EA02-025

FORD 10/27/03

APPENDIX N

BOOK 32 OF 61

PART 5 OF 6

Q. So for what vehicles is TI supplying pressure switches to Ford?

A. F Series, Windstar. There's others. I'm not sure exactly which ones are -- are in production now.

Q. Okay. Is TI still Q1 Certified?

A. Yes.

Q. Has Ford indicated that the Q1 Certification might be withdrawn or subject to recision?

A. Not that I'm aware of.

Q. So that -- So that people who aren't engineers can understand, can you translate what cycle specification means?

A. Sure. The cycle life specification requires that we apply a pressure cycle to the part. In this case, and the Ford specification requires, we go from zero psi to 1450 psi and then back down to zero psi and that would be one pressure cycle.

Q. Okay. And so the pressure cycles that Ford's required of this pressure switch used in the '92, '93 Lincolns, how did that compare to other cycles re -- or cycle requirements of other car companies?

A. For brake pressure switches or --

Q. Yeah. High, low, the same?

A. There's only one other -- Other than Ford brake pressure switches, there's only one other Ford -- I'm sorry. There's only one other TI brake pressure switch that's in production and that's for the ITT Tevit (sic.) system. And all of the systems that I talked about before, that pressure cycle specification is written differently than the Ford specification. That specification total cycle system is for one million cycles. But the pressure range and temperature range of those cycles is different and varies during the test.

Q. What vehicle is that switch for?

A. That's for Volvo. I'm not sure which platform at Volvo.

Q. Okay. So Volvo asks for pressure switches that can handle a million cycles and Ford asks for pressure switches that can handle how many cycles?

A. The --

MS. KENNAMER: Objection, form.

A. The -- The spec I referred to was an ITT spec and it was for a million cycles, but did not match the Ford spec. It was different in terms of pressure range and in terms of temperature.

Q. Yeah. But pressure and temperature and

all that, that's system specific; isn't it?

A. Including cycle --

Q. Yeah.

A. -- number of cycles.

Q. But, you know, so that the average person knows what you're talking about when you say a cycle, you're talking about every time someone hits their brakes, basically, aren't you?

A. No. I'm talking about how a cycle is defined in the specification. Ford's specification that's defined is zero to 1450 psi and back down to zero psi.

Q. Okay. Can you translate that to a practical use?

A. I cannot.

Q. The switch is now on a car, someone's driving down the road and here -- there's a stop sign and they hit their brakes. And so is that one cycle, two cycles, a thousand?

A. I don't know.

Q. You don't have any idea how many cycles that is when someone hits their brakes one time when we're talking about a TI pressure switch?

A. I would expect that the disk would snap one time, so the contacts would open once. But I

don't know whether that one activity -- how that correlates to one pressure cycle from zero to 1450 psi back to zero.

Q. Well, let's just -- The thing moves once inside the switch, right?

MS. ALVAREZ: Objection, form.

Q. It moves once, right?

A. In what conditions?

Q. When you hit the brakes.

A. If you achieve the actuation pressure of the disk in the switches when you step on the brake the disk will snap and that allows the switch contacts to open.

Q. Don't you imagine that when a car company tells you what their cycle specifications are that they're probably taking into account just a normal stop for each cycle?

MS. ALVAREZ: Objection, form.

A. I don't know how -- the details around how the car companies calculate their specifications based on application use.

Q. Okay. So then, how many years is this switch supposed to last on a -- on a '92, '93 Panther, based on the specifications that were used when TI designed it?

A. The switch is supposed to last for 500,000 cycles from zero to 1450 psi and back to zero.

Q. Do you know? I mean, can you just say, "I don't know" if you don't know, so that we don't have to do this over and over and over again? I'm not, you know, trying to get personal with you. Okay? But if you don't know, you could just say that.

MR. JOLLY: Objection, nonresponsive.

MS. ALVAREZ: Objection, form.

Q. We can be here all day, any way you want to do it.

MS. ALVAREZ: Ob --

Q. Okay?

MS. ALVAREZ: Objection, form.

Q. Do you know how many miles that translates to, the cycle specification rate, once the switch is made, it's manufactured and it's put on a '92, '93 Panther, how many miles?

A. I do not know how that cycle effect translates to miles.

Q. Thank you. All right. You don't know if it's 50,000 miles, you don't know if it's 60,000 miles or a hundred thousand miles? You don't know?

A. I don't know.

Q. No one at TI knows that? The people that

know that are the people at Ford?

A. That's correct.

Q. That could be affected by any number of things when it comes to the specifics of the system which are signed by Ford for its other component suppliers, right?

A. That's correct.

Q. Okay. You said that some of the electrical components in the switch were plated to prevent corrosion --

A. Yes.

Q. -- remember?

A. Yes.

Q. Which electrical components specifically are plated with silver, the --

A. The contact.

Q. The terminal contact?

A. I believe it's the contact.

Q. Anything else in there, like the stationary terminal, the spring, the rivet, the moveable terminal, are any of those silver plated to prevent corrosion? And let's -- let's ask it this way: Are they plated with anything to prevent corrosion?

A. I don't think the terminals or the spring

arm are plated.

Q. Is there anything about the other parts of the electrical components inside the switch other than the contact terminal, whether by virtue of what it's plated with or made with, which because of that design specification is done that way to prevent corrosion?

A. The cup is plated, hex port's plated.

Q. The electrical components inside the terminal specifically?

A. I don't know what you mean by, inside the terminal.

Q. Well, the spring is made out of brass. That's not going to corrode under saltwater; is it?

A. The spring is made out of copper.

Q. Oh, it is? Okay. Ford thinks it's made out of brass. Did you know that?

MS. ALVAREZ: Objection, form.

A. My understanding is that Ford knows the spring is made out of copper. We've told Ford that.

Q. All right. What's the stationary terminal made out of?

A. Brass.

Q. What's the moveable terminal made out of?

A. Brass.

Q. So what's corroding when you put the saltwater in there?

A. The spring arm, copper spring arm.

Q. How is that corroding?

A. Electrolytic corrosion.

Q. Okay. So it's not made of brass. It's made out of copper. Saltwater or something corrosive can cause the copper to corrode?

A. Yes.

Q. What could you make it out of so that that didn't corrode like that?

A. I'd have to spend some time thinking about that.

Q. Could you silver plate it like they do the terminal points? I mean, you can silver plate copper, can't you?

A. Yes. I don't know whether that would stop any corrosion or not.

Q. It'd sure slow it down, wouldn't it?

A. I don't know. I'd have to run some tests to try and understand that.

Q. You don't know if silver plating copper can slow the corrosion of copper down?

A. Depends on which test conditions and I'd have a to do some work to understand that.

Q. Well, the contact terminals are copper -- silver plated copper, aren't they?

A. I know it's silver plated. I'm not sure if it's silver plated copper.

Q. And the reason --

A. I don't remember off the top of my head.

Q. The reason it's silver plated is, like we said, to prevent corrosion --

A. No.

Q. -- because the contacts wear?

A. It's to prevent contact wear.

Q. All right.

A. So that oxid -- oxidizing -- oxidation doesn't build up on a nonconductive surface, which would make the switch actu -- open even when the contacts are in contact.

Q. The -- The electrical terminal that's silver plated is part of the spring that's made out of copper that corrodes; isn't it, it's all the same part?

A. I think it's a part riveted to the -- to the spring arm.

Q. Okay. So what y'all were doing then is, you silver plate the contact before you install it on the copper spring, right?

A. I'm not positive.

Q. Something like that though, right?

MS. ALVAREZ: Objection, form.

A. I believe the contact is silver plated before attached to the spring.

Q. It would be pretty hard to silver plate something after it's attached to something else metal. I guess you could do it, but it seems like it'd probably be easier to do it first.

A. You can solder it to the plate.

Q. Right. Or you could just do both of them at the same time after they're put together, right?

A. There are many different ways you could set up the plate.

Q. That's one of the ways; isn't it?

A. (No response.)

Q. That's a question.

A. You can plate components after they're assembled, yes, that's true.

Q. The other vehicles that you inspected that belong to my clients that have caught on fire, of the five that you've looked at, we've talked about Gonzalez. How much time did you spend looking at the other four cars?

A. It varied.

Q. From what to what?

A. Somewhere between 15 minutes, 45 -- to 45 minutes.

Q. Were each of those inspections video taped also?

A. I believe there was a video camera there. I don't remember if it was at every one.

Q. Why did you look at those other four cars after you looked at Mrs. Gonzalez's car and couldn't determine what caused the fire?

A. I wanted to understand what type of fire damage there was on the vehicle and to take a look at the switch on each vehicle.

Q. Did you go to the houses that these -- in which these cars were parked that burnt down and look at those homes to see happened with those people's homes?

A. No, I did not.

Q. Why not? Does TI not care about the homes that have burnt down in this case -- in these cases that we have?

A. Of course --

MS. ALVAREZ: Objection, form.

A. Of course, TI cares about -- about any homes that might've burnt down.

Q. So why not go look at the homes too? I mean, you're looking at the car and you can't tell us what started the fire. Why not go look at the house so you can better understand what happened here?

A. I wanted to look at the switches on the vehicle and look at the damage of the fire in the vehicles.

Q. Why not go look at the homes too?

A. The homes would not have given me any information in terms of what -- what the switch looked like or how much fire damage there was on the vehicle.

Q. And were the switches on the other vehicles?

A. The switches were on the other vehicles.

Q. Did you look at them?

A. Yes, I did.

Q. Did those switches cause those fires?

A. I don't know.

Q. Who at TI knows the answer to that question?

A. No one at TI knows the answer to that question.

Q. There's no one at TI who can say that

these TI switches on the cars that you've inspected that belong to my clients did not cause those fires?

MS. ALVAREZ: Objection, form.

A. Can you repeat the question?

Q. Let's ask it both ways. Is there anyone at TI who can say that the five cars that you looked at that -- four out of the five that did have TI pressure switches, is there anyone at TI who can say that those switches did cause the fire?

A. There's no one at TI can say why those vehicles went on fire.

Q. Okay. So, in other words, there's no one at TI who can say -- for example, if Richard Clark says those switches caused the fires, is there anyone at TI is who's going to come in and say what Richard Clark says is not true?

MS. ALVAREZ: Objection, form.

A. TI -- No one at TI knows what caused those fires.

Q. So, in other words, TI has no evidence to contradict what Richard Clark says with regards to the origin of the fires --

MS. ALVAREZ: Objection, form.

Q. -- for the vehicles that you've inspected?

MS. ALVAREZ: Objection, form.

A. TI has a lot of evidence that switches met specification. TI does not know what caused any vehicle fires.

MR. JOLLY: Okay. Objection, nonresponsive.

Q. Is there anyone at TI who has any facts which could be used to contradict what Richard Clark says with regards to the origin of the fires for the five vehicles that you've inspected that belong to my clients?

A. I --

MS. ALVAREZ: Objection, form.

A. I don't know the details of what Richard Clark has said.

Q. So there's no one at TI with any facts to contradict anything that Richard Clark may say about what caused the fires for the five cars that you looked at that belong to my clients?

MS. ALVAREZ: Objection, form.

A. All I can say is that no one at TI knows the cause of those vehicle fires for your clients. I can't answer it any other way.

Q. Well, if that's true, then isn't it also true that nobody at TI can say that the switches did not cause the fires?

MS. ALVAREZ: Objection, form.

A. We know that the switches met the specifications provided to us by Ford.

MR. JOLLY: Objection, nonresponsive.

Q. Can you identify anybody at TI or any documents at TI which would establish that the TI pressure switches that were on the five cars that you looked at did not cause the fires?

A. Can you repeat that question?

Q. Is there any -- Can you identify any person at TI or any document at TI that would establish that the TI pressure switches on the five cars that you inspected did not cause those fires?

A. The only documents I know was a Ford document based on Ford -- experts hired by Ford that stated the fire on the Gonzalez vehicle started in the air compressor of the suspension leveling system.

Q. On which -- On which car?

A. On the Gonzalez vehicle.

Q. What Ford document is that?

A. It was, you know, in a lot of different documents that was found as -- as part of the discovery.

Q. Okay. That's not a TI document?

A. That is not a TI document.

Q. So the answer to my question is no, you don't know the name of anyone at TI, you don't know of any TI documents would've -- which would establish that the five fires involving the five cars that you looked at were not caused by the TI pressure switch?

MS. ALVAREZ: Objection, form.

A. There's no one at TI or any TI documents that define why those vehicles caught on fire.

Q. Or that the TI pressure switch did not cause the fire?

MS. ALVAREZ: Objection, form.

A. There are documents at TI that demonstrate that the TI pressure switch met specifications provided to us by Ford. I can't answer the question any other way.

MR. JOLLY: Objection, nonresponsive.

Q. All right. Let's just limit it to you. Are you going come into court and say that you know those switches on my clients' five cars that you inspected did not cause the fires?

A. I know that those switches met specification.

MR. JOLLY: Objection, nonresponsive.

Q. Are you going to come to trial and say that?

A. Say what?

Q. What I just said. Do you want me to repeat it again? Are you going to come to trial or at any time between now and trial and say that the five TI pressure switches on my clients' cars that you inspected did not cause their fires?

MS. ALVAREZ: Objection, form.

A. All I can say is that I don't know what caused those fires and that I know those switches met specification.

Q. All right. So you're not going to come into trial and say that the switches did not cause the fires because you don't know?

MS. ALVAREZ: Objection, form.

A. All I can say is, I don't know why those vehicles had fires and that I know the switches met specification.

Q. Okay. If I can't get a straight answer out of you, I'm going to have to ask the judge to order you to answer that question. So I mean --

MS. ALVAREZ: Objection to the form.

Q. -- and I'm not going anywhere. Okay? I live in Houston, this is my hometown and I frankly

like it here. So --

MS. ALVAREZ: Objection, form.

Q. -- I know you live in Boston, but --

MS. ALVAREZ: Objection --

Q. -- I'm not going anywhere until you answer my question --

MS. ALVAREZ: Objection, form.

Q. -- someday, somehow. Okay?

MS. ALVAREZ: We'll continue it until tomorrow if you ask --

Q. I'm going to ask it again, but I'm giving you fair warning --

MS. ALVAREZ: Objection, form.

Q. -- that if you don't answer it this time, I'm going to get the judge involved. Okay?

MS. ALVAREZ: Objection, form.

Q. Are you at any point in time from now until trial ever going to say that the TI pressure switches involving my clients' five cars that you inspected did not cause those fires?

MS. ALVAREZ: Objection, form.

A. I don't know what evidence may be presented from now forward on -- on what caused those vehicle fires. All I can say is what I know today, that the switches met specification and I

don't know what caused the vehicle fires.

Q. I gave you your chance. Same question: Anyone else at TI other than you?

MS. ALVAREZ: Objection, form.

A. Can you repeat the question?

Q. Anybody at else TI other than you -- Since you won't tell us the answer to the question with regards to you --

MS. ALVAREZ: Objection, form.

Q. -- anyone else at TI who you anticipate at any time between now and trial who will come into court and say that the TI pressure switches on the cars that you inspected did not cause those fires?

MS. ALVAREZ: Objection, form.

A. I don't know of anyone at TI today that knows what caused those vehicle fires.

Q. Okay. How -- How much money did TI spend inspecting Pauline Gonzalez's car? How much did it cost for you and however many people went with you to go down there or fly down there, spend the night down there and inspect that -- inspect that first car?

A. I don't know how much it cost.

Q. $50,000 or less?

A. Probably less.

Q. Less than $25,000?
A. I don't know. I don't know how much it cost.
Q. How do you get paid?
A. How do I get paid?
Q. Yeah.
A. I get a paycheck from TI.
Q. And you -- Are you on salary or did you get paid some extra money to go down there and look at those cars?
A. I get paid on salary.
Q. Okay. So is it part of your job to go around looking at cars? I mean, what is your job at TI?
A. I'm an engineering manager at TI.
Q. All right. Does your job as engineering manager include going around looking at cars that have caught on fire?
A. I'm responsible for our pressure switch design, our pressure transducer design groups. I work with Ford on the issue related to the Town Car fires. Based on those reasons I was the -- the person to go look at the vehicles.
Q. So you didn't get paid any extra money to go down there?

A. No, I did not.
Q. What is your annual salary?
MS. ALVAREZ: Objection, form.
A. About a hundred-thousand dollars a year.
Q. Do you get some of that TI stock along with that?
MS. ALVAREZ: Objection, form.
Q. I mean, you own -- you own part of the company, don't you?
A. I own some TI stock, yes --
Q. How much?
A. -- that's correct.
I don't know exactly how much.
Q. More than 10,000 shares?
A. No.
Q. Five-thousand?
A. No.
Q. I mean, how many options to buy TI -- TI stock do you have? Have you got some of that, options?
A. Some options.
Q. How many?
A. A few thousand.
Q. Okay. Does your wife work there?
A. Work where?

Q. At TI.

MS. ALVAREZ: Objection, form.

A. My wife does not work at TI.

Q. So you have a financial interest in this company, don't you? Yeah?

A. I benefit from the success of TI.

Q. You have a financial interest in TI?

A. I'm employed by TI, TI pays me, yes.

Q. Well, I mean, you're an owner. You have a financial -- When you have a financial --

MS. ALVAREZ: Objection, form.

Q. -- interest you're an owner --

MS. ALVAREZ: Objection, form.

Q. -- don't you think?

A. I own stock in TI.

Q. Why -- Why can't you just admit that you have a financial interest in TI?

MS. ALVAREZ: Objection, form.

A. I'm trying to answer your question and say I own stock in TI.

Q. All right. Are you an officer or a director?

A. I'm not sure what you mean by those terms.

Q. Are you an officer or director of Texas Instruments?

A. No.

Q. Vice president, nothing like that?

A. No.

Q. Have you been in meetings with officers and directors regarding this issue?

A. A meeting with the vice president of -- of TI regarding this issue.

Q. What's that person's name?

A. Martha Sullivan.

Q. All right. What does she say?

MS. ALVAREZ: Object -- I object to that to the extent that it involves the litigation, it would be listed as privileged communication for this litigation and to the extent that it's in connection with the litigation, I would instruct him not to answer.

Q. What does she say that's not privileged? Is she a lawyer?

A. She's not a lawyer.

Q. She's an engineer that's worked her way up, became an officer, right?

A. Essentially, yes.

Q. So I mean, y'all talked about the technical aspects of the switch, didn't you?

A. No. She -- The only -- We had one meeting

with -- with Martha Sullivan and her direction to us was to make sure that our top priority is to support Ford in any way necessary to understand what might be causing fires on Town Cars in order to protect the public.

Q. How did she communicate that information?

A. We sat in a meeting with her.

Q. Did she write any memos?

A. She communicated verbally.

Q. Has she written any memos?

A. Not that I'm aware of.

MS. ALVAREZ: Objection, form.

Q. Have you written any memos to her or anyone in your group written any memos to her or any other officer at TI?

MS. ALVAREZ: Objection, form.

A. Specific to this issue, I think Martha has been copied on some of the correspondence related to this issue.

Q. Would that be indicated on the memo, that she was copied; that an officer at TI was being copied with some memos?

A. Her name would be on the memo.

Q. Okay. Or would she be getting like blind carbon copied, that sort of thing?

A. No. Any memo, her name would be on the memo.

Q. Okay. What memo do you recall that she was copied with?

A. I don't remember any specific memos.

Q. Any other officers --

MS. ALVAREZ: Objection, form.

Q. -- that were in the meeting other than Martha --

A. Martha Sullivan was the only --

Q. -- Sullivan?

A. Sullivan was the only one in the meeting.

Q. And then who was with you and Martha Sullivan?

A. Andy MaGuirk was in the meeting, Brian Dague.

Q. Spell Brian's last name.

A. D-a-g-u-e.

Q. Have you mentioned him earlier?

A. I believe I have.

Q. And you and who else?

A. I think, John Pechonis was at the meeting and there were -- there were probably others. I'm not sure exactly.

Q. Spell John's last name.

A. P-e-c-h-o-n-i-s.
Q. And you pronounce that how?
A. Pechonis.
Q. You haven't mentioned him yet, have you?
A. I don't remember mentioning his name.
Q. What involvement did he have in this issue?
A. At the time he was the operations manager for our pressure switch business.
Q. So what's his job?
A. At the time of -- in his work?
Q. I mean, do you understand what it is that he does? What does he do?
A. He manages the -- the pressure switch business and manages the manufacturing and manufacturing engineering aspects of the pressure switch business.
Q. Why is it that you know more about the manufacturing aspects of this switch than John Pechonis?
MS. ALVAREZ: Objection, form.
A. I didn't say I know more about the manufacturing aspects of the switch than John Pechonis.
Q. All right. So he knows more -- He's the

person with the most knowledge about the manuring (sic.) -- manufacturing aspects of the TI speed control deactivation switch used on the '92, '93 Lincolns?

A. I don't know if he has the most knowledge. There may be other people in the manufacturing organization that have more knowledge on the manufacturing process.

Q. Well, does John Pechonis have more knowledge about the manur -- manufacturing process than you?

A. Yes.

Q. And then there's even people who have more knowledge than he does. Who are those people?

MS. ALVAREZ: Objection, form.

Q. Or who may? Who are those people?

A. There -- There may be other people who have more knowledge about the manufacture of the Ford de -- deactivation pressure switch.

Q. And who?

A. Steve Proia.

Q. Spell that last name.

A. P-r-o-i-a. Bob Gildea, G-i-l-d-e-a.

Q. Why do you think -- Anybody else?

A. There may be nobody else that comes to

mind.

Q. Okay. Why do you think that Steve Proia and Bob Gildea have more knowledge about the manufacturing process of this switch than John Pechonis?

MS. ALVAREZ: Objection, form.

MR. JOLLY: Why -- What's -- What's objectionable about that?

MS. ALVAREZ: Well, he said they may, not that they do. And your question was: Why do you think they do have more knowledge?

Q. Okay. Why do you think they may?

A. Because they are -- they are working the day-to-day issues on the manufacturing line.

Q. How so? What do you mean, day to day? They're the ones out there on the line?

A. Making sure the line is operating properly.

Q. What do they say about this crimping of the Kapton seal that Ford has accused TI of?

A. You'll have to --

MS. ALVAREZ: Objection, form.

A. My conversation with Steve and Bob, they feel that the crimp process is operating properly.

Q. Uh-huh. So John, Steve and Bob all agree

with you when it comes to the crimping process not damaging the Kapton seal?

A. Yes.

Q. Is there anyone there that doesn't agree with you, Steve, Bob or John?

A. Not that I'm aware.

Q. Who's Jim Watt?

A. Jim Watt is a quality engineer.

Q. All right. What's his job?

A. His job is to work any of the quality issues on the pressure switch line. He handles communication to our customers in terms of change requests, things like that.

Q. Who is Sally Epstein?

A. She's a paralegal in Dallas.

Q. Why is her name at the top of this Exhibit 2, like it's her letterhead or something?

A. She helped collect documents for the discovery and I would imagine that we send electronic files that she printed out. And since she printed it, it printed her name on top.

Q. Who does she work for?

A. I don't know.

Q. She's a lawyer in Dallas?

A. She works in Dallas.

Q. You don't know the name of the law firm, you don't know her address?

A. She works for Texas Instruments.

Q. Is she an in-house lawyer?

MS. ALVAREZ: Objection, form.

MR. JOLLY: Is she an in-house lawyer, objection, form?

MS. ALVAREZ: I think he said paralegal, not lawyer.

Q. She a lawyer?

A. I think she's a paralegal.

Q. Oh, okay. And what's the name of the law firm she works for?

A. She works for Texas Instruments. She's a employee of Texas Instruments.

Q. Okay. So TI has some offices in Dallas and she's up there at one of the TI addresses?

A. Yes.

Q. Who else gathered together documents who's involved with the in-house legal people there at TI other than Sally Epstein?

A. The legal people that helped gather documents?

Q. Yeah.

A. All our communication came from Sally.

Q. Okay. Did you go meet with her?
A. I have met her.
Q. Did you look over documents with her?
A. I did not.
Q. Did she mention to you that there's a number of documents that TI is not going to produce because they're privileged?
MS. ALVAREZ: Objection to form to the extent that it does call for any attorney-client information, I would instruct him not to answer.
Q. Privileged, have y'all talked about not producing any particular documents because they're privileged, without getting into why they're privileged or what the documents say?
MS. ALVAREZ: And again, to the extent that it does call for any attorney-client privileged information, I would instruct him not to answer. She has been identified as a paralegal.
MR. JOLLY: Well, if this guy was involved in making those calls, he can answer whether or not he was involved in those discussions. That's a simple question. It's not privileged.
Q. Go ahead.
MS. ALVAREZ: Will you repeat your

question?

Q. Do you remember the question?

A. No. Can you repeat it?

Q. All right. Did you and Sally Epstein specifically discuss not producing any number of documents because they were supposedly attorney-client privileged?

MS. ALVAREZ: Again, to the extent that question calls for attorney-client privileged information, I would instruct him not to answer.

Q. Go ahead.

A. I have not discussed with anyone what documents would be produced or not produced.

Q. No one's mentioned to you these documents, whether it's a lawyer or anybody, these documents shouldn't be produced for any reason?

MS. ALVAREZ: Again, to the extent that it calls for any attorney-client privileged information, I would instruct him not to answer.

Q. Has anyone said that to you?

MS. ALVAREZ: Other than his -- the attorneys for Texas Instruments, you can answer that question.

A. No.

Q. No one at TI has said, Let's not produce

these documents, other than someone --

MS. ALVAREZ: Other --

Q. -- someone who's not a lawyer has never said that?

MS. ALVAREZ: Other than attorney-client privileged information -- other than your TI lawyers, the question can be answered.

A. Nobody has said not to produce a document.

Q. Have you ever said that?

A. I have not.

Q. I understand, during our break that it turns out that the photos marked 3 and 4, there was -- those were actually done in color, weren't they?

A. I don't know if those -- those were done in color or not.

Q. Well, also the testing was video taped, right?

A. Some of the tests we did was video taped. I don't know whether this exact experiment was video taped or not.

Q. Well, but none of those video tapes have been produced, right?

A. I'm not sure exactly what has been produced or not produced.

Q. Okay. Well, they haven't been. Do you know if I'm mistaken if I tell you there's been no videos of this type of testing produced?

A. I don't know if you're mistaken.

Q. Are they going to be produced if they haven't been?

A. Any videos that we have will be provided to our attorneys.

Q. Okay. So how long ago did that happen where the videos of testing was produced where it was given to lawyers?

A. I don't -- I don't know whether those were given to the lawyers or not. I know we're continuing our document searches and I know we're continuing to send information.

Q. Why wasn't the video of this testing produced?

MS. ALVAREZ: Objection, form.

A. As I said before, we're continuing to collect documents to try and produce every document that's relevant to provide those documents.

Q. How long has TI been involved in this -- in the speed control deactivation switch business?

A. We've been providing speed deactivation control switches to Ford since late 1991.

Q. All right. And how did TI get involved in that business? Did TI start that business from scratch or did TI buy somebody, buy some other company?

A. TI developed it's own pressure switches.

Q. Okay. Why did TI do it that way, get into the business that TI hadn't been in for what, 20 years? Why did TI do that?

A. TI --

MS. ALVAREZ: Objection, form.

A. TI has been making pressure switches since early 1980s.

Q. Okay. Why did TI get into the speed control deactivation switch business?

A. Ford presented us with a pressure switch need. TI felt they could provide a switch that met the Ford specifications.

Q. Okay. So since 1982 they've -- they've -- TI has been making pressure switches for -- for what?

A. The air conditioning pressure switches, power steering pressure switches, brake pressure switches, transmission pressure switches.

Q. And since 1982 with regards to all those pressure switches, has TI had any problem at all

with any of those switches when it comes to corrosion in the electrical side of the switch?

A. There have been switches that have come back to TI that had corrosion inside the -- the switch with the water coming in through the connector.

Q. Which switch?

A. One of the Ford switches.

Q. Which Ford switch?

A. One that was -- is mounted on the Econoline vehicle.

Q. Nissan, Chrysler?

A. Not that I'm aware of.

Q. G.M., Volvo, no water getting in the electrical side of those -- any of those switches since --

A. On --

Q. -- 1982?

A. On Volvo there was an issue with water getting into the -- the switch.

Q. Okay. Is that the same Volvo problem you told us about -- about earlier involving the five or six switches that TI didn't get a chance to look at or is this something else?

A. It's something else. This was an air

conditioning switch.

Q. All right. Tell me about that.

A. I don't know much of the details around it. I know that water was flowing down a wire harness and that wire harness was connected to the switch and flowing into the switch through the wire harness.

Q. Okay. Because of the orientation of the switch, it was collecting water in the electrical side of it as water ran down a wire into the electrical side?

A. It was running down the inside of the wire between the wire and the insulation.

Q. Okay.

A. And then even into the switch.

Q. And then corrosion was occurring in that Volvo switch too?

A. I don't know the details of what was happening because of the water.

Q. What Volvo year make and model did that occur on?

A. I don't know.

Q. How many?

A. I don't know.

Q. What year?

A. I don't know.

Q. What was the remedy?

A. Volvo made changes in their wire harness and we put epoxy in the inside of the switch base.

Q. What year was that, '80s, '90s?

A. It would've been in the '90s. I'm not sure which year in the '90s.

Q. Early '90, mid '90, late '90s?

A. Probably mid '90s.

Q. Okay. Is that same type of epoxy that you mentioned, is that used on the Panther deactivation switch for the '92, '93 models?

A. No, it's not.

Q. Why not?

A. The epoxy was a specific request from Volvo on that switch.

Q. All right. So here you've got years of experience with water getting into the electrical side of the switch before the switch is developed for Ford. Would that be fair to say?

A. No, that's not what I'm saying at all. The -- The discussion I said on the Volvo switch happened after the development with Ford. And I wouldn't say there's -- there's many switches where we've had these problems. We have hundreds of

millions of switches out there and these are a few switches that we're talking about.

Q. Okay. So TI's aware of this problem with water in the electrical side of the switch prior to the fires involving my clients' cars.

MS. ALVAREZ: Objection, form.

Q. Is that fair?

MS. ALVAREZ: Objection, form.

A. What problem are you referring to?

Q. Water getting in the electrical side of the switch.

A. There have been switches returned to TI that did have water that had gotten into the switch through the mating connector.

Q. Prior to my clients' cars catching fire?

A. Yes.

Q. And the cure for that with the Volvo was to fill the electrical side of the switch up with some type of epoxy to displace the water, I gather?

A. No. The cure -- The cure was for Volvo to change their -- their wire harness so the water would not drip down the wire harness. And they also requested that we put epoxy in the switch --

Q. Okay.

A. -- to seal that cavity.

Q. Okay. So epoxy -- Seal the wire and then put epoxy in the electrical side of the switch to seal the cavity, right?

A. Yes.

Q. Which prevents corrosion. If you can keep the water out, it prevents corrosion, correct?

A. The terminals are still exposed. You can still corrode the terminals.

Q. All right. Well, the purpose of putting the epoxy is to minimize the chances that water gets into the electrical side of the switch and causes corrosion, correct?

A. Minimize the chance that water gets into the electrical side of the switch and damages the switch.

Q. Correct?

A. Yes.

Q. To prevent the possibility of corrosion?

A. I don't know specifically in that case whether it was corrosion that was occurring.

Q. Okay. And the reason that TI didn't use that epoxy system inside the electrical side of the speed control deactivation switch used on the '92, '93 Panthers is because Ford didn't ask for it?

MS. ALVAREZ: Objection, form.

A. Ford did not require the -- the base to be sealed. Ford provided that seal with the mating connector.

Q. Okay. So Ford sent the specifications to TI and Ford said, Don't seal the base?

A. That's not what I'm saying.

Q. All right. Ford sent the specifications to TI and TI said, Ford, Do you want us to seal the base? And Ford said No?

A. No. What I'm saying is, Ford said, The electrical seal to that base will be provided by the mating connector.

Q. Ford sent the specifications to TI and didn't say anything about sealing the base and TI didn't say anything to Ford about sealing the base, right?

A. TI reviewed our design with Ford and Ford approved our design. Sealing of the base would be accomplished by the mating connector made into the base.

Q. Ford didn't say anything about sealing the base, TI didn't say anything about sealing the base --

MS. ALVAREZ: Objection, form.

Q. -- made pursuant to Ford's specifications,

end of story?

MS. ALVAREZ: Objection, form.

Q. That's how it went down; isn't it?

MS. ALVAREZ: Objection, form.

A. That's not what I'm saying.

Q. Well, what about what I just said is not accurate?

A. What I'm saying occurred is, the seal to the base was provided by the mating connector that Ford mated to the switch.

Q. Did Ford say, Don't seal the base with epoxy?

A. I don't know what Ford said.

Q. Did TI say to Ford, Seal the base with epoxy?

A. I don't know if TI said any -- any words like that.

Q. Did TI say to Ford, Don't seal the base with epoxy?

A. TI reviewed the design of the switch with Ford and that design of the switch showed that the base was -- would be sealed by the mating connector and applied to the base.

MR. JOLLY: Objection, nonresponsive.

Q. Did TI tell Ford, Don't seal the base with

Epoxy, yes or no?

A. I don't know.

Q. And if you don't know, then the answer's no --

MS. ALVAREZ: Objection, form?

Q. -- isn't it?

A. No. The answer is, I don't know.

Q. Can you give us one document or the name of one single person who told Ford, Don't seal the base with epoxy?

MS. ALVAREZ: Objection, form.

A. I don't -- I don't know of any document that says -- to TI that says, Don't seal the base with epoxy.

Q. Can you give us the name of one person at TI who told Ford, Don't seal the base with epoxy?

A. I -- I know that the seal to the -- to the base would be provided by the mating connector.

MR. JOLLY: Objection, nonresponsive.

Q. Can you identify anybody at TI who told Ford, Don't seal the base with epoxy?

A. I cannot identify anyone at TI that said, Don't seal the base with epoxy.

Q. Why is there a Bates number missing from the documents that have been pro -- produced to me?

MS. ALVAREZ: Objection, form.

A. Can you repeat that?

Q. Who Bates stamped the documents that were produced to me? Who stamped the -- page numbered them --

A. I don't know.

Q. -- with this little thing called a Bates stamp? Who did that?

A. I don't know.

Q. Did Sally Epstein do that?

A. I don't know.

Q. Are they in chronological order?

A. I don't know.

Q. I thought you're supposed to be the corporate rep most knowledgeable about the documents to the subject matter. How come you don't know those answers?

MS. ALVAREZ: Objection, form.

A. I'm the corporate rep most re -- most knowledgeable about the full breadth of questions on the Deposition Notice.

Q. How come you don't know when the documents were Bates stamped?

A. I did not do the stamping of the documents.

Q. How come you don't know when they were Bates stamped or why one of the pages is missing?

MS. ALVAREZ: Objection, form.

Q. Who knows the answer to that question?

MS. ALVAREZ: Objection, form.

A. Our lawyers are responsible for getting the documentation to you.

Q. So I need to go dep -- take the deposition of one of the TI lawyers to get an answer to that question?

MS. ALVAREZ: Objection, form.

A. That's not what I'm saying.

Q. All right. Well, who do I need to talk to to find out why there's a Bates stamp number missing from the documents produced to me?

A. I --

MS. ALVAREZ: Objection, form.

A. I don't know who the --

Q. Well, you know what it looks like? It looks like the documents were Bates stamped and then someone pulled the documents out of the box. Do you understand what I'm saying?

MS. ALVAREZ: Objection, form.

A. No, I'm not sure I understand what you're saying.

Q. Do you know if that happened? Do you know if someone pulled the documents out of the box after they were Bates stamped?

A. I do not know whether any documents were pulled out or not pulled out.

Q. Have you heard anyone say that?

A. Anyone say what?

Q. Have you looked at the documents produced to me?

A. I've seen some of the documents produced to you.

Q. Have you noticed that there are Bates stamped numbered pages missing?

A. I have not seen any pages missing.

Q. Has anyone discussed with you that those documents were pulled after they were stamped?

A. Nobody has discussed with me anything related to stamping documents and removing documents.

Q. Do you -- Do you know anything about diagnosing a speed control deactivation switch to determine if it's going to fail or cause a fire after it's in place and in service on a car?

A. Can you repeat the question?

Q. Well, can you look at -- Let's just back

up a ways, a couple of years and here's all my clients' cars lined up here in a row, all nine of them and they haven't caught fire yet. Can TI raise the hood on those cars, look at the speed control deactivation switches or diagnosis them in any way and say, This switch is going to fail and it's going to cause a fire?

A. I'm not aware of any switches that cause fires. And depending on -- There -- There's nothing that can be done, looking at the -- just looking at the switch to determine when end of life will be reached for that switch.

Q. Any -- Any way to diagnose it with any kind of electrical diagnostic equipment to make that call?

A. You can diagnose with electrical equipment if there's fluid in the switch cavity.

Q. What would you do?

A. Measure the resistance between the terminal and the ground.

Q. How would a mechanic know to do that or know how to do that or know when to do that?

MS. ALVAREZ: Objection, form.

A. TI does not define what the mechanics look at when someone brings their car to the dealership.

Q. Well, let's just say you're going to train the mechanic. What would you tell them to do?

A. I don't have expertise in that area in order to train a mechanic.

Q. What would you look at when you raised the hoods? What would you do?

MS. ALVAREZ: Objection, form.

A. Do what?

Q. You're the mechanic now. What would you do? You said -- You said, check the switch?

A. If I --

MS. ALVAREZ: Objection, form.

A. If I wanted to understand if there was fluid in the switch cavity, I would measure the resistance between the terminal of the switch and the hex port of the switch.

Q. And how would you do that?

A. With an ohm meter.

Q. An ohm meter, o-h-m?

A. Yes.

Q. And that measures what, resistance?

A. Resistance.

Q. So the ohm meter would tell you what, if there's a short?

A. It would tell me what the resistance was.

Q. And so, if there was little resistance, it means there's a short; and if there's a lot of resistance, then that's good; isn't it?

A. The way the part is designed is that it would have an -- an open -- it would be very high resistance. If -- If that didn't -- the resistance is lower, that would indicate that there may be fluid inside the switch cavity.

Q. So, in other words, if there's lower resistance, then the circuit is shorting out inside the switch?

A. If there's low resistance, then there's a resistive path from the terminal to the hex port ground of the switch.

Q. Because it's shorting internally for some reason?

A. From it's resistive path.

Q. Which means that there's a short, right? I mean, a short is -- just means that the current is going somewhere it's not supposed to; isn't that what that means?

A. A short generally means a very low resistive connection.

Q. Which means you're making a circuit?

A. There can be fluid in there that has a

higher resistance than I would call a short.

Q. So that means you're making a circuit, right?

A. There's a resistance from the terminal to the hex port. That's what it would mean if you measured resistance that is a resistive path, current can flow to the terminal, correct.

Q. Well, the switch isn't designed to operate that way; is it?

A. Not -- The switch is not intended to operate with fluid in the switch cavity.

Q. That's not my question. My question is: Is the switch designed so that it shorts out and causes a fire?

A. The switch is not designed to short out or cause a fire.

Q. So there's not supposed to be current across from the -- on of the electrical components to the hex head, right?

A. There's not supposed to be current flowing from the terminal to the hex port, yes.

Q. And whose responsibility is it then to make sure that repair technicians at authorized Ford dealers know what you've just described when it comes to analyzing whether or not a TI speed control

deactivation switch has got an internal problem? Is that my clients' responsibility or is that someone else's responsibility?

A. It's Ford's responsibility to define how the service technician would service the -- the vehicle.

Q. Is that my clients' responsibility?

A. It's Ford's responsibility to define how the service technician will service the vehicle.

Q. So that's not my clients' responsibility; is it?

A. Its Ford's responsibility to define how the technician services the vehicle.

Q. Which means that it's not my clients' responsibility, correct?

A. It's not your clients' responsibility to define how to service the vehicle --

Q. And then how --

A. -- not the dealer technician.

Q. All right. And then, so how's Ford supposed to know how to test this TI switch? How's Ford supposed to learn that so that they can tell the technicians?

A. Ford -- TI shows Ford the design of the switch, how the switch operates. Ford's

specifications define how the switch should operate. And with that information Ford can -- can show the technicians how to service the vehicle.

Q. Okay. So after these switches are designed pursuant to Ford's specifications, they're designed, manufactured and then sold to Ford and they go out and they're put on '92, '93 Panthers, right?

A. Actually, in this case, sold to Highlight Industry first; but eventually, on the Ford vehicle.

Q. And after that point in time TI doesn't get involved with what's happening with the switches out in the field unless Ford comes back with a complaint?

A. If there are any issue -- issues, Ford would bring it to -- to TI. And if parts come back to Ford as an issue, they would return it to TI. TI would analyze those switches and send a report back to Ford.

Q. Okay. Once we're at that point in the stage where the switches are being produced and they're coming off the assembly line and Highlight and Ford are putting on these '92, '93 Panthers, TI has no responsibility when it comes to determining if the switch is meeting the specifications criteria

of the switch?

A. TI is responsible to make sure the switch -- that all switches delivered meets the specification.

Q. I mean, after the fact, TI doesn't go out in the real world and get cars and test them and see if the switch is meeting the specifications criteria?

A. There are examples of times TI has gone out and got switches that were out in the field in order to see how the switches were performing and -- and what they looked like.

Q. What cars did TI do that on?

A. There were some G.M. vehicles where we took power steering pressure switches off of. There were some Ford vehicles where we took Ford brake switches off of and recently during this investigation went back and took TI switches off of Panther platform vehicles to see how the switch was performing.

Q. And were -- were those switches tested?

A. Yes.

Q. Has that been produced?

MS. ALVAREZ: Objection, form.

A. I'm not sure exactly which documents were

produced. I know that --

Q. What testing was done on the Panthers that were picked off the streets?

A. We tested the switches. We did not test the vehicles.

Q. And what was done?

A. The switches were tested for calibration and cut open to look inside.

Q. Anything else?

A. Nothing I can remember at this time.

Q. Did anyone bother to pick up an ohms gauge and test the switch the way that you said it ought to be tested before y'all cut it open?

A. Yes. Yes, that was done.

Q. So something else was done?

A. Yes.

Q. Were those measurements recorded, the measurements taken off the ohms gauge?

A. Yes.

Q. Ohms gauge, ohms meter?

A. Ohms meter.

Q. And how were those measurements recorded?

A. On a data sheet.

Q. Has that been produced?

A. I don't know.

Q. What did it show?
A. The switches were operating fine.
Q. So there was -- Of all the Panthers that were taken off the road, how many were taken off?
A. I don't remember exactly. Ten switches, 12 switches, somewhere around there. All of those switches were operating normally.
Q. What does normally mean when it comes to the ohms meter reading?
A. Very average --
Q. What did --
A. -- from terminal to case.
Q. What is the measurement?
A. Essentially, overload, mega-ohms.
Q. Excuse me?
A. Essentially, overload, mega-ohms.
Q. Well, but when you're looking at the meter, there's numbers that correspond with the meter. What number?
A. The -- The meter will say, O.L., overload, for very high resistance.
Q. Okay. And then what would you expect for the meter to read for a switch that did not meet specification?
A. Don't know of any switches that didn't

meet specification.

Q. No. You're -- You're now telling the mechanic, even though it's not TI's responsibility, when you're looking at the ohms meter, here's the reading that means it's good; here's the reading that means it's bad. What's the bad reading number? I need a number.

MS. ALVAREZ: Objection, form.

A. Depending on the conductivity, the fluid in the switch would affect what resistance you would measure.

Q. What would that be?

A. It would vary, depending on the conductivity of the fluid.

Q. So how is the mechanic supposed to know if you can't tell them the number?

MS. ALVAREZ: Objection, form.

A. What I said before was that as a -- as a guideline, looking at resistance from terminal to case, could be an indication of fluid in the switch cavity.

Q. Okay. But the ohms meter has measurements, it has a scale and it gives you numbers, doesn't it?

A. Yes. It could be tens of ohms, hundreds

of ohms, thousands of ohms, hundred thousands of ohms, depending on the conductivity of the fluid.

Q. Well, so give me a number.

A. I can't give you a number because it would depend on the conductivity of the fluid that was inside the switch.

Q. Then how are you going to figure that out, take it apart? I mean, why not just go ahead and just take it off and just throw it away just in case, if there's no way to tell unless you take the switch off and take it apart?

A. Tell what?

Q. What the conductivity -- conductivity of the fluid inside the switch is.

A. Well, when you measure the resistance you'll understand how -- how conductive that fluid is --

Q. So --

A. -- based on the resistance measurement.

Q. So what's my measurement going to tell me?

A. It'll tell you the conductivity of the fluid.

Q. All right. What's it going to tell me with regards to the conductivity of the fluid?

A. All it's going to tell you is the

resistance between the terminal and the case. Different fluids in that condition will have different resistances.

Q. All right. So what could get in there, brake fluid, water, saltwater?

A. Yes.

Q. All right. So what's the range going to be, depending on the conductivity of those four fluids that could possibly get in the switch --

A. Brake fluid would probably in the hundreds, hundred thousand, three-hundred, five-hundred thousand K ohms -- well, five-hundred thousand ohms; in that range, hundreds of thousands of ohms. Saltwater would be -- would be lower, depending on the concentration of salt.

Q. Okay.

A. Could be in the hundreds.

Q. So the instructions to the mechanic are anything from 100 -- a hundred -- several hundred ohms to as much as 500,000 ohms; throw the switch away?

A. That's not what I'm saying. I'm not defining instructions to a mechanic. You asked me before how would you know if fluid was in the -- in the switch and I said, by one way, to measure

resistance from the terminal to the case.

Q. Who's supposed to know what that measurement's going to be to make the decision to throw the switch away, TI, the mechanic or Ford?

A. I don't know if mechanics are making those measurements or not.

Q. That's not what I asked; is it? Who's supposed to know what the number is, TI, Ford or the mechanic when it comes to the decision when you're measuring the switch with the ohms meters and you want to decide whether or not it's a possible fire hazard --

MS. ALVAREZ: Objection, form.

Q. -- TI, the mechanic or Ford? Pick one or more.

A. I'm not --

MS. ALVAREZ: Objection, form.

A. I'm not saying that because there's fluid in there, you have a fire hazard, just because of fluid in the switch.

Q. Okay. It's no good, we need to throw it away, who's responsible to determine the number on the ohms meter; TI, the mechanic or Ford?

A. What I'm saying is, as a diagnostic tool at TI, when we receive switches, that's a

measurement we would take. We measure the time period to try and understand what might be wrong with the switch.

Q. The switch is out in the field now, it's on a car, it's been cycled; you don't know how many times because Ford didn't tell you that; now someone's measuring it with an ohms meter. Who's going to pick the number in order to make the decision to throw the switch away; TI, the mechanic or Ford?

A. You're talking about a hypothetical situation.

Q. Yes, sir.

A. I don't know who's measuring the switch or what the reason is for measuring the switch.

Q. They're measuring it. Who cares. They're measuring and they're trying to just make sure these cars don't burn people's homes down, maybe --

MS. ALVAREZ: Objection, form.

Q. -- maybe someone thought of that and decides to measure it with an ohms meter. Who's going to pick the ohms meter number --

MS. ALVAREZ: Objection --

Q. -- TI, the mechanic or Ford?

MS. ALVAREZ: Objection, form.

A. Can you repeat the question?

Q. Who's responsible for determining the ohms meter measurement for the decision with regards to the -- the -- if a TI speed control deactivation switch failing or doesn't meet specifications; TI, the mechanic or Ford?

A. Hypothetically speaking, if a dealership, somebody was making that measurement -- Okay -- Ford would be providing to that person the information on whether to remove the switch or not.

Q. Not TI, not the mechanic; Ford?

A. Ford would be making -- be providing the information.

Q. Now, how would Ford know that? How would Ford know what that measurement's supposed to be?

A. I don't know. They'd use their system understanding to determine how the component operated in their system to make a judgment decision.

Is it possible to take a few-minute break

Q. Sure.

THE VIDEOGRAPHER: Going off the record. The time is now 2:42.

(Recess had.)

THE VIDEOGRAPHER: We are on the

record. The time now is the 3:02. This is video tape No. 3.

MS. ALVAREZ: For the record, we're discussing the continuation of this depo at whatever time we end today. We have offered to go today through close -- close to 5:00 o'clock and pick up tomorrow morning, 8:30 or 9:00 o'clock tomorrow morning and continue until the deposition is concluded.

It is understanding from the discussions off the record that for the most part everybody else is opposed to continuing tomorrow.

MR. JOLLY: Well, just so that we understand one another, when these -- when this deposition was at the point when it was being scheduled initially, TI wrote a bunch of self-serving letters to me claiming that this would be the only deposition that ever occurred of a TI corporate representative.

Now here we are, it's 3:00 -- five after 3:00 and TI has just now handed us another stack of documents which is approximately a half of an inch thick and it turns out that there's a video tape that we haven't received, color photographs of his testing, documents related to Nissan, G.M. and Volvo and other

speed control deactivation switches that are relevant to this case.

We're not going to continue this deposition into the weekend without the -- having had ample opportunity to have full and complete discovery responses, production responses and the opportunity to review that information without having to set here and look at it through the deposition.

I think it's obvious why it was done this way, but I don't say that on the record. So what I'm going to do here in a little bit is, I'm going to say that I am through with this witness at the present time. I'm not going to pass the witness and we will reschedule the deposition at a date and time convenient to everyone after we've had a chance to look at all the documents which haven't been produced. So we're not agreeing to go forward through Saturday, plus it's the Christmas holidays and I've got plans. But that's low priority compared to the other reasons stated.

MS. ALVAREZ: The only thing that I'll add to that is if -- if part of the problem is the document production, that there was a document production request that wasn't timely, so I don't believe that that's a relevant valid reason.

I understand the family and the holiday

obligations that you're talking about. But as far as the document production, I'd make that statement.

MR. JOLLY: What document production that is not timely?

MS. ALVAREZ: I understand, the duces tecum that was sent less than 30 days prior to today's deposition.

MR. JOLLY: We'll just bring that up with the Judge.

MR. GRANDSTAFF: And my -- This is Joel Grandstaff. I'm an attorney for Intervenor Prudential and Southern Farm Bureau. And our position in this also, we agree that the Plaintiff (sic.) should not be continued tomorrow, it should be reset for a date that's convenient for everybody here. It is the holiday season. I do have plans with my family that would make tomorrow impossible and I think there are probably other people here that also have similar problems. I certainly would make myself available at another time that is convenient for everybody else and continue this deposition.

MR. KHOSHBIN: Shane Khoshbin on behalf of Farmers, Intervenor. I will not be

available tomorrow. I apologize for it being inconvenient, but I am going to have questions and I am going to want to take a look at the documents that have not been produced as of yet to date. I have probably sent out at least two letters requesting copies of documents that were produced by Ford at any time, much less the documents that already haven't been produced, and TI. And I will be -- make myself available on another date convenient to this witness. And my guess is that there are going to be some other witnesses with more knowledge concerning certain topics that we're going to want to examine. And I think it's very reasonable to not continue on a Saturday, especially the weekend before the Christmas holidays and to go ahead and just reschedule it for a date that's convenient for everyone.

MR. MANSKE: Jeff Manske on behalf of Ford Motor Company. Ford also objects to going forward on Saturday on a non-business day for the reasons previously articulated by counsel.

MR. SCHIRRMEISTER: Andrew Schirrmeister, DuPont's lawyer. I'll decline as well, happy to reschedule at a time convenient for the witness and the parties.

MR. SOLOMON: Dean Solomon here on behalf of Travelers, Intervenor on the -- in one of these Houston cases. We also would join in and object to the Saturday deposition -- or the continuance of the deposition on this Saturday as well.

MR. FORBES: I think I'm the last one. Ross Forbes, Intervenor representing Allstate in one of the Houston cases. And we'll just join in this objection not to go forward tomorrow.

MS. ALVAREZ: Sounds like it's unanimous on that side. I guess we can circulate, after -- after today, circulate dates when we get to that point when it's convenient to Mr. Beringhause and the parties, only at this time we're ready to continue.

MR. SCHIRRMEISTER: How are the ski conditions in the white mountains?

MS. ALVAREZ: It's not your turn to ask questions yet.

MR. JOLLY: He says there's no snow yet, it's just flurries.

MR. SCHIRRMEISTER: Down in Massachusetts.

THE WITNESS: Oh, well, I don't know

what's up in the mountains. I'm not a big skier myself.

MS. KENNAMER: Andrew will want to know that before he agrees to any rescheduling date.

MR. SCHIRRMEISTER: I've never even been to Massachusetts.

THE VIDEOGRAPHER: Do you wish to go off the record now?

MR. JOLLY: Is the video going?

THE VIDEOGRAPHER: Yes, it is.

MR. JOLLY: Oh, okay. No. Let's go.

Q. So when it comes to the maintenance criteria for the subject speed control deactivation switches that are used on the '92, '93 Panthers, that's Ford's responsibility?

A. I'm not sure if you've understood the full discussion I've said on -- on the different responsibilities. TI is providing one switch that goes into a very complicated system. The system includes the -- the electrical architecture, it includes master cylinders, brake pedals, other switches, other circuits, paths; a complicated system that Ford has responsibility for defining how that system operates and what the specifications are for the individual components. Ford -- Ford

specified to TI specification for the pressure switch and as part of that specification TI guaranteed performance of the switch to that specification.

Q. Okay. So that's Ford's responsibility when it comes to the maintenance --

A. Ford --

Q. -- personnel?

A. Ford defines any maintenance that's required on the vehicles.

Q. Okay. The documents that -- that the TI lawyer just handed to us, are -- are these the documents that relate to the testing of the switches on the vehicles that TI went out and got off the streets?

A. Can I see what's in that document package?

Q. You don't know?

A. I don't know everything that's in there.

(Exhibit No. 7 marked.)

A. There's nothing in this doc -- in this documentation package that discusses the analysis TI did on pressure switches that we retrieved from the field at the beginning of our investigation.

Q. Okay. So what is Exhibit 7?

A. It's a combination of a number of

documents. A lot of the documents are different data supplied to TI by Ford based on parts returned in the recall and notes from phone conversations that I had with Steve Reimers at Ford.

Q. Looks like that most of the documents in Exhibit 7 are dated back to September, '99 or in that time frame?

A. September, '99 through -- through -- through December of '99.

Q. When's the first time you saw that material?

A. Saw which material? Saw everything --

Q. Exhibit 7.

A. -- there? Different times. A lot of it is my notes. Okay. Some of it are -- a document I had seen when it was written, as in the writing. Some of the documents in the back, this is the first time I'm seeing it.

Q. So -- So why are we getting this today in the middle of your deposition today? Why didn't we get this months ago?

A. I don't know.

Q. Do you think that's fair?

MS. ALVAREZ: Objection, form.

A. Some of the documents, I know, were just

found.

Q. Okay. How -- How -- Of the five cars that you inspected --

A. I'd --

Q. -- that belong to my -- Pardon me?

A. I'd like to go back just to clarify one thing. This -- This document right here (Indicating) is switches that TI received back from the field that were recall switches, but not provided to -- to TI from Ford, but where TI did go to dealers and receive these switches. So these were switches gathered out in the field. I just want to make sure I'm answering for you.

Q. What's that page number?

A. TI 00011112C.

Q. How did that work, where TI's out at Ford dealers gathering switches?

A. The -- At the beginning of the recall the Ford dealers were scrapping the switches. TI went to some local dealers and asked them, instead of scrapping the switches, would they be able to provide them back to TI.

Q. What local dealers?

A. Couple of local dealers in -- in the Attleboro area in Massachusetts and one dealer in

New London in Connecticut.

Q. Do you think that's a fair sampling of where the problem switches are?

A. I don't know if it's a fair sampling or not. TI wanted to understand what some of the switches looked like that were coming back from the recall.

Q. And do you know that that's not a fair sampling, in fact?

A. I know that most of the vehicle fires occurred in the south of the U.S.

Q. Right. So do you think that was fair, because all the vehicle fires, or at least 95 percent of them are occurring in the south, do you think that's fair, that TI would go to Massachusetts dealers and take a sampling from Massachusetts Ford dealers' switches taken off Panthers as a result of the recall and then test those switches and -- and then say, See, the switches are fine, there's nothing wrong with them? You think that's fair?

MS. ALVAREZ: Objection, form.

A. TI had requested to Ford to get all parts back from the recall so we could have a representative sample. TI tried to get some parts back itself from the recall.

Q. Did TI try to get any switches from any Ford dealers in the states where all the fires are happening, like Florida and Texas?

A. Yes.

Q. What dealers did TI go to and ask for switches in Florida and Texas? Give me the names of the dealers that TI did this with like TI did at the Massachusetts dealers.

A. TI did not go to any dealers that I'm aware of in Dallas -- Florida -- or Texas, Florida.

Q. You've got offices in Dallas, right? Right?

A. Yes.

Q. And there's a big factory over here on Highway 59 south in Houston and TI doesn't go to one dealer in Texas and ask for a switch, right?

A. I'm not aware of any -- TI going to any dealers in Texas. We did talk to Ford and request to look at switches, came back from all different regions of the country.

Q. So the answer to my question is, TI did not go to one single dealer in Texas and ask for switches, correct?

A. Not that I'm aware of.

Q. Of the five cars that you inspected that

belong to my clients, how many cycles had those speed control deactivation switches experienced prior to the fire involving those vehicles?

A. I do not know.

Q. Does that matter?

MS. ALVAREZ: Objection, form.

A. Does what matter?

Q. Does it matter how many cycles the switches had experienced in the five cars that you examined that were owned by my clients?

A. Does it matter for what?

Q. Well, let's ask it this way: Does TI take any responsibility for a speed control deactivation switch that's on one of my clients' cars if that switch fails after a cycle specification limit has been exceeded out in the real world?

A. All TI did was guarantee that the switches manufactured by TI met the specifications provided to TI by Ford.

Q. And those specifications for the cycles is what number, 500,000?

A. Ford's specification, 500,000 cycles from zero to 1450 psi and back to zero.

Q. And you don't know -- no one at TI knows, for that matter -- how old a car has to be or how

many miles it has to have on it before it hits 500,000 cycles --

A. That's correct.

Q. -- on the switch?

Does TI care?

A. Yes.

Q. All right. Explain that to me.

MS. ALVAREZ: Objection, form.

A. Explain --

Q. Explain to me why TI makes a switch that they don't guarantee after it hits 500,000 cycles.

MS. ALVAREZ: Objection, form.

A. TI guarantees a switch to meet 500,000 cycles based on the Ford specification. Ford has the full system understanding and documents in the specification of what they feel is the life of -- of the switch that's required to last for the full life of the vehicle.

Q. Okay. So those switches may very well not have exceeded those 500,000 cycles, for all you know?

A. I don't know how many cycles are on those switches.

Q. All right. So let's just say they don't. Does TI guarantee my clients that if those switches

caused those fires, that it's TI's responsibility, if the cycles are under 500,00 for any one of those five cars you inspected?

MS. ALVAREZ: Objection, form.

A. I don't know the details of what caused fires on those vehicles.

Q. No. No. That's not my question. My question is: If those switches caused the fires and if they cycled less than 500,000 cycles, is it TI's responsibility if that's the case?

MS. ALVAREZ: Objection, form.

A. There are other factors involved that may have contributed to the fire, if there was a fire on that vehicle related to the pressure switch.

Q. All right. So -- So, in other words, TI might not honor it's word or guarantee when it comes to the 500,000 cycles because maybe something else was involved if the switches caused the fire?

MS. ALVAREZ: Objection, form.

A. That's not what I'm saying.

Q. What is the other -- What are the other maybes? What are they? Tell me what they are.

MS. ALVAREZ: Objection, form.

Q. You said, the other factors. What are they?

A. All right. Let's go back to the discussion on the lab testing on switches. We could only get switches to ignite when saltwater was injected through the base and high power was applied to the switch.

Q. Okay.

A. So some of those factors, based on our lab tests, would need to be present.

Q. Okay. Which is -- just so happens, that's something that every car experiences with this switch, living in the gulf coast?

MS. ALVAREZ: Objection, form.

A. I don't know what those cars experience.

Q. Well, up there in Massachusetts, don't they throw salt on the road when it -- the road's iced over?

A. Yes, they do.

Q. And isn't it foreseeable, sir, that these switches are going to be exposed to saltwater sometime during the life cycle of the vehicle?

A. The external switch, I would expect to be exposed to saltwater sometime during the life of the vehicle.

Q. All right. That's foreseeable; isn't it?

A. For the external switch to be exposed,

yes.

Q. And when you say, external switch, what you're talking about is is assuming that the electrical connector seal maintains its integrity?

A. Yes.

Q. Okay. So if it did and the switches caused fires and they haven't exceeded the 500,000 cycle specification, is TI going to honor its guarantee?

MS. ALVAREZ: Objection, form.

A. TI guarantees its switches will meet the specification provided by Ford.

Q. So the answer is yes, TI would honor its guarantee if that's the case?

MS. ALVAREZ: Objection, form.

A. I'm not sure what specific guarantee you're saying.

Q. Whatever the one is you just said. I don't know. You tell me. What is the guarantee?

A. That TI manufactured switches will meet Ford's specification.

Q. Okay. So does the guarantee include that they'll replace the switch or at least pay for a new switch?

A. I don't know the details in the contract

around what -- TI's guarantee if there is any defective switches.

Q. All right. Does the guarantee include the cost to replace the switch?

A. I don't know the details.

Q. Does the guarantee include the downtime that my clients don't have the use of their car?

A. I don't know.

Q. How about the losses caused by a fire? If the switch causes a fire, does the guarantee include that?

A. I don't know.

Q. Loss of family heirlooms that are not replaceable, does the guarantee cover that?

A. I don't know the details of any guarantee contract with Ford.

Q. Who at TI can answer those questions and tell the jury in these cases, Here's what our guarantee is and we're going to make it good and here's what our guarantee covers, since you can't say who at TI can?

MS. ALVAREZ: Objection, form.

A. What TI can what?

Q. Can tell us what the guarantee is and what it's going to cover.

A. I'm not sure.
Q. Have you ever owned a Lincoln?
A. I have not.
Q. What kind of car do you own?
A. I own a Honda CRV.
Q. That's a utility vehicle?
A. It's a sport utility vehicle.
Q. Year model?
A. Excuse me?
MS. ALVAREZ: Objection, form.
Q. Year -- What's the year model?
A. Of the car I own?
Q. Yeah.
A. It's a 1997 Honda CRV.
Q. How many miles do you have on it?
MS. ALVAREZ: Objection, form.
MR. JOLLY: How many miles do you have on it?
MS. ALVAREZ: Yes. That's irrelevant, the miles.
MR. JOLLY: Just wait. You'll see.
MS. ALVAREZ: I'm making my objection.
MR. JOLLY: Okay.
Q. How many miles are on it?

MS. ALVAREZ: Objection, form.

A. I have approximately 33,000 miles on my Honda CRV.

Q. All right. What do you do to maintain that car to keep it clean?

MS. ALVAREZ: Objection, form.

A. You mean, to -- What do you mean, to keep it clean?

Q. Do you wash it?

A. Sometimes.

Q. Do you have it washed?

A. No. I wash it sometime.

Q. Do you take it in to the dealer like you're supposed to?

MS. ALVAREZ: Objection, form.

A. The dealer doesn't require that I bring the car in. The dealer recommends certain maintenance.

Q. Have you ever washed the motor?

A. No, I have not.

Q. Do you think there's anything wrong with anyone washing the motor, take it to car wash, lift the hood and spray the dust off at the car wash, anything wrong with that?

A. I don't know if there's anything wrong

with that or not.

Q. Would that void the TI guarantee, if someone were just interested in keeping their motor area tidy?

MS. ALVAREZ: Objection, form.

A. TI does not guarantee the integrity of the mating connector seal to the switch.

Q. If -- If it's something else that fails because some water gets into the switch, that's TI's responsibility? For example, let's just say that maybe the jury thinks y'all should've put epoxy in the electrical component to fill the void, would TI guarantee the switch even if someone just happened to wash their motor at a car wash?

MS. ALVAREZ: Objection, form.

A. TI guarantees that the switch meets Ford's specifications. There are Ford specifications for -- for washes and dunks and salt spray requirements that TI runs and tests and passes. Ford understands the system and how people may apply different water sprays to their vehicle and defines specifications to make sure that the components that are applied on that vehicle will meet those sprays.

Q. Okay. So it's foreseeable then to both Ford and TI that the engine compartment area where

the speed control deactivation switch is mounted might be subject to salt spray and soaps and cleaners?

A. That's not what I said. I said Ford provides the specifications that define different sprays and dunk tests that T -- TI tests its switch to to make sure that switch can survive that environment.

Q. Okay. My question --

MR. JOLLY: Objection, nonresponsive.

Q. My question was: Is it foreseeable to TI that the speed control deactivation switches used on the '92, '93 Panthers would be subject to a simple car wash by the vehicle's owner?

A. I don't know what the assumptions Ford put into their definition and specifications of what owners would do with their vehicles.

Q. That's not what I asked. I said, was it foreseeable to TI?

A. Was it foreseeable to TI that what?

Q. That someone might wash their engine compartment at the car wash.

A. It's possible people could do anything.

Q. So that's foreseeable; isn't it?

A. I -- I don't know.

Q. You've never done that to any car you've ever owned, you never washed the engine compartment, sir?

A. I have not.

Q. All right. Ever known anyone to do that?

A. I can't remember any specific person that said they did that.

Q. You never walked into an O'Reilly's or a Charlie's Hi-Lo or any parts store and seen those engine degreasers that they sell in there to spray in the engine compartment to keep your motor clean?

A. No idea.

Q. You didn't know that people wash the inside of their engine compartments?

A. I know it's possible people do wash the inside of their engine compartments.

Q. So is it Texas Instruments' corporate position that it's not foreseeable that an owner of the a '92 or '93 Panther might wash the engine compartment?

A. Texas Instruments doesn't know whether anyone's going to wash the engine compartment in their car or not. It's Texas Instruments' position, Texas Instruments needs to make sure the switch meets the specification set forth defines -- and the

intention of those specifications by Ford is to make sure it encompasses in the event that the switch makes that compliance.

Q. That's not my question now. My question now: Is it foreseeable? And you're here as the TI corporate rep and I would just like to know if TI is going to have any criticisms of someone who owns a '92 or '93 Panther because they simply wash their engine compartment at a car wash, yes or no?

A. I don't know.

MS. ALVAREZ: Objection -- Objection, form.

Q. Can you think of any criticisms now, just thinking about it, using your common sense and reasonable engineering probabilities?

A. I don't know if there's anything written in the vehicle books by Ford that says, Do not wash your car. I don't know how any of -- whether there's any recommendations by Ford to.

Q. Should there be?

A. I don't know.

Q. If -- If -- Could TI tell Ford that there should be warnings, don't wash the inside of your engine compartment because these speed control deactivation switches might start corroding?

Should -- Did TI tell Ford that?

A. I'm not aware of anyone at TI telling Ford that no one should wash their car.

Q. Did Ford ask TI, should we tell our -- our buyers of our vehicles this?

A. I'm not aware of Ford asking TI. Ford has the -- the big picture. They have the full understanding of the vehicle and what the vehicle may go through.

Q. Okay. What are these tests that this switch has to pass that involves salt spray and water and liquids?

A. I don't remember all the specific tests off the -- the top of my head, but there's usually tests around humidity exposure, salt spray exposure --

Q. Dunk?

A. Sometimes it's dunk, sometimes it's a spray. I don't remember specifically in the Ford spec how it's defined.

Q. Okay. So those are Ford specs?

A. Those are Ford specs, yes.

Q. And you think that -- Looking back at those specifications for those different types of spray and dunk tests, do you think that those tests

are sufficient to -- when it comes to the design of the switch, to prevent any harm to the switch if someone were to wash the inside of their engine compartment?

MS. ALVAREZ: Objection, form.

A. I don't know if the Ford specifications are sufficient or not sufficient to encompass what may happen to the vehicle and it's service.

Q. No. But TI did the tests. And knowing what those tests were, what do you think now? Do you think those tests were sufficient to determine whether or not the switch could handle a car washing if someone were to lift their hood and wash the engine compartment at a car wash?

A. I don't know. I only know that TI tested the switches to the Ford specs, don't know how those specs were derived by Ford.

Q. Okay. Any criticisms of any of my clients if they just happened to do that, wash their engine compartment, you personally?

A. I don't have a personal feeling on it one way or the other.

Q. Okay. So you're not going to come into court and say one of my clients really messed up when he raised his hood, he or she raised his hood,

to wash his engine compartment? You're not going to do that, are you?

A. I don't know what the requirements or what the Ford recommendations were around washing of those or not.

Q. Isn't it Texas Instruments who just served a whole bunch of discovery on us about this question, washing the engine compartment; isn't that true?

A. I don't understand what you're referring to.

Q. Well, the Texas Instruments lawyers just served a big stack of what's called a Request For Admission and some of the requests ask whether or not my clients washed their engine compartment. Now, here's one right here (Indicating): Admit that the vehicle engine had been steam cleaned. Admit that the vehicle engine had never been steam cleaned. Admit that the vehicle engine was steam cleaned during the time that you owned it.

I mean, if -- if TI doesn't know anything about this or what effect this might have on -- on the switch, if any, then why is TI asking my clients all these questions about this sort of thing?

A. I don't know why those specific questions were asked.

Q. Well, you're the corporate rep. Why is TI asking my clients something like that this, sir? We need to know.

MS. ALVAREZ: Objection --

Q. We need to know why TI wants to know this information --

MS. ALVAREZ: Objection --

Q. -- about something that everybody -- almost everybody does to their car.

MS. ALVAREZ: Objection, form.

Q. And you don't know?

A. Based on our tests that we have done, we had seen that if an uncontaminated water got into the switch, with the right power conditions, that we were able to ignite the switch in the lab, there was a mating connector failure that could allow water into the switch.

Q. Well, that wasn't my question. That's it, because water might into the switch, and so therefore, people shouldn't steam clean their car --

MS. ALVAREZ: Objection --

Q. -- is that what the point is?

MS. ALVAREZ: Objection, form.

A. That's not what I'm saying.

Q. Okay. So it's okay if people steam clean their engines?

A. That's not what I'm saying either.

Q. It's not okay for someone to steam clean their --

A. I don't know whether it's okay or not.

Q. Okay. Can you steam clean your engine with the speed control deactivation switch that was sold to Ford and put on the '92, '93 Panthers?

A. I don't know. I don't know if the mating connector can survive that exposure.

Q. Isn't that something that maybe TI should've considered before they designed this switch?

A. TI did not design the mating connector or the seal of the mating connector.

Q. Shouldn't TI have asked Ford, Do you anticipate that owners of '92 or '93 Panthers might clean their engine compartment, we need to know this when we design this switch? Shouldn't TI ask Ford that?

A. TI asked Ford, What are the specifications required, what environments might the switch be exposed to. And Ford provides those specifications

for those environments --

Q. Okay.

A. -- and those specifications of the switch.

Q. Okay. So that if -- if that's an issue that causes a problem for this switch, then that's Ford's responsibility to give that specification to TI? Is that what you're saying?

A. Ford gives to TI the specifications for what performance the switch needs to achieve.

Q. And so Ford would say what, we don't anticipate that anyone might clean their engine compartment?

A. No. Ford would take all their data as far as what they think people might do to their car and based on that information design specifications that the switch should meet.

Q. We're talking about cleaning the engine compartment. Did Ford say, No one's going to clean their engine compartments for these '92, '93 Panthers? Did Ford say that in the specification?

A. No, that's not in the specification.

Q. Did Ford say, People might clean their engine compartments in this --

A. That is not -- That is not in the specification.

Q. Okay. What -- What is the net worth of Texas Instruments?

MS. ALVAREZ: Objection, form.

A. I don't know what the net worth of Texas Instruments is.

Q. More than a billion dollars?

A. I don't know.

Q. Ten billion?

A. I Don't know.

Q. Who knows that then, someone who writes the annual report?

A. I would assume they would know, but --

Q. You get an annual report when you're a shareholder, don't you, sir, which includes you?

A. Yes, I do get an annual report from Texas Instruments.

Q. Did you look it, look in there and see how TI's doing last year when you got the annual report?

A. Some of it, I looked at.

Q. So what did it say?

A. I don't remember what it said.

Q. You don't have any idea what TI is worth?

A. No, I don't.

Q. You don't know if TI's worth $10 or $10 billion?

A. I could guess if you want me to guess.
Q. Yes.
A. I would say it's in the billions.
Q. More than a hundred billion, probably, wouldn't that be correct?
A. I don't know if it's more than a hundred billion.
Q. More than $50 billion?
MS. ALVAREZ: Objection, form.
A. I'm not sure if TI is worth more than $50 billion.
Q. Somewhere between 10 billion and $50 billion?
MS. ALVAREZ: Objection, form.
A. I'm not sure. I -- I -- I know it's more than a billion. That's it. I'm not sure.
Q. How many shares of stock are there out there?
A. I don't know how many shares of stock, TI stock are out there.
Q. More than 500 million?
A. I don't know.
Q. Probably more than 500 million shares?
MS. ALVAREZ: Objection, form.
Q. Right?

A. I don't know.
Q. At what price per share?
A. TI stock price is somewhere around a hundred dollars per share currently.
Q. All right. Okay. So you can just simply take the number of shares and multiply that by the current price and get a pretty good idea of what the company's worth, can't you?
A. I don't know the details on -- on that.
Q. And so how much do these little switches cost?
A. In the 2- to 3-dollar range.
Q. Two to three dollars? How much did the switch cost that has the epoxy sealing the void in the electrical side of the switch?
A. I'm not sure exactly how much that switch costs.
Q. How much does that cost?
A. How much does --
MS. ALVAREZ: Objection, form.
A. -- what cost?
Q. How much it cost to take a TI speed control deactivation switch and fill the electrical side of the switch, fill the void with epoxy?
A. I'm not sure exactly how much that costs.

Q. Well, we need an idea of the range. How does that affect this $2-switch, pennies?

A. Probably more than pennies.

Q. How many pennies?

A. Dimes. I don't -- I'm not sure exactly.

Q. Twenty or thirty cents?

A. Depending on what the epoxy was, how it needed to be applied.

Q. Okay. How would it need to be applied?

A. Depends what you're trying to achieve.

Q. Well, how was it applied on the -- the Volvo switch?

A. It was an epoxy preform that was put in the base of the terminals, then the part was heated up to a higher temperature and the epoxy would flow and then harden.

Q. Okay. So it flows through the void and makes a nice, neat seal around all the electrical components and hopefully keeps water out of the system, right?

A. Don't no whether its makes that -- a good seal or not, especially over the life.

Q. And then how much did that cost for the Volvos?

A. I'm not sure exactly. But again, in the

ten, twenty-cent range.

Q. Okay. So the extra price to Volvo was something in the 10 to the 20-cent range to add the epoxy to fill the void in the electrical side of the switch, right?

A. I don't know exactly what the exact price was.

MR. JOLLY: Okay. I've already said on the record how I feel about continuing this deposition, so at this stage I'm not going to pass the witness because I'm not finished.

Okay. Maybe we'll meet again soon.

THE WITNESS: I'm sure we will.

MR. JOLLY: Thank you.

MR. MANSKE: Why don't we take a quick break and then I'll go ahead and change places with you, Norman, if I could, so I could be a little closer to the witness --

MR. JOLLY: Yeah.

MR. MANSKE: -- and --

THE VIDEOGRAPHER: Going off the record. The time now is 3:38.

(Recess had.)

(Exhibits No. 6 marked.)

THE VIDEOGRAPHER: We are back on the

record. The time now is 3:47.

E X A M I N A T I O N

Q. *(BY MR. MANSKE)* Mr. Beringhause, my name is Jeff Manske and I'm one of the attorneys representing Ford Motor Company in this case.

I'd like to begin by seeing if I can get you to agree that when it comes to a component supplier for an automobile manufacturer there are essentially four significant events when it comes to that component supplier.

Now, the first one would be design, the second one would be manufacturing, the third one would be testing, including preproduction and production testing and the fourth one would be the field experience of the component suppliers' production part.

Can we agree that those are essentially the four major categories that a component supplier examines or might go through during the course of the life of a product?

A. Those sounds like four -- four major areas. I can't think of any others ones right now.

Q. Let's go ahead and talk a little bit about the brake pressure switch or the pressure switch in general. Let me go ahead and hand you Deposition

Exhibit No. 8 which is TI Document 604 and see if you can identify that for the record, please.

A. Yes, this looks like a -- a foil Andy McGuirk had put together and presented to Ford.

Q. And what does this document attempt to depict or establish?

A. This shows different types of switches that TI had been manufacturing and when manufacturing those switches began.

Q. And is it fair to say -- Tell me if I'm interpreting this particular chart right -- it looks like Ford began -- Not Ford -- Texas Instruments began manufacturing pressure switches in 1983 according to this particular document?

A. According to this, TI started manufacturing power steering pressure switches in 1983.

Q. And power steering pressure switches were the first application of a pressure switch that Texas Instruments first utilized; is that correct?

A. No. I believe air conditioning pressure switches was the first application --

Q. Okay.

A. -- that TI manufactured pressure switches.

Q. Why is it not on this foil?

A. This refers to hydraulic switch history. And air condition switches, we consider a separate grouping, air conditioning switches.

Q. Fair enough. I can understand that. As to high hydraulic switches then, the very first pressure -- hydraulic pressure switch that TI designed and manufactured would've been a power steering switch?

A. I believe that's correct, yes.

Q. And for whom would that power steering switch have been designed and manufactured?

A. General Motors.

Q. Okay. Let me hand you this series of documents that you produced today and see if you can look through that and see if that contains a document that has the pressure switch history for the various pressure -- hydraulic pressure switches designed and manufactured by Texas Instruments.

THE VIDEOGRAPHER: Excuse me, sir. Could I have you put your microphone on?

MR. MANSKE: Oh, sure.

Q. All right.

A. There's documents here that list the types of pressure switches manufactured by TI and there's documents here that define some of the switches

and -- and vehicles and customers that switches are applied to.

Q. Okay. The document you just had in your hand a moment ago, the one that's stapled together, that appears to be a chronological listing; is that correct? Let's go ahead and pull and separate that one out if we can.

A. (Witness complies.)

Q. Identify that particular chart by a TI document number at the bottom and tell me the range it goes through and I'll go ahead and mark it as the next Deposition Exhibit No. 9.

A. It's TI number 0011126. And not sure what you mean by range it goes through.

Q. What's the last number of documents, the document number that is stapled at the back and are the numbers consecutive in number?

A. Numbers are consecutive and the last number is TI 0011131.

Q. Now, let me go ahead and put the deposition sticker on there for 9.

(Exhibit No. 9 marked.)

Q. And see if you can identify whether or not that particular chart identifies hydraulic pressure switches manufactured by Texas Instruments from 1983

up to the present.

A. I'm not sure this lists all the pressure switches or not. Let me explain the background information on this document. This document is a design engineering cross reference list. It's used for reference only. I'm not sure if every piece of information on this document is correct or not. Design engineers would use this as -- as basic guidelines for some of the different basic switches that are in production and then to get detailed information would go to customer specifications or go to revision control drawings and the like. So I'm not sure if all the switches TI has manufactured since 1983 are on this document or not.

Q. Is there a document that you've produced that would identify all the switches that TI has manufactured since '83?

A. I'm not aware of any document that TI has that lists every switch made by -- every hydraulic switch made by TI since 1983.

Q. Let's go back to Deposition Exhibit No. 8. That's the chart that you have in front of you.

A. Yes.

Q. Tell me the vehicle lines that General Motors utilized the power steering switch for with

the '83 switch that you have there.

A. I -- I don't know which lines they were.

Q. Do you know how that particular switch was constructed, whether or not that had a Kapton diaphragm, a crimping mechanism?

A. I do know that that switch had a Kapton diaphragm and a crimping mechanism.

Q. All the switches that we have identified or the categories of hydraulic switches identified on Deposition Exhibit No. 8, would those have utilized Kapton diaphragms and a crimping device of some type, be it a manual or automated machine?

A. Yes. All of the switches depicted here would've had Kapton diaphragms and some crimping -- crimping mechanism.

Q. At any time throughout TI's history of designing and manufacturing hydraulic pressure switches, did they ever use any other material other than Kapton for the purpose of a diaphragm, if you understand my question?

A. In a production switch?

Q. Yes.

A. I'm not aware of any production switch where TI used -- Actually, let me take a step back. There is in our facility in Versailles, they make

switches for the commercial a/c marketplace and they use a welded diaphragm in place. But for the automotive switches that TI produces, I am not aware of any switch that doesn't use Kapton and doesn't use a -- a crimp.

Q. And the only source for the Kapton that's been utilized in automotive hydraulic pressure switches from 1983 to the present, would that be the Du -- DuPont company?

A. Yes. I believe all Kapton came from DuPont.

Q. Starting in 1983 when you were utilizing Kapton for the power steering pressure switches, did you utilize just one piece of Kapton in that particular part or did you have multiple pieces of Kapton or was it some other different application in its entirety?

A. I'm not sure if every application -- power steering application used the exact same number of -- of Kapton diaphragms. I know that typically we will use two Kapton diaphragms in our power steering pressure switches.

Q. Even as early as 1983?

A. I don't know the -- the specifics, whether those designs in 1983 used one or two layers of

Kapton.

Q. In 1983 time period, did you make power steering pressure switches for anyone other than General Motors?

A. I don't know.

Q. It appears from looking at Deposition Exhibit No. 8 that you made only power steering hydraulic pressure switches for automobiles and no other hydraulic pressure switches until the 1987 time period; is that correct?

A. Yes, I believe that's correct.

Q. And were your only customers for hydraulic pressure switches from the '82 to '87 time period General Motors?

A. No. I believe we also produced a power steering pressure switch for Ford during that time frame.

Q. When did you first begin producing a power steering pressure switch for Ford?

A. I don't know the exact timing.

Q. Could you look at the document that we've identified as Deposition Exhibit No. 9 and see if that might contain that information, the reference chart you utilized earlier or referenced?

A. I can't tell for sure from -- from this

chart. It's possible. I know sometimes in Ford's part number they will put a number that signifies the date of the -- the -- the start of manufacture. But I'm not positive on some of these part numbers, the exact date of -- of initial manufacture.

Q. I notice that in your part number terminology it looked like the predecessor switch to the 77 -- Is it PSL2-1?

A. Yes.

Q. -- was a 57 introductory numeric to the part number. What's the difference between the 57 and the 77?

A. The 57PS was an earlier design when the change from 57PS to the 77PS families is in the base. The primary change, instead of an S spring -- spring arm, we used a L-shape spring arm in the 77PS.

Q. You can show us what you mean by using this particular diagram, perhaps, which is Deposition Exhibit No. 6? It might make it a little more clear.

A. This -- This is a spring arm here (Indicating). There's an L-shape. In the 57PS, it's an S-shape.

Q. Okay. Why don't you show that for the

camera if you can just so anyone that happens to watch the video can understand that.

A. This spring arm here (Indicating) is an L-shaped spring we use in the 77PS. In the 57PS this arm was an S-shaped spring arm.

Q. Going back to Deposition Exhibit No. 8, after you began utilizing or creating power steering pressure switches, what other category of pressure switches did Texas Instruments get into?

A. Suspension pressure switches, transmission pressure switches, cruise control pressure switches and clutch pressure switches.

Q. And it appears from this document that in 1987, that's when you first began going into suspension pressure switches; is that correct?

A. Yes. According to this document, that's correct.

Q. Was Ford a customer for your 1987 suspension pressure switches?

A. I believe this is referring to the pressure switch actually used on the brake line for Ford, but for their suspension system.

Q. What about for the 1990 development where you started creating and designing transmission pressure switches?

A. Those were for General Motors.

Q. And not for Ford at anytime from 1990 to the present?

A. No. We -- We began supplying our transmission pressure switch to Ford somewhere -- sometime in the late '90s. I'm not sure of the exact time.

Q. And in 1991, is that when you first began utilizing speed control deactivation switches or what we've been referring to as a brake pressure switch?

A. 1991, I believe, was the first application of the speed control deactivation switch for Ford.

Q. And was the first ap -- Not for Ford. I want to know, for anybody.

A. As far as I know, Ford was the first application of brake deact -- brake speed deactivation control pressure switches.

Q. And was the first application for the speed control deactivation switch or brake pressure switch in the 1991 Lincoln Town Car?

A. As far as I know, it was the Lincoln -- it was the Lincoln Town Car.

Q. And we've heard reference throughout the day to a series of vehicles called the Panther

platform. Can you identify for us, if you know, what that consists of?

A. My understanding from Ford is, the Panther platform included the Lincoln Town Car, the Grand Marquis and the Crown Victoria.

Q. And the brake pressure switch that was first put in in November of 1991 into the Lincoln Town Car, is it your understanding that it was put into that vehicle before it was put into the Grand Marquis and the Crown Victoria?

A. My understanding for Ford was that the Town Car used the brake pressure switch first and that the Grand Marquis and the Crown Vic used it later.

Q. Is it fair to say that the switch that ended up in the 1991 Lincoln Town Cars evolved from the design utilized in the 1983 power steering pressure switch first utilized by General Motors?

A. I'd say the design used on the Lincoln Town Car evolved from the previous brake pressure switches supplied to Ford on their suspension system.

Q. But we still had the similarities with the 1983 power steering pressure switch, but we have the use of the Kapton as a diaphragm, we have the