q. Now, this log uses a title, Service Quality
23 Incidents, and I've seen that in various testimony.

24 What is a service quality incident?

25 A. Well, I think the way it was defined in this

1 particular case, I believe any excessive voltage
2 variation, outage, and the whole combination of
3 things.

4 And, again, I keep getting back to the issue
5 is that the real concern for us was -- and has been
6 and continues to be a total outage. We can sometimes
7 deal with some of these incidents. In totality, this
8 is a real horrible experience. However, the real
9 incidents that is causing the problems and putting our
10 people at safety, risk, and our equipment at loss,
11 potential loss, is the outages.

12 Q. Those twelve or so outages that you
13 referenced?

14 A. They are the significant cost to us.

15 Q. Do you know as you sit here today what the
16 cause of any of those outages was?

17 A. Well, as I mentioned, at least one
18 particular incident was a discretionary outage where
19 Union Electric actually shut off our power when they
20 connected a new customer without notification. There
21 were several weather-related, and there were several
22 maintenance-related and several equipment-related
23 outages.

24 Q. And how are you aware of the weather and the
25 maintenance being the cause of --

1 A. We actually had discussions with Union
2 Electric. There has never been a dispute on what
3 happened. They have admitted to every single one.
4 They have described the situation. We expressed our
5 complaints.

6 In one particular case a switch got
7 disconnected, and it took them, like, four or five
8 hours to actually go and actually reconnect that
9 switch. And so these kind of incidents we had
10 discussed with them.

11 And, again, my direct involvement goes back
12 to the early days, '93-94, but there's been several
13 other incidents since. And, again, there has been --
14 at that point when I -- I started spending less time
15 out there, but up until that point, there was never
16 any disagreement between Union Electric and us on any
17 of these outages.

18 Q. Okay. This log has by my count seven
19 asterisks where the legend says, Power Outage Caused
20 by Zoltek Corporation. Do you see that?

21 A. Yeah.

22 Q. The first one being on February 16, 1993 for
23 50 hours and 15 minutes. Do you see that?

24 A. Uh-huh.

25 Q. First, let me get some clarification.

1 Obviously, "date" is the date the incident
2 occurred. Correct?

3 A. That's correct.

4 Q. The time is when the incident began?

5 A. Right.

6 Q. And what does duration mean?

7 A. That's how long the power was off --

8 Q. Okay.

9 A. -- in the particular case, or with other
10 incidents, however long the particular incident took.

11 Q. Okay. Well, that's what I'm trying to
12 understand.

13 You said that perhaps a dozen there was no
14 power, and in the others there was a dimming or a
15 flickering, and that's what some of the description is
16 here.

17 So am I to understand that the duration is
18 solely directed to how long the electrical event
19 occurred, or does the duration relate to how long the
20 plant was affected?

21 A. Probably how long the -- no. I think it's
22 electric outage or electric incident.

23 Q. Okay.

24 A. Because many of these incidents resulted in
25 several days of bringing the plant back.

1 Q. Okay. And that's what I want to understand.

2 You keep using the term "outage," but we're talking --

3 so we had -- for example, looking at No. 10, just to

4 pick an example, the 55 minutes is a time when the

5 power was out or the lights had dimmed for 55 minutes?

6 A. Well, if it took that long, more than

7 likely, that was an outage.

8 Q. But you don't know that as you sit here

9 today?

10 A. I don't know.

11 Q. Okay. Going back to No. 4 on the schedule,

12 what happened -- now, for these seven incidents we are

13 talking true power outages --

14 A. That's correct.

15 Q. -- where there was no power to the plant,

16 the seven asterisks ones?

17 A. I don't think that's the case, but -- No. 53

18 says there was a blip.

19 Q. Okay. Well --

20 A. And No. 89 doesn't say any description,

21 and --

22 Q. Well, if I could direct your attention --

23 this is your exhibit that you have produced here.

24 A. Right.

25 Q. And each asterisk has the legend, Power

1 outage caused by Zoltek Corporation, so the "power
2 outages" is your term or at least the term that's been
3 presented in your document.

4 A. Fine.

5 Q. I just want to understand, do these
6 asterisks all relate to power outages, or do some
7 relate to just power dimming voltage variations?

8 A. I think you're getting caught up in the
9 words. Each incident has a description next to it,
10 and so if it says "blip," it's not an outage.

11 Q. Okay.

12 A. And if it says on outage, then it's an
13 outage, so --

14 Q. Well, it doesn't say outage anywhere except
15 where the asterisk is.

16 A. I understand.

17 Q. So are you defining "outage" by how long --

18 A. Outage is when the electricity goes off
19 completely. That's what I call an outage.

20 Q. I understand. And I don't mean to argue
21 with you, sir. I'm just trying to understand your
22 chart.

23 Your chart has seven incidents, asterisks,
24 where whatever happened was caused by Zoltek.

25 A. That's correct.

1 Q. And each of those incidents are called power
2 outages. And you're saying I shouldn't get hung up on
3 the power outage term. It's an incident. Some may
4 have been power outages; some were not.

5 A. I apologize for the mistake.

6 Q. I'm just trying to understand the exhibit.
7 Is that correct?

8 A. I would say that's correct.

9 Q. Okay.

10 A. And I think the document speaks for itself.
11 I really don't think this is an issue that we need
12 to --

13 Q. Well, again, I don't want to argue with you,
14 sir. It's an issue that I do want to take up because
15 the issue of power outages versus dimming and sags and
16 voltage variations is a very important issue here.

17 So I just want to make it clear, then, that
18 all seven of these incidents with asterisks are not
19 power outages where the power went out completely.
20 That's correct?

21 A. That's correct.

22 Q. Now, what was the cause of incident No. 4
23 where the power was out? This is at a time when
24 you're spending a lot of time at the plant early on in
25 its opening, and the power -- there was an outage for

1 50 hours and 15 minutes that was attributed to Zoltek.

2 What was the cause of that outage?

3 I believe that particular incident was when
4 we had some carbon fibers get into the electric
5 control room, the high voltage side on the switch
6 gear, and we actually had an explosion where we had to
7 change the switch gear. And apparently there was some
8 flaw in the construction of our building, and the
9 carbon fiber was able to get into the sealed off area.

10 Q. Okay. For my benefit since I haven't been
11 out to your plant, and I don't think the Commission
12 has, can you describe what you mean.

13 There were particles in the air when you say
14 "carbon fibers"?

15 A. Not -- not necessarily in the air. There
16 were particles on the floor, and whatever, and somehow
17 or another they got swept into the sealed off control
18 area and -- which shouldn't have happened, but it did.

19 Q. And those fibers being on the floor or in
20 the air, so to speak, is part of the normal process of
21 how you manufacture your product?

22 A. That's correct.

23 Q. Okay. How big is the plant at Missouri
24 Research Park?

25 A. 130,000 square foot.

1 Q. And is -- are there offices or is it just
2 more of a factory operation?

3 A. Offices are probably 10 percent, the labs
4 and offices.

5 Q. And those are separate from -- I mean, is it
6 just one big building?

7 A. No. Walls.

8 Q. I understand. That's what I'm trying to --
9 so the office is set aside or apart from the main
10 facility?

11 A. That's right.

12 Q. And inside the plant portion, the remaining
13 90 percent, is it one big room or are there a series
14 of rooms?

15 A. No. A series of rooms.

16 Q. Can you just describe generally how many
17 rooms and what occurs in each?

18 A. Well, we have the furnace deck area where we
19 have ten batch furnaces that -- vacuum furnaces that
20 operate under vacuum. And they get heated up to about
21 1600 degrees centigrade, and that's -- we take in very
22 little amperage, but high voltage coming in, and quite
23 a bit of electricity is used in those areas.

24 Along the same -- in the same major
25 building, the high ceiling building, there is eleven

1 oxidizers that are more running on motors and gas
2 heat. And then the -- then we've got -- in the center
3 of the building, we have a lunch room and offices and
4 so on.

5 And then on the other side of the building
6 we used to have a lot of textile operations that are,
7 again, general -- just almost normal textile
8 equipment. The electric use is primarily running the
9 motors and so on.

10 And that describes it. And then we have the
11 addition, a 30,000 square foot addition. That's where
12 we have a continuous line, and that's actually took
13 the raw fiber all of the way to carbon fiber in one
14 continuous line.

15 Q. Is that a reference, I see in the documents,
16 to CCL?

17 A. Yeah.

18 Q. And how many different rooms are there
19 equipment that's powered by electricity used in your
20 processes?

21 A. How many rooms?

22 Q. Yeah. Not counting lights and the normal
23 daily electricity?

24 A. If we would look at the plant area, you
25 would have probably three distinct separations of

1 plant area.

2 Q. The furnaces, the oxidizers, and the CCL?

3 A. The oxidizers, the CCL, and the textile
4 room.

5 Q. Is the CCL and textile the same thing?

6 A. No. The CCL is an all -- on its own. The
7 furnace deck and the oxidizers are in the main room,
8 and then the textile area.

9 Q. I've seen some testimony about oxidizers and
10 furnaces and the CCL. What happens in the textile
11 room?

12 A. Just -- we process our intermediate fibers,
13 the oxidized fibers, and make them into all kinds of
14 yarns and knitted fabrics and all kinds of things,
15 just normal textile process.

16 Q. And have any of the incidents, to your
17 knowledge, that Zoltek has reported affected the
18 textile operations?

19 A. They have, but the textile area shutdown is
20 not significant, because, basically, the equipment
21 stops, and when the electricity comes back on, you
22 just turn them back on and everything goes.

23 The real serious problem for us is two-fold.
24 One is in the batch furnaces which is the most
25 critical area. If you have a shutdown that is

1 unscheduled or unprepared for, you could conceivably
2 have the temperature of the furnace -- more than one
3 furnace in the 1600 degree temperature, and if the
4 cooling water actually stops because the cool water
5 pump stops, you could melt the furnace and have
6 significant damage there.

7 As well as if the vacuum pump stops, it's a
8 water sealed pump, and water can get sucked back into
9 the furnace, and if water gets into the 1600 degree
10 furnace, you've got serious problems.

11 The other area that we have a real problem
12 is the oxidizer area where if you have a fire in the
13 oxidizer area, we can deal with one or two fires, but
14 if we have significantly more number of fires, like
15 all eleven oxidizers running or eight or nine running
16 and more than one or two get caught on fire, it's very
17 likely that you would contaminate the plant with
18 hydrogen cyanide, which would cause a serious problem
19 and we would obviously have issues.

20 Q. Now, you prefaced that answer with when you
21 have a shutdown.

22 What do you define as a shutdown, a loss of
23 power?

24 A. Loss of power.

25 Q. Those twelve or so incidents that you

1 indicated --

2 A. Right.

3 Q. -- were outages?

4 Now, the next one I want to direct your
5 attention to is incident No. 112 which occurred on
6 August 29, 1996, and that's two and a half days, and
7 that's listed as a power outage caused by Zoltek.

8 Do you see that, sir?

9 A. Yeah.

10 Q. Now, to make sure we understand this power
11 outage, was it a true power outage? The power was
12 out?

13 A. This particular incident, I'm not sure which
14 one this is.

15 Q. Okay. Do you know if it was a power outage
16 where the power was completely out?

17 A. I presume so from the document, but I -- I
18 don't know 100 percent.

19 Q. Let me go back to --

20 A. But, again, these documents were prepared by
21 our plant people and you will have a chance to ask
22 them.

23 Q. I understand, and I will ask them, sir.

24 But your testimony -- I think you said in
25 your Direct Testimony, if I can find your

1 identification of that, you said the summary is based
2 on your experiences and recollection of events and
3 records and employees, and I'm just trying to see how
4 much of it is your experience and recollection, how
5 much of it is somebody else's information. Okay? And
6 we'll certainly have a chance to ask them questions.

7 Going back to incident 4 which you do know
8 more about, then, that 50 hours and 15 minutes, was
9 that a period when there was no electricity for that
10 full length of time, or was that a time when the plant
11 was down?

12 A. No. That was when we actually had to
13 prepare -- repair our switch gear -- not switch
14 gear -- the incoming panels and seal off that area,
15 correct the room design, and do several other things.
16 I'm pretty sure that was the incident. I'm almost
17 positive.

18 Q. I want to try and understand your question
19 (sic).

20 Was there no electric power for 50 hours and
21 15 minutes on that day?

22 A. That would be correct.

23 Q. Or not that day, but those series of days
24 that would be covered?

25 A. That would be correct.

1 Q. And was that true, there was no power for
2 the entire plant, including the offices and other
3 facilities?

4 A. I believe so.

5 Q. On all of the dozen or so outages that you
6 indicate were actual zero power, was there zero power
7 throughout the entire facility for that period of
8 time? Do you know?

9 A. Yes. That's what I call an outage, yes.

10 Q. And how many of the dozen or so outages,
11 true loss of power, did you yourself witness or were
12 you on the premises for?

13 A. Again, I don't recall that any of them
14 happened at the moment I was there. I usually came
15 out after the incident would happen and do damage
16 control, or whatever, oversee.

17 Q. When you say "there," meaning in the plant
18 as opposed to in the office --

19 A. Right.

20 Q. -- or as opposed to McKelvey?

21 A. No. I never -- my physical office location
22 was never at the plant.

23 Q. Okay.

24 A. So -- but I -- I don't recall any incident
25 when I was actually there when the incident took

1 place --

2 Q. Okay.

3 A. -- the outage took place.

4 Q. "There" being the park?

5 A. Right.

6 Q. So you came in after the fact?

7 A. Right.

8 Q. After the event?

9 A. That's correct.

10 Q. April 22, 1993 there was a four-minute

11 listing as a power outage caused by Zoltek. Is that a

12 power outage where there was a complete loss of power

13 or was that a dimming or a flicker of some sort?

14 A. Which one is this?

15 Q. Page 1 of the schedule, about the seventh

16 incident you've got listed.

17 A. No. 7. Okay.

18 I'm not -- I don't have a recollection of

19 that particular one.

20 Q. No. 53 is a blip.

21 What is a blip?

22 A. I think everybody defines it as where you

23 have some sort of an instant outage and it comes right

24 back --

25 Q. Okay.

1 A. -- or some sort of a incident like that.

2 Q. Let me -- again, you're using the term
3 "outage." "Outage" meaning a complete loss of power,
4 or are we talking --

5 A. For a quick period, yeah, or -- yeah, I
6 think some loss of power for a particular period of
7 time.

8 Q. Complete loss of power or just --

9 A. Not necessarily.

10 Q. -- a voltage variation?

11 A. It could be in one particular area of the
12 plant or -- if it's caused from an outside source, it
13 has to be the entire plant, because we only have one
14 line coming in. If it happens internally, we could
15 potentially have regions that the problem happens,
16 because once the electricity comes in the plant, they
17 divide it into different areas.

18 Q. Okay. I want to go back to your earlier
19 answers where you said that only about a dozen or so
20 were outages where there was a complete loss of power.

21 Were any of the blips complete loss of power
22 to the entire plant?

23 A. I don't believe so.

24 Q. Okay.

25 A. Again, I want to specify. Anything that

1 happens internally does not necessarily happen for the
2 entire plant. Everything that comes in from
3 externally happens for the whole plant.

4 Q. Okay. But whether it's an outage or a
5 variation, a voltage sag, dimming, flickering, however
6 it's been described?

7 A. Right.

8 Q. There are three incidents in '96 that's
9 listed as a power outage caused by Zoltek where there
10 is no duration. Do you know if those were true loss
11 of power incidents?

12 A. I'm not familiar with them, in particular.

13 Q. And you can't tell me what the cause was,
14 or --

15 A. No.

16 Q. Do you know on any of these how it was
17 determined that this incident was caused by Zoltek
18 Corporation, any of these seven that are asterisks?

19 A. I think you'll find when you talk to some of
20 our people, we have a pretty good professional
21 engineering staff, and any incident that happens in
22 the plant is -- is reviewed in the morning or during
23 the day when it happens, and they have a pretty good
24 analysis of the problem. And they are the ones that
25 determine --

1 Q. Okay. The answer is you don't know?

2 A. What you do mean, I don't know?

3 Q. Personally you don't know how these were
4 determined to be or what caused them on the part of
5 Zoltek?

6 A. Oh, I know in general terms. In general
7 terms, the operators put on the log if something
8 happened, various things, not only electric things,
9 but anything that happened that disrupted the
10 operations.

11 And in the morning when -- if this happens
12 at night -- again, we run 24 hours, so the supervision
13 is not always there. And so when -- when we review
14 the log, any incident that happens, again, not just an
15 electric incident, anything that happens is determined
16 as to what the cause was so we can make the
17 correction.

18 Q. Okay. So looking at your testimony where
19 you say on page 4, I have noted those few instances
20 where the recording incident was the result of
21 something Zoltek had done, that's information that you
22 received from your plant personnel?

23 A. Right.

24 Q. And as you sit here today, other than the
25 one incident that you recalled where some of the

1 fibers got into a particular power room, you don't
2 know what the causes of these --

3 A. Fifty hours is a long time in the life of
4 operation, so I remember that one.

5 Q. And, in fact, as I read the schedule, the
6 two longest incidents on this 277-page schedule
7 have -- were caused by Zoltek. Correct?

8 A. That's probably true.

9 Q. And as I also read it -- well, the schedule
10 speaks for itself, but there are no incidents that I
11 attribute to Union Electric or that you don't
12 attribute to Zoltek that lasted longer than a day or
13 several hours at the most?

14 A. That's correct.

15 Q. Okay.

16 A. But I do want to make the point that no
17 matter how long it lasts, the problem happens when it
18 happens.

19 Q. Let me direct your attention to page 6 of
20 your testimony, the top. You testify that -- in there
21 that we have experienced a cumulative outage time of
22 765 minutes and 24 separate outages.

23 Now, first, the outage time, is that time --
24 are you testifying there was no electric power to the
25 plant during those 765 minutes?

1 A. That's correct.

2 Q. Okay. And those come from those 24 separate
3 outages that you list?

4 A. Obviously, yes.

5 Q. Okay. Well, again, sir, I ask, what do you
6 mean by the your use of the term "outage" in this
7 testimony if you've just stated that there were about
8 12 of the 277 that were complete loss of power. Are
9 you using the term "outage" to describe any variation
10 in power to the plant?

11 A. If I -- if my recollection of twelve is
12 incorrect, the log speaks for itself. I'm just -- I
13 was just mentioning that twelve or so was the number
14 of incidents.

15 I keep talking about the fact that the
16 cumulative effect of all of these power difficulties,
17 let's say, is devastating for a plant that is
18 dependent on electricity. On the other hand, what I'm
19 trying to say is the primary cause of damage and the
20 cause of the primary safety issues relate to actual
21 total outages.

22 Q. Okay.

23 A. And -- now, some of these blips and other
24 things have caused some of the equipment to go down.
25 But when we have a total outage, that's a real

1 scramble.

2 Q. Okay. I understand there's been a lot of
3 testimony in the record and there will be a lot over
4 the next several days about the effect these incidents
5 have, but I'm -- we're interested, too, in the cause
6 of those incidents, and that's what I'm trying to
7 understand. Cause has something to do with whether
8 the power went out completely or whether there was a
9 voltage variation or a sag of some sort.

10 So as you sit here, are you saying your
11 preference to 24 outages in your written testimony is
12 all to -- that occurred up until the August 10, '93
13 date? That's the date you're referring to. By that
14 time you had had 765 minutes and 24 outages?

15 A. I'm not sure I find -- if that's what I
16 said, that's --

17 Q. Okay. If I can take you to the testimony
18 just briefly, so I can make sure we understand it.

19 You said I received an August 10, '93 letter
20 from Mr. Hulse, who is from UE. Correct?

21 A. That's correct.

22 Q. And then you said, By this time, we had
23 experienced a cumulative outage time of 765 minutes
24 and 24 separate outages. So I assume you're referring
25 to by the time you received that letter?

1 A. That's correct.

2 Q. And looking at your log, that's all of the
3 incidents that are listed for 1993 up to that point,
4 less the two that you attribute to Zoltek; is that
5 right?

6 A. Right.

7 Q. So now you're telling us that all of these
8 24 were outages, total loss of power?

9 A. No, I'm not saying that at all. I'm sorry
10 that's confusing, but, no.

11 Every incident causes some problems, but the
12 major problems are the total outages.

13 Q. I understand.

14 A. And there were not clearly, if you look --
15 the log speaks for itself. There was not 24 outages.

16 Q. Okay. What I'm trying to understand, sir,
17 and I apologize if we keep going over this, but I
18 still don't have an actual understanding.

19 When you use the term "outages" in your
20 testimony, and you say we had 24 separate outages, are
21 you referring to a complete loss of power or an
22 incident?

23 A. I'm talking about loss of power. "Outage"
24 is a loss of power. It may not be complete, but it
25 could be a loss of power someplace in the facility.

1 Q. That's fair enough. So we understand when
2 you say "outages" you don't necessary mean a complete
3 loss of power?

4 A. Right.

5 Q. Okay. Let me take you down to your
6 testimony on page 6. You say, Any interruption of
7 power that shuts off the machinery is very costly in
8 terms of time and materials lost. Do you see that?

9 A. Yes.

10 Q. Now, how do you define interruption of power
11 as you use it in that statement?

12 A. Again, if any shutdown happens because of
13 any power incident, it's a problem.

14 Q. Okay.

15 A. And if one piece of equipment goes down,
16 that piece of equipment is a problem. If a total
17 outage happens and the entire plant goes down, that's
18 a serious -- it's a major problem, several tens of
19 thousands of dollars worth of damage, not to speak
20 about the personnel safety.

21 Q. So when you use the term "interruption of
22 power," here again, we're talking about any variation
23 in power. It might not mean a total shutdown of
24 power?

25 A. No. We've had this -- as you will hear in

1 the testimonies and the records indicate, there are
2 certain power incidents that did cause shutdowns of
3 certain pieces of equipment and there are certain
4 incidents that did not. And we have -- actually, our
5 plant design was quite --

6 MR. VITALE: Your Honor, I'm going to
7 object. The answer is not responsive. I asked him a
8 very simple yes or no question. I'm trying to get to
9 an understanding of what his testimony means, and I
10 don't appreciate the speech about what the effect is.
11 We understand that and there will be questions. He
12 will have his opportunity.

13 MR. MAY: Your Honor, just in response, if I
14 may?

15 JUDGE THOMPSON: You may.

16 MR. MAY: We've been sitting here for about
17 20, 25 minutes going over the same thing, repetitive
18 testimony. I think Mr. Romy has clearly indicated
19 what the nature of his testimony is.

20 Additionally, if Mr. Vitale is going to ask
21 a question, I think he should be understanding that
22 Mr. Romy has the right to answer that question. It
23 may not be the answer he wants, but, nonetheless, he
24 does have the right to respond.

25 JUDGE THOMPSON: Well, the --

1 MR. VITALE: The reason we're taking this
2 long, your Honor, is I'm not getting a direct answer.
3 It's Mr. Rummy's use of terms outages. The chart which
4 he is endorsing and presenting to the Commission says
5 we've had -- these are seven power outages caused by
6 Zoltek, and he says, Well, power outage can mean any
7 number of things. And I'm just trying to get to this
8 understanding of what terms he's using here.

9 And it was a very simple question of what
10 does he deem an interruption to be, a total loss of
11 power or any incident where there was also a
12 variation. That was a yes or no question.

13 JUDGE THOMPSON: Could you read me the
14 question, please, Miss Reporter?

15 MR. VITALE: Or I can ask it again if that
16 would be easier, your Honor.

17 JUDGE THOMPSON: All right. Why don't we
18 just go ahead and have you ask it again?

19 MR. VITALE: Okay. That's fine.

20 BY MR. VITALE:

21 Q. Your reference to interruption of power and
22 your use of that term on page 6 of your testimony,
23 Mr. Rummy, is that a reference to a total loss of
24 power, or does that include incidents where there was
25 a voltage variation but the power did not go out

1 completely?

2 A. It means to me is if it caused any outages
3 or any shutdown of or facilities.

4 Q. Okay.

5 A. That's the incident I'm worried about. I'm
6 not worried about the lights dimming in the office.
7 I'm worried about the plant going down.

8 Q. So you're worried about the effect, not what
9 happened to cause that effect?

10 A. Exactly.

11 And I might say that --

12 JUDGE THOMPSON: Mr. Rummy, please. Your
13 counsel will have a chance on redirect to bring out
14 any necessary explanation.

15 Thank you, sir.

16 THE WITNESS: Sorry about that.

17 BY MR. VITALE:

18 Q. Do you believe any of the incidents that are
19 listed on this log were caused by -- other than the
20 seven that you acknowledge were caused by Voltek -- by
21 Zoltek were caused by things outside of Union
22 Electric's control?

23 A. There were a lot of things that were outside
24 of Union Electric's control that -- that happened
25 because the system was not capable of delivering the

1 promised quality of electricity. There were a lot of
2 incidents that were inefficient response by Union
3 Electric to something that happened due to a weather-
4 related situation, like the incident I mentioned when
5 five times somebody tried to close a switch gear
6 and -- or switch and caused five outages in
7 succession. Those were incompetent situations.

8 And there were a couple of incidents where
9 discretionary shutdowns took place, which is probably
10 the most -- how should I say -- most upsetting
11 situations where after defining the problems these
12 kind of things can cause, where Union Electric is
13 arrogant enough to just go ahead and just shut off our
14 electricity without notification. Those are the kinds
15 of incidents that are upsetting.

16 Q. Going back to the incident where there was
17 five attempts to reconnect, by your testimony, that
18 was a weather incident that was outside of UE's
19 control?

20 A. Well, the particular incident was outside of
21 UE's control, because I'm sure wind caused the
22 original outage. The problem with that is that we
23 were assured that we were getting a high quality
24 service, and it turned out we were getting a rural
25 electric service. And the quality of the lines were

1 so bad that they were sagging so badly that a wind
2 storm could short out the entire system.

3 I would say that's somewhat in Union
4 Electric's control and certainly doesn't live up to
5 the standard that they guaranteed us we were going to
6 get.

7 Q. Your understanding you were guaranteed
8 service, that's your reference to the Missouri
9 Research Park agreement?

10 A. That's right.

11 Q. We'll get to that in a second.

12 Of those 277 incident, 270 -- we'll take
13 away the seven caused by Zoltek -- how many do you
14 believe were caused by things that were outside of
15 UE's control?

16 A. I wouldn't even guess.

17 Q. Okay. Do you believe service -- electrical
18 service to Zoltek's facilities improved from 1993 to
19 2001?

20 A. Slightly, yes, but we're still having some
21 incidents. Not as frequent and not as severe.

22 Q. Okay. And how do you -- how do you measure
23 slightly, or on what basis did you say that?

24 A. Well, there has been some of the work that
25 was promised initially that has been done, so that

1 took some of these real problem areas out of the
2 system. But it's still not what it was originally
3 promised.

4 Q. What work was that?

5 A. Well, I'm not that familiar with exactly
6 what Union Electric did, but they have described the
7 fact that when we were guaranteed a high-quality
8 electric service, they did not bother to do anything
9 for us.

10 On the other hand, when -- when that mall on
11 I-70 -- I can't remember which mall was installed --
12 they did then put in a better service for the mall.
13 However, during the summer when they needed the
14 air-conditioner, then they switched us back to the
15 rural electric service.

16 So, clearly, we are not given the
17 consideration -- we are not given the quality of
18 service that we were promised.

19 Q. So all of the incidents and things that
20 are --

21 A. And these were not only -- these were --

22 JUDGE THOMPSON: Excuse me, Mr. Rummy.

23 THE WITNESS: Excuse me.

24 BY MR. VITALE:

25 Q. All of the things that you're talking about

1 all relate to this issue of you weren't provided the
2 reliable service that were promised?

3 A. Not only that, I think the real problem
4 along with -- that's the underlying problem. The
5 problem is Union Electric's attitude. They were not
6 willing to live up to the promise that they made, and
7 even though the number of discussions we had and the
8 number of incidents that were defined and the number
9 of concerns we told them, and still they were not
10 willing to invest the time and money.

11 And I think -- I don't know how much we pay
12 annually, but we pay close to a million dollars in
13 some years for electric service, and we're not given
14 the quality of service. And Union Electric did not
15 care.

16 Q. Are you asking this Commission to impose a
17 standard on Union Electric for reliable service that
18 is any different than other customers of Union
19 Electric?

20 A. No. Actually, we're here only because you
21 people wanted us to come to this body. We were really
22 looking for a court action on the negligence that
23 caused us the damage that we had. And somehow or
24 another, our complaint has widened into these 277-plus
25 incidents which were cumulatively very bad, but the

1 real incidents that really caused our concern were not
2 all of these particular incidents, just some of them.
3 And we went to the court to -- to get some relief
4 and -- and we ended up here.

5 And we like to be here, and I don't want any
6 better service than the next guy, but I want to get
7 the service of that promised us.

8 Q. Which is reliable service?

9 A. Reliable service.

10 Q. And which of the incidents, then, if it's
11 not all of the 277 or 270 -- we'll take out seven
12 Zoltek -- is it that you're really concerned about?

13 A. Well, as I mentioned, total shutdowns are
14 our main concerns. Having been told that we're
15 getting reliable high-quality service and then to find
16 out that we're actually in a rural system, is not
17 living up to any promise.

18 MR. VITALE: Your Honor, again, I asked him
19 a simple question: How many of the 277 incidents are
20 the ones he's concerned about, and we're getting a
21 speech. It's a number.

22 JUDGE THOMPSON: Mr. Romy, can you respond
23 to the question that was asked?

24 Miss Reporter, why don't you read back the
25 question, please?

1 (THE PENDING QUESTION WAS READ BY THE COURT
2 REPORTER.)

3 QUESTION: And which of
4 the incidents, then, if it's not
5 all of the 277 or 270 -- we'll
6 take out seven Zoltek -- is it
7 that you're really concerned about?

8 JUDGE THOMPSON: That's a request to
9 identify specific incidents which you're really
10 concerned about.

11 Are you able to answer that question, sir?

12 THE WITNESS: Yes.

13 The primary one that really just set off
14 essentially the dispute to the level that it is is
15 when, after all of the discussions, we had a
16 discretionary shutdown without notification. That was
17 total negligence and that is really upsetting.

18 And all of the other incidents weren't
19 obviously as much damage as that particular one, but
20 that one was a real serious one in my opinion.

21 BY MR. VITALE:

22 Q. Okay. So that's the primary one you're
23 concerned about?

24 A. Not so much that I'm concerned about, but
25 that is the one that really demonstrating to me Union

1 Electric's lack of commitment to our business, and
2 that is, one, when somebody actually goes and shuts
3 off -- discretionarily shuts off our electricity after
4 all of these discussions we had, I think that's very
5 important.

6 Q. Which of these 277 incidents on the list is
7 that incident?

8 A. I'm not sure which one it is.

9 Q. Are there any others -- again, your
10 testimony, as I understood it, was that it's not all
11 277. It's less than that. Which other incidents?

12 A. My -- my problem with Union Electric
13 particularly has been the fact that we had numerous
14 outages, and they were obviously related to the
15 quality of service that they were providing. And,
16 again, I go back to the fact that the cumulative
17 effect of the service that we got is unacceptable, but
18 the incidents that have caused us the financial damage
19 and the threat to our safety, those are the ones that
20 I'm most concerned about.

21 Q. And how many of those, sir?

22 A. That's the one I referred to earlier, about
23 a dozen.

24 Q. Okay. Well, I thought those dozen was when
25 there was a total loss of power, so you're equating

1 total loss of power to the biggest concern?

2 A. That is the biggest problem that we have,
3 absolutely.

4 Q. Okay. And when you talk about the numerous
5 outages, again, so we understand, when you say
6 "outages," the power was not out in all of those
7 outages. It may have just been a voltage sag?

8 A. I think "outage" is pretty clear to me.
9 That's an outage. And a voltage sag is a voltage sag.
10 And if the document is a little conflicting, I'm sorry
11 about that. But "outage" to me is when the equipment
12 shuts down because there is no electricity going to
13 it.

14 Q. Okay. And those are the things you're
15 concerned about?

16 A. That's the primary concern.

17 Q. And your testimony about cumulative effect,
18 is that based on just a number of incidents in a
19 particular year?

20 A. I think it speaks for itself. If you look
21 at this kind of number of incidents to a plant that's
22 supposed to have a high-quality service, I think you
23 can make that determination.

24 Q. Well, my question to you, sir, is when you
25 say the cumulative number -- that the cumulative

1 incidents -- I just want to make sure you're talking
2 become the frequency of the incidents, whether they be
3 blips, flickers, or whatever they may be.

4 A. No. What I'm trying to say is if one piece
5 of equipment goes down, it's a problem and we can work
6 with that, but it's still causes problems. It still
7 causes cost, and it still has a safety issue.

8 So they're not negligible, but they are not
9 as serious as when the entire plant goes down and
10 we've got 20 pieces of equipment to try to bring back
11 or save or stop fires or evacuate the staff or
12 whatever it takes to make it happen. Those are very
13 serious incidents. So there is a difference in the
14 level of --

15 MR. VITALE: Your Honor, I would like
16 Mr. Rummy to be directed to answer my question. My
17 question has to do with the incidents on the list, and
18 he's telling me about effect which he can't tie up. I
19 just want to know if his complaint, as he says, is
20 based on the frequency of the incidents? Is it the
21 number that you're complaining about?

22 THE WITNESS: I believe --

23 MR. MAY: Your Honor, if I may?

24 JUDGE THOMPSON: Mr. Rummy, please.

25 You may, Mr. May.

1 MR. MAY: Thank you.

2 Your Honor, again, we've been at this quite
3 awhile. I think this question has been asked in
4 various forms probably four or five times. The
5 question has been answered by the witness. For
6 whatever reason, it does not appear that counsel likes
7 the answer, so he's going to continue to ask it until
8 he gets the answer he wants.

9 But, your Honor, for him then to request
10 from you some direction to the witness to answer the
11 question, it's been asked and answered.

12 MR. VITALE: Well, your Honor, we're getting
13 a lot of terms thrown around here of outages and
14 interruptions, which an outage may be an outage of
15 loss of power or maybe it's not an outage. We have
16 imprecise testimony, and this list which is imprecise
17 in itself, and I'm trying to understand what his
18 complaints are.

19 I know he's complaining about the end
20 result. I want to know is he complaining about the
21 blips and flickers and the causes of the things as
22 opposed to the effect on his plant.

23 MR. MAY: Your Honor, I would also move,
24 though, that that reference by Mr. Vitale be struck --
25 stricken from the record with respect to the testimony

1 being imprecise. That's his characterization. He is
2 not testifying in this case, I don't believe. So I
3 would ask that that be stricken from the record.

4 JUDGE THOMPSON: Well, I'm going to deny
5 your Motion to Strike that characterization from the
6 record, and I'm going to allow Mr. Vitale to ask his
7 question again, and I'm going to instruct the witness
8 that this will be a yes, no, or I-don't-know question.
9 And, counsel, you will ask a question of that type, I
10 hope.

11 Please proceed.

12 MR. VITALE: Thank you, your Honor.

13 BY MR. VITALE:

14 Q. Again, is your concern, Mr. Rummy, with the
15 frequency of the incidents that you have listed on the
16 schedule that you've attached to your testimony?

17 A. Yes.

18 Q. Okay. Whether they be blips, flickers,
19 dims, whatever you have listed there?

20 A. Yes.

21 Q. Has Zoltek ever retained an expert to do any
22 monitoring of its equipment inside the plant to
23 determine if any of its equipment may be causing some
24 of these incidents?

25 A. I think we have some experts within the

1 organization. We've always had --

2 JUDGE THOMPSON: Mr. Rummy, that was, have
3 you retained experts to determine whether or not your
4 equipment might be responsible for any of these
5 incidents? Yes; no; I don't know.

6 THE WITNESS: I don't know.

7 BY MR. VITALE:

8 Q. Okay. Mr. Park whose testimony is being
9 offered here hasn't been retained to do that.
10 Correct?

11 A. He hasn't been retained to solve our
12 problems. He's been retained, I believe, to analyze
13 the situation.

14 Q. But Mr. Park did not analyze Zoltek's
15 equipment or put any power monitoring devices on the
16 equipment; is that correct?

17 A. I am not sure.

18 Q. Okay. Well, I'll ask Mr. Park about that.
19 Has anyone else, to your knowledge, done
20 that?

21 A. Union Electric has done it several times.

22 Q. Okay. Anyone else to your knowledge?

23 A. Not to my knowledge.

24 Q. And Union Electric has -- you've allowed
25 Union Electric to put power monitoring devices on your

1 specific plant equipment?

2 A. They did whatever they wanted.

3 Q. And when did that occur?

4 A. Several times. I'm not sure -- several --
5 at these three times that I know of.

6 Q. Okay. You don't -- over the period of
7 years, can you at least put it in a year?

8 A. I wouldn't even try.

9 Q. Can you identify the individuals involved in
10 that?

11 A. I couldn't identify them.

12 Q. And your testimony is that they were allowed
13 full access to the plant to do whatever they needed to
14 do to monitor Zoltek's equipment?

15 A. That's correct. Up until --

16 Q. Up until --

17 A. Can I --

18 JUDGE THOMPSON: Yes, you may.

19 THE WITNESS: Up until this trial started,
20 and were, again, they were trying to repeat something
21 that has already been done for the trial, particularly
22 for the trial, and at that point I balked and said
23 that you've done this before. And then they were able
24 to get the judge to give us an order to do it again,
25 and they did it again, and they found again that there

1 were no particular incidents that were caused by our
2 equipment.

3 BY MR. VITALE:

4 Q. Okay. Let me back up.

5 When you say up until --

6 A. It's not a yes or no answer.

7 Q. That's fine. And I just want to make sure I
8 understand it.

9 "Up until this trial started," you mean up
10 until the time the lawsuit was filed by Zoltek?

11 A. No. Up until the actual court action was
12 taking place. They had --

13 Q. I'm -- I'm trying to understand what you
14 mean by court action, because there hasn't been a
15 trial.

16 A. No. We were -- we had a trial in -- or some
17 trial in the City, and that particular judge ordered
18 us to allow Union Electric in one more time, which we
19 did. We had no reason not to.

20 Q. Okay. Do you know when that -- I just want
21 to understand what you mean by "trial."

22 Do you mean a hearing before a judge --

23 A. I guess.

24 Q. -- on Zoltek's complaints?

25 A. I'm not sure. Excuse me.

1 Q. So at some point when this matter was in
2 litigation, when you said no?

3 A. Right. That's a nice way of putting it.

4 Q. That's when you said no?

5 A. Right.

6 Q. So it was before that point in time that you
7 allowed UE to come in?

8 A. They had total access. They had total
9 access.

10 Q. Do you know how the incidents that are
11 listed, the duration, how those are timed by your
12 plant people?

13 A. Again, the operators put down the time
14 where -- when the incident, whatever it is, started
15 until it was corrected.

16 Q. Okay. Is it just simply a matter of looking
17 at a watch?

18 A. Exactly.

19 Q. Or a clock on the wall?

20 A. Whatever.

21 Q. There's no timers or anything connected to
22 the equipment that starts running when power runs
23 down --

24 A. No.

25 Q. -- or goes out or dims?

1 A. No. We notice them and write them down.

2 Q. Is it your testimony, sir, so I can get
3 clarification, that every incident that's listed did
4 some damage to Zoltek?

5 A. I don't think I'm saying that. Some
6 incidents went by without having anything happen.
7 Some incidents were very serious, so the whole
8 magnitude.

9 Q. And you consider each incident that's listed
10 to have been life-threatening? Is that your
11 testimony?

12 A. Could have been, yes.

13 Q. But not all affected the manufacturing
14 process?

15 A. All affected the manufacturing process.
16 That's the basis for the log. So, for instance, a
17 blip might shut down a piece of equipment that can be
18 immediately restarted. Some, when you try to restart,
19 there is an incident following, and so there is a
20 whole variety of reactions.

21 Q. Okay. My question very simply is, was there
22 an effect on the manufacturing process at Zoltek from
23 each of the incidents listed on the log?

24 A. I believe that I testified and said yes.
25 That is the source of the information.

1 Q. Let's talk just briefly about this contract
2 that's attached to your testimony. I guess it would
3 be schedule -- considered schedule 1 to Exhibit 1.

4 Zoltek was not a party to that contract.
5 Correct?

6 A. That's correct. We're not a signatory to
7 the contract, no.

8 Q. And you became aware of this contract at
9 some point when you were deciding where to put your
10 plant?

11 A. That's correct.

12 Q. You had no part in the negotiation of this
13 agreement between the park and Union Electric?

14 A. No.

15 Q. Okay. But you read it and relied on that in
16 making your decision where to put your facility?

17 A. That's correct.

18 Q. And you relied on the fact that Union
19 Electric said it was going to provide reliable service
20 to the park?

21 A. That's correct.

22 Q. Are you aware -- as I understand your
23 testimony, your primary concern has to do with this
24 loop system, the language that's on the first page of
25 the contract. The service will be looped to provide a

1 more reliable system to serve the University's
2 tenants.

3 A. Right.

4 Q. Do you know what timing of the installation
5 of that loop system was to be?

6 A. Well, it doesn't specify in this particular
7 contract, but it's presumed that it's agreed to and
8 it's being installed or is installed at the time we
9 came to the park. It was -- this agreement was in
10 1988.

11 Q. Why do you presume that?

12 A. Well, because that's normally what people do
13 when they sign a contract.

14 Q. But you're not a party to this. There is no
15 obligation to install the loop system for Zoltek in
16 this contract, is there?

17 A. There is an obligation to the park, and we
18 have a contract with the park.

19 Q. Okay. But you don't have a contract with
20 UE?

21 A. No. Implied, I would say, yes.

22 Q. Okay. And there is no timing in the
23 agreement itself, is there, for the installation of
24 that loop system?

25 A. I think it speaks for itself.

1 Q. Can you point me to any timing provision?

2 A. Again, I think it -- it speaks for itself.

3 And my point is that, certainly, when I sign a

4 contract, I comply with my contract.

5 Q. Okay. But you didn't sign this contract?

6 A. No.

7 Q. Okay.

8 A. But I presume that other people, honorable

9 people, do the same, so --

10 Q. And, again, I'm trying to understand. What

11 is it about this contract, since you're placing so

12 much emphasis on this, is some obligation to Zoltek

13 that UE did not comply with?

14 A. Well, the obligation to Zoltek is no more

15 than the obligation to the park. The University of

16 Missouri marketed the park as being a high-tech park

17 with high-quality electricity and other services, and

18 so it was very important.

19 Q. Okay. What in the contract is it that you

20 said UE did not comply with?

21 A. They did not put the loop system or any

22 other positive system in to the park that would

23 qualify them to provide high-quality service.

24 Q. Okay.

25 A. That's my point.

1 Q. And, again, what is your testimony? If UE
2 did not comply with that, when were they supposed to
3 comply with that as required by the agreement?

4 A. I presume when a customer shows up.

5 Q. Okay. That's your presumption?

6 A. I don't see any reason why I couldn't make
7 that presumption.

8 Q. Is that in the contract?

9 A. Well, I believe that you would not sign a
10 contract if you plan to do it in 100 years, but the
11 whole park was marketed based on -- partly based on
12 this contract.

13 Q. Okay.

14 A. So, obviously, they had an agreement, and
15 particularly in my case, I had discussions with the
16 park and Union Electric and was assured that this
17 quality service is going to be provided.

18 Q. Sir, my question very simply is, looking at
19 the agreement that you said you read, what is there in
20 the agreement that led you to believe that this loop
21 system was going to be installed when Zoltek or before
22 Zoltek moved into the park?

23 A. Well, the agreement itself.

24 Q. Yes.

25 A. It says -- yeah, that's what it is. The

1 agreement says that you will have loop service in this
2 park.

3 Q. Where does it say that it has something to
4 do at all with Zoltek and Zoltek moving in the park,
5 which is the presumption you made?

6 A. Well, I'm in the park, and I'm part -- and
7 I'm a customer of Union Electric, and I'm presuming if
8 there is an agreement that this service is going to be
9 provided that it transfers to me that I will have the
10 service, because the park didn't have an office there.
11 So who is it that this agreement relates to other than
12 the customers?

13 Q. I understand your application of the
14 agreement to you, sir. I'm trying to understand where
15 you got the timing that this meant the system was
16 going to be in for your?

17 A. Well, first of all, Union Electric verbally
18 guaranteed us -- assured us that it will be done.
19 Union Electric assured us, actually, that the express
20 service was going to be done. Union Electric has done
21 a lot of verbal promises that have essentially
22 dovetailed onto this particular written agreement.

23 Q. Now, was the loop system put in at some
24 point in time?

25 A. I believe it has, but I'm not even

1 100 percent sure of that at this point.

2 Q. What is your understanding of the loop
3 system, since that was something you read here and
4 thought that would give you the kind of service you
5 were looking for?

6 A. Well, first of all, the loop system would
7 have avoided having an outage when Nike was --

8 MR. VITALE: Your Honor, again, I've asked
9 him what's his understanding of a loop system, and
10 he's talking about an incident with Nike. It's a very
11 simple question.

12 JUDGE THOMPSON: I think that question
13 called for an narrative response.

14 THE WITNESS: Thank you.

15 MR. VITALE: But he's not -- his narrative
16 isn't responding to the question. I'm not asking for
17 yes or no.

18 THE WITNESS: Let me finish my answer,
19 then --

20 JUDGE THOMPSON: Maybe classic novels take
21 quite awhile to get to the point.

22 Please proceed, Mr. Rummy.

23 THE WITNESS: So, basically, the loop system
24 is that you can feed it from both directions of the
25 loop, so, consequently, if you have a straight line

1 and you're at the end of that line, then when they cut
2 off the line to install another service, they have to
3 cut our service off. If there is a loop system, they
4 can feed it from the other side and we can maintain
5 our service while somebody is getting disconnected.

6 BY MR. VITALE:

7 Q. Do you understand the loop system would
8 eliminate the incidents or significantly reduce the
9 number of incidents that are listed on the log that
10 you have?

11 A. It would have reduced the incident, yes.

12 Q. The number of incidents, not the frequen--
13 not the duration --

14 A. The number.

15 Q. -- of incidents? The number.

16 Sir, let me direct your attention to
17 schedule 3 to your testimony, and can you identify
18 that as a letter that you wrote to Mr. Carr at Union
19 Electric in October 1993?

20 A. By the way, you have to -- yes, I can
21 identify that.

22 I have to apologize for some of the verbiage
23 here. This is pre-spell check, and I did this at
24 about three or four in the morning.

25 Q. I promise not to criticize your spelling.

1 A. Thank you. And the grammar.

2 Q. But this is a letter you wrote to Mr. Carr?

3 A. Yes.

4 Q. And directing your attention to the second
5 paragraph, you say, "Each momentary power outage
6 results in a loss of approximately \$5,000 to \$25,000
7 and lengthy outage will result in a damage of \$35,000
8 to \$50,000." Do you see that?

9 A. Yes.

10 Q. First of all, again, so we understand, since
11 the terminology has been used in different places,
12 what do you mean by "outage" in this letter, total
13 loss of power or just any variation in the power?

14 A. The outage that I refer to here and
15 referring to the incidents and damage is clearly when,
16 for whatever electric occurrence, we lose a piece of
17 equipment. So, basically, if you have, like, a
18 ten-second outage where you lose the electricity for
19 ten seconds, many of the equipment can be immediately
20 restarted. Most of the equipment can be. If you have
21 more than about two minutes, we can't restart
22 equipment, and then fires start happening and all
23 kinds of other things start happening.

24 Q. When you use "loss of power," again, that's
25 what I'm trying to focus on, that word, are you

1 talking about complete loss of power or any -- does
2 that include any variation of the voltage, even if the
3 power does not go out?

4 A. Well, if the voltage would -- presumably
5 goes off long enough, then it's virtually an outage.
6 But, clearly, there is a certain limit, and our
7 equipment was designed to take a certain variation.

8 However, if you have either a complete
9 outage or --

10 MR. VITALE: Your Honor, again, I'm not
11 getting an answer to the question. I'm just asking
12 him which is it? When he refers to power outage, is
13 he talking about a power incident or is he talking
14 about a power outage where power goes out?

15 JUDGE THOMPSON: Time out.

16 Mr. Rummy, I realize that there have been a
17 number of questions on this and similar terms, but I
18 think counsel has a right to explore what exactly you
19 meant in this letter. And he's asking you what the
20 precise meaning of the phrase "momentary power outage"
21 was.

22 THE WITNESS: Okay.

23 JUDGE THOMPSON: What did you precisely
24 mean?

25 THE WITNESS: If you have, I guess it's

1 referred to as a blip where you just have a second or
2 two outage where it's a fairly frequent event,
3 obviously, from the chart, that can cause some
4 equipment to go down.

5 JUDGE THOMPSON: And was that, what you just
6 characterized as a blip, was that in the scope of what
7 you were referring to here as momentary power outage?

8 THE WITNESS: That's correct.

9 JUDGE THOMPSON: Okay. So this would
10 include from blips on up. Correct?

11 THE WITNESS: A significant blip on up, yes.

12 JUDGE THOMPSON: Okay. Thank you very much.

13 Please proceed, counsel.

14 BY MR. VITALE:

15 Q. You say a significant blip on up. What's a
16 significant blip?

17 A. That lasts maybe a couple of seconds, or
18 something like that, three or four seconds.

19 Q. Can you -- from your list of incidents, can
20 you tell me which ones were significant blips versus
21 just the blips?

22 A. I think the exhibit speaks for itself. It
23 says the duration of the time.

24 Q. There is no term "significant blip" used in
25 the exhibit. You say it speaks for itself, and this

1 is your --

2 A. What I'm trying to say is that any time
3 power doesn't go to any of our pieces of equipment,
4 there is a chance that it will go down and will not
5 start back up. That's -- and a blip is -- could be a
6 second, could be four seconds, five seconds, but,
7 obviously, the longer it lasts, the more things happen
8 to our equipment that makes it less likely to restart.

9 Q. Okay. And I'm not asking you about
10 generalities with respect to what might or might not
11 happen. I want to know what you're referring to in
12 this letter when you say "momentary power outage."

13 Again, my question is not the effect on your
14 processes, but are you talking about a complete loss
15 of power or are you talking about anything that
16 affects the power, whether the power shuts off for a
17 moment or not?

18 A. I think I'm answering it. I'm telling you
19 that if the power shuts off to our piece of equipment,
20 it goes down.

21 Q. Okay. Shuts off. That's what I'm trying to
22 understand. You're saying zero power?

23 A. Correct.

24 Q. And if the power doesn't go to zero, then
25 that's not what you're referring to in this letter; is

1 that correct?

2 A. That's correct. However, I will say this,
3 is that it can go so that it is so low that it might
4 as well be an outage. There are some incidents. So
5 there is no yes or no answer to this.

6 If equipment goes down because there is a
7 blip or low voltage or anything that happens, you
8 know, we consider that to be an outage and that's
9 considered to be a damage to us.

10 Q. As you sit here today, sir, looking at this
11 list of 277 incidents, can you identify which of those
12 had an effect on your plant processes?

13 A. I think our plant guys can do that and our
14 logs.

15 Q. So the answer is no?

16 A. No. Not me personally, no.

17 Q. And so I understand, then, your reference in
18 your letter to Mr. Carr referring to each momentary
19 power outage results in a loss of \$5,000 to \$25,000
20 and then you go up to lengthy outages, does not refer
21 to all of the incidents that are listed on the log?

22 A. That's correct.

23 MR. VITALE: Just one moment.

24 JUDGE THOMPSON: Certainly.

25 We've had a request for a recess.

1 MR. VITALE: I think I may be finished, one
2 or two more questions, possibly. If I can just have a
3 moment.

4 JUDGE THOMPSON: Okay. Please proceed.

5 THE WITNESS: I'll try to give you yes or no
6 answers.

7 JUDGE THOMPSON: If they are yes or no
8 questions.

9 I hope I haven't seemed discourteous to you,
10 Mr. Rummy.

11 THE WITNESS: No, you have not.

12 JUDGE THOMPSON: That is not my intention at
13 all.

14 THE WITNESS: No, you have not.

15 MR. VITALE: And it is not mine as well,
16 your Honor. I hope Mr. Rummy understands that.

17 JUDGE THOMPSON: I understand that. The
18 problem is that normal folks just don't talk yes or
19 no.

20 THE WITNESS: And those questions weren't
21 yes or no questions either.

22 JUDGE THOMPSON: That's why lawyers are no
23 fun at a cocktail party.

24 Do you work? Yes.

25 THE WITNESS: They are the subject of some

1 cocktail parties.

2 JUDGE THOMPSON: Far too many.

3 MR. VITALE: I have nothing further, your
4 Honor.

5 JUDGE THOMPSON: Thank you, Mr. Vitale.

6 We'll take a ten-minute recess at this time.

7 (A recess was taken.)

8 JUDGE THOMPSON: Questions from the Bench.
9 I have no questions for you, Mr. Rummy.

10 Because there are no questions from the
11 Bench, there will be no recross at this time.

12 Redirect?

13 MR. MAY: Your Honor, Complainant -- counsel
14 for Complainant has no further -- no redirect.

15 JUDGE THOMPSON: Okay. Now, is Mr. Rummy
16 going to be leaving immediately?

17 MR. May: Your Honor, I was going to ask
18 you, if he could be excused and be allowed to return
19 to St. Louis. That was a question I wanted to ask
20 you.

21 JUDGE THOMPSON: I don't know whether any of
22 the Commissioners will have questions for Mr. Rummy.
23 Why don't we go ahead and let him go, and I suppose if
24 someone has a burning question, maybe he could come
25 back later.

1 MR. MAY: Or we can do it via telephone or
2 something.
3 Thank you.
4 JUDGE THOMPSON: Thank you very much, sir.
5 You may step down.
6 I believe the next witness is Mr. Moran.
7 Please raise your right hand, Mr. Moran.
8 (Witness sworn.)
9 JUDGE THOMPSON: Thank you.
10 Please state your name for the reporter and
11 then spell it.
12 THE WITNESS: Michael Lawrence Moran,
13 M-o-r-a-n.
14 JUDGE THOMPSON: Thank you.
15 Please proceed, Mr. May.
16 MR. MAY: Thank you, Judge.
17 MICHAEL LAWRENCE MORAN testified as follows:
18 DIRECT EXAMINATION BY MR. MAY:
19 Q. Mr. Moran, could you tell us your employer,
20 please.
21 A. Zoltek Corporation.
22 Q. And what is your title with Zoltek
23 Corporation?
24 A. Right now I'm in transition. I was
25 operations manager up until a couple of weeks ago.

1 Q. And are you located at the Missouri Research
2 Park facility for Zoltek?

3 A. Yes.

4 Q. I've handed to you what's been marked --
5 we'll start with Exhibit 2. Could you identify that,
6 please?

7 A. Exhibit 2. Yes. Direct Testimony.

8 Q. And is that your signature that appears at
9 the back of that?

10 A. Yes.

11 Q. And if you were asked those questions today,
12 would you answer in a similar fashion?

13 A. I believe so.

14 Q. And there are no corrections or
15 typographical errors or anything you would like to
16 correct?

17 A. Not that I know.

18 MR. MAY: Your Honor, I would move for
19 admission of Exhibit 2.

20 MR. VITALE: No objection, your Honor.

21 JUDGE THOMPSON: Hearing no objection,
22 Exhibit 2 is received and made a part of the record of
23 this proceeding.

24 (EXHIBIT NO. 2 WAS RECEIVED INTO EVIDENCE.)

25 MR. MAY: Thank you.

1 BY MR. MAY:

2 Q. And, Mr. Moran, I've also handed to you
3 what's been marked as Exhibit 3. Could you identify
4 that, please?

5 A. It's my Surrebuttal Testimony.

6 Q. And is that your signature that appears at
7 the end of that Surrebuttal Testimony?

8 A. Yes, sir.

9 Q. And if you were asked those questions today,
10 would you answer in a similar fashion?

11 A. I believe so.

12 Q. And are there any changes as far as
13 typographical errors or anything?

14 A. Not that I know.

15 MR. MAY: Your Honor, I would move for the
16 admission of Exhibit 3.

17 MR. VITALE: No objection.

18 JUDGE THOMPSON: Hearing no objection,
19 Exhibit 3 is received and made a part of the record in
20 this proceeding.

21 (EXHIBIT NO. 3 WAS RECEIVED INTO EVIDENCE.)

22 MR. MAY: Thank you, Judge.

23 At this time, I would like to tender the
24 witness.

25 JUDGE THOMPSON: Thank you.

1 MR. MAY: Thank you.

2 JUDGE THOMPSON: Let's see. Staff.

3 MS. SHEMWELL: Thank you, your Honor.

4 No questions.

5 JUDGE THOMPSON: Thank you.

6 Union Electric.

7 MR. VITALE: Thank you, your Honor.

8 CROSS-EXAMINATION BY MR. VITALE:

9 Q. Mr. Moran, I want to direct your attention
10 to the schedule of incidents attached to your
11 testimony.

12 A. Yes, sir.

13 Q. Can you take a look at that?

14 And as I understand it, this is a portion of
15 the longer list of incidents. 277 is the number that
16 keeps being bandied about that was attached to
17 Mr. Rummy's testimony, but this is only the ones during
18 the period that you were out at the Missouri Research
19 Park facility?

20 A. Yes, sir. Actually, I started in July -- I
21 think July 22nd, '96.

22 Q. Okay.

23 A. So not all of these I was there for.

24 Q. Okay. So -- and I'm just trying to
25 understand what's the time frame or what was the

1 purpose of attaching these to your testimony?

2 A. Because I witnessed some of the events, and,
3 as operations manager, actually reviewed the events
4 from 19-- August 1998 until present.

5 Q. How many of the incidents on the list did
6 you witness?

7 A. Several.

8 Q. Okay.

9 A. Except for the ones that were not during
10 normal plant -- normal office hours. Any of them that
11 would occur during the daytime hours that I was
12 present, I would have witnessed.

13 Q. Okay. I understand your testimony. I'm not
14 going to argue with you, but several is a certain
15 number? Ten? A dozen?

16 A. If you give me a few minutes, I can count.

17 Q. Sure. If you can identify the ones you
18 witnessed from --

19 A. I can give you a few examples.

20 Q. Okay. Let's start with that.

21 A. On the 23rd of July of 1996, number --
22 Nos. 105 and 106. It was my second day there. I
23 remember those.

24 Q. Okay. Any others?

25 A. I remember also the occurrence that was

1 on -- No. 12, the Zoltek occurrence, I remember that.

2 Q. Okay.

3 A. I would probably have to go to more
4 present -- present day occurrences.

5 Q. That's fine.

6 A. I know that I was there for some of those,
7 but, you know, looking at this, I have a hard time
8 picking out which ones were which.

9 Q. Okay. But at least the three that you --

10 A. Yes.

11 Q. -- mentioned, you recall?

12 A. Definitely stuck in my mind.

13 Q. I assume the two because you had just
14 started and the one because it was such a long event?

15 A. Yes.

16 Q. Okay. Well, let's talk about those.

17 Do you recall, were you a witness to the
18 onset of the incident as opposed to the effect as
19 Mr. Rummy talked about when he would have come out
20 afterwards?

21 A. I have witnessed the onset on several
22 occasions, yes. On those specific ones, yes.

23 Q. Okay. What was the onset? What happened?
24 Let's talk about the two on the 23rd of July, 1996.

25 A. The lights will go out or dim. Most of the

1 time, it's completely out. In this case with the
2 15 minutes, lights are out, and there's kind of a
3 difference in noise, because the plant has a certain
4 noise, and then it goes away.

5 Q. When the -- you say the lights go out, did
6 the power go out to the entire plant --

7 A. Yes.

8 Q. -- entire building?

9 A. Yes.

10 Q. And do you know which of these incidents
11 that are listed in the log that the power went out
12 completely as opposed to the power not going out
13 completely or the voltage diminished or there was a
14 sag of some sort?

15 A. This log is too generic to tell whether
16 there was complete loss of power or a sag.

17 Q. Is there some other document that would
18 reflect that?

19 A. Not specifically. I don't believe there is
20 anything that says, This was a sag, or, This was an
21 outage for two seconds.

22 Q. But there is no question there is a mixture
23 of the two throughout these incidents, the two types
24 of --

25 A. I believe blips are a mixture of sags and

1 momentary losses of power.

2 Q. Okay. So anything other than a blip on the
3 log would be an outage or complete loss of power?

4 A. Yes.

5 Q. Okay. Now, I want to try and understand the
6 timing.

7 How long is a blip?

8 A. As I just mentioned, the blip is probably
9 the early day definition of our sag or momentary loss
10 of power, which would be a two- to three-second loss
11 of power, I guess as we would define it right now,
12 being more knowledgeable of the definition.

13 Q. Okay. Whose definition is that when you say
14 being more knowledgeable of it?

15 A. Early -- early, I guess, in my experience
16 with this, we called them -- we called momentary
17 losses of power or sags, blips because the lights
18 would blip or go out and then come back on. And since
19 then we've looked at some definitions, not that we
20 want to be electrical experts in definitions, but
21 we've looked at some definitions of the different
22 types of occurrences.

23 And I believe there's sags, which is -- a
24 voltage sag doesn't completely go away, and then there
25 are momentary losses of power where it's complete loss

1 of voltage for -- I'm not sure the duration, but we
2 usually refer to a few seconds.

3 Q. Okay. And I guess what I'm trying to
4 understand, is it just a duration of time or does
5 "blip" refer to the electrical incident whether it be
6 a sag or loss of power? Is it just a time
7 measurement?

8 A. Can you repeat that, please?

9 Q. Sure. I'm just trying to understand, when
10 you've got duration and blip, does blip just refer to
11 a specific length of time, does it measure time, or
12 does it measure -- does it measure an electrical
13 incident, whether it be a sag or what somehow happens
14 in the plant?

15 A. I believe I already stated that blips could
16 be a sag or it could be a momentary loss of power for
17 two to three seconds.

18 Q. But, again, when a blip is listed here,
19 we're supposed to figure that as a measurement of
20 time? No?

21 A. Excuse me. I thought I already answered the
22 question.

23 Q. Okay. So it's your judgment as to what the
24 effect was --

25 JUDGE THOMPSON: Let your lawyers make the

1 objections. Okay?

2 THE WITNESS: I'm sorry.

3 BY MR. VITALE:

4 Q. Okay. So if I see a blip, I can't just say
5 each blip was two seconds long or three seconds long?

6 MR. MAY: Your Honor, I will object at this
7 time. I think the question has been asked and
8 answered to the point where the witness doesn't know
9 what else to say.

10 JUDGE THOMPSON: Well, it strikes me that
11 what counsel is getting at, and correct me if I'm
12 wrong, is whether the term "blip" is used purely as an
13 indicator of duration or whether it is used to
14 describe a particular class or type of incident.

15 MR. VITALE: Yes, your Honor.

16 JUDGE THOMPSON: Is that correct?

17 MR. MAY: Your Honor, along those lines,
18 that's what I had inferred from his question as well,
19 what he was trying to get at. I think that question
20 has been answered and been asked in various forms, so
21 I'll restate my objection.

22 THE WITNESS: I'll try to answer it again.

23 MR. VITALE: Go ahead.

24 JUDGE THOMPSON: Let me think for a moment.

25 I believe the witness has told us that in

1 terms of type, a blip could be a sag or a momentary
2 outage, and I believe you've told us that a blip is
3 two to three seconds in duration, so I will sustain
4 the objection. I think that has been asked and
5 answered.

6 MR. VITALE: Okay.

7 BY MR. VITALE:

8 Q. And what I see -- let's talk about
9 incident 109.

10 Several seconds on August 20, '96 on your
11 schedule, that's not a blip?

12 A. No.

13 Q. Okay. Is that a duration of time, or is
14 that somehow a description of the type of incident
15 that occurred?

16 A. Excuse me. I'm sorry. Repeat that again.

17 Q. Is several seconds just a time factor for
18 how long the incident lasted, or is that also some
19 separate indicator of a sag or an outage or shutdown
20 of power?

21 A. This was at 1:00 in the morning, so my guess
22 is that it was longer than what would be classified as
23 a two- to three-second loss of power, so probably
24 somewhere between two seconds and ten seconds.

25 Q. But it is --

1 A. Several seconds.

2 Q. But here is this strictly a time measurement
3 only?

4 A. Yes.

5 Q. Okay. Again, trying to understand the log
6 that you've presented here, if you'll look at
7 incident 183 on June 29, 1998, now there it says "blip
8 (3 times)" at the same time. Can you explain that
9 entry to me?

10 A. The best way to describe that is almost with
11 the sound, but it's -- it's like a juut, juut, juut,
12 where the -- the blip or the sag would occur
13 repeatedly very quickly like a flicker, probably. If
14 you looked at the lights, it would flicker. I have a
15 hard time defining that, but it's three successive
16 sags in a row.

17 Q. Okay. Now, the logs also use the term --
18 the log that Mr. Rummy had uses the term flicker. Is
19 that the same as a blip? Do you know?

20 A. I would say yes.

21 Q. Okay. And there was also some lights
22 dimmed. Is that a blip or a flicker?

23 A. Probably both.

24 Q. Okay. Now, this log that you've attached to
25 your testimony, obviously, as you say, you didn't

1 witness all of these events. Correct?

2 A. Yes.

3 Q. And, in fact, this is based on a summary --
4 or this is a summary of other documents and logs that
5 were kept by the different employees?

6 A. Yes.

7 Q. Okay. And as I understand, procedures were
8 already in place at that time to record these
9 incidents?

10 A. I'm not sure when the procedures exactly
11 started to record the events. They were recorded in
12 notebooks prior to actually having an official
13 document to record the event.

14 Q. Okay. And what was the official document?

15 A. It was a spreadsheet that was made up.
16 Actually -- I'm not sure what the name of the
17 spreadsheet is or the form, but it's a form that was
18 made up to document the events, their occurrence, and
19 when they have been, what the weather was like.

20 MR. VITALE: Your Honor, may I approach the
21 witness?

22 JUDGE THOMPSON: You may approach.

23 MR. VITALE: And what number is this, Dan?

24 MR. PETERS: Eighteen.

25 JUDGE THOMPSON: Okay. Let's go ahead and

1 mark that, and you'll need to describe it for me.

2 MR. VITALE: I will. It's a series, as I
3 understand it, and I guess that's the question for the
4 witness, a series of logs that, I believe, are the
5 underlying source documents, or at least some of them,
6 for the log that's attached to his testimony. But
7 that's what I want to inquire about.

8 JUDGE THOMPSON: Okay. So log sheets
9 maintained by Zoltek; is that a fair statement?

10 MR. VITALE: I guess that's a fair
11 statement.

12 MR. VITALE: Should I give you copies for
13 the Commissioners?

14 JUDGE THOMPSON: We need a copy for me and a
15 copy for each Commissioner and three copies for the
16 reporter, so -- just to instruct everyone. If you do
17 not have sufficient copies, you will have a chance to
18 make them over the lunch break.

19 All right. Thank you, sir.

20 If you will give me a moment to get these
21 marked.

22 JUDGE THOMPSON: Very well. Please proceed.

23 (EXHIBIT NO. 18 WAS MARKED FOR
24 IDENTIFICATION.)

25 BY MR. VITALE:

1 Q. Mr. Moran, first, let me go back before I
2 ask you about this document.

3 Did you personally prepare the service
4 quality incident log that's attached as a schedule to
5 your testimony?

6 A. I participated in preparing the log.

7 Q. Okay. Can you tell me the process by which
8 that was prepared and who was involved?

9 A. Well, the more recent occurrence was the
10 gathering of the various documents where the actual
11 recording was made and then trying to summarize it
12 into a table, this final table.

13 Q. "More recent" being --

14 A. Anything that occurred after I became
15 operations manager.

16 Q. Which I'm sure it's in --

17 A. August of 1998.

18 Q. Okay. And, again, just tell me the process.
19 Did you-all sit around a table and look at the source
20 documents, or did you just sit down by yourself and
21 print something that was later typed?

22 A. I believe the records were retained and we
23 had to go pull the records and -- and I delegated
24 certain people -- I can't name exactly who they
25 were -- to summarize the records, and then I would

1 review them.

2 Q. Okay. You reviewed all of the source
3 documents that led to the list?

4 A. I would say -- I can't say that I -- I'm not
5 sure about all. I reviewed them.

6 Q. Okay. I'm not going to make this too
7 lengthy. I'm just trying to understand the process.

8 Somebody you sent -- these are all -- we're
9 talking plant personnel, Zoltek employees, and you
10 asked them to go look at, find the underlying logs by
11 which things were recorded and make a list showing the
12 date, the time factor involved, and the time that it
13 occurred?

14 A. Yes.

15 Q. Okay. And when was this done?

16 A. Well, actually, I recently updated it. I
17 can't remember when it was, but it was probably just
18 over the summer. But the -- I don't know when the
19 previous records were assembled. I can't remember an
20 exact date.

21 Q. Okay. Well, this ends June 30, 2001, your
22 exhibit.

23 A. June 30, 2001, yeah.

24 Q. So was this document put together from the
25 underlying records sometime after that date?

1 I'm sorry. June 3, 2001.

2 A. Yeah. I believe we needed to update. After
3 my testimony, I believe we updated it from '98 to
4 2001.

5 Q. Well, this is attached to your testimony, so
6 I assume this was done up to the point of your
7 testimony on June 15?

8 JUDGE THOMPSON: Are we talking about the
9 schedule attached to Mr. Rummy's testimony?

10 MR. VITALE: No. We're talking about the
11 schedule attached to Mr. Moran's testimony, which is
12 the only thing that he's endorsed here, and it ends on
13 the same date, 277.

14 MR. MAY: Your Honor, I think there may be
15 some confusion with respect to the last answer.

16 During the course of the discovery process
17 during this case, we had supplemented one of our data
18 request responses. I think that may be what he's
19 talking about, just to clear it up.

20 MR. VITALE: Well, Mr. May, can we just
21 stipulate for the record so there isn't confusion,
22 because there are different parts of the log, that
23 this is just part of the same 277 which is the total
24 log that's attached to Mr. Rummy's testimony?

25 MR. MAY: Yeah. Just to be clear, these

1 incidents that are attached to the testimony, the 277,
2 and there is a portion of which Mr. Moran, for
3 instance, is familiar with, those come from the
4 underlying logs, some of which you just provided to
5 Mr. Moran as Exhibit 18.

6 MR. VITALE: Because -- and, pardon me, your
7 Honor. I don't mean to have a conversation with
8 Mr. May.

9 But so we all have an understanding of the
10 document, there's -- one testimony has an earlier set
11 of incidents, but we're all working from the same
12 master log of 277 that begins in June '93 and ends
13 June 3, '01?

14 MR. MAY: Yes. And depending on the
15 witness, his participation or being at the plant or
16 having familiarity, yes, it is the same incidents with
17 which we're dealing.

18 MR. VITALE: Okay.

19 JUDGE THOMPSON: So whatever you have
20 numbered as, say, incident 116 on Mr. Moran's
21 schedule, would also be incident No. 116 on
22 Mr. Rummy's.

23 MR. MAY: Unless there was some typographic
24 error, yes, sir. The intent was to have those all the
25 same.

1 MR. VITALE: Okay. Thank you, your Honor.

2 BY MR. VITALE:

3 Q. Okay. What difference was there in the
4 process of pulling this together after you became
5 plant -- I mean, strike that.

6 When this log was put together, the one that
7 goes to June 3, '01, was that all done at one time,
8 going all of the way back to '93?

9 A. No.

10 Q. When was the first time a printed total log
11 like this was prepared of all of the incidents? Do
12 you know?

13 A. I'm not sure, but it -- it continues. It's
14 continuing. It went up to '98. Then I had to add
15 again some recently.

16 Q. Okay. Okay. So I see. So even the
17 schedule itself has been an evolving document --

18 A. Yes.

19 Q. -- as opposed to just the creation of more
20 logs?

21 A. Yes. As everything progresses, we have to
22 add more.

23 Q. I see. And so of August -- from the
24 incident occurring after August '98, you did that a
25 certain way, as you've described.

1 Did the incidents that are listed here
2 before August '98, was that accumulated a different
3 way, or was that already on the log when you got to
4 it?

5 A. It was already there, and I'm not exactly
6 sure how that was gathered.

7 Q. Okay. Fine. Let's talk about the part
8 you're familiar with after August of 1998. You asked
9 the employees to go to the underlying records to the
10 logs, and then they wrote the information down in,
11 what, some rough form that you then verified was
12 accurate?

13 A. I believe since there was already a format
14 established, we took the existing format and I
15 gathered -- I had them gather the documents, the raw
16 documents, and I sorted through to make sure there
17 were no duplicates and things like that, and then
18 instructed my receptionist on how to go about filling
19 out the documents.

20 Q. Okay.

21 A. Or filling out the spreadsheet that was
22 already in process.

23 Q. And when you say "spreadsheet," you're
24 talking about the schedule attached to your testimony?

25 A. Exactly. Thank you.

1 Q. Now, can you identify Exhibit 18, please,
2 which is a series of documents?

3 A. Yes.

4 Q. Okay. Can you identify what those are?

5 A. The first one appears to be from 1993.

6 Q. And, I'm sorry. We'll go through each one.

7 But, I mean, are these generally the
8 underlying logs that you were referring to that
9 provide the source information for the schedule, the
10 spreadsheet?

11 A. I really only know for sure the ones that I
12 used.

13 Q. Okay.

14 A. And they were power outage record --

15 Q. Okay.

16 A. -- from the '98 time frame forward through
17 2000 and 2001.

18 Q. Okay. And it looks like that format, at
19 least from these documents, was in place as far back
20 as September '96, going back a couple of pages
21 earlier?

22 A. Yeah.

23 Q. That was also a form --

24 A. Yes, sir, it is.

25 Q. -- that you inherited, so to speak?

1 A. Yes.

2 Q. And what, to your knowledge, does "power
3 outage record" mean? You've heard some of that
4 testimony from Mr. Rummy. What does it mean in the
5 context of this document?

6 A. Well, I believe this is -- this is a -- is
7 another situation where when we first created this
8 document, we weren't very knowledgeable about the
9 different types of occurrences that could happen with
10 power. And the common terminology used was outage.

11 Q. I understand. What did that mean as it was
12 being used at Zoltek, that's what I'm trying to
13 understand, in this document?

14 A. As it's defined by the document, "blip" less
15 than one second; M, which is momentary, one second to
16 one minute; and then L, one minute or greater.

17 Q. Okay. That's -- those are time durations?

18 A. Yes.

19 Q. Okay. Power outage, though -- again, I'll
20 ask you the same question I asked Mr. Rummy -- as it's
21 used in the context of this document, does it record
22 every incident where power was somehow affected, or
23 does it record only incidents where the power went to
24 zero?

25 A. I think it's assumed that M and L record

1 when power is completely lost, goes to -- voltage goes
2 to zero, and the B, the blip, could be voltage goes to
3 zero or could be a sag in voltage.

4 Q. And how do you know -- or how is it
5 determined, let's ask it that way, in the plant
6 whether the power went to zero or only sagged?

7 A. If it goes dark.

8 Q. Okay. If the entire plant goes dark?

9 A. It's zero when it goes dark.

10 Q. And how is the timing -- well, strike that.
11 And it's your testimony that you assume from
12 looking -- from the duration that if it's an M or L,
13 the power was out completely?

14 A. Yes.

15 Q. Okay. But that's your assumption. You
16 can't tell me for certain each of these events was a
17 true outage where the power went to zero or -- strike
18 that -- went the plant went dark or didn't go dark?

19 A. We've never had an M, let's say, that --
20 where the lights dimmed and stayed dimmed.

21 Q. Uh-huh.

22 A. So we've never had a sag in my experience
23 that the lights went dim and stayed dimmed where it
24 would be a voltage sag.

25 Q. Okay.

1 A. So it's either on an M, which is a momentary
2 on this form, it would be completely dark, or complete
3 loss of power.

4 Q. Okay. And on this form -- how are these
5 events timed at the time they are done by the person
6 who fills out the log?

7 A. That's -- that's usually done by clock or
8 watch. If -- I mean, if somebody -- if the lights --
9 lights are a primary indicator, and if -- if an
10 occurrence happens, they will note the time that it
11 happened --

12 Q. Okay.

13 A. -- by type -- by a clock.

14 Q. So the difference between a blip and a
15 minute or -- I'm sorry -- momentary, a blip flicker or
16 a momentary, one being where the power may or may not
17 have gone out and one being where the power did go
18 out, is, by your testimony, could be as little as one
19 second?

20 A. I'm sorry. Repeat that.

21 Q. Sure. You said under the blips, as I
22 understand it, it could either be the power dimmed or
23 sagged or it went out completely. But the Ms, it's
24 your testimony, was complete power loss. Correct?

25 A. Yes, sir.

1 Q. Okay. And an M is defined as one second up
2 to a minute. Correct?

3 A. Yes.

4 Q. And a blip is less than one second?

5 A. Yes. By this form, yes.

6 Q. By this form, and that's what's being
7 recorded. That's how you record the incidents.
8 Correct?

9 A. Yes.

10 Q. Okay. So that in the space of one second
11 could make the difference between whether you record
12 it as a complete power loss or just a dimming?

13 A. Yes.

14 Q. Okay. Now, let's talk about the logs and
15 how they're used -- how the source logs are created,
16 at least the time you're familiar with.

17 Is there one log for all of the incidents in
18 the plant?

19 And so we're clear, a time frame. Do you
20 feel comfortable talking back to '96 when you started
21 or '98 when you became operations manager?

22 A. I would prefer just to go to '98. I wasn't
23 involved with this prior to that --

24 Q. Okay.

25 A. -- on recording, no.

1 Q. You had nothing to do with filling them out
2 or anything else --

3 A. No.

4 Q. -- prior to '98?

5 A. No, sir.

6 Q. So let's limit it, then, to the '98 and
7 beyond time frame.

8 Was there more than one of these logs at
9 different places in the plant?

10 A. I believe there were, but now there are -- I
11 believe there is only one --

12 Q. Okay.

13 A. -- central location.

14 Q. Where is the one now kept?

15 A. The one central location is at the oxidizer
16 area.

17 Q. Okay. And where -- when did that change
18 from where there were multiple logs?

19 A. I'm not sure.

20 Q. Okay. And can you tell me what the
21 procedure is and how these logs -- let's talk about
22 when there were multiple logs. They are in different
23 locations in the plant. Do you know how many
24 locations? You said you're not sure.

25 A. The only place I've seen these records -- I

1 believe they had them at the continuous line CCL and
2 they had them at the oxidizers. And since the
3 oxidizers and batch area were really supervised by
4 one -- one floor person, sometimes you might see a
5 comment on there that might be batch or something like
6 that.

7 Q. Okay. And so tell me what -- an incident
8 happens, whether it be a blip, a flicker, whatever it
9 is. What happens?

10 A. Well, the first thing -- actually, there is
11 a -- there is a written procedure in the operating
12 manual for the oxidizers on how to handle an
13 occurrence, a power incident. And the first thing
14 that they're concerned about is whether or not any
15 equipment had tripped off line to where they had to
16 reset it. So that's the first thing that really
17 starts happening is they check the equipment.

18 Q. Okay. And what about recording of the power
19 outage record, this log, how is that done?

20 A. I believe it's after they have everything
21 secured that they go back and record.

22 Q. Is there some person that's assigned to time
23 the duration of the event?

24 A. The foreperson is the person that generally
25 records the time.

1 Q. Okay. And that's the foreoperator on the
2 right-hand column, so we can tell by the initials who
3 filled it out, whether the foreperson or the equipment
4 operator?

5 A. Yes.

6 Q. That's the same person who would be in
7 charge of instituting the procedures to make sure the
8 equipment doesn't shut down --

9 A. Yes.

10 Q. -- and the processes go on?

11 A. Yes.

12 Q. Okay. And is this -- is it fair to say,
13 then, that this time record is kind of an
14 after-the-fact, did that last a few seconds? Nobody
15 sat there looking at a watch to specifically measure
16 time.

17 A. It's as close to the possible time that they
18 could -- they could record it.

19 Q. But it's after-the-fact. Nobody sits there
20 going, One Mississippi, two Mississippi, to get a
21 specific time frame?

22 A. No.

23 Q. And there is no timer of any sort that's
24 hooked up to any of the equipment or any of the power
25 coming into the plant that would time things more

1 specifically?

2 A. No, sir.

3 Q. Okay. Okay. If you would -- I want to find
4 one that -- it's your testimony that you can speak to
5 incidents from '96 to '98 that's are on this log?

6 A. Yeah. I'll try.

7 Q. Okay.

8 A. On the -- I mean, it's -- it's a two-year
9 span and it's five years ago.

10 Q. Would it be -- strike that.

11 Okay. Let's just take an example.

12 Let's look at No. 138, August 9, 1996.

13 MR. MAY: Your Honor, may I interject for a
14 moment.

15 I was confused by the last question. I
16 don't know if the witness was. So if I may, just to
17 clarify, he was -- the question was, is the witness --
18 about his -- whether he was comfortable speaking about
19 the logs, were you talking about Exhibit 18, or
20 talking about the attachment to his --

21 MR. VITALE: It may be both, and that's what
22 I'm going to ask him.

23 MR. MAY: Okay. Because I had taken it as
24 Exhibit 18.

25 THE WITNESS: That's how I took it too.

1 BY MR. VITALE:

2 Q. Right. Okay. I just want to compare some
3 of the records that are in the incident spreadsheet
4 that you attached to your testimony and the same
5 information or the information that's reported on the
6 logs when you were there at the plant.

7 A. Okay.

8 JUDGE THOMPSON: We're looking at 138?

9 MR. VITALE: Yes, your Honor.

10 JUDGE THOMPSON: Okay.

11 BY MR. VITALE:

12 Q. And that's -- as I read it, if you'll bear
13 with me, that is the sixth page down of Exhibit 18 and
14 on line 22, at least to me it looks like the date and
15 time match up. And if you'll look further up on that
16 page on the power outage record, Exhibit 18, that
17 looks like that's the 1997 time frame.

18 A. Yes.

19 Q. Okay. Now, here there is no finish to the
20 incident in the power outage record, Exhibit 18.
21 Correct?

22 A. Yes.

23 Q. There is a start time of 6:55 a.m.?

24 A. Yes.

25 Q. And this was filled out, it looks like, by

1 the C team?

2 A. Yes.

3 Q. Is that just a group of employees that were
4 working on the particular equipment at the time?

5 A. Yes.

6 Q. Okay. And "L" is circled as far as duration
7 is concerned?

8 A. Yes.

9 Q. And that is, by your definition, and by the
10 document's definition, one second to one minute.
11 Correct?

12 A. I'm sorry. Repeat that.

13 Q. Sure. I'm sorry. You're wrong -- you're
14 right.

15 Okay. That has an "L" circled, and you've
16 got longer than one minute in your spreadsheet. I was
17 looking at the wrong line.

18 A. Yes.

19 Q. Now, there is a column for reason on this
20 log. And this particular one has a "B 4 trans." Is
21 that a transformer?

22 A. Yes.

23 Q. What was the reason for that? What's the
24 reference to the B 4 transformer. Do you know?

25 A. I don't know.

1 Q. Okay. Is that -- that's a piece of
2 equipment of Zoltek's?

3 A. Yeah. That would probably be batch 4
4 transformer.

5 Q. Could that mean that the transformer --
6 there was a problem with the transformer and that was
7 the reason for the outage?

8 A. I would say no, because I know that that
9 can't cause a complete plant outage.

10 Q. Well, do you know why somebody wrote "B 4
11 transformer" as to reason?

12 A. No.

13 Q. And let's look a little bit further up to --
14 and these same two incidents -- I'm trying to find the
15 right one here.

16 Okay. If I'm cross-referencing the right
17 incident, 125 on your spreadsheet, 4-6-97,
18 11:55 a.m., which to me appears to match up to line 9
19 on your power outage record; is that correct?

20 A. Yes.

21 Q. Okay. And as I read line 9, the time, it
22 looks like it started at 11:55 and it ended 11:55?

23 A. That's what it looks like.

24 Q. An "M" is circled, which could mean anything
25 from one second to one minute. Correct?

1 A. Yes.

2 Q. Okay. On the spreadsheet it indicates it
3 was one minute in length. Do you know how that one
4 minute was determined for the spreadsheet from this
5 log?

6 A. I didn't prepare this, but I would guess
7 that they -- one second or one minute. They just
8 wrote down one minute.

9 Q. Okay. So where we see one minute here, it
10 could be -- it's an "M," which means anything from one
11 second to one minute?

12 A. Yes.

13 Q. Okay. That makes a big difference if you
14 started adding them up and instead of using minutes
15 you use one or two seconds for each M. Correct?

16 A. Yes.

17 Q. Okay. Let's look at item 144 on your
18 spreadsheet, which is the first incident from 1998,
19 which, if I read your log correctly, on page -- the
20 sixth page of Exhibit 18 is line 29, February 5th,
21 '98. Do you see that?

22 A. Yes.

23 Q. Okay. And here there is no circling of the
24 B, L, or M. Correct?

25 A. Yes. Correct.

1 Q. And there is a reference under reason to
2 CCL. That's the continuous line Mr. Rummy testified
3 about.

4 Do you know why there is a reference in here
5 to CCL under the "Reason" column?

6 A. No.

7 Q. Okay. Further up on the log, there are a
8 number of reasons that are just checked. Do you know
9 what that is a reference to? This is on page 6 of
10 Exhibit 18.

11 A. No.

12 Q. Okay. I may ask you just one more.

13 You're looking at your spreadsheet, 239,
14 July 20, 2000. This is now the time when you're
15 operations -- is it operations manager?

16 A. Excuse me. What was the date?

17 Q. July 20, 2000.

18 A. Yes, I was operations manager at the time.

19 Q. And as I read it --

20 JUDGE THOMPSON: What is the number of
21 incident you're referring to?

22 MR. VITALE: The incident is 239.

23 And, I promise, Judge, I'm not going to go
24 through each one on the list.

25 BY MR. VITALE:

1 Q. I believe it's the tenth page of Exhibit 18.

2 This is the time that you said this log was
3 prepared under your supervision, I guess, because you
4 were plant manager during this time?

5 A. Yes.

6 Q. Okay. In looking at line 8 on the power
7 outage record, July 20, 9:45 a.m., 9:45 a.m. is the
8 start and finish. Nothing is circled there. Correct?

9 A. Right.

10 Q. And do you know how a determination of one
11 minute in duration length was made to put on this
12 spreadsheet that's attached to your testimony?

13 A. I believe when I was preparing this there --
14 I had some more specific information that may not be
15 in the schedule. I would have to -- I would have to
16 go back and look at some other records to determine
17 how that was made, but we had -- we had some major
18 problems that summer of 2000 and we had some outages
19 that might have been recorded as blip on this record
20 here.

21 Q. But there is no record of time on this
22 record for this particular one. Correct? Nothing is
23 circled.

24 A. Right. There is --

25 Q. There is "blip" under reason. I see that.

1 A. There is no OTG code.

2 Q. Okay. Okay. But whatever documents there
3 may or may not have been, you don't have that attached
4 to your testimony. You've just got the final
5 spreadsheet, the final product?

6 A. Yes. I'm not sure exactly why that's
7 written as one minute, but I'm sure I had a reason.

8 Q. Okay. Does the check on this power outage
9 record mean that Zoltek knows the reason for what
10 happened?

11 A. No.

12 Q. Okay.

13 A. I don't know.

14 Q. Okay.

15 A. I already said that I don't know what a
16 check means.

17 Q. Well, I note that, for example, looking back
18 to Exhibit 18 -- let me get the page for the record --
19 I believe it's nine, the next to the last page of the
20 exhibit, I guess it's the same one we're looking at,
21 which is in the summer of 2000, there are a number of
22 listings where the reason given is a storm?

23 A. Yes.

24 Q. And in most cases lightning and wind and
25 rain?

1 A. Yes.

2 Q. Okay. And so that was a recognition by the
3 person filling out the log that the storm that was
4 happening outside was the likely reason for the
5 problems with the power?

6 A. The form calls for a weather code, if
7 applicable, I guess, and down below there is -- there
8 is weather codes.

9 Q. Right. And also under columns for reason
10 after the weather codes, whoever has filled out the
11 log has put "storm" in a number of instances?

12 A. That's their assumption, yes.

13 Q. Well -- I think a lot of this is assumption.

14 MR. MAY: Your Honor, I object and move to
15 strike the testimony of Mr. Vitale?

16 JUDGE THOMPSON: Mr. Vitale.

17 MR. VITALE: I'll withdraw it, your Honor.

18 JUDGE THOMPSON: Thank you.

19 BY MR. VITALE:

20 Q. Now, let's talk about your testimony.

21 You say at the very end of your first answer
22 in the first page, "In summary, power quality
23 incidents create the risk of fire and explosion and
24 cause the loss of production."

25 Do you see that, page 4 of your testimony?

1 A. Page 4. Okay.
2 Which line, sir?
3 Q. The very last of the first -- I'm sorry.
4 Lines 11 and 12.
5 A. Okay.
6 Q. The end of the first answer.
7 A. Yes.
8 Q. Okay. And is that a reference to every one
9 of the incidents listed on the log attached to your --
10 A. No.
11 Q. -- testimony?
12 So not all power quality incidents create
13 life -- I'm sorry -- create the risk of fire and
14 explosion or cause the loss of production?
15 A. They do create -- actually, I would like to
16 change my statement.
17 Yes, every instance could create or creates
18 the risk of fire, exactly as stated in my testimony.
19 Creates a risk of fire, explosion, causes loss of
20 production.
21 Q. So causes the loss of production, that's all
22 a risk, a potential risk, that might happen?
23 A. Yes. Yes.
24 Q. But whether any of that's caused actually,
25 fire, explosion, loss of production, it doesn't happen

1 every incident?

2 A. No, not every incident. It varies.

3 Q. Is it your testimony that every incident
4 listed has some effect on the equipment at Zoltek?

5 A. No.

6 Q. Only the longer incidents?

7 A. I believe I had it stated in my testimony
8 what my perception was of the severity of different
9 length -- length and duration, total outage versus
10 sags.

11 Q. But you define it in terms of the log -- the
12 length of the duration of the incident in your
13 testimony?

14 A. If we start talking about length, it's an
15 outage. It's complete loss of power, so --

16 Q. Okay. And when you refer in the bottom of
17 page 4 on up to the top of the next page to longer
18 incidents up to one minute in duration, you're talking
19 about the Ms in your log?

20 A. Yes.

21 Q. Which could be anywhere from a second to a
22 minute?

23 A. Yeah. The form defines it as a second to a
24 minute.

25 Q. Okay. Well, that's all of the information

1 we have before us?

2 A. Exactly.

3 Q. And in your Surrebuttal, you testify on
4 page 2, the bottom of the page, starting on line 17,
5 "When service quality incidents do occur, it is
6 patently obvious that they are from outside of the
7 plant. The entire facility will either dim or go
8 dark."

9 Do you see that?

10 A. Yes.

11 Q. And is it your testimony that the reason
12 that it's so obvious that it's something from outside
13 the plant as the source of the incident because that's
14 where the power is restored from? It's not from
15 something Zoltek does?

16 A. If the incident occurs within the plant,
17 then we have to take action to restore power.

18 Q. Okay. So is it your testimony then that
19 what's patently obvious as being caused from outside
20 the plant because that's the source from where the
21 power is restored? You don't do anything to restore
22 it. It's restored from something outside the plant;
23 therefore, the cause is outside the plant?

24 A. We did not have to take action to restore
25 power; therefore, it was from outside the plant, yes.

1 JUDGE THOMPSON: And if I could interrupt at
2 this point, we're at noon, and we'll go ahead and take
3 our lunch recess from now until 1:30. When we return,
4 you will still be on the stand and you will still be
5 cross-examining.

6 MR. VITALE: Thank you.

7 JUDGE THOMPSON: Thank you very much.

8 We'll be in recess.

9 (A recess was taken.)

10 JUDGE THOMPSON: Mr. Vitale, you may
11 inquire.

12 BY MR. VITALE:

13 Q. Mr. Moran, I neglected to ask you this. I
14 think you were asked in deposition, but what is your
15 educational background, your training?

16 A. Mechanical engineering.

17 Q. Are you a registered mechanical engineer in
18 the state of Missouri --

19 A. No.

20 Q. -- or anywhere else?

21 A. A Bachelor's -- just a Bachelor's degree.

22 Q. You're not an electrical engineer. Correct?

23 A. No, sir.

24 Q. In fact, I think you said in your deposition
25 you really don't know electricity that well. You know

1 the basics?

2 A. Yes. I had some courses on circuits.

3 Q. Okay. And, again, going back to -- a little
4 bit, a quick summary of your testimony, and I think I
5 understood it, so we can get back to that page, your
6 testimony is that all of the Ms and Ls on the outage
7 logs are zero power. Some of the blips are zero power
8 and some are not; is that --

9 A. The -- I guess -- yeah. Anything that was
10 of duration -- I've never experienced any -- any
11 lengthy dimming, I guess you could say, and I would
12 associate that with a sag --

13 Q. Okay.

14 A. -- the dimming of the lights.

15 Q. Okay. And your association of the power
16 going out, is that a light event, if you will, the
17 lights going dark?

18 A. Yeah. Lights and everything stops really.
19 You can tell that the equipment stops.

20 Q. Okay. Even momentarily?

21 A. If it's a complete outage, yeah, everything
22 stops.

23 Q. Okay. When that has occurred, have you ever
24 done any investigation to see if anything has stopped
25 anywhere else in the plant or in the offices, if the

1 lights have gone out?

2 A. Oh, yeah. Everything -- if there's -- if
3 there is a complete outage, we do have some UPS
4 systems that control -- it will ride through very
5 short losses of power. But that's only to keep the
6 contactors held in place for a short period of time so
7 that when the power does come back on, the system will
8 continue to run.

9 Q. But does the person who is seeing the lights
10 go out and is responsible for getting the equipment,
11 checking it out and making the entry on the log then
12 go out to the rest of the plant to determine if there
13 is any different effect elsewhere in the plant?

14 A. Well, they have radios, and, you know, they
15 radio to the other parts of the plant and just check
16 status and see how they are doing. Their primary
17 concern is to secure the equipment, make sure the
18 equipment is running --

19 Q. Sure.

20 A. -- in their area for at least the first
21 part. And then -- you know, then, obviously, if there
22 is another part of the area that's operating, they
23 check to see the status of that area.

24 Q. Okay. So, again, the question is, they
25 check throughout the rest of the plant to determine if

1 everything went out before recording the outage or the
2 incident?

3 A. I don't know for sure.

4 Q. Okay. Now, the equipment -- the type of
5 equipment that Zoltek uses, does that stop
6 instantaneously?

7 A. It depends on which equipment. If -- if the
8 equipment has UPS, it will sometimes hold the
9 contactors in and ride through short -- short losses
10 of power.

11 Q. Okay. But let's put aside the UPSs. I
12 mean, is there any equipment that when you shut it
13 off, as a normal course it would -- the power is off,
14 it just shuts down completely, or is there a period of
15 time that some of the equipment has to cycle down
16 before all of the sound stops and the machine is out
17 and stopped?

18 A. I think that -- no. I think the only
19 thing -- the only energy that's left is in the form of
20 thermal energy. It's heat. And so, you know, the
21 sound goes away if the power is out.

22 Q. Okay. So your determination that the power
23 is out with respect to equipment is a sound --

24 A. Well, that, and you can see that it's off.

25 Q. How do you see that it's off?

1 A. Well, if you have a fan that's got a belt on
2 it, let's say, you can see the belt is not turning.
3 If you have a display that is supposed to have lights
4 illuminated and they're not lit, they are off. The
5 lights in the plant are off.

6 Q. And it's your testimony that that only
7 occurs, or can only occur when the power is off
8 completely and it's a zero power situation?

9 A. Yeah. Completely stopping, I would say
10 that -- that occurs when you lose voltage completely.
11 If it's a sag, it can trip some of the components out,
12 and then you have to restart the drive or the fan, and
13 you'll still have lights, let's say, if you have a
14 sag, and the controls will be illuminated and you just
15 restart the fan or the drive.

16 Q. Now, in all of the recording of information
17 and all of the testimony concerning loss of power
18 versus whether it was a sag or not a complete loss
19 comes from personal observations of the lights and the
20 machinery. Correct?

21 A. Yes.

22 Q. Okay. There has been no monitoring done or
23 investigation done to your understanding within the
24 plant by Zoltek to determine if actually there was a
25 complete loss of power at any time?

1 A. Not by Zoltek only.

2 Q. Okay.

3 A. With AmerenUE's help.

4 Q. Okay. But Zoltek -- Zoltek has never done
5 any testing of the equipment to determine if it might
6 be causing any of these incidents?

7 A. Well, there is no need to test it. I mean,
8 it's pretty obvious if it's coming from that
9 equipment.

10 Q. And that's because you don't have to do
11 anything inside the plant to turn the power back on
12 because the power is turned back on from an external
13 source?

14 A. Yes.

15 Q. Okay. So it's your testimony and belief
16 that if the -- if a problem was caused internally, the
17 only place to turn on the power would be internal as
18 well, that Zoltek would have to do something to do
19 that?

20 A. Yes. If we had a faulty -- like, say, we
21 had a piece of equipment that blew an SER fuse, one of
22 our batch furnaces, we would have to go in and replace
23 that SER fuse and fix the problem so that it wouldn't
24 blow again.

25 Q. And your testimony is that there is nothing

1 in the operation of the equipment at Zoltek that could
2 cause a power or a service quality incident where the
3 power would be restored outside the plant?

4 A. Not that I'm aware of.

5 Q. And when you state in your testimony on
6 page 3 about the recordings being made by the most
7 experienced employees who understand the difference
8 between internal and external power incidents, is
9 that -- are you referring to the same thing, on
10 lines 7 through 9?

11 A. Seven through nine.

12 MR. MAY: Your Honor, is he referring to the
13 Surrebuttal? I missed that.

14 MR. VITALE: I'm sorry. Yes, the
15 Surrebuttal.

16 THE WITNESS: Exhibit 2.

17 Yeah. I guess what I'm saying is if we have
18 a new operator, they are not the people -- they are
19 not the person that's going to be filling out the
20 form.

21 BY MR. VITALE:

22 Q. But the understanding -- the fact of these
23 experienced people understanding the difference
24 between internal and external power incidents, it's
25 the same understanding that you have about power being

1 restored externally, then it was an external problem?

2 A. Well, their understanding is more
3 simplistic. I mean, they don't have the understanding
4 that I would have.

5 Q. Okay.

6 A. But they -- they understand that if the
7 lights go out and the equipment stops and they don't
8 do anything besides stand there for 20 seconds and the
9 lights come back on and the power comes back on, they
10 understand that they didn't do anything, so it had to
11 be an external source since --

12 Q. For the restoration of the power?

13 A. Right.

14 Q. But also the cause had to be external as
15 well?

16 A. Exactly, yeah. Well, I don't think that --
17 excuse me. You're asking if they understand where the
18 cause of the --

19 Q. Well, whoever is testifying -- somebody here
20 is saying that these incidents -- you are, I believe.

21 In your testimony, you say it's patently
22 obvious what's internal and what's external. And as I
23 understand your testimony, it's based on the fact that
24 the power is being restored externally; therefore, the
25 cause of the problem is external. Right?

1 A. Yes.

2 Q. Okay. And that's what I'm saying.

3 A. I believe that to be true.

4 Q. Okay. Conversely, you also believe it to be
5 true that there is nothing that could happen with
6 respect to a piece of Zoltek equipment and something
7 in the operation of the plant that would require power
8 to be restored externally? It would have to be
9 restored internally if the cause was the equipment?

10 A. Yes. There's -- in my experience, we've
11 never had a piece of our equipment cause something to
12 trip out outside of the plant.

13 Q. Okay. Based on the fact that the
14 restoration occurred outside the plant? I mean, I'm
15 trying to understand.

16 You say based on my experience, it's the
17 fact that the power restored. You know nobody ever
18 went out to see what the source of the problem was.
19 The power came on externally. The problem was an
20 external problem?

21 A. Well, I'll give you an example. We lose
22 power. I call up Ameren, and -- AmerenUE, and they
23 tell me that the snakes got into a switch gear.
24 That's an external thing. They restore the power.
25 That's an example, yeah.

1 Q. And that's an example of a specific incident
2 where you were told?

3 A. Yeah.

4 Q. Every one of these incidents you called UE
5 and every one of them UE said, They are on our side of
6 the fence. Nothing happened at Zoltek.

7 A. Only the most painful ones do I call Ameren.

8 Q. Which are what? How do you define that?

9 A. The extended outages or complete loss of
10 power where it affected our plant.

11 Q. Okay. We're mixing terminology again, so I
12 want to make sure I understand.

13 That's all of the Ms and Ls on your list and
14 some of the blips? Those are the ones you say
15 affected the plant, I thought. Those are the ones you
16 said are all of the power outages, loss of power?

17 A. Any loss of power is a problem for our
18 plant.

19 Q. Okay. How many times have you called UE and
20 they tell you it's something on our end?

21 A. Well, when -- in September of 2000, we had
22 two complete outages that completely devastated us,
23 and that's -- I called them.

24 Q. Okay. That's --

25 A. When we have severe losses, that's when I

1 usually call.

2 Q. Okay. Again, "severe losses," I don't see
3 that on the chart. How do you define severe losses?

4 A. When we had an outage that caused all of our
5 equipment to shut down and cause extended down time.

6 Q. Okay. And how --

7 A. Loss of power.

8 Q. How many of those from the time you became
9 operations manager in '98 have there been?

10 A. I don't know the exact number off the top of
11 my head, but I know for sure there were two.

12 Q. Okay. You say at the bottom of page 3 in
13 your Surrebuttal Testimony, "We do not record internal
14 power incidents as Union Electric induced service
15 quality incidents."

16 Do you see that, or is that --

17 A. Yes.

18 Q. Am I reading that correct?

19 A. Twenty-two and 23?

20 Q. No. Page 3 of your Surrebuttal -- lines 22
21 and 23, correct. I'm sorry.

22 A. Yes.

23 Q. Do you record internal power incidents at
24 all?

25 A. I believe that they are recorded in

1 maintenance logs or in -- probably in the operating
2 logs. What I'm referring to is on the auditor's
3 report that -- that they have downstairs at the
4 oxidizer area, I don't believe that they actually
5 would say the SER fuse blew on batch 6, or whatever,
6 you know, a specific internal problem.

7 Q. Okay. Let me ask it a different way. We've
8 looked at Exhibit 18 which you've identified as the
9 type of logs that are kept as a power outage record.
10 Correct?

11 A. Yes.

12 Q. Okay. Is anything other than what you call
13 a UE-induced service quality incident recorded on this
14 kind of a log?

15 A. When I was in charge, my intent was that
16 they wouldn't be recorded there.

17 Q. They would not be?

18 A. Yeah.

19 Q. So are there internal incidents that occur
20 from the time you've been at Zoltek that you do not
21 believe are UE-induced service quality incidents?

22 A. Not where we lost power to the plant or it
23 affected other parts of the plant. Only on specific
24 pieces of equipment. We've had power problems on a
25 certain piece of equipment that -- that have occurred

1 while I was in charge, yeah.

2 Q. Okay. How many internal incidents in the --
3 and I'm using your terminology here -- internal power
4 incidents has there been by your definition since
5 you've been at Zoltek, say, from 1996?

6 A. Internal?

7 Q. Yes.

8 A. Less than external. That's all I can tell
9 you.

10 Q. And the external -- I don't know how many
11 you've got, but you've got -- I guess we can count
12 from the schedule, but that still could be a fairly
13 high number, correct, of internal incidents?

14 A. Well, I -- I would say that it's not a very
15 high number since I was in charge.

16 Q. But you don't record those?

17 A. Not in this fashion. It's more maintenance.

18 Q. And I believe I asked you this, but you said
19 you're not aware of any internal investigation Zoltek
20 has done to monitor the equipment since you've been at
21 Zoltek in terms of the cause of any of these service
22 quality incidents. Correct?

23 A. No. There have been no investigations that
24 have been done on the power without Ameren's
25 involvement.

1 Q. And when -- when did any monitoring occur
2 with Ameren's involvement?

3 A. The only one that I'm aware of is the one
4 that was the court order.

5 Q. In 2000?

6 A. Yeah. Yes. I believe that's when it
7 happened.

8 MR. VITALE: May I approach?

9 JUDGE THOMPSON: You may approach.

10 (EXHIBIT NO. 19 WAS MARKED FOR
11 IDENTIFICATION.)

12 BY MR. VITALE:

13 Q. Mr. Moran, let me show you what's been
14 marked as Exhibit 19, and the cover page is a letter
15 from Mr. May, Zoltek's counsel, to David Evelev of my
16 office who is no longer with the firm, but was at the
17 time attaching a letter from you and another
18 spreadsheet. Do you see that?

19 A. Yes, sir.

20 Q. Okay. And it is a letter beginning on the
21 second page and the attached spreadsheet, a document
22 that was prepared by you?

23 A. Yes, sir.

24 Q. And that document we found -- can I have a
25 moment, your Honor?

1 I think I need one of the copies. That's
2 the wrong copy. I gave you mine.

3 A. I would have known all of the answers, the
4 teacher's copy.

5 Q. My daughter in math comes home with a math
6 book that has the answers in the back and she looks up
7 the answers.

8 A. How convenient.

9 Q. Yeah. I know they didn't have that when I
10 was growing up.

11 Okay. If you could identify that document
12 and tell me what that is?

13 A. This is what I was referring to earlier. We
14 tried to assemble additional information on after
15 this -- this case was in the process, and so this was
16 our attempt to try to assemble that.

17 Q. And your letter to Mr. May where you sent
18 him this information said, "This spreadsheet contains
19 the effect of the power quality on the operation of
20 Zoltek from '98 to 2001"?

21 A. Uh-huh.

22 Q. Are you aware if any spreadsheet has been
23 prepared for the period '93 to '97?

24 A. Yes.

25 Q. A spreadsheet has been prepared?

1 A. Yes.

2 Q. And where is that spreadsheet?

3 A. They were submitted well early into the case
4 with --

5 Q. In this case?

6 A. Yeah, early -- very early on.

7 Q. Okay. Because I have to profess I haven't
8 seen a spreadsheet.

9 A spreadsheet similar to the kind of
10 spreadsheet that you've got here?

11 A. Not exactly. I tried to cut it down a
12 little bit. It had a lot more impact and it was much
13 more involved than this.

14 Q. Okay. Now, you described in your cover
15 letter what some of the meanings of the terms on your
16 spreadsheet are, including the terms "no effect" and
17 "none." Do you see that?

18 A. Yes.

19 Q. And one of the things you say is, "No effect
20 and none can mean there was no equipment running in
21 that area at the time of the event."

22 What do you mean by "in that area"?

23 A. For example, the continuous line, the CCL,
24 was halted. The operations was -- we ceased the
25 operation for a time period. So during that time

1 period the outage would have no effect to that area.

2 Q. Okay. So there was no equipment running,
3 period --

4 A. Exactly.

5 Q. -- in the particular area? The event didn't
6 occur in a particular area?

7 A. Exactly. Yes.

8 Q. And you say, "There was an impact to the
9 operations but it was not recorded"?

10 A. Yes.

11 Q. And one of the procedures that's been
12 instituted at least since you've been at Zoltek was to
13 record the impact of service quality incidents?

14 A. Yes.

15 Q. Okay. Why would it be that if there was an
16 impact, it wasn't recorded?

17 A. Well, my only guess is -- in the one
18 particular case, I believe that we had a very
19 severe -- kind of a devastating impact, and they were
20 more focused on trying to keep the plant safe and --
21 from fumes and so forth and make sure that everybody
22 was safe rather than filling out the form.

23 Q. That was one incident. Any other incidents
24 that you can recall where the procedures weren't
25 followed and the impact wasn't recorded?

1 A. No. But I'm sure that -- you know, that at
2 times there could have been things that weren't
3 recorded properly, obviously, as we've already looked
4 at these.

5 Q. Okay. Let me take you to your spreadsheet
6 and to the very first -- well, let's talk about the
7 format.

8 You've got three columns, impact to
9 oxidizers, to batches, and to the CCL. Correct?

10 A. Yes.

11 Q. And as I understand it, just to
12 short-circuit things a little bit, there are eleven
13 oxidizers?

14 A. Yes.

15 Q. And ten batch furnaces? That would be the
16 second column.

17 A. Yes.

18 Q. And then the CCL, which I got a little bit
19 of a description from Mr. Rummy this morning, but it's
20 a --

21 A. It's an oxidizer with a carbonization at the
22 end of it where it just continues on through
23 carbonization, so it's -- it's a large oxidizer oven
24 with two furnaces.

25 Q. And it's -- one single piece of equipment?

1 A. One big piece, yes.

2 Q. Now, with respect to the eleven oxidizer,
3 are those all in one room?

4 A. Yes.

5 Q. And are they all tied to the same circuit?

6 A. Yes.

7 Q. Okay. Same for the batches, the furnaces?

8 A. They are in one area, yes. They are not all
9 tied to the same.

10 Q. Okay. Now, let's look at the first
11 incident, which is February 5, '98, and you have here
12 on your document seven minutes in duration. You say,
13 "This was not an outage. Power outage record was
14 misread." Correct?

15 A. Yes.

16 Q. Okay. So that's an incident from the log
17 that probably should be crossed out or have an
18 asterisk or something to it?

19 A. Yes.

20 Q. Now, if you'll turn your attention, I hate
21 to keep going back and forth to documents, but to
22 Exhibit 18 -- well, first, let me ask you, what do you
23 mean the power outage record was misread? There was
24 no outage. What do you mean?

25 A. Well, after going back through these -- like

1 I said, I reviewed these, and I also double checked
2 with our production records to make sure that -- I
3 mean, at a seven-minute outage, we would have -- we
4 would have a significant loss to production. So I
5 double checked that day's production, and there was no
6 loss of production.

7 Q. So there was a seven-minute incident that
8 wasn't an outage, or -- I don't understand what you're
9 saying.

10 A. I think what happened was in the transfer of
11 information from either -- from the outage record or a
12 notebook to our summary sheet that was on the
13 testimony, that something was misread and wrote down
14 possibly wrong.

15 Q. Okay. Let me direct your attention then to
16 Exhibit 18, the sixth page in, I believe.

17 A. Exhibit 18.

18 MR. VITALE: That's the various handwritten
19 logs that are kept by the operators and the foremen.

20 JUDGE THOMPSON: Page 6, did you say?

21 MR. VITALE: I believe, if I've counted
22 correctly. Yes.

23 JUDGE THOMPSON: Okay.

24 THE WITNESS: I'm not sure what page we're
25 on here.

1 MR. VITALE: The sixth page.

2 May I approach, your Honor.

3 I'm sorry. You have the wrong thing. The
4 log. Exhibit 18.

5 THE WITNESS: Okay.

6 BY MR. VITALE:

7 Q. Line 29 is a February 5th seven-minute
8 entry, as I read it; is that correct?

9 A. February 5th? Yeah. Yes, sir.

10 Q. And that appears to be 1998 since '97 ended
11 on October 2, and looking at the incidents, that seems
12 to work out?

13 A. Yes.

14 Q. Okay. Now, is this the document from which
15 you determined -- is this -- when you say the power
16 outage record, this is what was misread?

17 A. Yes. Actually, I think -- I think what's
18 happened here -- I don't know if -- it looks like
19 there is a date of 3-18-97 up at the top. I believe
20 that's -- this is where the mistake was made.

21 Q. Okay. And how was this misread to read that
22 to be a power outage? It looks to me like this is
23 just like any other line that's written on this
24 document.

25 A. I'm not sure how it happened, sir.

1 Q. Okay. But, I mean, can you tell me what was
2 misread?

3 A. All I know is it wasn't an outage.

4 Q. Can you tell me what was misread?

5 A. I don't know. The handwriting is not very
6 good there. That was my interpretation of what might
7 have happened. I was going back after the fact,
8 filling in the impact from this time period in '98 as
9 requested --

10 Q. Okay.

11 A. -- and noticed that this wasn't -- this
12 wasn't legitimate.

13 Q. And I guess what I'm trying to find out is
14 what made you believe it wasn't legitimate?

15 A. Because a seven-minute outage would have
16 caused severe problems in our production, and we had
17 no problems that day --

18 Q. Okay.

19 A. -- from other records.

20 Q. You've got a seven-minute record here. So
21 it's not the power outage log that was incorrect,
22 because you went back and you didn't see any
23 documentation that showed there was a problem, so,
24 therefore, that couldn't have been an outage because
25 duration means damage?

1 A. Yeah. Yes, sir. And, actually, the -- the
2 two -- the time is all written in the start, so
3 that -- that's where I'm saying this may be confusing
4 on this particular one.

5 Q. Okay.

6 A. It's all written in start. There is no
7 finish time, so I'm not -- all I can -- it was
8 misread. That's the only assumption I can make.

9 Q. And this document, this spreadsheet, you
10 list the various times when an incident caused some
11 impact that was recorded on Zoltek's equipment or in
12 your records?

13 A. What we did was we recorded the dates from
14 the power outage records and then went and backtracked
15 and looked at production -- other production records
16 to see the impact. Is that your question?

17 Q. Yeah. I understand.

18 And so from those other records you found
19 where there was no impact to production or to the
20 equipment?

21 A. Yes.

22 MR. VITALE: May I approach, your Honor?

23 JUDGE THOMPSON: You may approach.

24 BY MR. VITALE:

25 Q. Mr. Moran, I'm going to hand you another

1 copy of what is the schedule that was attached to
2 Mr. Rummy's deposition. This is the 1 through 277, the
3 entire list.

4 And I want you to go through, if you would,
5 and go to -- starting with your chart, February 5th,
6 '98, if you could highlight with the highlighter I've
7 handed you the incidents that with your spreadsheet
8 shows an impact on the operations at Zoltek.

9 A. Okay.

10 Q. The first one, as I see on the list, was
11 May 21, '98. Am I reading that correctly?

12 A. Yes. Yes, it's the first one.

13 Q. And as I understand it, only five of the
14 oxidizers were impacted by that incident?

15 A. Yes, five oxidizers. The gas shut off.

16 Q. Okay. And if we can go down -- I'll try and
17 go through it fairly quickly -- June 14, '98 is the
18 next one?

19 A. Yes.

20 Q. Okay. And, in fact --

21 A. The first one.

22 Q. -- there are two others on that date?

23 A. Yeah. It was all at the same occurrence
24 there, I guess.

25 Q. And as I see this, in the first June 14

1 incident --

2 A. Yeah. Okay. I see.

3 Q. -- there was an impact to the oxidizers,

4 furnaces, and the carbonization line, is it?

5 A. The --

6 Q. CCL?

7 A. -- CCL, yes, the drive.

8 Q. And the second two incidents on the 14th, it

9 was just the CCL that was affected. Correct?

10 A. Yes.

11 Q. And when we go through this, I'm not going

12 to ask you about each one, but if you could highlight.

13 I just want to get an idea of the number off of that

14 list.

15 A. Okay. June 17th.

16 Q. June 17th for a minute.

17 A. June 17th.

18 Q. June 29, the first June 29.

19 A. June 29. It's numbers -- Nos. 184 or 183,

20 uh-huh.

21 Q. July 3.

22 A. And that one is the first one, 187.

23 July --

24 Q. 22nd?

25 A. -- 22nd, first one.

1 Q. Now, the next three -- I have to admit, I
2 didn't see the bottom of this chart. May 23, May 26
3 and July 15, I didn't see those dates on the incident
4 log being prepared. I take it to mean those were
5 internal incidents?

6 A. No. Actually, that's what I was referring
7 to. When I went back and looked at this and double
8 checked, some were missing on the outage record and
9 some, obviously, were not recorded properly. But this
10 would be an example of -- on the 15th of '98, is that
11 one that wasn't recorded?

12 Q. The bottom three on your spreadsheet there
13 on the second page, but none of those three are on the
14 incident log that's been attached to anybody's
15 testimony.

16 A. Yeah. If you notice, there is a lapse from
17 July to -- there is actually a year -- almost a year
18 lapse there, and -- from July of '98 to June of '99,
19 and I believe that record to be lost.

20 Q. Okay. Let's go to '99, and if you could
21 highlight. As I see it, I think there were four in
22 '99 of all of the incidents in '99 that had an effect
23 on the equipment.

24 July 9?

25 A. July 9th, yes.

1 Q. July 11?
2 A. Yes.
3 Q. July 26 and September 12?
4 A. September 12th, yes.
5 Q. And then in 2000?
6 A. January 27th.
7 Q. Right.
8 What is the reference on March 23, "lost
9 INC"? Is that incinerator or what --
10 A. Yeah, incinerator. Thank you.
11 The 23rd of March. April 7th, that was a
12 big one.
13 Q. Big one by --
14 A. The impact.
15 Q. But the duration was only a blip?
16 A. Well, on this recording, yes.
17 Q. Okay. May 27, only one oxidizer of the
18 eleven was impacted?
19 A. Yes, and batch three.
20 Q. And since it was impacted, does that mean
21 there was a complete loss of power?
22 A. Not necessarily. It could have tripped --
23 it's not a guarantee that when the machine trips off
24 line that you can actually get it to successively
25 recover. We've gotten pretty good at making --

1 getting the machines to restart and come back, but for
2 whatever reason, this particular machine -- it could
3 have been that they were not able to get it to
4 restart.

5 Q. Okay. July 28, one --

6 A. Yes.

7 Q. -- oxidizer?

8 A. Uh-huh.

9 Q. The next page.

10 A. August 23rd.

11 Q. Right.

12 A. I remember it well, even though I wasn't
13 there. And September 11th, this is the one that
14 triggered me to ask for some corrective action.

15 Q. And December 22nd?

16 A. No effect.

17 Q. You're right. That was my mistake.

18 A. And then March 13th.

19 Q. There's only two --

20 A. "Lost ox 6." And then the 21st.

21 Q. Okay. To just summarize, if I could
22 short-circuit this exercise, of all of the incidents
23 in 1998, how many do you reflect had an impact on the
24 operations?

25 A. It looks like, what, I'm sorry, eight.

1 Q. Okay. And in 19-- and that's out of, I
2 believe, 54 incidents.
3 And in 1999?
4 A. Four.
5 Q. I believe out of 17.
6 In 2000?
7 A. Seven.
8 Q. Out of 45.
9 And in 2001?
10 A. I think I've got two.
11 Q. Okay. Out of the 18 that are at least in
12 this record through June 3.
13 Now, I just have a couple more questions.
14 Back to this chart. I want to see your --
15 your testimony in -- now, we're back to your Direct
16 Testimony, page 4.
17 You say, "Longer incidents up to one minute
18 in duration will trip most of the production equipment
19 off line." Do you see that?
20 A. Which line?
21 Q. Line 22 and 23?
22 A. Yes, sir.
23 Q. And that is an impact on the processes at
24 the plant. Correct?
25 A. Yes.

1 Q. Well, I guess what I'm trying to understand
2 is, if you go back to your log -- and, again, we're
3 taking the time that you were operations manager --

4 Too many pieces of paper. One second, your
5 Honor, please.

6 JUDGE THOMPSON: That's quite all right.

7 BY MR. VITALE:

8 Q. I'm sorry. Go back to your spreadsheet of
9 effect.

10 On March 27, '98 you have a one-minute --
11 two one-minute shutdowns which you say that's a
12 complete loss of power, for a minute. Correct? If
13 it's a minute in length, it has to be a shutdown in
14 power. That was your testimony?

15 A. Yes.

16 Q. And neither of those shutdowns in power had
17 any effect on the operations of the plant by your
18 chart?

19 A. Well, technically, I wasn't really in charge
20 of the plant at that time, but I'll try to answer it
21 anyway.

22 Q. You prepared the spreadsheet and looked at
23 the underlying records to prepare it?

24 A. Yes.

25 Q. So that's what that shows. Correct?

1 A. Yeah. Maybe I should clarify the way I
2 prepared this spreadsheet.

3 The duration section on my spreadsheet only
4 reflects exactly what was on the submitted -- some of
5 these earlier submitted documents that I did not
6 prepare, because --

7 Q. When you say -- you're talking about this
8 incident spreadsheet, is that the document you
9 referred on to get your duration?

10 A. We took -- we took the -- I take that back.
11 We took the records and I took some of
12 the -- I went back and looked at some of the
13 existing -- this existing summary that was prepared
14 earlier and -- so the duration.

15 JUDGE THOMPSON: Mr. Vitale, if I could, a
16 moment ago you were waving an exhibit in the air.

17 MR. VITALE: I'm sorry. I will --

18 JUDGE THOMPSON: Can you tell me which
19 exhibit that was?

20 MR. VITALE: All I'm trying to compare,
21 Judge, because we have a lot of different lists here,
22 summary lists, there is a schedule summary attached to
23 Mr. Moran's testimony, which is Exhibit -- Direct
24 Testimony, which would be Exhibit 2, I believe.

25 THE WITNESS: Yes.

1 MR. VITALE: And that matches up to the
2 dates and durations on the spreadsheet that's marked
3 as Exhibit 19.

4 JUDGE THOMPSON: Thank you.

5 BY MR. VITALE:

6 Q. And all I'm saying, sir, is the duration of
7 the events, you had two one-minute duration events,
8 which, by your definition, means a complete total loss
9 of power to the plant, and that had no effect, by your
10 spreadsheet, on any of the equipment at Zoltek?

11 A. Yes, by my spreadsheet.

12 Q. Okay. And then we have some blips where
13 there was an effect and some minutes where there were
14 effects. We're back to looking at July 22 of '98.

15 We have a minute, again, by your
16 spreadsheet, duration of event, which to you means
17 total loss of power to the entire plant but it had no
18 effect on any of the equipment at the plant. Correct?

19 A. Yes. That's what the spreadsheet says.

20 Q. You prepared the spreadsheet. Correct?

21 A. Yes.

22 I would just like to say that when I was in
23 charge of the plant up until 2000, I wasn't concerned
24 about litigation so the accuracy of these outage
25 records weren't, you know, very important -- exactly

1 very important to me. It was only concerned about how
2 well the plant was running.

3 Q. So until litigation --

4 A. Until -- no. I said -- I knew there was
5 litigation going on, and I wasn't as concerned about
6 how well the records were being kept. I was really
7 concerned on how it impacted our facility. And the
8 only time I really took serious action with regards to
9 the quality of the power was when it severely impacted
10 the plant. That's why I sent the corrective action to
11 Dave Wakeman in 2000, September of 2000. And you see
12 that there were two severe impacts to our plant.

13 So I wasn't very concerned about how well
14 these records were kept in 1998 and 1999. In 2000 I
15 guess maybe we started paying a little more attention
16 to it because it got more severe.

17 MR. VITALE: Okay. I have no further
18 questions of the witness, your Honor.

19 JUDGE THOMPSON: Mr. Vitale, before you sit
20 down, you are aware that neither 18 or 19 has been
21 offered.

22 MR. VITALE: Yes, your Honor. I guess my
23 experience in Circuit Court is when it's not my side
24 of the case, I can't offer the exhibits, but if I can
25 do it, I would offer 18 and 19 at this time.

1 JUDGE THOMPSON: You certainly can.

2 MR. VITALE: I will offer them at this time.

3 JUDGE THOMPSON: Do I hear any objections to
4 the receipt of Exhibit 18 or 19?

5 MR. MAY: No objection, your Honor.

6 JUDGE THOMPSON: Thank you.

7 Hearing no objections, Exhibits 18 and 19
8 will be received and made a part of the record of this
9 proceeding.

10 (EXHIBIT NOS. 18 AND 19 WERE RECEIVED INTO
11 EVIDENCE.)

12 JUDGE THOMPSON: We're ready now for
13 questions from the Bench.

14 Commissioner Lumpe.

15 QUESTIONS BY COMMISSIONER LUMPE:

16 Q. Mr. Moran, just to follow up on what you
17 were saying, it seemed to me that you were saying that
18 in the year 2000 was when you really started paying
19 attention; things got worse; is that correct?

20 A. Yes, ma'am. Specifically, the summer of
21 2000.

22 Q. Is that the May through September period --

23 A. Yes, ma'am.

24 Q. -- that you talk about?

25 And in your Surrebuttal you talk about other

1 companies experiencing power difficulties also. Is
2 the difference because their particular operation was
3 not as impacted as yours would be?

4 A. My only guess, ma'am, is that their
5 operation was a little -- it's a little easier to
6 recover. Nike, I believe, has -- has injection
7 molding equipment, and they might have a little longer
8 duration they can handle with without power before
9 they -- you know, to be able to recover.

10 For us we have -- it's -- if the equipment
11 trips off line, we have an opportunity to recover it
12 before -- before we have a complete failure in the
13 material that we're processing. If the material does
14 fail, it burns. It actually exotherms and burns, and
15 then we have to go through a process of cleaning the
16 machine, restringing the machine, so the impact is, I
17 guess, more severe.

18 Q. I think you spell that out somewhat in
19 your --

20 A. Yes.

21 Q. Somebody does in their testimony --

22 A. Yes.

23 Q. -- in his or her testimony?

24 Okay. I was curious also about the --
25 sometimes when there is a blip, there is a problem,

1 and sometimes when there is a minute, there is a
2 problem, and sometimes when there is a blip, there is
3 no problem, and sometimes when it's a minute, there is
4 no problem.

5 What makes the difference?

6 A. Well, this -- as was alluded to earlier in
7 my testimony here today, we don't have people sitting
8 and keeping time on these occurrences. You know, we
9 can't afford to employ people to do that. And the
10 primary concern when an occurrence happens is to get
11 the equipment up and running again.

12 So whether it's one minute or a blip, you
13 know, they record the incident. The incident
14 happened. And I wish they were more accurate, but all
15 I know is these things happen, and there is an impact.
16 And, like I said, we don't have experts to keep
17 records or -- or, you know, full-time staff to track.

18 Q. So it might have been a blip or it might
19 have been 30 seconds or it might have been a minute
20 or --

21 A. The ones that -- that were -- that severely
22 impacted us were -- where I was specifically involved
23 with, I know those were lengthy outages.

24 Q. Maybe over a minute then?

25 A. Yeah, probably over a minute, I would guess,

1 because when -- when the duration gets up to a minute,
2 the equipment -- the material can start to burn, and
3 then they start to turn on the sprinkler systems.

4 Q. In one of the exhibits, possibly 28 -- I'm
5 not sure -- but there was this conversation about
6 seven minutes, but there was no outage.

7 Is it conceivable on that, and I think it's
8 page 6 of Exhibit 18 --

9 A. Yes.

10 Q. -- as I look at that, it says one-fifty dash
11 one-fifty what looks like a seven could be a one. Is
12 that --

13 A. I think what could have happened here is
14 that -- there is no finish time. What they could be
15 saying is maybe it happened somewhere between 1:50 and
16 1:57, and somebody misinterpreted that and put it as a
17 seven-minute outage.

18 Q. And even if you look at that, what may be a
19 seven, could be a one.

20 A. Yes, it could be a one minute.

21 And I think what happened is, since there
22 was no impact, it was probably just a sag. And the
23 person probably was trying to look back -- you know,
24 after checking the equipment, they were trying to see
25 what time it was, and they were trying to put their

1 best time estimate on what time it was.

2 Q. Okay. But from -- from what you stated
3 elsewhere, there was no outage there or there was no
4 problem or --

5 A. I can't believe that we had an outage
6 because there -- if we had a seven-minute outage, we
7 would have had a complete loss for two days or a day
8 and a half at least.

9 Q. Okay.

10 A. And there was no impact there.

11 COMMISSIONER LUMPE: Okay. Thank you.

12 That's all I have.

13 JUDGE THOMPSON: Commissioner Gaw.

14 QUESTIONS BY COMMISSIONER GAW:

15 Q. Good afternoon.

16 A. Hi.

17 Q. The exhibit that's attached to your
18 testimony on the recorded times, incidents, I think
19 beginning in 1996, do you have that in front of you?

20 A. Yes, sir.

21 Q. Earlier during cross-examination you were
22 being asked about whether those times or the amount of
23 outages were correct in certain instances. You recall
24 those questions?

25 A. Yes, sir.

1 Q. And your answers? Is that correct?

2 A. I believe so.

3 Q. Well, what I'm getting to is, when your --
4 as I understand it, when you -- you're suggesting that
5 some of these times and some of the amount of --
6 duration of the outages may not be accurate; is that
7 correct?

8 A. Yes.

9 Q. When we're relying on this exhibit in regard
10 to accuracy, I want you to give me your parameters of
11 when -- when you believe the exhibit becomes accurate.
12 In other words, if it's not accurate on the time or on
13 the duration, is it accurate in regard to the number
14 of incidents that might have occurred during a
15 particular day? I'm trying to gauge what you were
16 meaning with your answer to those questions about its
17 accuracy.

18 A. Well, I believe it's accurate in the number
19 of occurrences, because -- because they -- as I
20 mentioned in my previous testimony, it's very obvious
21 when we have an incident occur. It's not rocket
22 science that the lights dim or the lights go out and
23 then they come back on, and that's an occurrence. And
24 there may be other testimony to back that -- back that
25 they actually happened.

1 I think the inaccuracy may come with how do
2 you describe what actually happened. Is it a sag? Is
3 it a complete loss of power? We don't hire experts to
4 be on staff to be able to determine that and can't
5 afford to.

6 I can -- I know when I've been there, I've
7 seen sags. I've seen momentary losses of power, and
8 I've seen complete losses of power. So if you just
9 take the example -- the example from when I actually
10 did go back and review production records and looked
11 at the impact, I believe I stated there was one
12 discrepancy with the duration. And I don't know if I
13 did or not, but if there was any -- if there were any
14 other discrepancies or I felt there was a discrepancy,
15 I would have wrote that down on there.

16 Q. So do you believe when we're looking at this
17 exhibit that we can rely on the number of occurrences
18 during a particular day, first of all?

19 A. Yes.

20 Q. As far as the time is concerned that's
21 written down there for the occurrence, is that
22 something that we should assume is accurate?

23 A. It's as close as they could possibly get, I
24 think. After -- after going through -- their primary
25 objective is to secure the plant and the safety of the

1 people, and the secondary objective is to record.

2 And like I mentioned before, when I first
3 took over as plant manager, you know, I was concerned.
4 I wanted to make an efficient plant. I wanted it run
5 efficiently. I wasn't concerned about whether or not
6 this record was being filled out with the best
7 accuracy.

8 Q. Well, let me ask you, was -- was there a
9 practice that -- that you were aware of to record the
10 incidents the same day that they occurred?

11 A. I don't think anybody ever went back a day
12 later and backtracked and said, Oh, yeah, we had an
13 outage yesterday. I'm trying to figure out what time
14 it was.

15 If it wasn't recorded that day, I guess they
16 just forgot it. They wouldn't have put it down.

17 Q. So all of these -- all of these recordings
18 were based upon the recording of an employee that
19 occurred that day for an incident that occurred that
20 day?

21 A. Yes, sir. And I did not review this record
22 daily, and so -- the only time I -- I got involved was
23 when this was significant impact to the operation.

24 Q. Okay. Now, I apologize. I haven't had the
25 opportunity to ask these questions yet, but -- of

1 other witnesses, but if you're gauging an occurrence
2 here on every one of these incidents that you have
3 recorded on your exhibit that's attached to your
4 testimony, did that result in some particular problem
5 with -- that you-all had to recover from, that Zoltek
6 had to recover from?

7 A. I'm sorry. Each one of these incidents?

8 Q. Yes.

9 A. No. I think that my -- the second
10 schedule -- or the No. 19 --

11 Q. Yes.

12 A. -- you can see that -- I mean, we actually
13 were fairly robust to a lot of the occurrences, and we
14 didn't have any impact. And, like I said, I wasn't --
15 I was oblivious to -- to the relationship or -- I
16 guess I just -- you know, I was -- I was happy with
17 what was going on up until 2000. I mean, not happy,
18 but it wasn't affecting us to the point where I needed
19 to take action. And then in 2000, it became a
20 problem, so I had to step in and take action.

21 Q. There was actually -- actually, though,
22 discussions ongoing between the company and -- between
23 Zoltek and Ameren prior to 2000, though, right, in
24 regard to problems that Zoltek alleged to have been
25 occurring prior to that date?

1 A. I believe the first discussions I personally
2 had as -- as operations manager -- I started as
3 operations manager in August of '98, and the first
4 discussion I actually had with Ameren about problems
5 was in 2000.

6 Q. I see. All right.

7 A. Like I said, I was kind of oblivious to the
8 problems that happened before.

9 Q. All right. Now, what happened in 2000
10 that -- that you say changed the -- your view of the
11 difficulty with your electric service?

12 A. Well, we -- we had some extended outages
13 that -- that completely shut down the operation and
14 caused a significant impact and a significant safety
15 hazard. And so I sent a corrective action to Dave
16 Wakeman to find out what was going on, a corrective
17 action request. It's what we send to a supplier if we
18 have a problem with him.

19 And in response they -- Marty Eckelkamp and
20 Mahta -- I can't remember his name, but Suren came to
21 our plant, and we had a meeting between Mike Arnold,
22 myself, and the two gentlemen from Ameren. And during
23 that meeting we discovered that in May they switched
24 us to a different feeder, and that's when the
25 occurrences started happening.

1 Apparently, the feeder that we were switched
2 to during the summer was not as reliable. And Nike,
3 who has not had -- didn't have any problems the whole
4 summer was on the original feeder that we had been on.
5 They split us apart because we are the two largest
6 users in the park, which, you know, is understandable.

7 But for whatever reason, this O'Fallon line
8 was -- was more susceptible to wind, I believe was the
9 biggest problem. Whenever we had wind, we would have
10 problems. And there was a lot of construction over
11 there. I don't know exactly why, but it was -- it
12 was -- that was what we attributed the problem to.
13 And then they went away when fall came.

14 Q. All right. Have they returned since then?

15 A. The only occurrences or problems since then
16 have been snakes -- snakes in the switch gears.

17 Q. Explain what that is.

18 A. Black snakes trying to get warm in the
19 switch gear. I guess they get in there and they arc
20 the -- they arc the phases.

21 Q. I understand. I wanted to make sure that
22 these were real snakes we were talking about.

23 A. No. They are black snakes.

24 But other than that, it's been fairly
25 reliable. You know, we understand that there is going

1 to be sags, and we can carry -- we can -- we're fairly
2 robust to those.

3 COMMISSIONER GAW: I think that's all I
4 have, Judge.

5 Thank you, sir.

6 JUDGE THOMPSON: Thank you, Commissioner.

7 QUESTIONS BY JUDGE THOMPSON:

8 Q. Mr. Moran, how many employees are there at
9 Zoltek?

10 A. Right now I believe there are about 65, 70
11 out at the plant.

12 Q. And has that number changed to your
13 knowledge significantly since 1993?

14 A. Yes, sir.

15 Q. How many were there in 1993?

16 A. I'm not sure in '93, but I know when we
17 started we had almost 100 when I was a plant manager.

18 Q. That would have been when?

19 A. August of 1998.

20 Q. Okay. To what do you attribute the decline?

21 A. A lot of the operations went to Abilene,
22 Texas, our facility in Abilene, Texas, some of our
23 previous operations. And so we -- we had a gradual
24 reduction.

25 Q. So, in other words, it was just a movement

1 by Zoltek of some of its functions to another plant
2 location?

3 A. The primary intent for Abilene was to
4 produce some of the things that we were producing, so
5 it was moved.

6 Q. What industry would you say that Zoltek is
7 part of?

8 A. It's mostly aircraft brakes in our plant.

9 Q. Aircraft brakes?

10 A. Yes. We supply the fiber that goes into the
11 carbon/carbon aircraft brake, composite aircraft
12 brake.

13 Q. Very good. I think I heard reference
14 earlier to the actual number of pieces of equipment in
15 your plant?

16 A. Yes.

17 Q. Are you able to tell me that number?

18 A. We have eleven oxidizers that produce fiber
19 for aircraft brakes, and we've since converted the
20 continuous carbonization line, the CCL, over to
21 another oxidizer, so it does just oxidation, and it
22 does the same thing those eleven do, and that has as
23 much capacity as those eleven do just about.

24 Q. Okay.

25 A. And then we have ten batch vacuum furnaces

1 that are high-temperature carbonization furnaces.

2 They go up to 16 (sic) degrees Celsius, and we have
3 textile equipment that we can make yarn with and we
4 can knit yarns into fabrics.

5 Q. Is this distinct from the aircraft brakes?

6 A. Actually, the knitted fabric gets batch
7 carbonized and then sold into aircraft brakes.

8 Q. Okay. So it's part of that?

9 A. Yes. Sixty percent, I think, of the
10 business for us is commercial aircraft brakes for the
11 oxidizers, and then there is another percentage that
12 is a different type of air carbon/carbon aircraft
13 brake, and that's for the military.

14 Q. Okay. And earlier I think you mentioned a
15 temperature level. Did you say 16 degrees centigrade?

16 A. Sixty-hundred.

17 Q. Sixty-hundred.

18 A. One-thousand-six-hundred is our normal hold
19 temperature for batch carbonization.

20 Q. Okay. What hours does your plant operate?

21 A. It's 24 hours a day, seven-days a week in
22 the batch carbonization area, and in the oxidation --
23 the oxidizers one through eleven run right now around
24 the clock and always have.

25 Q. So an incident in the middle of the night is

1 just as difficult for you as one --

2 A. Yes, sir.

3 Q. -- in the middle of the afternoon?

4 A. Yes, sir. And that's -- I think Zsolt had
5 mentioned this earlier, the textile operation only
6 runs during the day, and when the power goes out over
7 there, as soon as it comes back on, you just restart
8 the machines, and it's not a problem.

9 Q. Now, this aircraft brakes industry, is this
10 a very competitive industry?

11 A. It's getting more and more competitive. We
12 have a significant share, so --

13 Q. Okay. And Mr. Rummy, who testified earlier,
14 are you familiar with how he spends his day during a
15 business day?

16 A. I couldn't tell you.

17 Q. For example, does he spend a significant
18 amount of his time on the plant floor?

19 A. No, sir, not any more.

20 Q. Okay. During the period from 1993 until
21 now, was there ever a time when he spent a significant
22 amount of his time on the plant floor, if you know?

23 A. I think some other people might be better to
24 answer that question.

25 Q. Okay. So are you saying you don't know?

1 A. I started in 1996, so I wouldn't know if he
2 was.

3 Q. So from 1996 until today?

4 A. Only on occasion he was out at the plant.

5 Q. Okay. Now, I believe Mr. Rummy testified,
6 and you were here for his testimony, were you not?

7 A. Yes, sir.

8 Q. Okay. And I believe he testified there was
9 one occasion where Union Electric turned the power off
10 without providing prior notification to Zoltek. Am I
11 correct in understanding that as his testimony?

12 A. That's what he said. I -- once again, that
13 was prior to my time, so I --

14 Q. So you're not familiar with that event?

15 A. No, sir, I'm not.

16 Q. Okay. Very well. And as I understand your
17 testimony, the real gravamen of your complaint has to
18 do with power supply in the summer of 2000?

19 A. My particular complaint -- I mean, you know,
20 if we're just talking about complaining and not the
21 suit, yes, I was not very happy that we were switched
22 to a less reliable feeder in May of 2000 and not
23 notified of that.

24 Q. And that was done without notification?

25 A. Sure, yeah. And we actually barely

1 discovered that in our meeting.

2 Q. And when you say that that feeder was less
3 reliable, or is less reliable, what is your basis for
4 saying that?

5 A. I don't have any data, so to speak, other
6 than just the difference from when we had the -- the
7 '94 McClay feeder.

8 Q. In other words, is that your inference based
9 upon increased problems --

10 A. Yes.

11 Q. -- after that switchover?

12 A. Yes, increased occurrences, and the severity
13 of them seemed to be greater --

14 Q. As far as --

15 A. -- and length.

16 Q. -- you know, has the feeder since been
17 changed?

18 A. I think it's been switched back and forth a
19 few different times, but I'm not sure. We never know
20 when we're on this feeder or that feeder.

21 Q. Okay.

22 A. Unless we, I guess, ask, and then I don't
23 know if we still get the answer.

24 JUDGE THOMPSON: Thank you very much.

25 Why don't we go to recross based on

1 questions from the Bench?

2 Mr. Vitale?

3 MR. VITALE: Nothing further.

4 JUDGE THOMPSON: Excuse me. Lera, I forgot

5 you. Did you have anything?

6 MS. SHEMWELL: Thank you, Judge.

7 No questions.

8 JUDGE THOMPSON: Thank you.

9 I'll endeavor not to forget you next time.

10 MS. SHEMWELL: Thank you.

11 JUDGE THOMPSON: Redirect?

12 MR. MAY: None, your Honor.

13 JUDGE THOMPSON: Thank you very much.

14 May this witness be excused?

15 MR. VITALE: Yes, your Honor.

16 JUDGE THOMPSON: You may step down, and you

17 are excused, which means you may leave.

18 Thank you, sir.

19 (Witness excused.)

20 JUDGE THOMPSON: I believe our next witness

21 is Wayne Agne. Did I say that correct?

22 THE WITNESS: Yes.

23 JUDGE THOMPSON: Please step forward, sir.

24 Just go ahead and take your seat and raise

25 your right hand, if you would, sir.

1 (Witness sworn.)
2 JUDGE THOMPSON: Thank you.
3 Please state your name and then spell your
4 last name for the reporter, sir.
5 THE WITNESS: My name is Wayne Agne,
6 A-g-n-e.
7 JUDGE THOMPSON: Thank you.
8 You may inquire.
9 MR. MAY: Thank you.
10 WAYNE AGNE testified as follows:
11 DIRECT EXAMINATION BY MR. MAY:
12 Q. Mr. Agne, who is your employer?
13 A. Zoltek Corporation.
14 Q. And what position do you occupy with Zoltek
15 Corporation?
16 A. I am an electrical engineer.
17 Q. Have I handed to you what's been marked
18 Exhibit 4? Could you identify that, please?
19 A. This is my Direct Testimony.
20 Q. Has that been previously filed?
21 A. Yes.
22 Q. And is that your signature that appears in
23 the back?
24 A. Yes.
25 Q. And if you were asked those same questions

1 today, would you answer in a similar fashion?

2 A. Yes.

3 Q. Are there any corrections you wish to make
4 with respect to anything, like typographical mistakes,
5 or --

6 A. No.

7 MR. MAY: Your Honor, I would move for the
8 admission of Exhibit No. 4.

9 JUDGE THOMPSON: Do I hear any objections to
10 the receipt of Exhibit No. 4.

11 MR. VITALE: No objection, your Honor.

12 JUDGE THOMPSON: Hearing no objections,
13 Exhibit No. 4 is received and made a part of the
14 record of this proceeding.

15 (EXHIBIT NO. 4 WAS RECEIVED INTO EVIDENCE.)

16 MR. MAY: I would like to tender the
17 witness.

18 JUDGE THOMPSON: Thank you, Mr. May.

19 MR. MAY: Thank you.

20 JUDGE THOMPSON: Ms. Shemwell?

21 MS. SHEMWELL: Thank you, your Honor.

22 No questions.

23 JUDGE THOMPSON: Thank you.

24 Mr. Vitale?

25 MR. VITALE: It will be Mr. Peters this

1 time, your Honor.

2 JUDGE THOMPSON: Thank you.

3 Please step forward, sir.

4 MR. PETERS: Thank you, your Honor.

5 CROSS-EXAMINATION BY MR. PETERS:

6 Q. What's the pronunciation? Is it Agne?

7 A. Agne.

8 Q. Agne.

9 Okay. Mr. Agne, my name is Dan Peters. I'm
10 with the law firm of Herzog, Crebs & McGhee, and I'm
11 going to be asking you some questions today.

12 You have stated, Mr. Agne, that you're an
13 electrical engineer. Correct?

14 A. Yes.

15 Q. And what degrees do you hold?

16 A. I have a Bachelor's degree in electrical
17 engineering and an Associate's degree in electronics
18 as well.

19 Q. And are you a registered professional
20 engineer?

21 A. No, I'm not.

22 Q. I believe attached to your Direct Testimony
23 is a schedule. And you're Direct Testimony -- I don't
24 recall the exhibit number.

25 Your Direct Testimony is referred to as

1 Exhibit 4.

2 Could you take a look at the schedule 1,
3 which is attached to your testimony, please?

4 A. Yes.

5 Q. And on your testimony -- or the document
6 that is schedule 1 is marked Exhibit WA-2. Correct?

7 A. Yes.

8 Q. I would like to ask you some questions about
9 that document.

10 And you've been present all day today as
11 Mr. Rummy and Mr. Moran have testified. Correct?

12 A. Yes.

13 Q. I think we have established that the
14 schedules that are attached to the other exhibits
15 other than Mr. Rummy's contain the same information as
16 does Mr. Rummy's schedule, but a shorter or smaller
17 portion of that information; is that correct?

18 A. To my knowledge, yes.

19 Q. In other words, schedule 1 to your testimony
20 contains incidents Nos. 1 through 85. Correct?

21 A. That's correct.

22 Q. And those incidents are the same as
23 incidents 1 through 85 on Mr. Rummy's schedule, which
24 would be exhibit -- or schedule 1 to Exhibit 1?

25 A. I have not seen that exhibit, but I'm

1 assuming it is.

2 MR. PETERS: Okay. Let me hand it to you.

3 May I approach, your Honor?

4 JUDGE THOMPSON: You may.

5 MR. PETERS: Your counsel is stipulating
6 that that information is correct.

7 MR. MAY: Your Honor, as we previously
8 indicated, those charts match up. There is just a
9 difference in terms of when people were at the plant.

10 JUDGE THOMPSON: I understand.

11 MR. PETERS: Does he have a copy of it up
12 there, 277?

13 MR. MAY: I don't believe so.

14 BY MR. PETERS:

15 Q. Mr. Agne, I've handed you a copy of
16 schedule 1 to Exhibit 1, and that schedule contains
17 277 incidents. Have you seen that document before?

18 A. I don't know that I've seen this document,
19 no.

20 Q. Have you ever heard that Zoltek is making
21 the claim that there were 277 service quality
22 incidents between 1993 and 2001?

23 A. I may have heard that claim.

24 Q. Well, it's got to be yes or no or you don't
25 know.

1 A. I don't know.

2 Q. So as you -- in your Direct Testimony, is it
3 correct to say then that you can only testify
4 regarding the 85 service quality incidents contained
5 in schedule 1 to Exhibit 4; in other words, the
6 schedule attached to your exhibit? You can't speak to
7 any other service quality incidents.

8 A. Well, in fact, I will only testify to the
9 first 60, because that was my tenure at the plant.

10 Q. Okay.

11 A. I think the testimony indicates that --
12 references that.

13 Q. I was going get to that. And that leads me
14 to the other point, is that you did not prepare
15 schedule 1 to your Direct Testimony. Correct?

16 A. I did not prepare this schedule, no.

17 Q. And when was the first time that you saw
18 schedule 1 to your Direct Testimony?

19 A. I believe when I was presented the Direct
20 Testimony. But to my knowledge, the last incidents in
21 '95 were not part of that because -- well, actually, I
22 had left in July of '95, so some of the incidents in
23 '95 applied, so perhaps that was -- let me go back and
24 say perhaps that was in my original testimony. This
25 was the complete schedule.

1 Q. Okay. When you said you left there, I take
2 it that you're still employed with Zoltek?

3 A. I'm employed at Zoltek. I no longer work at
4 the plant. I work at the corporate headquarters, and
5 I left in July of '95 and took a corporation position.

6 Q. Okay. And what period of time were you at
7 the plant?

8 And by "plant," you mean the Missouri
9 Research Park facility. Correct?

10 A. Yes.

11 Q. What period of time were you at the plant?

12 A. I started in September of '91.

13 Q. And worked there until when?

14 A. Until July of '95.

15 Q. Okay. So you're saying that you could only
16 testify as to the first 60. Are you going to change
17 that a little bit?

18 A. Well, I'll go ahead and say up to the first
19 68 I was probably present at.

20 Q. Okay.

21 A. I think it was in July of '95 that I made
22 the switchover, and I would say that I wasn't involved
23 in the plant operations at that point.

24 Q. Okay. I'd ask you to turn to page 3 of your
25 Direct Testimony and note where you say there that --

1 starting on line 22, you say that you have reviewed
2 the records of the incidents that occurred between
3 1993 and '95 and have found these documents to be true
4 and accurate recreations of the service quality
5 incidents prepared contemporaneously by Zoltek
6 Corporation employees.

7 You go further to say, I have compiled from
8 those records a chronological summary of the various
9 incidents and attached to my testimony as Exhibit WA-2
10 a summary.

11 So that you would need to modify that answer
12 today, would you not, that, in fact, you didn't
13 compile schedule 1 to your testimony, and you, in
14 fact, are not aware of at least 20 of those incidents
15 reflected in that exhibit?

16 A. Well, I would say that I compiled the
17 original documents and these are a replica of them
18 that were put into a spreadsheet.

19 Q. Okay. And would that be the logs, perhaps,
20 the handwritten logs that we -- that Mr. Moran
21 testified about, that you prepared something like
22 that, or is it something different you're speaking of?

23 A. Yes, the original logs.

24 Q. Okay. Now, those original logs, did you
25 actually make the hand entries that appear in those

1 logs?

2 A. I may have made one or two of the entries.

3 Q. Mr. Agne, I've handed you Exhibit 18.

4 Now, the schedule to your Direct Testimony,
5 let's be clear, you did not physically prepare that
6 document. Correct?

7 A. That's correct.

8 Q. I mean, you didn't sit down at a computer
9 and enter in the information and print it out in the
10 form of schedule 1 to your Direct Testimony. Correct?

11 A. That's correct.

12 Q. And what you're saying to the Commission
13 today is that while you didn't prepare that, you
14 prepared some documentation upon which that summary
15 was prepared; is that correct?

16 A. That's correct.

17 Q. Okay. And there was testimony by Mr. Moran
18 earlier regarding Exhibit 18, and I've handed you a
19 copy of that document.

20 Is that Exhibit 18 representative of the
21 documents that you're referring to that you prepared
22 that went into the making of schedule 1 to your
23 testimony?

24 A. Assuming this is 18, Exhibit 18, yes.

25 Q. Well, Exhibit 18 starts with -- the first

1 page says "Lead Operators."

2 A. Yes.

3 Q. And there are numerous pages of handwritten
4 dates, times, OTG codes, weather codes, reasons for,
5 and the operator. Correct?

6 A. Correct.

7 Q. And I'm just trying to clarify your
8 testimony. Are you saying that Exhibit 18 itself or a
9 document like that was used to prepare the schedule to
10 your Direct Testimony?

11 A. Yes.

12 Q. Okay. And what -- what involvement did you
13 have in the preparation of Exhibit 18?

14 A. In the first initial forms that we had, I
15 set up this sort of log table for the operators to
16 make their entries, and as you can see, my name is
17 attached to the first couple of pages, and I was kind
18 of in charge of keeping up that sheet.

19 Q. Okay. So the -- the actual page before
20 there is handwriting on it, you came up with the
21 format of that page; is that correct?

22 A. Yes.

23 Q. Did you have any involvement in putting the
24 handwritten notations that appear in Exhibit 18?

25 A. Some of the entries are made by me. The

1 first entry is my entry.

2 Q. And how many of those -- of the entries that
3 appear in Exhibit 18 do you believe are yours?

4 A. That may, in fact, be the only entry.

5 Q. Okay. And I'm not -- I'm not trying to trip
6 you up.

7 I -- you say in your Direct Testimony,
8 page 4, you say you've compiled from these records a
9 chronological summary of the various incidents, and
10 you say maybe that's not -- maybe it should be worded
11 differently.

12 Have we exhausted your involvement in the
13 preparation of the schedule to your Direct Testimony?
14 Is there anything else that you did, I mean, in the
15 preparation of that document? I mean, you didn't --
16 let me put it this way: You didn't -- there is one
17 entry on Exhibit 18 that you made. Correct?

18 A. Right.

19 Q. And you didn't make the schedule itself that
20 appears as schedule 1 to your testimony. Correct?

21 A. No, not in this exact form, no.

22 Q. Okay. So I can't think of anything else
23 that you would have done in actually preparing
24 schedule 1. Am I missing something?

25 A. Right, other than to keep these records as

1 they were occurring.

2 Q. Okay. So it was your responsibility at some
3 point as an employee of Zoltek to --

4 A. Compile the records.

5 Q. -- keep hold of Exhibit 18?

6 A. Yes.

7 Q. And what period of time was that?

8 A. I would have to say that during the first
9 three pages there probably, the period of time, and it
10 looks like starting in someone else had made this
11 form, so I think at that point someone else was
12 probably compiling this information.

13 Q. Okay. And so a period of maybe '93 to '94
14 you maintained custody of Exhibit 18?

15 A. Yes. Perhaps through '95. I don't see any
16 entries for '95.

17 Q. I don't see any entries for '95 either.

18 But in your duties of maintaining custody of
19 Exhibit 18, did you have some responsibility for
20 reviewing the entries that were made in Exhibit 18?

21 A. I think some of the entries, in fact, I did.
22 I can recognize the handwriting to the left where it
23 says, "Interplant problem" as being my handwriting.
24 So I think periodically I probably did review the
25 incidents to see if they were, in fact, accurate.

1 Q. Let me, if I could -- I'll break it up into
2 two areas. I'm going to ask you what your job
3 responsibilities were and then how you actually
4 carried them out.

5 So in the '93-94, perhaps '95 time period,
6 what was your job responsibilities as far as looking
7 into these -- the entries that were made into
8 Exhibit 18?

9 A. I don't really remember.

10 Q. Okay. Do you --

11 A. I would periodically check them, I think, to
12 make sure they were accurate.

13 Q. That's --

14 A. I won't say that I went through every
15 incident and verified it.

16 Q. Okay. I mean, you know where we're going
17 with this, Mr. Agne, and I think it would help the
18 Commission to understand how this information was
19 prepared and how reliable it was.

20 And so what we're looking for is, in what
21 way did you -- if someone else made this entry, in
22 what way did you go about to verify the accuracy of
23 the information that was inserted into Exhibit 18?

24 A. Okay. Yeah. And I think there were a
25 period of time -- I think there were a total of four

1 times where we had recordings, three of them involved
2 Union Electric, where we took the recordings and
3 validated them against our entries.

4 Q. When did those three times occur?

5 A. I would have to check my records and get the
6 exact dates.

7 Q. Okay. So you're talking -- I think what
8 you're talking about, there was three incidents where
9 UE went out and actually monitored what was going on
10 out at Zoltek. Correct?

11 A. That's correct.

12 Q. Okay. That's good. But I'm talking about,
13 as each one of the entries is made into Exhibit 18, so
14 1-6-93, 1-9-93, going over to the second page,
15 5-19-93, when those entries were made by the people
16 that are listed here, did you follow up in some way to
17 check and see that the date and time and duration that
18 they put in there was accurate?

19 A. Well, I think that's a reasonable sampling,
20 you know. We had some recordings, and I think that we
21 can say, okay, our records are reasonable.

22 Q. Yeah, you can say that. But I'm asking, did
23 you physically or mentally do something on the second
24 entry when Mr. T. or Mrs. T. Indellicate put on this
25 document "1-9-93, 11:15, fifteen seconds"? Did you do

1 something in follow-up to that entry to say what
2 happened that Mr. or Mrs. Indellicate was correct in
3 putting the date and time, what the effect of the
4 incident was, anything like that?

5 MR. MAY: Your Honor, at this -- excuse me.
6 At this time I would like to object. I believe this
7 question has been asked several times, and I believe
8 the witness has answered it several times.

9 MR. PETERS: Your Honor, I clearly have to
10 take exception to that. I'm trying to get to a basic
11 point here, and I don't think it has been answered.

12 THE WITNESS: I did not go through every
13 one --

14 MR. MAY: Hold on a second.

15 JUDGE THOMPSON: Excuse me. We have to have
16 a chance to rule on the objection.

17 THE WITNESS: I'm sorry.

18 JUDGE THOMPSON: Then we'll let you know if
19 you get to answer or not.

20 I don't believe that it has been answered,
21 and I'm going to overrule the objection.

22 And you may reask your question, or do you
23 recall what it was?

24 THE WITNESS: I'm sorry. Please repeat.

25 JUDGE THOMPSON: Go ahead and reask it.

1 BY MR. PETERS:

2 Q. Okay. And I'm just using the second entry
3 as an example.

4 The second entry on the first page of
5 Exhibit 18, there is an entry by T. Indellicate that
6 there was some type of incident on 1-9-93 at 11:15
7 p.m., and apparently that incident lasted fifteen
8 seconds.

9 And I would like to know what, if any -- and
10 I don't even know if this was your responsibility.
11 I'm just asking what, if any, acts did you take to
12 follow up after that incident was recorded to
13 determine whether it was accurately recorded?

14 A. I cannot tell you on a case-by-case basis.
15 Like I said, in some of these incidents, I have noted
16 if there were interplant problems. I didn't in every
17 instance verify this information.

18 I think that there are assessments, as Mike
19 Moran's assessment was of his tenure as plant manager,
20 where we've assessed these against our logbooks to see
21 what the effects were on the operations though.

22 Q. Did you yourself do that?

23 A. I did not do that.

24 Q. So you're speaking of something that you
25 think Mr. Moran did?

1 A. He referred to that as well, and I think
2 that document exists. I don't know that for sure.

3 Q. Okay. I'm going to try and shorten this.

4 So for the example that I gave you, No. 2,
5 you don't recall doing any follow-up to determine the
6 accuracy of the second entry on page 1 of Exhibit 18.
7 Correct?

8 A. Not that particular incident, no.

9 Q. Okay. Rather than go through each entry of
10 Exhibit 18, is there any entry in there that you can
11 say you have confidence that you followed up on that
12 entry to determine the credibility and accuracy of
13 that entry?

14 A. I would have to look at the dates. Again, I
15 have four specific files that relate to the log-in
16 periods when UE was there along with another recording
17 that we have of the events to, you know, verify some
18 validity of the entries.

19 Q. Okay. So it's correct to say that you don't
20 recall following up on any particular entry in
21 Exhibit 18 to determine the accuracy of that entry.
22 Correct?

23 A. I followed up on those incidents that we had
24 recorded to make sure that our records agreed with
25 those recordings.

1 Q. Which incidents?

2 A. That we had recorded.

3 Q. I don't -- what do you mean by "recorded"?

4 I thought --

5 A. We have chart recordings. We have UE's

6 chart recordings. We also have another chart

7 recording from Hewlett Packard which verifies that

8 some of the entries in this are, in fact, accurate.

9 Q. Okay. So now you're talking about three,

10 maybe four instances since 1993 when Union Electric as

11 Hewlett Packard went out and monitored some -- some

12 equipment out at Zoltek. Correct?

13 A. Correct.

14 Q. And those monitorings took a couple of weeks

15 or maybe four weeks --

16 A. Yes.

17 Q. -- each?

18 So you're talking about three or four

19 instances where another party did monitoring of the

20 equipment for three or four weeks. So you're talking

21 about a total of at the most sixteen weeks. Correct?

22 A. I couldn't say the period. I don't know.

23 Q. Well, I just did some math there. You're

24 saying that each one of them didn't go longer than

25 four weeks?

1 A. I would have to look at the records.

2 Q. Am I close? Do you have any recollection?

3 A. Roughly.

4 Q. Roughly. So, roughly, the monitoring
5 took -- each monitoring took four weeks, so, roughly,
6 the monitoring -- the four monitorings took about
7 sixteen weeks, roughly?

8 A. Roughly, yeah.

9 Q. Okay. So this Exhibit 18 covers 1993
10 through 2001, so you could say that four sixteen weeks
11 out of those seven or eight years, there was some
12 follow-up to determine the accuracy of the entries in
13 this exhibit. Correct?

14 A. Yes.

15 Q. And the other -- the balance of those years,
16 outside the sixteen weeks, there wasn't follow-up to
17 determine the accuracy of the entries. Correct?

18 A. I think the follow-up was done in the
19 assessment of the effects.

20 Q. What's that mean?

21 A. Like Mike Moran presented earlier where he
22 went through and assessed the effects of each outage.

23 Q. I'm speaking of you. What did you do? Did
24 you do any follow-up to check the accuracy?

25 A. No, I did not.

1 Q. Okay. So I was getting to your testimony on
2 page 4 where you say you've compiled this exhibit to
3 your -- to your testimony. And I was asking you what
4 involvement you had in preparation of that document.

5 Have we missed anything else that you have
6 done to prepare schedule 1 to your testimony?

7 A. I don't believe so.

8 Q. Okay. Mr. Agne, the schedule to your
9 testimony, Exhibit WA-2, is referred to as Zoltek
10 Corporation Summary of Service Quality Incidents.
11 Correct?

12 A. Yes.

13 Q. Who came up with the term "service quality
14 incidents"?

15 A. I don't know.

16 Q. Is it safe to --

17 JUDGE THOMPSON: Excuse me. You're going to
18 continue for quite some time, are you not?

19 MR. PETERS: Yes.

20 JUDGE THOMPSON: So at this point we're
21 90 minutes since the lunch break, so we'll take a
22 ten-minute recess at this time. Thank you.

23 When we return, you'll still be on the
24 stand, Mr. Agne, and you'll still be examining.

25 (A recess was taken.)

1 JUDGE THOMPSON: Okay. We'll go ahead and
2 go back on the record.

3 You may inquire.

4 MR. PETERS: Thank you, your Honor.

5 BY MR. PETERS:

6 Q. Mr. Agne, we -- just before we broke, we
7 were talking about the term "service quality
8 incidents," and I believe you stated you don't know
9 where that term came from.

10 You recall your deposition being taken in
11 this matter. Correct?

12 A. Yes.

13 Q. And Dave Evelev of my office took your
14 deposition?

15 A. Yes.

16 Q. Okay. Do you recall defining that term? Do
17 you recall what your definition was of the term
18 "service quality incident"?

19 A. No, I do not.

20 Q. Well, what would you define it as today?

21 A. I would say anything as a noticeable
22 disturbance to us.

23 Q. And that would include a flicker of the
24 lights or a dimming of the lights. Correct?

25 A. Yes.

1 Q. Not -- you're not saying that the 68 items
2 on schedule 1 to your Direct Testimony, you're not
3 saying that those all caused the process equipment at
4 Zoltek to shut down?

5 A. No.

6 Q. And the people who recorded whether a
7 service quality incident occurred or not are the
8 people that are out on the plant floor running the
9 machines; is that correct?

10 A. Yes.

11 Q. And you understand the difference between a
12 power outage and a sag in that a power outage means
13 that the electricity coming into Zoltek goes down to
14 zero, and a sag is just a fluctuation in that power;
15 is that correct?

16 A. That's my understanding.

17 Q. And it's possible for equipment to keep
18 running during sags?

19 A. It's possible, yes.

20 Q. And you don't know, you can't tell the
21 Commission which of the 68 service quality incidents
22 on schedule 1 to your exhibit, which of those caused
23 an effect on the process equipment of Zoltek.
24 Correct?

25 A. I would say that anything here greater than

1 two seconds caused some effect, and it would depend
2 also on what machinery was running at the time.

3 Q. Again, you recall your test-- your
4 deposition was taken back on August 2nd, 2001.
5 Correct?

6 A. Yes.

7 Q. Do you recall that?

8 And tell me if this question and answer is
9 correct to your recollection. You were asked, Does it
10 necessarily mean that it was -- I'll step back.

11 Question: "First of all, the service
12 quality incidents, how do you define them? How do you
13 define a service quality incident?"

14 Your answer was, "Any time we experience any
15 sort of interruption in power."

16 You were then asked, "Does it necessarily
17 mean that it was some tangle effect on the Zoltek
18 facility if it's listed here?"

19 Your answer was, "Some of these may not have
20 had tangible effects."

21 You were then told, "As you look at it here
22 today, can you even tell me, as far as this document
23 is concerned, which events had an effect on Zoltek's
24 operations versus which didn't?"

25 And your answer was, "I cannot tell from

1 this document which did and which didn't, but it is
2 recorded somewhere."

3 For some reason when your deposition was
4 taken and you were looking at the schedule to your
5 Direct Testimony, you weren't able to tell --

6 A. I can't tell on every incident.

7 Q. But you just gave us a very definitive
8 answer, saying that anything over two seconds on there
9 has an effect?

10 A. Yes. But under two seconds, I can't tell
11 you.

12 Q. But when your deposition was taken, you
13 couldn't even give us that much information, that
14 anything over two seconds would --

15 MR. MAY: Your Honor, I would object to this
16 line of questioning. Specifically, he seemed -- I
17 don't know what page of the deposition. Counsel
18 hasn't identified that. But it seems an awkward
19 attempt to try to impeach the testimony of the
20 witness, yet the witness's testimony seems consistent
21 with the deposition testimony. So I'm not sure where
22 this is going. I would just object. I think it's
23 inappropriate and improper.

24 MR. PETERS: Your Honor, I can back up and
25 lay the foundation. It's on page 46 and page 57 of

1 the deposition.

2 BY MR. PETERS:

3 Q. In fact, Mr. Agne, if you -- I can show you
4 this page, but -- specifically where it says, "WA-2,
5 that's a Summary of Service Quality Incidents for '93
6 and '94 and '95, who prepared that document?"

7 Can I show you his deposition?

8 JUDGE THOMPSON: My ruling on your objection
9 is that it's overruled.

10 You may approach and show him the document.

11 Do you want to have that marked?

12 MR. PETERS: I think we will, your Honor.

13 JUDGE THOMPSON: Okay.

14 MR. PETERS: Mr. Vitale will kindly get
15 those together.

16 JUDGE THOMPSON: I guess we're up to Exhibit
17 No. 20; is that correct?

18 MR. PETERS: Yes.

19 JUDGE THOMPSON: This is will be the
20 Deposition Transcript of Mr. Agne?

21 (EXHIBIT NO. 20 WAS MARKED FOR
22 IDENTIFICATION.)

23 BY MR. PETERS:

24 Q. Mr. Agne, you've been handed Exhibit 20,
25 which is a copy of your deposition that was taken on

1 August 2nd, 2001. I would ask you to look at line 5
2 of page 56, and you can correct me at any time as I'm
3 reading.

4 Question: "WA-2, that's a summary of
5 service quality incidents for '93 and '94 and '95, who
6 prepared that document?"

7 And, Mr. Agne, if I could ask you, WA-2 is
8 the exhibit to your Direct Testimony. Correct?

9 A. Yes.

10 Q. And your answer to that question was, "I'm
11 not sure who prepared this final document. A portion
12 of this, I had created the log sheet for the operators
13 where they would actually write in the information and
14 then somebody takes that information from the floor
15 and puts it into a spreadsheet like this."

16 Question: "Well, if you didn't create this
17 document, have you compared it with the spreadsheet?"

18 Answer: "Yes."

19 Question: "When did you do that?"

20 Answer --

21 MR. ALLEN: Judge, we've gone through this
22 testimony earlier. This is repetitive. It's not for
23 impeachment. It's -- it's inadmissible.

24 MR. PETERS: Your Honor, I had not gone
25 through this --

1 JUDGE THOMPSON: Just a moment, please.

2 MR. ALLEN: He just testified to this,
3 Judge.

4 JUDGE THOMPSON: Thank you.

5 What page are we on?

6 MR. PETERS: We're on page 56, line 5, is
7 where I just started. My earlier questioning was on
8 page 57, and there was an objection that it was --

9 JUDGE THOMPSON: Okay.

10 MR. PETERS: -- that it wasn't inconsistent,
11 and now I'm going back for them to show that it was
12 clearly inconsistent.

13 MR. MAY: Your Honor, just to add to the
14 objection, it seems to me, and this was --

15 JUDGE THOMPSON: We can't double team.

16 MR. MAY: They're four-teaming us, Judge, so
17 we're just trying to even the score a little bit.

18 MR. VITALE: One person is speaking per
19 witness.

20 MR. MAY: That was supposed to be a joke.
21 Have a little laugh.

22 JUDGE THOMPSON: Mr. Allen?

23 MR. ALLEN: Judge, let me back off. I just
24 overreacted to that. Mr. May is handling -- he has
25 been handling the objections. I would respectfully

1 apologize and withdraw. I'm just --

2 JUDGE THOMPSON: Thank you, Mr. Allen.

3 I appreciate that.

4 MR. ALLEN: All right, sir.

5 JUDGE THOMPSON: Mr. May.

6 MR. MAY: Your Honor, thank you.

7 JUDGE THOMPSON: Give us all of the
8 objections you have, and let's take them all up one by
9 one.

10 MR. MAY: I would state the objection again,
11 your Honor, that my understanding is this deposition
12 testimony -- and counsel will have to correct me, but
13 it's being offered for the purpose of impeachment.
14 Impeachment, it's my understanding, is something of
15 inconsistency in the testimony. I'm somewhat confused
16 by lines 5 through 13 is where we are now, in what
17 manner that is --

18 JUDGE THOMPSON: On what page?

19 MR. MAY: Page 56.

20 JUDGE THOMPSON: Line five through thirteen?

21 MR. MAY: Yes, sir.

22 In what manner that is inconsistent, I'm not
23 sure.

24 Additionally, those were questions that had
25 been asked previously during this cross-examination,

1 so it does not seem very timely or appropriate at this
2 point to try to impeach testimony that he had asked
3 repeated questions and appeared to be satisfied with
4 the answer.

5 MR. PETERS: Your Honor, if I could respond?

6 JUDGE THOMPSON: You may respond.

7 MR. PETERS: First of all, it's my
8 understanding that we weren't necessarily held to the
9 strict evidentiary rules in this hearing, and I think
10 the deposition testimony is very relevant evidence in
11 itself here today.

12 Furthermore, it is an inconsistent
13 statement.

14 JUDGE THOMPSON: Tell me, what is the
15 inconsistency?

16 MR. PETERS: On page 57, Mr. Agne was asked,
17 can he tell from this WA-2 exhibit which of the
18 incidents listed therein had effect on Zoltek, and he
19 said, "No, I can't tell by looking at this document."

20 JUDGE THOMPSON: Okay.

21 MR. PETERS: I've just asked him by looking
22 at only that document, which of the service quality
23 incidents cause an effect, and he said anything over
24 two seconds caused an effect.

25 JUDGE THOMPSON: That is an inconsistency.

1 MR. MAY: Your Honor, I would simply say
2 that I was referring to page 56, lines 5 through 13.
3 In response, counsel pointed to page 57, a totally
4 different subject.

5 So I'm somewhat confused. The objection is
6 with respect to his reading of page 56, 5 through 13
7 as being not inconsistent and not being timely to the
8 extent he's already exhausted this area.

9 JUDGE THOMPSON: Okay. Let's go back to 5
10 through 13 on 56. You read that to show what?

11 MR. PETERS: That the service quality
12 incidents that they are referring to on page 57 were
13 those contained in the WA-2 exhibit.

14 JUDGE THOMPSON: So that was essentially
15 background?

16 MR. PETERS: Yes.

17 JUDGE THOMPSON: Okay. Very good. I'm
18 going to deny the objection, or objections if there
19 were more than one.

20 Please proceed.

21 BY MR. PETERS:

22 Q. Mr. Agne, we've proceeded through the
23 question and answer on lines 5 through 13. I'll start
24 at 14. I think we may have read that already, but,
25 again, page 56, line 14.

1 "Well, if you didn't create this document,
2 have you compared it with the spreadsheet?"

3 Answer: "Yes."

4 Line 17, question: "And when did you do
5 that?"

6 Answer on line 18, "I'm sorry. This is the
7 spreadsheet. I compared it with the actual recordings
8 on the log, the handwritten recordings."

9 Question: "And does it accurately reflect
10 the recording?"

11 "Yes."

12 Question: "First of all, the service -- the
13 service quality incidents, how do you define -- how do
14 you define a service quality incident?"

15 Answer: "Any time that we experience any
16 sort of interruption in power."

17 Question: "Does it necessarily mean that it
18 was some tangible effect on the Zoltek facility if
19 it's listed here?"

20 Answer: "Some of these may not have had
21 tangible effects."

22 Question: "As you look at it here today,
23 can you even tell me as far as this document is
24 concerned which events had an effect on Zoltek's
25 operations versus which didn't?"

1 Answer: "I cannot tell from this document
2 which did and which didn't, but that is recorded
3 somewhere."

4 Now, I asked you the same question.
5 Looking at WA-2, which was the spreadsheet -- or the
6 schedule 1 to your Direct Testimony, and you said by
7 looking at it today you can tell which ones had an
8 effect, and you said anything over two seconds.

9 So I would ask you, what has changed between
10 today's testimony and your testimony in your
11 deposition in August?

12 A. Well, his question is, can you tell me which
13 did and which did not, so I cannot tell you which did
14 not. You asked me which did, and I can tell you that
15 greater than two seconds, yes, we probably know.
16 Which did not, we probably don't know.

17 Q. So do you have any personal knowledge from
18 any of the items 1 through 68, looking at WA-2, which
19 of those entries caused an effect on the process
20 equipment at Zoltek, any one particular entry?

21 A. Say the question again. I'm sorry.

22 Q. Can you look and identify for the Commission
23 any one particular entry within Nos. 1 through 68 of
24 your Exhibit WA-2 which caused an effect on the Zoltek
25 process equipment?

1 A. I cannot with certainty identify which ones
2 had an effect.

3 Q. Do you have any personal recollection of the
4 events of -- that coincide with any one of the events
5 in Nos. 1 through 68?

6 A. They are pretty vague at this time. It
7 was -- that was quite awhile ago.

8 Q. So you can't?

9 A. No.

10 Q. Now, in your Direct Testimony on page 3,
11 line 15, you say that you vividly remember having
12 problems with the electrical service at this facility
13 and you say, "In fact, I know of nearly 60 service
14 quality incidents during the time I worked at the
15 facility." Correct?

16 A. Yes.

17 Q. But you don't today recall any of the events
18 surrounding any of the entries in Nos. 1 through 68 of
19 schedule 1. Correct?

20 A. I can't tell you that I have a vivid
21 recollection of any certain events. For example, when
22 the incident occurred when they tried to correct the
23 fault several times, I was there that day when that
24 occurred, when we saw the power go out about five
25 times from them trying to clear the fault. These are

1 memories that I have, and the general scramble that
2 occurred when we had power interruptions. So these
3 are vivid memories to me from my experience there, but
4 to isolate one particular event in those -- this list
5 from five years ago, I cannot say I vividly remember
6 this event.

7 Q. Okay. And certainly there weren't 68
8 incidents that caused a vivid memory, not 68 incidents
9 that were so traumatic or dramatic that you have a
10 vivid recollection of that?

11 A. Right.

12 Q. Okay. And on page 4, you state in your
13 Direct Testimony, again, which is Exhibit 4 in this
14 hearing -- you were asked, "What, if any, is the
15 result service quality incident?" And you say, "It
16 differs from process to process." You describe a
17 purge sequence that must be completed before an oven
18 can be relit. When there is an interruption of power
19 of any sort, the heat must be restarted.

20 You go on to say that so every time there is
21 a power interruption, we could potentially have a
22 material that is out of specification and must restart
23 the processes. The product properties have been
24 adversely affected and maintenance is required to
25 replace the safety valve. In addition, water may be

1 drawn into the vessel. That was parts of your
2 testimony on page 4.

3 I'm just wanting to make the point there
4 that your testimony in lines 8 through 19 on page 4,
5 you in no way are saying that those things happened
6 all of the time in each of the incidents that were
7 listed on the schedule attached to your testimony?

8 A. No, I'm not saying that.

9 Q. And you heard Mr. Rummy's testimony earlier
10 today, and it was my recollection -- you correct me if
11 I'm wrong, but it was my recollection that he was
12 really clear in saying he's most concerned about when
13 the equipment goes down, and he said that might have
14 happened about a dozen times over -- since '93.
15 Correct?

16 MR. MAY: Your Honor, I would object to
17 Mr. Agne being asked about statements made by Mr. Rummy
18 during his cross-examination. Those are in the
19 record. I don't see why Mr. Agne has to verify or
20 admit or deny those statements.

21 MR. PETERS: I recall it, and I'm just
22 asking.

23 JUDGE THOMPSON: I think he can answer if he
24 knows.

25 BY MR. PETERS:

1 Q. Yeah. You may -- I'm just asking if you
2 recall Mr. Rummy's testimony.

3 JUDGE THOMPSON: There was some difficulty
4 getting answers from Mr. Rummy, as I recall.

5 THE WITNESS: If you would repeat the
6 question, please, I would appreciate it.

7 BY MR. PETERS:

8 Q. It was my recollection that Mr. Rummy
9 testified that he was most concerned about the
10 incidents where there was complete power outage and
11 the process machinery, I'll call it, the oxidizers,
12 went down, and he kind of described those incidents,
13 and I believe he said that happened about a dozen
14 times.

15 Do you recall that testimony?

16 A. I recall the testimony.

17 Q. Is that an accurate recollection?

18 A. I would not pin that number on the number of
19 outages.

20 Q. Okay. So you don't recall him using the
21 number twelve or a dozen?

22 A. I recall him using that, but I would not
23 assign that number.

24 Q. Okay. But that -- I think he tried to give
25 us a sense of what he was concerned about, and it was

1 kind of dramatic in my mind of what goes on out there
2 at the plant when these incidents occur that he's most
3 concerned about.

4 Is that the same type of incident that you
5 are trying to describe here in your testimony in
6 lines 8 through 19 on page 4, the most extreme
7 incidents?

8 A. I would say that his -- he's roughly
9 concerned with the same things to a larger extent. I
10 think these are the immediate things that happen, and
11 with the longer durations, it can have a worse effect.

12 Q. Well, let's take it this way: In line 16
13 you say that the -- you describe some things that can
14 happen, and then in line 16 you say, "The product
15 properties are then adversely affected, and
16 maintenance is required to replace the safety valve."

17 And "product properties," you're talking
18 about the -- whatever the carbon product is that
19 you're working with within the oxidizers. Correct?

20 A. Yes.

21 Q. Okay. So do you know how many times since
22 1993 Zoltek has lost product properties as a result of
23 electrical disturbances?

24 A. I do not.

25 Q. Would you agree with me that it's -- it's

1 closer to a dozen times than it is to 277 times?

2 A. I don't know.

3 Q. Okay. This is not for impeachment. I'm
4 just trying to do this in a shorter way.

5 I read in your deposition about some fires
6 that occurred out in Zoltek in the early stages of its
7 operations at the Missouri Research Park facility.

8 Do you know what I'm referring to there?

9 A. I believe those are actually referenced to
10 the Stackpole Fiber operations when the operation was
11 in Massachusetts, and, in fact, that might be the
12 fires referenced in the deposition.

13 If you could point me to the page and --

14 Q. Yeah, sure. Page 37.

15 A. I'm sorry. This is my deposition -- this is
16 my deposition you're referring to?

17 Q. Yes.

18 A. And page 37, which line?

19 Q. Well, actually the whole page. And if
20 you -- you would have to go back and read a couple
21 pages more, if you need to really -- if it doesn't jog
22 your memory.

23 I don't think I'm misleading you here.

24 You're talking about the '92 to '93 period, the
25 beginning stages of starting up the facility out

1 there.

2 JUDGE THOMPSON: Line 9 of page 37 it says,
3 "There were fires that were occurring." Is that
4 perhaps what you're thinking of?

5 MR. PETERS: Yes. Thank you, your Honor.

6 MR. MAY: Your Honor, having participated in
7 the deposition, I would just point out that on line 9,
8 that was Mr. Evelev that made a statement that there
9 were fires occurring. That's not the answer.

10 MR. PETERS: I'm just saying if he recalls
11 it, because we would have to go back and read several
12 pages. I mean, David Evelev didn't come up with this.
13 He got it from you.

14 THE WITNESS: So what was the question
15 again? I'm sorry.

16 MR. PETERS: I'm just trying to see if you
17 recall discussion with Mr. Evelev about some fires
18 that occurred out at Zoltek in the '92-93 time frame.

19 JUDGE THOMPSON: Do you need a few minutes
20 to read a couple of pages there?

21 THE WITNESS: Perhaps.

22 JUDGE THOMPSON: You can just abandon the
23 deposition and ask him if he remembers fires?

24 BY MR. PETERS:

25 Q. Yeah. If you look at page 36, you're

1 talking about an exothermic process when the material
2 heats, the temperature is at a critical point, and you
3 say if it's a little bit too high, it can cause an
4 exothermic reaction which is a fire.

5 And you were asked how many times it's
6 happened, and you say it was relatively rare.

7 A. Yeah.

8 Q. Do you recall those -- the fires that you
9 were referring to down on page 37 that were in the
10 '92-93 time frame?

11 A. I couldn't tell you I recall one specific
12 incident.

13 Q. Okay. Do you recall agreeing to
14 Mr. Evelev's testimony -- or question that those fires
15 weren't caused by electricity?

16 A. They could have been.

17 Q. They could have been caused by electricity?

18 A. Yeah. I'm not saying that all of the them
19 were -- were caused by operational start-up. I mean,
20 if there was an electricity problem, that certainly
21 could still cause a fire.

22 Q. Well, let me -- let me ask you for -- what
23 you think about the question and answer then on
24 page 37.

25 You were asked, "There were fires that were

1 occurring. And as we sit here, you're not alleging
2 that those fires were occurring as a result of any
3 problems with the electricity? They were occurring
4 because you were learning how to do this process?"

5 And you said, "Right."

6 A. Those fires, you refer to which fires?

7 Q. I was asking you what you were talking about
8 in the deposition, but we clearly are talking about --

9 A. Well, the fires associated with start-up
10 problems, but I'm also not saying that every fire that
11 occurred --

12 Q. No, I'm not either.

13 A. -- in that period --

14 Q. Sure.

15 A. -- was strictly attributed to start-up.

16 Q. Right. No. I was trying to ask you from --
17 if you recalled in your deposition when you were
18 talking to Mr. Evelev about these things?

19 A. Right. No. We --

20 Q. I think you were saying that there were some
21 fires, and we can go through your deposition, but I
22 think you said that there was a learning process that
23 Zoltek had to go through in the early stages of its
24 process.

25 A. Right. And I --

1 Q. Hang on. Let's get the question first.

2 Do you recall saying that there was a
3 learning curve that Zoltek had to go through to learn
4 these processes that it was establishing out at
5 Missouri Research Park. Correct?

6 A. Yes.

7 Q. And do you recall then testifying that as
8 you were in that learning curve, there were some fires
9 out at the facility that were referred to as
10 exothermic reactions. Correct?

11 A. Yes.

12 Q. And that some of those early fires weren't
13 caused by electricity problems. They were caused by
14 Zoltek learning the processes that it was working
15 with?

16 A. That's correct.

17 Q. And you said that these fires rarely occur.
18 Do you know how many fires occurred out at Zoltek that
19 were caused by electricity problems?

20 A. I do not.

21 Q. Okay. I believe you were involved in some
22 of the design of the equipment at Zoltek; is that
23 correct?

24 A. In the later years.

25 Q. Okay. And was the equipment at Zoltek

1 designed by Zoltek?

2 A. Yes.

3 Q. And, again, as Zoltek started its operations
4 out at the Missouri Research Park in '92 or '93,
5 everybody associated with Zoltek was kind of going
6 through a learning curve and learning the processes
7 that they were attempting to pursue out there.

8 Correct?

9 A. Yes.

10 Q. Now, you are an electrical engineer.

11 Correct?

12 A. Yes.

13 Q. And you agree that there is no such thing as
14 perfect power?

15 A. Yes.

16 Q. And by that I assume that we're saying that
17 there is no situation on earth that we know of right
18 now where a utility can provide service to a customer
19 and guarantee that there will never be a sag and never
20 be an outage. Correct?

21 A. I would agree to that, yes.

22 Q. So as Zoltek is designing its equipment for
23 the processes that it's pursuing out at the Research
24 Park, it knows that there is the possibility of sags
25 and outages. Correct?

1 A. Yes.

2 Q. And you're also aware that Zoltek did not
3 engage -- or, to your knowledge, you don't know of any
4 load testing or sensitivity testing that was done on
5 Zoltek's equipment before beginning operations at the
6 Research Park. Correct?

7 A. That's correct.

8 Q. And I believe you're also aware that there
9 are some national standards that are applied to
10 machinery and that there -- by those standards there
11 is usually descriptions that come along with the
12 machinery that identifies for the user what type of
13 loads they need and can handle; is that correct?

14 A. Can you say that again? I'm sorry.

15 Q. Yeah. And you would be able to put this
16 better than I, but I think that there are some
17 national standards for machinery and those standards
18 are used to be able to identify to the user what type
19 of electrical needs that machinery has and what --
20 what electrical power it can handle without having
21 some adverse effect.

22 MR. MAY: Your Honor, object at this time.
23 Lack of foundation. It assumes facts not in evidence.

24 JUDGE THOMPSON: I think he asked him, You
25 are aware, did he not?

1 Read the question back, would you, Miss
2 Reporter.

3 MR. PETERS: I can --

4 JUDGE THOMPSON: You need to wait until I
5 rule. Then we can talk about what you can do to fix
6 it.

7 (THE PENDING QUESTION WAS READ BY THE COURT
8 REPORTER.)

9 QUESTION: Yeah. And you
10 would be able to put this better
11 than I, but I think that there
12 are some national standards for
13 machinery and those standards
14 are used to be able to identify
15 to the user what type of
16 electrical needs that machinery
17 has and what -- what electrical
18 power it can handle without
19 having some adverse effect.

20 JUDGE THOMPSON: Are you able to answer the
21 question?

22 THE WITNESS: I'm not aware of such a
23 standard.

24 JUDGE THOMPSON: Is that the same as telling
25 me you cannot answer the question?

1 MR. PETERS: I think that --

2 THE WITNESS: He asked me if I was aware of
3 the standard.

4 MR. PETERS: Right.

5 THE WITNESS: I'm not aware of one.

6 JUDGE THOMPSON: We'll just go on from
7 there. Thank you.

8 MR. PETERS: Thank you.

9 BY MR. PETERS:

10 Q. One final point on that -- on that line:
11 When Zoltek was designing its equipment and getting
12 ready to operate its processes out at the Missouri
13 Research Park, it had the opportunity to plan for
14 possible effects of sags and outages in electricity.
15 Correct?

16 A. I was not involved in the initial design, so
17 I can't really speak about that period.

18 Q. Okay. It's really just kind of a general
19 question if you -- since we've laid the foundation of
20 the other questions.

21 Do you have any reason to believe that
22 Zoltek didn't have the opportunity to plan for sags or
23 outages when it was designing its equipment?

24 MR. MAY: your Honor, I would object. At
25 this time I believe the question has been asked and

1 answered. The previous question (sic) was the witness
2 didn't have any knowledge of that.

3 JUDGE THOMPSON: Sustained.

4 BY MR. PETERS:

5 Q. You feel that -- well, were you aware of
6 some meetings or communications between Union Electric
7 and Zoltek regarding the problems that Zoltek was
8 encountering?

9 A. Yes.

10 Q. And you felt that UE took Zoltek's
11 complaints and concerns seriously?

12 A. I think they took them seriously.

13 Q. And you are aware of numerous things that
14 Union Electric has -- has done to the electrical
15 system out at the -- that serves the Research Park
16 since 1993. Correct?

17 A. I have a general knowledge of the changes,
18 but I think for us as a user a lot of these things are
19 transparent and it's hard for me to say when those
20 changes were made.

21 Q. Sure.

22 A. But I'm aware of some of the changes that
23 were made.

24 Q. Okay. And if you need to refer to Page 74
25 and 75 of your deposition, please do so. But could

1 you identify some of the things that you're aware of
2 that Union Electric has done to the electrical system
3 serving Zoltek since '93?

4 A. Well, I think one of the major things was
5 they serviced the substation with an additional feeder
6 from the McClay substation as well as the Prairie
7 Point. And I believe there were reclosures installed
8 as well as a substation upgrade.

9 Q. Is that it?

10 A. Yes, unless I've missed something that is in
11 the testimony here that I can't recall.

12 Q. You have not been involved in any meetings
13 in which Zoltek communicated to representatives of
14 Union Electric what its particular electrical needs
15 were, were you?

16 A. No. Well, let me take that back. At that
17 time, I was not. At a later point, we had a service
18 upgrade where I was involved in that, yes.

19 Q. When was that?

20 A. I believe it was '95.

21 Q. And what was the meeting?

22 A. Generally, to discuss requirements for our
23 service upgrade because we were putting additional
24 equipment in, so for that purpose, I had to meet with
25 Union Electric representatives to arrange the

1 coordination and really just the general system
2 requirements for the new processes we were to put in
3 the place, as well as to present the information to
4 get economic development riders and things like that.

5 Q. Okay. Is that the only meeting that you can
6 recall having with Union Electric representatives
7 regarding Zoltek's electrical needs?

8 A. Yeah. I mean, I think there were several at
9 that time. There were several meetings.

10 Q. Let me ask you about the ones that you were
11 personally there, personally involved in the
12 communications.

13 A. Yes.

14 Q. Yes, that's the only one?

15 A. Well, I won't say there was one meeting. I
16 will say there were several meetings with them at that
17 time in the '95 period -- in the '95 period.

18 Q. I'm trying to limit this area to meetings
19 that you were actually at yourself where you heard you
20 or someone from Zoltek communicate to representatives
21 of Union Electric that you heard it personally said
22 what Zoltek's electrical needs were.

23 A. Well, again, I'm saying this is in the '95
24 time period.

25 Q. I know, and you've identified the one

1 meeting. I'm just asking, where there any other ones?

2 A. I'm saying there were (sic) more than one
3 meeting in the '95 period, but --

4 Q. That you were personally at?

5 A. Yes.

6 Q. Okay. What other meetings were there where
7 you were personally there and heard Zoltek communicate
8 to Union Electric what Zoltek's electrical needs were?

9 A. I was not at any additional ones except for
10 one meeting perhaps involved when we were having a
11 power quality incident.

12 Q. Is that the one that you've just told us
13 about regarding that you had some new things that were
14 being installed or was there another one that you're
15 talking about?

16 A. Well, this was -- this was earlier on,
17 perhaps '93 or something like that.

18 Q. Perhaps. And you were there?

19 A. Yes.

20 Q. Can you tell us who was at the meeting?

21 A. I think Mr. Romy was there, probably Dave
22 Spahn, and several -- Mr. Carr and some of the other
23 Union Electric representatives.

24 Q. Okay. And you recall that Zoltek at that
25 meeting communicated to Union Electric what its

1 electrical needs were?

2 A. I think it was discussed. I mean, that was
3 the issue, was the quality of the -- of the power.

4 Q. And what was -- what did Zoltek tell Union
5 Electric about its electrical needs?

6 A. That we needed more reliable service.

7 Q. Anything else?

8 A. No.

9 Q. So there was two meetings that you can
10 recall, this one in '93 and then the one in '95 when
11 there was an upgrade of some sort?

12 JUDGE THOMPSON: I think he said there were
13 several meetings in '95 in addition to the one in '93.
14 Is that right?

15 THE WITNESS: Yes. In '95 I was really more
16 involved with the plant upgrade where there were
17 several meetings about our coordination, and it was a
18 different issue then.

19 BY MR. PETERS:

20 Q. Okay. So UE worked with Zoltek regarding
21 its needs for its new -- new lines it was installing,
22 is that what you're saying, in '95?

23 A. Correct.

24 MR. PETERS: Your Honor, if I could have one
25 moment, please?

1 JUDGE THOMPSON: You may. No problem.

2 BY MR. PETERS:

3 Q. Okay. In your Direct Testimony -- we've
4 talked about all of the meetings now. Right? '95
5 there was several, and one in '93. Correct?

6 A. Yes. I won't peg the one year to '93 for
7 sure, but yes.

8 Q. Was it before or after?

9 A. I would say probably after.

10 Q. Okay. Now, on page -- when was the facility
11 constructed?

12 A. I believe it began around 1990. It was
13 prior to my working there.

14 Q. Okay. On lines 8 through 11 on page 3 of
15 your Direct Testimony, you say that, "The nature of
16 our work, our electrical demands and our need for high
17 service quality were communicated to Union Electric
18 prior to and during the construction of the facility."

19 Now, that would have been prior to this
20 meeting of '93 that you were referring to. Right?

21 A. Yes.

22 Q. So when you make that statement in your
23 Direct Testimony, you're not talking about statements
24 that you personally heard?

25 A. That's correct.

1 Q. Okay. Do you recall a meeting with Union
2 Electric in 1997 with Marty Eckelkamp and maybe some
3 other people of Union Electric to discuss some
4 problems that Zoltek was having?

5 A. You know, that may be the meeting that I
6 referred to as being in '93, or whatever. I'm not
7 sure what -- what went on in that meeting. I can't
8 really tie a specific date to it.

9 Q. Okay. Do you know Marty Eckelkamp?

10 A. I perhaps met him once --

11 Q. Okay.

12 A. -- or twice.

13 Q. You don't particularly remember a meeting
14 with him, or you may have, but you only met him a
15 limited number of times, I guess, so it's hard to
16 recall?

17 A. Yeah.

18 MR. PETERS: Okay. I have nothing further
19 at this time, your Honor.

20 JUDGE THOMPSON: Thank you very much,
21 Mr. Peters.

22 Now, we have not received Exhibit 20.

23 MR. PETERS: I apologize for that.

24 At this time I would move Exhibit 20, the
25 deposition of Wayne Agne, into evidence.

1 JUDGE THOMPSON: Any objection?

2 MR. MAY: Your Honor, I would object to the
3 admission of that into evidence. I believe it was
4 offered for the purpose of impeachment. Mr. Agne -- I
5 think his testimony live today is his testimony. I
6 can't understand for what purpose it would be entered
7 into evidence.

8 MR. PETERS: Your Honor --

9 JUDGE THOMPSON: The objection is you don't
10 know the purpose?

11 MR. MAY: No, your Honor. The objection is
12 that it was offered, I believe, for the purpose of
13 impeachment of his testimony. There is no substantive
14 purpose to it, and I believe the substance of his
15 testimony was given live today.

16 And the other thing is, your Honor, there
17 were -- is it the deposition that's being moved for
18 admittance -- or admission, or is it certain pages of
19 the deposition? And --

20 JUDGE THOMPSON: I think he moved the entire
21 deposition.

22 MR. MAY: Okay. And the way it turned out,
23 there were, I recall, two pages, three pages that were
24 offered and seemed to serve the purpose of solely
25 refreshing the memory of the witness.

1 JUDGE THOMPSON: I'll take that objection
2 under advisement. I'll give you an answer in the
3 morning.

4 MR. MAY: Yes.

5 JUDGE THOMPSON: Thank you, Mr. Peters.

6 MR. PETERS: Thank you, your Honor.

7 JUDGE THOMPSON: Now, it is time for
8 questions from the Bench, and I'm the only one on the
9 Bench.

10 QUESTIONS BY JUDGE THOMPSON:

11 Q. Mr. Agne, what is your present position with
12 Zoltek?

13 A. I'm currently a design engineer at corporate
14 headquarters.

15 Q. And what was your position with Zoltek
16 between September of '91 and July of 1995 when you
17 were located at the plant?

18 A. It varied according to that time frame.
19 Initially, I was more of an associate engineer in
20 helping with the start-up of the processes. And
21 toward the end, I moved into the design work.

22 Q. Were you ever the operations manager, which
23 is what I believe Mr. Moran was called?

24 A. No.

25 Q. Was there some other individual who held

1 that position?

2 A. Yes. Dave Spahn.

3 Q. That was Mr. Spahn?

4 A. Yes.

5 Q. And we're going to hear from him later;
6 isn't that correct?

7 A. Yes.

8 Q. Now, Mr. Moran spoke with respect to an
9 exhibit showing the effect of each of several
10 interruptions. Do you recall that exhibit?

11 A. Yes. I'm not sure that I saw the exhibit,
12 but I remember the testimony.

13 Q. You heard the testimony. You didn't get to
14 see it. And it was Exhibit 19.

15 Are you aware of any such document with
16 respect to the incidents that occurred during your
17 tenure at the plant?

18 A. I believe that document exists. I don't
19 know that for a fact, but I think that Dave has that.

20 Q. And when you say "Dave," do you mean
21 Mr. Spahn?

22 A. Yes, Dave Spahn, that he was preparing that
23 at that time. I don't know that for a fact.

24 Q. He would be the person to ask about that?

25 A. Yes.

1 Q. Okay. And did I understand correctly that
2 the Zoltek facility was built in 1990, as far as you
3 know?

4 A. As far as I know. I started in '91, so I'm
5 not sure when the ground breaking really was.

6 Q. So when you came in 1991, the facility was
7 already there?

8 A. It was in the progress of being constructed.

9 Q. Were all of the machines in place in 1991?

10 A. They were not up on line at that time.
11 There were electricians in the facility and
12 pipefitters, and the machinery was in the process of
13 being installed.

14 Q. So it would be fair to say that you joined
15 when they were still in a start-up mode?

16 A. Yes.

17 Q. Okay. And when did that end and regular
18 production begin?

19 A. I don't know that I can give you an exact
20 date, and I think there is a certain gray area in
21 that, too, where you're learning the process.

22 Q. Okay. And that's part of the learning curve
23 you were talking about earlier?

24 A. Right.

25 Q. Okay. And I understand Zoltek's procedures

1 and processes are proprietary; is that correct?

2 A. Yes.

3 Q. So Zoltek designed the equipment and
4 invented the processes?

5 A. I don't know that they invented it, but I
6 think the process parameters are specific to our
7 machinery.

8 Q. Very good. Now, there is also a type of
9 electrical supply fluctuation referred to as a spike,
10 is there not?

11 A. Yes.

12 Q. And what is the effect, if any, of a spike
13 on your procedures?

14 A. On our procedures or on our equipment?

15 Q. On your machinery or on your processes.

16 A. I think a spike would be more inclined to
17 cause some damage to the equipment, although most
18 things have a spike protection, similar to what you
19 might have on your VCR or something.

20 Q. So we're not talking about any spikes here?

21 A. We really don't have damage from spikes, no.

22 Q. Okay. Very good. Now, there was talk when
23 Mr. Rummy testified, and I see there was also some talk
24 in your deposition, about a loop.

25 Can you tell me more about this loop?

1 A. Well, again, I think that a lot of changes
2 that may have been made to the loop are transparent to
3 us as a user.

4 Q. Well, rather than talk about changes to the
5 loop, can you tell me, what is the loop?

6 A. Well, my understanding is that you will be
7 supplied two feeds from the substation, and if there
8 is a fault somewhere in this loop, then that fault can
9 be isolated and your service can continue to both the
10 remaining sides of the loop.

11 Q. So does it have the effect of creating a
12 redundant power supply?

13 A. I don't know that for sure.

14 Q. Okay. And you said you are an electrical
15 engineer; is that correct?

16 A. Yes.

17 Q. Now, the service that I get at my house, is
18 that likely to be on a loop?

19 A. No, I don't think so.

20 Q. And the service that we get at our local
21 hospital, is that likely to be on a loop?

22 A. I don't know.

23 Q. Okay. Who do you think might know that?

24 A. I would assume the representatives from
25 Union Electric Company.

1 Q. Okay. And it's your belief or your
2 understanding that there have been some upgrades to
3 this loop since Zoltek began service at the Research
4 Park facility?

5 A. Well, I don't know that it is the loop,
6 per se, that the upgrades occur to. The substation is
7 probably separate from the loop and the service to the
8 substation is separate from the loop. And, in fact,
9 I'm not sure that the loop still exists. The loop may
10 have been broken to service a larger area of the
11 Research Park.

12 Q. I see. And this is not something that you
13 would know?

14 A. That's correct. It's transparent to us as
15 users.

16 Q. But you would expect Union Electric to have
17 witnesses that could speak to that?

18 A. I would expect that, yes.

19 Q. And were you here when Mr. Rummy spoke about
20 an incident where Union Electric voluntarily cut
21 power to Zoltek without prior notification?

22 A. Yes.

23 Q. And do you have any separate personal
24 recollection of such an occasion?

25 A. I can't say that I personally recall that

1 incident.

2 Q. Are you able to say that it did not occur
3 between September of '91 and July of '95 when you were
4 at the plant?

5 A. No, I can't say that it did not occur. No,
6 I don't say that.

7 Q. So it might have occurred during that
8 period?

9 A. It might have occurred, yes.

10 Q. Okay. And I understand Zoltek has at least
11 two plants. How many plants does Zoltek have?

12 A. I would have to think.

13 I think we currently have five.

14 Q. Five plants?

15 A. Yes.

16 Q. Distributed at various places in the United
17 States.

18 A. And in Europe.

19 Q. And in Europe. And where is the corporate
20 headquarters?

21 A. In Bridgeton, Missouri.

22 Q. Missouri?

23 A. Yes.

24 Q. Okay. And, finally, you said you were not
25 involved in the initial design; is that correct?

1 A. That's correct.

2 Q. And who was?

3 A. Of the electrical systems?

4 Q. Yes.

5 A. Peter Kiss.

6 Q. Now, that's a name that's not on the witness
7 list; isn't that true?

8 A. That's correct.

9 JUDGE THOMPSON: Okay. I think that's all
10 of the questions I have for you.

11 I see Commissioner Gaw has joined us.

12 Do you have any questions for this witness,
13 sir?

14 QUESTIONS BY COMMISSIONER GAW:

15 Q. Maybe this has already been covered, so
16 please forgive me if that's the case.

17 Have you been in the room -- in the hearing
18 room throughout the testimony that has occurred today?

19 A. Yes.

20 Q. So you heard the testimony -- the testimony
21 of Mr. Moran?

22 A. Yes.

23 Q. Did the two of you work at the plant at any
24 time frame together?

25 A. No. We were kind of passing ships,

1 actually.

2 Q. That's what -- that's kind of what I
3 gathered, but I wanted to make sure I was tracking
4 correctly.

5 Is this -- do you -- after you left the
6 plant location, did you continue to have any
7 information about the status of the electrical supply
8 to the plant?

9 A. Periodically, we would have some discussions
10 about it, and I was aware of the situation where Union
11 Electric came out by court order and did the
12 monitoring, and I've reviewed those records.

13 I can't say I know specifically how the
14 quality has changed or anything like that. I have
15 some information about the history though.

16 Q. But you did hear -- as I understand, you
17 heard Mr. Moran's testimony about what he had observed
18 while he was there beginning, I believe, in '96; is
19 that correct?

20 A. Yes.

21 Q. His description of what occurred subsequent
22 to him arriving there, how does it compare with your
23 experience prior to his coming there?

24 A. Well, I think he makes a point about the
25 switchover to the substation at McClay, that we always

1 receive better service there, and I think that's
2 pretty accurate. And for a long time, we were
3 probably just being fed out of the Prairie Point
4 station, which has a lot of exposure. And, you know,
5 I think our service quality probably improved quite a
6 bit when we went to the McClay substation.

7 However, again, that's transparent to us as
8 users. So that's the feeling we get. We have
9 employees who live in certain sections that when their
10 power goes out, if it goes out at the plant, we know
11 which feeder we're on.

12 Q. And that's based upon your experience of one
13 feeder compared to the other?

14 A. Right.

15 Q. Is it -- would you describe the service that
16 you receive from Ameren during the time that you were
17 at the plant as reliable?

18 A. I would not classify it as reliable.

19 Q. How would you describe it?

20 A. Well, I would put it in these terms as to,
21 if you come home and you have to reset your VCR clock
22 every day, it's flashing 12:00, you can imagine if you
23 had to do that every day, how it would affect a
24 process, and that's -- that's the analogy I would
25 make.

1 Q. And this would -- this episode of having a
2 flashing clock that you're describing, that's
3 something you experienced how frequently during the
4 time you were there? Say, on a weekly basis, how
5 frequently?

6 A. Well, you know, we've described the
7 incidents in this report.

8 Q. Yes.

9 A. And I think you would have to go through on
10 a case-by-case basis, which I may be wrong, but I
11 think Dave has that document, Dave Spahn, and you
12 would have to see which of these events, in fact,
13 caused that type of result.

14 Q. Would the equivalent of an episode in a
15 house causing a digital clock to be flashing when you
16 got home as you described, would it cause a major
17 problem with the equipment that you have at the
18 plant -- that Zoltek has at the plant that's we're
19 discussing?

20 A. That probably depends on the duration. I
21 wouldn't want to make an exact equivalent there. It
22 was an example, really.

23 Q. All right. I may have not understood
24 Mr. Moran's testimony exactly as he intended it, but
25 my recollection is that he was mainly concerned with

1 the incidents that occurred in the summer of 2000. Do
2 you recall it that way, or was your interpretation of
3 it different?

4 A. Of Mike's testimony?

5 Q. Yes.

6 A. Yes. It seemed to me that that was his
7 major concern, yes.

8 Q. Your testimony is, I take it, during the
9 time frame that you were present at the plant is that
10 it was not -- it's not your opinion that it was
11 reliable for the purpose that Zoltek utilized the
12 electric service during the entire time frame that you
13 were there?

14 A. I would have to go back through that entire
15 time frame, but there were certainly periods when
16 there were an unacceptable amount of interruptions.

17 Q. And that was tied to something you believe
18 other than the particular feeder that you were on, or
19 do you know?

20 A. It may have been the feeder. There were
21 probably numerous factors. I --

22 Q. As I compare the records, during the time
23 frame that you were there at the plant and during the
24 time frame that Mr. Moran was at the plant, and I look
25 at the exhibits that you have filed indicating

1 incidents of electrical -- well, that were worthy of
2 note in your electrical incidents that were worthy of
3 note, if I look at that, can I distinguish the time
4 frames between your time frame and that of Mr. Moran
5 in such a way that will explain the difference that I
6 believe I'm getting in your testimony and the level of
7 concern that the two of you had for the respective
8 time frames that you served at the plant?

9 A. I'm sorry. If you could --

10 Q. That was a long question.

11 Your time frame during the plant -- when you
12 were at the plant is -- is the time frame that at
13 least for the most part that you attached to your
14 testimony as an exhibit; is that correct?

15 A. Correct.

16 Q. Mr. Moran has a time -- an exhibit that
17 pertains to a time frame when he has personally at the
18 plant for the most part; is that correct?

19 A. Correct.

20 Q. If I look at and compare the number of
21 incidents in those two exhibits, will I see a
22 distinction in the number of incidents or the
23 seriousness -- seriousness of the incidents if I
24 compare those two exhibits?

25 A. I think, you know, just glancing at it

1 briefly, it looks like the durations in the early
2 periods were longer as a general rule, and, perhaps,
3 you know, we got some better quality, and I would
4 guess that it had a lot to do with the feeder that we
5 were using.

6 And there also may be a gap between when I
7 left and where Mike started, too, which -- you know,
8 that period. I'm not sure what kind of correlation
9 you can make there.

10 Q. All right. And the reason that I'm asking
11 was included in my original lengthy question.
12 Mr. Moran focused, it has seemed to me, entirely on
13 the summer of 2000 as being the time frame that he
14 felt was not reliable, and I'm -- I guess I'm asking
15 you, first of all, whether or not you agree with that,
16 that that was his -- his concern, was that time frame?

17 A. That seemed to be his concern, yes.

18 Q. And I'm trying to understand whether or not
19 these exhibits would allow me, if I looked exclusively
20 at them, to derive that same -- same opinion just
21 based upon looking at the exhibits that are attached
22 to your respective testimonies?

23 A. I would probably have to look over the
24 period that Mike was there. I'm not sure offhand what
25 years those were, and how the -- how the reports of

1 the incidents changed in that period really.

2 Q. All right. But as I understand it, your
3 concern on the -- during the time frame that you were
4 at the plant was for the entire time period that you
5 were there. It was not limited to a particular summer
6 of a particular year?

7 A. Right. I think, you know, as it approached
8 later, before I left, I think there was an improvement
9 in quality, certainly from the earliest service.

10 Q. And do you have any idea why that might have
11 occurred?

12 A. Well, again, the -- I think the additional
13 feed from the McClay substation or the McClay service
14 and the upgrade of the substation, I think they
15 reinstalled reclosures, and we don't know as users
16 when those things occurred exactly.

17 COMMISSIONER GAW: Yeah. I think that's all
18 I have.

19 Thank you very much.

20 JUDGE THOMPSON: Thank you, Commissioner.

21 COMMISSIONER GAW: Thank you, Judge.

22 FURTHER QUESTIONS BY JUDGE THOMPSON:

23 Q. I have one additional question for you that
24 I thought of while the Commissioner was inquiring.

25 You mentioned some meetings in '95 and

1 another meeting that you're not sure when that was
2 having to do with Zoltek's needs for more reliable
3 electrical service; is that accurate?

4 A. The one meeting, I guess I wasn't referring
5 to the service, the reliability, only our service
6 requirements for --

7 Q. Okay.

8 A. -- additional capacity. When I referred to
9 several meetings that occurred in '95, maybe late '94,
10 they were regarding service upgrades and our future
11 requirements. And there was one meeting that involved
12 the service quality that occurred prior to that, I
13 think.

14 Q. So there was at least one meeting and
15 perhaps only one meeting that you attended where
16 Zoltek communicated to Union Electric Zoltek's needs
17 for more reliable electrical service; is that correct?

18 A. Yes.

19 Q. Okay. What, if anything, do you recall was
20 UE's response to that message?

21 A. I believe during the meeting they proposed
22 upgrading the date of installation of the substation
23 in the Weldon Spring corridor.

24 Q. So they never to your knowledge and in your
25 presence no representative of Union Electric said,

1 Your service is reliable now. We're not going to do
2 anything to improve it?

3 A. Not to my knowledge.

4 Q. You don't remember anything?

5 A. I don't recall that.

6 JUDGE THOMPSON: Okay. That's all I have.
7 Recross based on questions from the Bench.
8 Mr. Peters.
9 I'm sorry. Do you have anything?

10 MS. SHEMWELL: I do. I know that's a big
11 surprise, but I actually do.

12 JUDGE THOMPSON: Please. Step up. Step up.

13 MS. SHEMWELL: Thank you.

14 CROSS-EXAMINATION BY MS. SHEMWELL:

15 Q. Good afternoon, Mr. Agne. I'm Lera
16 Shemwell. I represent the Staff of the Commission in
17 this case.
18 Several times in response to questions from
19 the Bench you have used the term "transparent." Would
20 you tell me what you mean when you use that term?

21 A. What I mean is that when the service is
22 transferred from one feeder to another, there is no
23 way for us to have knowledge of that.

24 Q. So you're saying you can't see when that
25 happens? You can't tell?

1 A. Exactly.

2 MS. SHEMWELL: Thank you.

3 That's all I have. Thank you.

4 JUDGE THOMPSON: Thank you, Ms. Shemwell.

5 Mr. Peters.

6 MR. PETERS: Thank you, your Honor.

7 RE CROSS-EXAMINATION BY MR. PETERS:

8 Q. Mr. Agne, I am really going to have to ask
9 you some questions about your response to
10 Commissioner Gaw's insightful question about
11 reliability, and you said you -- you said that you
12 would describe it as, if we went home to our house
13 every night and there was a flashing clock, and I'm
14 trying to understand what you're saying there.

15 Do you know what happens to electrical
16 service at a residence to cause a flashing clock?

17 A. I would assume an interruption.

18 Q. Would you assume a complete zero outage?
19 And by that I mean zero electric coming into the house
20 as opposed to a sag, or do you know?

21 A. I don't know for sure. I would have to
22 design the clock, I suppose.

23 Q. And Zoltek's complaints are partly, or maybe
24 completely, but at least partly reflective in the
25 schedules that are attached to the Direct Testimony

1 that are referred to as service quality incidents.

2 Correct?

3 A. Yes.

4 Q. And you stated earlier that you're aware
5 that Zoltek was complaining of two hundred -- well, it
6 was listing 277 service quality incidents since '93
7 but was complaining of 270 of them because seven were
8 Zoltek's fault. You're aware of that?

9 A. Yes.

10 Q. So from 1993 to 2001 there were
11 approximately 270 service quality incidents that
12 Zoltek was complaining of, and that would break down
13 to an average of 30 a year. Correct?

14 A. I guess.

15 Q. And of those 30 a year, we -- we exhausted
16 the issue that you're not really complaining about all
17 270 of them. You're really complaining about the ones
18 that shut down your equipment, and that didn't occur
19 in all 270 incidents. Right?

20 A. That's correct.

21 Q. And you didn't necessarily agree with
22 Mr. Rummy's use of a dozen, but it was roughly in that
23 area of incidents that you're really concerned about
24 equipment going down?

25 A. I wouldn't tie it to any number. Again, I

1 think you have to look at the incident logs the plant
2 manager has put together.

3 Q. Okay. I don't see how me going home to my
4 house 365 days a year and finding out that my electric
5 had gone out that day correlates to 30 service quality
6 incidents of which some number of which you're really
7 concerned about here. I just don't understand where
8 you're going with that.

9 A. It was simply an analogy. If you had to
10 reset your clock every day, it's -- every time the
11 power went out, you would have to reset your clock,
12 it's similar to us having to reset our equipment every
13 time.

14 Q. Okay. So then maybe I can just clarify it
15 this way: You're not saying that the -- that aspect
16 of your example of having to do -- a person having to
17 do that every day, you're not implying that Zoltek had
18 an experience like that every day?

19 A. No, not every day. No.

20 Q. You're more focusing on the frustration that
21 you have when you see that your clock is out? Zoltek,
22 on the days it had a problem, had that kind of
23 frustration?

24 A. Correct.

25 Q. Okay. And Commissioner Gaw was also talking

1 about that it appears to be a little bit different
2 experience that you've had than Mr. Moran had for your
3 respective periods at the plant, and you were
4 referencing that it appeared maybe there were longer
5 outages or incidents in the '93 time frame. Correct?

6 A. Yes.

7 Q. And you said that perhaps the improvement
8 came from some of these changes that Union Electric
9 made. Correct?

10 A. Yes.

11 Q. Are you aware of whether Zoltek started
12 installing UPS systems as part of its equipment or
13 whether it does that today?

14 A. Some of the equipment has UPSs in it.

15 Q. And that wasn't the case when Zoltek
16 originally designed the Missouri Research Park
17 facility? In other words, the equipment -- the
18 original equipment didn't have UPS systems on it.
19 Correct?

20 A. It had a form of a UPS in the batch
21 furnaces, yes.

22 Q. Okay. Is it -- and you may not know this,
23 but is it correct that Zoltek, in fact, as it's
24 bringing in new equipment and installing new equipment
25 that it does have a policy of putting UPSs on that new

1 equipment that it installs in its facility?

2 A. Yes, some of it. It depends on the
3 equipment.

4 MR. PETERS: Do you think -- well, I'll
5 leave it at that.

6 Thank you, your Honor.

7 JUDGE THOMPSON: Thank you, Mr. Peters.

8 Redirect.

9 MR. MAY: Just a few, your Honor.

10 REDIRECT EXAMINATION BY MR. MAY:

11 Q. Mr. Agne, with respect to the UPS, the
12 UPS -- do those go on the controls to the equipment or
13 the actual equipment to keep the entire equipment
14 running?

15 A. The control.

16 Q. Just on the controls. Was there any
17 discussion about UPS at Zoltek about purchasing some
18 type of equipment at one time?

19 A. There may have been. I'm sorry. For what
20 purpose?

21 Q. Well, first of all, are you familiar with
22 any discussions about UPS?

23 A. There may have been some.

24 Q. Okay. And then, finally, counsel had talked
25 to you about -- he was trying to take these service

1 quality incidents and do an average and break them
2 down per year and try to even narrow those further
3 down. Do you recall those -- that line of
4 questioning?

5 A. Yes.

6 Q. Is there in addition to an impact to
7 equipment -- maybe an impact, maybe not -- is there
8 still an effect at the plant? In other words, is
9 there some procedures that still have to be followed?
10 Is there -- does it have an effect on the people at
11 the plant in some fashion?

12 A. They have to check the equipment regardless.
13 If there is some sort of interruption, all of the
14 equipment has to be checked.

15 Q. So is it possible that there may not be a
16 tangible impact on the equipment such as shutting it
17 down, but there still was an effect, still something
18 that had to be done by Zoltek to see that through?

19 A. Yes. I mean, at the least, we have to fill
20 out the log sheet for the incident.

21 MR. MAY: Okay. Thank you.

22 Nothing further.

23 JUDGE THOMPSON: Thank you, Mr. May.

24 May this witness be excused?

25 MR. PETERS: Yes, your Honor.

1 JUDGE THOMPSON: Thank you very much. You
2 may step down. Mr. Agne, you are excused, which means
3 you can leave.

4 (Witness excused.)

5 JUDGE THOMPSON: And I believe our next
6 witness is Michael Arnold.

7 MR. VITALE: Your Honor, before we get to
8 the next witness, a housekeeping matter. I realized
9 after Mr. Moran had left the stand -- I'm sorry --
10 after Mr. Moran had left the stand, we can call him
11 back if need be, but maybe, Mr. May, we can
12 stipulate.

13 I had given him a copy of the -- Mr. Rummy's
14 277 incidents and had them highlighted, and it's not
15 been marked. So if we can mark that as Exhibit 21,
16 and I would offer it at this time.

17 MR. MAY: No objection, your Honor.

18 JUDGE VITALE: And I only have one copy
19 because only one copy was highlighted. We can
20 reproduce those if that's desired at some point for
21 the Commissioners and the Court.

22 JUDGE THOMPSON: Yeah. We'll go ahead and
23 receive that, but I'll let you make copies of it,
24 okay, and bring us the right number.

25 MR. VITALE: We'll create the highlighting.

1 JUDGE THOMPSON: We have a color copier
2 somewhere here in town. I'm sure we do.

3 MS. SHEMWELL: The Quick Print, or
4 whatever it is right here, will make color copies
5 for you.

6 JUDGE THOMPSON: Yeah, right there at
7 Mailboxes, Etc.

8 COMMISSIONER GAW: I'm sure there are plenty
9 of places.

10 JUDGE THOMPSON: We're not quite as rustic
11 as you might have thought.

12 Now, do we have Mr. Arnold?

13 MR. VITALE: Your Honor, if we can let the
14 reporter mark this for a second, and then I'll take
15 it.

16 JUDGE THOMPSON: We can. We can do whatever
17 counsel thinks we need to do.

18 (EXHIBIT NO. 21 WAS MARKED FOR
19 IDENTIFICATION.)

20 (Witness sworn.)

21 JUDGE THOMPSON: Please state your name for
22 the record and spell your last name, if you would.

23 THE WITNESS: Michael Arnold, A-r-n-o-l-d.

24 JUDGE THOMPSON: You may inquire.

25 MR. MAY: Thank you.

1 MICHAEL ARNOLD testified as follows:

2 DIRECT EXAMINATION BY MR. MAY:

3 Q. Mr. Arnold, who is your employer?

4 A. Zoltek Corporation.

5 Q. And what is your position at Zoltek
6 Corporation?

7 A. I am the engineering and maintenance manager
8 with the MRP facility.

9 Q. I've handed to you what's been marked as
10 Exhibit No. 5; is that correct?

11 A. Yes.

12 Q. Could you identify that, please?

13 A. That is my testimony.

14 Q. And is that your prefiled written testimony
15 in this matter?

16 A. Yes.

17 Q. And is that your signature that appears at
18 the back?

19 A. Yes.

20 Q. And if those questions were asked of you
21 today, would you answer those in a similar fashion?

22 A. Yes.

23 Q. Do you have any corrections that you would
24 like to make to that testimony as far as any
25 typographical errors?

1 A. Not that I'm aware of.

2 MR. MAY: Okay. Your Honor, I would move
3 for the adoption -- I'm sorry -- the admission of
4 Exhibit No. 5.

5 JUDGE THOMPSON: Do I hear any objections to
6 the admission of Exhibit No. 5?

7 MR. PETERS: No, your Honor.

8 MR. MAY: Judge, I'm sorry, if I may go get
9 Exhibit 6?

10 JUDGE THOMPSON: You may.

11 Hearing no objections, the same is received
12 and made a part of the record of these proceedings.

13 (EXHIBIT NO. 5 WAS RECEIVED INTO EVIDENCE.)

14 BY MR. MAY:

15 Q. I've just handed to you what has been marked
16 Exhibit No. 6. Would you identify that, please?

17 A. That is my Surrebuttal Testimony in this
18 matter.

19 Q. That was prefiled in this case; is that
20 correct?

21 A. Yes.

22 Q. Is that your signature that appears in the
23 back?

24 A. Yes, it is.

25 Q. And if those questions were asked of you

1 today, would you answer them in a similar fashion?

2 A. Yes.

3 Q. Any corrections you need to make to that?

4 A. Not that I'm aware of.

5 MR. MAY: Your Honor, I move for the
6 admission of Exhibit 6.

7 JUDGE THOMPSON: Do I hear any objections to
8 the admission of Exhibit No. 6?

9 MR. PETERS: No objection, your Honor.

10 JUDGE THOMPSON: Hearing no objections, the
11 same is received and made a part of the record of
12 these proceedings.

13 (EXHIBIT NO. 6 WAS RECEIVED INTO EVIDENCE.)

14 MR. MAY: Your Honor, at this time I tender
15 the witness.

16 JUDGE THOMPSON: Thank you, Mr. May.

17 Ms. Shemwell?

18 MS. SHEMWELL: No questions.

19 Thank you, your Honor.

20 JUDGE THOMPSON: Please be a little more
21 respectful of our microphones.

22 MS. SHEMWELL: I'll try. Thank you.

23 JUDGE THOMPSON: Cross-examination.

24 Mr. Peters, step forward.

25 MR. PETERS: Thank you once again, your

1 Honor.

2 CROSS-EXAMINATION BY MR. PETERS:

3 Q. Mr. Arnold, my name is Dan Peters. I will
4 be asking you some questions this afternoon.

5 I note that -- in your Direct Testimony on
6 page 4, line 15, you state that you believe that any
7 interruption in service that shuts off the equipment
8 is costly and potentially dangerous. Correct?

9 A. Where are you referring to, sir?

10 Q. It was page 4, line 15.

11 JUDGE THOMPSON: Exhibit 5.

12 THE WITNESS: Yes.

13 BY MR. PETERS:

14 Q. I'm sorry. I may have -- it's the second
15 sentence, starting with the second sentence there --

16 A. Yes.

17 Q. -- line 15.

18 I note also that you say that you think the
19 duration of an interruption is relevant. You do not
20 think that the duration of an interruption is
21 relevant. Correct?

22 A. No.

23 Q. Okay. And what's relevant is whether the
24 equipment shuts off. Right?

25 A. That's the effect -- the negative effect it

1 has on our plant, yes.

2 Q. Okay. And I'll refer your attention also to
3 schedule 1 to Exhibit 5 which is the portion of the
4 service quality incidents that correlate with the time
5 apparently you were at the plant. Correct?

6 A. That is correct.

7 Q. And, again, what -- I guess you were at the
8 plant from '97 through at least June of 2001?

9 A. That's correct.

10 Q. And what -- what position, again, did you
11 hold with Zoltek? What was your title for Zoltek
12 during that period?

13 A. Various titles.

14 Q. Could you tell us what they were?

15 A. I started as the plant electrical engineer.

16 Q. In '95?

17 A. In '97.

18 Q. '97. Okay. What did you do after
19 electrical engineer?

20 A. After about a year, I was assigned some
21 process duties.

22 Q. What's that?

23 A. Oxidation process and some batch preform
24 processes.

25 Q. What were the responsibilities? Were you

1 responsible for those processes or --

2 A. Oversee the process as far as its quality
3 characteristics, and I still had my other duties as
4 far as the plant electrical needs.

5 Q. Okay. Any other job titles?

6 A. I was then offered the position of the
7 process engineering and maintenance manager for the
8 facility approximately two years ago.

9 Q. Is that your title now?

10 A. Yes.

11 Q. What was that again?

12 A. Engineering and maintenance manager.

13 Q. Okay. And as with -- as we discussed with
14 Mr. Agne, this exhibit which is marked MA-2, which is
15 schedule 1 to your Direct Testimony, you didn't
16 actually prepare that document?

17 A. No, I did not.

18 Q. And is that document -- is the information
19 in that document taken from the same logs that
20 Mr. Agne's schedule was taken from?

21 A. I'm assuming it is. I haven't looked at the
22 entire document.

23 Q. So you don't know how schedule 1 to your
24 Direct Testimony was prepared?

25 A. It was taken out of a compilation that was

1 put together by Mike Moran, and I'm not sure who else
2 compiled the information from handwritten logs.

3 Q. Okay. And you can't tell the Commission
4 which of the entries from Nos. 141 to 277 in
5 schedule 1 to your testimony, which of those entries
6 reflected incidents where the equipment at Zoltek was
7 shut off?

8 A. No.

9 Q. And we -- in fact, most of the entries, I'll
10 say on your schedule refer to a blip, so we don't know
11 how long that incident really took. Correct?

12 A. How long that incident --

13 Q. How long -- what was -- there's other
14 entries that say that the incident, I guess, continued
15 for five minutes or one minute, but when it says
16 "blip," we don't know how long that incident lasted or
17 continued?

18 A. Right.

19 Q. What is your definition of a blip?

20 A. My definition of a blip is something that
21 happened in the plant, whether it's visual, lights
22 changing, dimming, and equipment shutting down, so
23 audible -- there is a certain noise level in the plant
24 that changes.

25 Q. So within your definition, you don't include

1 anything regarding the level of the electrical voltage
2 or the duration of the electrical voltage?

3 A. I have no way of knowing that.

4 Q. Okay.

5 A. The only thing I know of is that something
6 happened.

7 Q. Okay. Would it be true to say, then, too,
8 that of the equipment outages that you say in your
9 Direct Testimony is what's relevant, you wouldn't know
10 what caused those equipment outages?

11 A. Sometimes you have a pretty good guess, but
12 we lost power to the facility.

13 Q. Okay. That's a guess, though? You don't --

14 A. Based off of audio and visual, you can look
15 around and see if you have power to your facility.

16 Q. Right. But of the -- what is that,
17 approximately 130 incidents that you have on your
18 schedule?

19 A. Something like that, yes.

20 Q. First, we don't know from that schedule how
21 many times the equipment at Zoltek was shut off.
22 Correct?

23 A. No.

24 Q. And we don't know what caused the equipment
25 to shut off?

1 A. The actual cause?

2 Q. Correct.

3 A. No.

4 Q. Okay. I assume since you say that --
5 that -- in your testimony that any time an
6 interruption causes the equipment to shut off that
7 that's potentially dangerous and that that's what's
8 relevant, if you could tell the Commission those
9 things, I guess you would have, how many times it
10 occurred and what caused it?

11 A. I'm not certain how many times it actually
12 shut the equipment off, no. Each time the equipment
13 shuts off, there is a potential for a safety problem.

14 Q. Okay. But you're -- as I said with
15 Mr. Agne, is there any way for you to put a
16 parameter -- I mean, you can say for certain it didn't
17 happen 270 times since 1993 that the equipment was
18 shut off. Correct?

19 A. I can't speak back to 1993.

20 Q. Okay. Then limiting it to the 130 entries
21 in your schedule from September of '97 through June of
22 2001, roughly 130 incidents, you're not telling the
23 Commission that you believe that there is anything
24 close to 130 times that the equipment was shut off?

25 A. Based on this documentation, I can say that

1 approximately 130 times something happened to the
2 power in the building.

3 Q. Okay. But I'm talking about what you said
4 was relevant was not just the duration of an incident.
5 You said what's relevant is when your equipment gets
6 shut off?

7 A. Yes.

8 Q. You're not telling this Commission by
9 submitting this schedule to them that you think that
10 maybe about 130 times your equipment was shut off
11 between September of '97 and June of 2001?

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

13 Q. I just don't want there to be any
14 misunderstanding that -- you know, implied in your
15 testimony, because you're telling this Commission that
16 what you think is relevant is when your equipment gets
17 shut off. That's what you're really concerned about
18 as an employee of Zoltek. Right?

19 A. Yes.

20 Q. I mean, if the lights flicker and it doesn't
21 have any effect on your process, it may be -- maybe
22 you wish the lights didn't flicker, but that's not
23 what you're really concerned about here today, is the
24 lights flicker. You're really concerned and what you
25 really think is relevant is when the equipment shuts

1 off and it affects your main factory process?

2 A. Any time the process is affected, I'm
3 concerned about that.

4 Q. Okay. But in your testimony, your Direct
5 Testimony that you filed with the Commission, you're
6 specifically referring to situations where the
7 equipment is shut off. That's what's really the
8 problem?

9 A. Yes.

10 Q. And I -- you -- in fact, in lines 3 through
11 12 on page 4, you describe what to me is a -- is a
12 dramatic -- or different dramatic happenings at the
13 Zoltek plant. You say when there is an interruption
14 of power, service, it creates problems in terms of
15 production and safety. When power is lost, the
16 equipment's heating function stops. The vacuum pump
17 no longer operates. This has the potential to create
18 a very serious safety hazard. Pressure builds up.
19 They have an emergency relief valve that discharges.
20 And you go on and you say, This is a costly and
21 time-consuming operation.

22 A. Yes.

23 Q. I don't think you're saying -- and I just
24 want to make clear if this is the case. Those -- that
25 dramatic stuff you have in there in lines 3 through 12

1 on page 4 of your Direct Testimony, but describing
2 that and then providing the Commission with a schedule
3 that lists 130 incidents, you're not meaning to imply
4 to this Commission that what you've described there
5 has happened 130 times?

6 A. I cannot say it happened every time that
7 it's listed there, no.

8 Q. Okay. And you don't -- and you can't say
9 how many times it actually did happen?

10 A. No.

11 Q. And, again, on page 4, lines 3 through 12,
12 you're saying that you must rely -- this is line 7.
13 "We must then rely on an emergency release valve to
14 discharge the off-gases and relieve the pressure."

15 Do you know how many times between September
16 of '97 and June of 2001 that the emergency relief
17 valve discharged?

18 A. No, I do not.

19 Q. I believe you also are not aware if Zoltek
20 did any load testing or sensitivity testing on its
21 equipment prior to beginning its process in 1992 or
22 1993?

23 A. I would have no knowledge of that.

24 Q. I believe you also can state that it's
25 possible to have an extended voltage sag that does not

1 affect your equipment process?

2 A. That would be possible.

3 Q. And that it would be possible for lights to
4 dim for an extended period, but at that same time your
5 equipment would not shut off? It's possible.

6 A. In my experience, if it sags -- and, again,
7 we're not privy to what the occurrence was other than
8 the lights dimmed and equipment was shutting off line.
9 There may be sags every day and we're not aware of
10 what's going on with the power system.

11 Q. Okay. And there was some testimony about
12 tangible effect. Do you -- can you say which of the
13 entries in your schedule created a tangible effect on
14 Zoltek's equipment?

15 A. I'm not certain how you define "tangible
16 effect."

17 Q. Okay. That's fine, because it wasn't your
18 word. I was just going to see if you had any
19 knowledge on that.

20 Did you have any meetings or communications
21 with UE regarding them responding to some electrical
22 needs of Zoltek?

23 A. I was involved with one meeting. I believe
24 it was in May of 2000. Suren Mahta, I believe, from
25 the Wentzville District Customer Service came out at

1 the request of Mike Moran to talk about increased
2 occurrences of incidents in the plant and why all of a
3 sudden -- it seemed like all through the winter we
4 had, you know, fairly low incidents as far as power
5 interruptions, and then all of a sudden, you know, we
6 had just a continuous high frequency of power
7 problems.

8 Q. Would that be -- would that have been the --
9 I think -- did you hear Mr. Moran refer to a meeting
10 during that time frame when he was describing his
11 concern about the summer of 2000?

12 A. Yes. That probably is the same meeting he
13 was present.

14 Q. Okay. Were you aware of any meetings in
15 1997 to address any concerns of Zoltek?

16 A. No.

17 Q. Okay. I think that you would -- I take it
18 you would agree with Mr. Agne that there is no such
19 thing as a perfect electrical power system?

20 A. Not to my knowledge.

21 Q. Okay. And that wouldn't be Zoltek's
22 expectation, that it would have a perfect electrical
23 power system?

24 A. No.

25 Q. And do you also understand that any -- by

1 saying there is no perfect system, that means that any
2 system is going to encounter sags and have the
3 potential for outages?

4 A. I'm not a distribution expert, but my
5 opinion is that there will be problems.

6 MR. PETERS: Okay. Nothing further, your
7 Honor.

8 JUDGE THOMPSON: Thank you, Mr. Peters.
9 Questions from the Bench.

10 Commissioner Gaw.

11 QUESTIONS BY COMMISSIONER GAW:

12 Q. Good afternoon, sir.

13 A. Good afternoon.

14 Q. You have been -- you're at the plant
15 currently; is that correct?

16 A. Yes.

17 Q. And you've been there since when, again?

18 A. September of '97.

19 Q. All right. And during that time, would you
20 say that the electric provided to the plant has been
21 reliable?

22 A. Again, I'm not an authority on reliable
23 service. If I compare it to my home service, I don't
24 have power outages at my home as frequently as we do
25 at the plant.

1 Q. All right. And I assume that your answer to
2 the question of whether or not it was safe, would it
3 be the same?

4 A. If what was safe, sir?

5 Q. Your provision of electrical service by
6 Ameren to the plant.

7 A. I'm not certain how --

8 Q. It's okay if you don't know.

9 A. I don't understand how the electrical
10 service is safe.

11 Q. Well, as I understand it, the potential for
12 the lack of -- of service to the plant can potentially
13 result in a dangerous occurrence --

14 A. Yes.

15 Q. -- because of the equipment in the plant.

16 A. Yes.

17 Q. Is that correct?

18 A. Yes.

19 Q. So I guess what I'm asking you is whether or
20 not the service provided in that -- under that context
21 was safe during that time frame?

22 A. During my tenure at Research Park, there's
23 been instances where I thought lack of power created
24 safety concerns for all in the plant.

25 Q. All right. Can you describe what you're

1 talking about when you make that statement?

2 A. With our process, it's been described as an
3 exothermic reaction. When the fiber is starting the
4 heating process and the chemical reaction takes place,
5 it generates its own heat, so the circulation fans
6 basically cool the material as it's being processed
7 rather than getting the process going.

8 Without the electrical power, the fans
9 running and the drives running, the material
10 over-exotherms and catches fire on the oxidation
11 process.

12 Q. I see. And what can occur when that
13 happens?

14 A. A fire. The material catches fire.

15 Q. And is that -- is that fire something that
16 is housed in something that is -- that contains it, or
17 is that a dangerous situation if that occurs?

18 A. It's in an oven that has doors. The
19 off-gases that can come off in large quantities if all
20 of them burn could be hydrogen cyanide. It could be a
21 toxic gas.

22 Q. The meeting that you described being in with
23 Ameren, do you know whether or not -- were there
24 any -- was Ameren informed during that meeting, or do
25 you know whether or not they made statements that they

1 were aware of that condition that existed at the
2 plant?

3 A. The meeting we had in May of 2000?

4 Q. The one that you describe being involved
5 with.

6 A. Yes, sir. We had a lengthy discussion of
7 the problems we were seeing.

8 We started asking about the different
9 feeders. My recollection was possibly feeder 52 and
10 54. I'm not familiar with their system.

11 But at the very end of the meeting after
12 asking a lot of questions, it was revealed that they
13 had switched the feeder that we were on without our
14 knowledge and did not offer that information as a
15 possible cause up-front of why we were having more --
16 more incidents than we had during the winter.

17 Q. And, again, though, if you can -- if you can
18 tell me -- you said you -- did you hear someone from
19 Zoltek inform Ameren about the potential hazard of the
20 out of control exothermic reaction that you described
21 creating a fire hazard?

22 A. During that meeting, I did not.

23 Q. Okay. Do you know, did they say whether or
24 not they were aware of that potential?

25 A. I don't recall.

1 Q. Okay. Were you present during Mr. Moran's
2 testimony?

3 A. Yes.

4 Q. Did you agree with his testimony in regard
5 to the reliability of the service that Zoltek had
6 received during his tenure at the plant as it compared
7 to your experience during your tenure? I realize
8 there is some overlap there.

9 A. As far as the time period I was there?

10 Q. Yes.

11 A. When I first started in September of '97, we
12 had incidents. I don't recall the exact frequency,
13 but in May -- I certainly remember a lot more
14 occurrences the early part of 2000, like April, and
15 that's when we had the meeting in May, because we
16 didn't understand why we were having more occurrences,
17 and the frequency was more than we could, you know,
18 bear as far as productions.

19 Q. Did that change after that meeting?

20 A. It seems to cycle. We have periods where we
21 don't have any problems and then we have periods where
22 we may have two or three incidents.

23 Q. Two or three incidents in how long of a time
24 span?

25 A. I'm not real certain. I would have to look

1 at the logs of when we recorded incidents.

2 Q. Other than that time frame that you
3 described in 2000, during the time frame that you have
4 been at the plant --

5 A. Yes.

6 Q. -- have you experienced outages or
7 incidents, electrical problems that have resulted in
8 shutdowns or -- of your -- of your manufacturing
9 process?

10 A. Yes.

11 Q. And do you have any idea about how
12 frequently those occurred during the time frame that
13 you have been there?

14 A. I do not. I'd have to look back at records
15 of equipment that was affected.

16 Q. Do you know whether anyone from Zoltek will
17 have that information for the Commission? If you
18 don't know, that's fine.

19 A. I do not know. If it's not already
20 compiled, it would have to be compiled.

21 Q. All right. When the measurements are taken
22 that are contained in your exhibit attached to your
23 testimony, as an electrical engineer, do you find
24 those entries of significance?

25 A. As -- significance as something happened to

1 the power in the plant, yes.

2 Q. Okay. And when you say -- when you say that
3 something -- something would have happened to the
4 power in the plant, so I can understand how it relates
5 to a significant event from the standpoint of normal
6 transmission service, if I had -- if I were at home in
7 my house and some -- and I had the lights on, would I
8 notice an incident of this type that you've noted
9 in -- or that has been noted in the exhibit attached
10 to your testimony?

11 A. Yes, you would.

12 Q. How would I -- how would I know that?

13 A. Speculation, if you were sitting in a room
14 with a light on, you would notice that the light
15 intensity changed or went out.

16 Q. All right. And what is the shortest time
17 frame that would have been normally in normal business
18 procedure recorded on this -- on the corporate records
19 that are illustrated in this exhibit attached to your
20 testimony?

21 A. I'm not certain, because we don't record the
22 actual wave forms in the plant.

23 Q. You don't record the actual what? I didn't
24 quite understand.

25 A. The voltage wave forms.

1 Q. Describe what that means, please, for me.

2 A. The electrical signals, the incoming
3 service.

4 Q. Do you want to -- you want to go into more
5 detail for us, please?

6 A. We don't monitor the power coming into the
7 plant for amplitude current, anything like that.

8 Q. All right. But if I just saw a brief
9 flicker of the lights for a half a second, would
10 that normally be recorded? Would that be an
11 incident that would be recorded and would show up
12 on this exhibit that's attached to your testimony
13 in your experience?

14 A. Yes, it's my opinion that it would be.

15 Q. Okay. Have you -- you have worked in other
16 places prior to coming to this -- to Zoltek; is that
17 correct?

18 A. Yes.

19 Q. Were they invol-- did they involve
20 manufacturing, the other jobs that you had?

21 A. No, not manufacturing in a sense of constant
22 production.

23 Q. Did they -- but they did involve facilities
24 of some sort, I assume --

25 A. Yes.

1 Q. -- where you were in a building; is that
2 correct?

3 A. Yes.

4 Q. I think I'll -- let me stop my questioning.
5 I'm not sure how relevant it is.

6 Let me ask you this: If -- how much -- how
7 much electrical use is there from the manufacturing
8 process at Zoltek when it's fully engaged? Do you
9 know?

10 A. I'm not for sure of the whole facility.

11 Q. Is the load -- would the load be, for lack
12 of better words, light, medium, or heavy?

13 A. From my perspective, I consider it a heavy
14 use.

15 Q. Yeah. And can you give me some parameters
16 on what you would consider heavy?

17 A. For instance, a large batch furnace, would
18 be 500kw.

19 Q. All right. And there is not -- when that
20 is -- when the -- when that furnace is running, it's
21 not running all of the time, is it?

22 A. No.

23 Q. It -- when it's -- when it's -- how often
24 would it be run in a two -- excuse me -- in a 24-hour
25 period?

1 A. Picture a furnace that must heat up, hold to
2 a hold temperature, and then cool down.
3 Q. Right.
4 A. It may take up to six days, a three day
5 heat-up period.
6 Q. All right.
7 A. An oxidation process is a continuous run.
8 Q. Okay.
9 A. It may run for up to 30 -- 30 days.
10 Q. Thirty days --
11 A. Continuously.
12 Q. -- at a time?
13 A. Yes.
14 Q. Maybe I better back up.
15 I know you-all have done extensive work in
16 your Direct on describing this process, but how
17 many -- how many pieces of equipment are -- are being
18 utilized in the manufacturing process that you have at
19 Zoltek at the plant?
20 A. Eleven oxidizers.
21 Q. All right.
22 A. We've just converted this CCL line, as it
23 was called, to oxidizer fiber, and ten batch
24 furnaces.
25 Q. All right. And is it possible that all of

1 those systems would be on at once?

2 A. The oxidizers, it's possible. The batch
3 furnaces, it's not likely that all of them would be
4 on at one time. There could be four or five,
5 depending on where they are in their heat-up or
6 cool-down cycle.

7 Q. During the time frame that you have been
8 there, have you noted any correlation between the
9 usage of the equipment at Zoltek and the incidents
10 of -- that are described in your exhibit?

11 A. No.

12 Q. So is it -- are some of these incidents that
13 you have in the exhibit occurring when there is --
14 when all of the systems -- excuse me -- when the
15 systems are off?

16 A. No. At any one time we -- I have never
17 seen an instance in the plant where we had nothing
18 running.

19 Q. All right. That's fair. Is there a
20 difference in time frames when sometimes you have a
21 heavier load than other times?

22 A. I would say so, yes.

23 Q. Is there any correlation with the amount of
24 load that you have on -- from your equipment at the
25 plant and the incidents that are noted in the

1 exhibit --

2 A. Not to my knowledge.

3 Q. -- that's in your testimony?

4 A. Not to my knowledge.

5 Q. You've never seen any correlation?

6 A. No.

7 COMMISSIONER GAW: As a matter of fact, I'm
8 not only about done, I am done.

9 Thank you.

10 JUDGE THOMPSON: Thank you, Commissioner.

11 We're going to go ahead and recess for the
12 day at this time.

13 When we return tomorrow, you will be on the
14 stand for any additional questions from the Bench.

15 It is my predilection to reconvene at 8:00.
16 What do I hear from counsel or from the Commissioner
17 with respect to that plan?

18 I'm going to be here all day, so I don't
19 really care when we reconvene, but I would like to fit
20 this hearing into the three days we have set aside for
21 it.

22 MR. VITALE: I have no problem with that,
23 your Honor.

24 MR. MAY: That will be fine, Judge.

25 JUDGE THOMPSON: Okay. Very good. We'll be

1 back then tomorrow at 8:00. We will be in recess.

2 Thank you very much.

3 WHEREUPON, the hearing was recessed until
4 8:00 a.m., Wednesday, January 23, 2002.

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16	Letter dated September 21, 2001 from Brian H. May David R. Evelev with attached letter and spreadsheet		
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