In The Matter Of:

Todd L. Reber v.
Lovejoy Steel

Richard Hayes
July 28, 2003

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Court Reporters
1750 Midland Building
101 West Prospect Avenue
Cleveland, OH 44115
(216) 621-4984 FAX: (216) 621-0050

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IN THE COURT OF COMMON PLEAS
PORTAGE COUNTY, OHIO

TODD L. REBER,

Plaintiff,

JUDGE ENLOW
-vs- CASE NO. 2002-CV-00985

LOVEJOY STEEL,

Defendant.

Deposition of RICHARD HAYES, taken as if upon cross-examination before Sandra L. Rice, a Notary Public within and for the State of Ohio, at the offices of Landskroner & Grieco, 1360 West Ninth Street, Cleveland, Ohio, at 1:30 p.m. on Monday, July 28, 2003, pursuant to notice and/or stipulations of counsel, on behalf of the Defendant in this cause.

MEHLER & HAGESTROM
Court Reporters

CLEVELAND	AKRON
1750 Midland Building	1015 Key Building
Cleveland, Ohio 44115	Akron, Ohio 44308
216.621.4984	330.535.7300
FAX 621.0050	FAX 535.0050
800.822.0650	800.562.7100

APPEARANCES:

Paul Grieco, Esq.
William J. Lucas, Esq.
Landskroner & Grieco
1360 West Ninth Street, Suite 200
Cleveland, Ohio 44113
(216) 522-9000,

On behalf of the Plaintiff;

Harold Sigmier, Esq.
Weston, Hurd, Fallon, Paisley & Howley
2500 Terminal Tower
Cleveland, Ohio 44113
(216) 241-6602,

On behalf of the Defendant.

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RICHARD HAYES, of lawful age, called by the Defendant for the purpose of cross-examination, as provided by the Rules of Civil Procedure, being by me first duly sworn, as hereinafter certified, deposed and said as follows:

CROSS-EXAMINATION OF RICHARD HAYES
BY MR. SIGMIER:

Q: Mr. Hayes, I'm Harry Sigmier. We met. I represent Lovejoy Steel. I'll be asking you questions about your opinions in this case. You have been deposed many times before so you understand how this works?

A: Yes.

Q: Did you bring your file with you?

A: Yes.

Q: Could you show me what is in it? Looks like you have Mr. Reber's deposition transcript in here?

A: Yes.

Q: And I take it you have read that?

A: Yes.

Q: Have you read any other documents since you wrote your report in this case besides Mr. Reber's deposition transcript?

A: I'm not sure. Let me look at Mr. Perry's report.

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I think that was subsequent. I'll see what the date is. What's the date of my report?

Q: It's dated October 21st, 2002.

A: Yeah, Mr. Perry's.

Q: Mr. Perry's report?

A: Correct.

Q: Have you reviewed any other documents —

A: I'll have to go through this.

Q: — since your report?

A: What is the date of my report?

Q: October 21st, 2002.

A: It looks like Mr. Reber's deposition was subsequent to the report.

Q: Right.

A: That's the only thing.

Q: Okay. Have you discussed this case with anyone besides Mr. Grieco and Mr. Lucas?

A: No.

Q: Have you consulted any textbooks in connection with this case?

A: Yes.

Q: What textbooks?

A: 29 CFR 1910.

Q: Anything else?

A: I did some Internet research on specialty steel

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storage, did not get anything out of that.

Q: What were you looking for?

A: I was looking for different methods of storing round stock, what was commercially available.

Q: And you found nothing on the Internet?

A: Nothing that would have applied to this case, no.

Q: Have you reviewed any other texts or any other types of authorities?

A: No.

Q: Have you conducted any experiments in connection with this case?

A: No.

Q: Have you consulted with any of your peers in connection with this case?

A: No.

Q: Have you ever worked as a material handler?

A: No.

Q: Have you ever had a job operating an overhead crane?

A: Yes.

Q: Tell me about that.

A: I worked for Ohio Power Company and a lot of the equipment that we used you needed an overhead crane to manipulate the internal parts, parts and pieces of let's say a transformer. That was an

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Underslung, not a very large crane. It was ten ton.

Q: When was that?

A: That would have been in the late '60s, early '70s.

Q: What was your position there?

A: I was a substation maintenance person. Additionally I have operated various cranes, hydraulic truck mounted, mobile, and overhead cranes at a crane certification class I took in Orlando, Florida through the Crane Certification Bureau.

Q: When was that?

A: That would have been in the late '70s, '78, '79.

Q: Were you still with OSHA at the time?

A: That's correct.

Q: When you worked at Ohio Power how many years were you there approximately?

A: Five.

Q: Were you a substation maintenance person the entire time?

A: Yes. I hired in as substation maintenance.

Q: Did you work at a particular substation?

A: No. We worked about a 29-county area in northwest Ohio.

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Q: And I take it you did maintenance work at substations within those counties?
A: We did installations, setup, testing, modifying, and routine maintenance; that's correct.
Q: Of substation equipment?
A: Strictly substation.
Q: So the type of overhead crane that was at — overhead cranes that were at Lovejoy what type were they?
A: I believe those were Underslung.
Q: So you have operated an Underslung crane?
A: Well, I did with Ohio Power but I also as part of a technical safety audit that we do we operate the cranes to actually inspect cranes. Part of that inspection process you have to operate it. Radio controlled as well as pendent controlled, and generally you end up walking the bridge itself, mostly though, to actually pick material up the only place I operated one for the picking of material would be at Ohio Power Company. The rest were done dead hook which means nothing is on it.
Q: Do you have a CV by the way?
A: I didn't bring one with me. I can get you one.
Q: Can you get me one?

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A: Yeah.
Q: Have you ever published anything dealing with overhead cranes or material handlers other than report letters?
A: No.
Q: Have you ever failed to qualify as an expert in a court case?
A: No.
Q: Have you ever had a court disallow any opinion testimony of yours in a court case?
A: No.
Q: According to your letter in this case you have inspected steel service plants similar to Lovejoy; is that correct?
A: That's correct.
Q: Are you able to estimate for me about how many of those plants you have inspected?
A: Oh, boy, in my career?
Q: Yes.
A: Over 30 years, probably a couple hundred, anyway.
Q: Have most of those inspections been while you were with OSHA?
A: A lot of them, yes. The actual split I can't tell you.
Q: So the split would be between your work with OSHA and then your subsequent work as a private consultant?

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A: Since 1989, right.
Q: Have most of the steel service plants that you've inspected been in Ohio?
A: I would say the steel service plants have but — yes, yes, exactly.
Q: How would you compare the Lovejoy plant with some of the other steel service plants that you — strike that. Did you inspect the Lovejoy facility?
A: I did go there, yes.
Q: When was that?
A: I can't tell you exactly when it would have been, probably the early part of this year, latter part of last year.
Q: Was it before you wrote your report?
A: I can't tell you that either.
Q: Because I didn't see it mentioned in your report that you had inspected it?
A: That's a good point, then I probably did not inspect it prior to the report or it would have been in there.
Q: Who was with you when you inspected the plant.
A: Mr. Grieco.

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Q: Anyone else?
A: One of the attorneys. I'm not sure if he's with your firm or not but it was a defense attorney.
Q: Did you take any pictures?
A: No.
Q: Was the plant in operation?
A: Yes.
Q: How long were you there about?
A: Less than an hour.
Q: Did you make any notes as a result of that inspection?
A: No.
Q: Did you watch any particular functions being performed?
A: No.
Q: Did you observe the different types of racks that they had at Lovejoy?
A: I looked at the pin racks and their storage area for the round stock.
Q: How would you compare the Lovejoy facility to some of the other steel service plants you have inspected over the years?
A: Compare as to what?
Q: Let's talk about the adequacy of this equipment.
A: Well, the cranes certainly were capable of moving

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the material. The only difference between this plant and any other plant including the steel manufacturing facilities like U.S. Steel, Bethlehem, and LTV is the various grade of soft, hard, brittle types of stock they are using, and the reason I say it was different is because the only thing I saw there was round stock. Usually you have square bar and if they are a multi-product type processor they'll have both, but this just had the round stock that I did see.

Q: Did you find the lighting to be adequate?

A: I didn't think it was but I did not measure it.

Q: Did your inspection of the plant cause you to alter any of the opinions stated in your report?

A: No.

Q: Did you talk with any of the employees while you were there?

A: No, other than to say hello to, I think, one of the plant managers and I can't remember what his name was.

Q: Do you remember testifying in a case called Susan Gibson versus Drainage Products, Inc.?

A: Yes.

Q: Okay. Was that a lock-out/tag-out case?

A: I did not testify in that case.

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Q: Gave a deposition in that case?

A: Yeah. It's still ongoing.

Q: You remember giving the deposition though?

A: I don't remember the dep, but I remember going to trial and we got a motion for directed — we filed a motion for directed verdict, won that, then it was appealed. I don't remember the dep though.

Q: Who were you working for in the Gibson case?

A: It would have been a company out of — a law firm out of Paulding County.

Q: Cook, Troth & Burkhard?

A: That's correct.

Q: So you were consulting on behalf of the defendant in that case?

A: That's correct.

Q: I have the transcript of your deposition from that case.

A: Okay.

Q: I wanted to ask you a few questions about it. Do you remember testifying in that case that the issue of whether an accident is substantially certain to occur is a legal conclusion?

A: That's correct.

Q: And do you remember testifying in the Gibson case

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that you were not qualified to give an opinion on the question of whether or not an accident was substantially certain to occur?

A: That probably would be my answer; that's correct.

Q: And do you still feel that way today that you are not qualified to give an opinion on whether an accident is substantially certain to occur?

A: Well, yes.

Q: Because that's a legal question for either the court or the jury to determine?

A: For a jury, that's correct.

Q: And do you recall testifying in the Gibson case that your definition of substantial certainty was that something was more likely than not that it was going to occur?

A: That sounds like what I would say. Who is the attorney who deposed me? Can you tell me that and that will help me refresh my memory.

Q: It was Patrick Murray.

A: Oh, Pat. Okay.

Q: So is that your working definition of what substantial certainty means?

A: As a layperson would assign, yeah.

Q: That something is more likely than not to happen?

A: Correct.

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Q: Now, have you ever met Mr. Reber?

A: No.

Q: Have you ever discussed this case with him?

A: No.

Q: Did you do any kind of search to determine whether Lovejoy had any OSHA violations?

A: I did.

Q: Did it have any?

A: If they did they'd be in here and they're not in here so.

Q: You mean in the documents that Lovejoy —

A: Correct.

Q: Did you do any kind of independent search through OSHA?

A: Yes. That is what I mean. I would have had the results of that audit or that background check in here.

Q: But you were able to determine that independently?

A: I didn't see anything on the Internet. It's a limited resource but generally that's where you'll find it.

Q: Are you able to describe for me the different types of racking systems that Lovejoy had at the time of this accident?

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A: I observed, in my visit, I observed that they had pin racks, what I call pin racks which are cylindrical in nature, maybe three inches in diameter, pushed into a hole into either the concrete or into the flat stock. The other I observed would be the I-beam type racks or H-beam if you want to call it H-beam.
Q: Did you go throughout the plant to see what different types of racks they had there?
A: No. We went strictly to the area where the accident occurred.
Q: And in that area did you see both the pin racks and the I-beam type racks?
A: I recall focusing my attention on the pin racks. I didn't pay much attention to the I-beam or H-beam racks.
Q: Do you know what Lovejoy used the pin racks to store and what it used the I-beams racks to store, how the racks were used differently?
A: The only evidence of how they were used differently was from the photographs that are part of this file. I don't know that there's any difference in storage. Storage is storage, but there is a limitation in height and things like that and strength.

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Q: In reading any of the deposition testimony do you recall that some of the witnesses talked about the different ways that they used the different racks?
A: Nothing that stands out.
Q: Okay. So you say there were limitations as to — did you say weight?
A: The number of pieces, I felt, that could be stored inside the pin racks was different than what could be stored inside the H-beam or I-beam racks.
Q: Fewer pieces could be stored inside the pin racks?
A: Correct.
Q: Could you make any estimate as to how many pieces could be stored in the pin rack?
A: No, but one of the diagrams that was taken during the deposition it showed that there was probably eight pieces of round stock in one of the higher pin racks, but I think it was Reber's dep when he described how the accident occurred.
Q: Is the height to which you can stack steel in these pin racks determined by the height of the pins?
A: That's one determination, but the strength of the

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pins would be the most important one to me.
Q: When you were at Lovejoy did you see any, in the pin racks, did you see any steel stacked higher than the height of the pins?
A: I did not.
Q: Alright. And is it your understanding that Lovejoy did not stack steel higher than the height of the pins?
A: I did not see any of that.
Q: Now —
A: During my visit I didn't see any of that.
Q: Is it your understanding that Mr. Reber's accident involved in the area of one of the pin racks?
A: Yes.
Q: That the steel that he was attempting to move was in a pin rack?
A: Correct.
Q: Did you see Mr. Reber's testimony that the steel was as high as his nipples? Did you notice that in his deposition?
A: I saw as high as his chest and as high as his nose.
Q: When you were at Lovejoy did you see any pin racks that had pins that went as high as an

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average person's nose?
A: No.
Q: How about chest?
A: No.
Q: How about waist?
A: No.
Q: How high up did the pins go?
A: At most, a foot and a half, two feet.
Q: So if Mr. Reber was in an area where the steel was stacked up to his chest or his nose could that have been in a pin rack area?
A: According to him it was. In fact the diagram shows the round pins coming up that high and I thought that was excessive but I didn't see it.
Q: Do you see some inconsistency between what you saw in terms of the height of the pin racks and what Mr. Reber described in his deposition as far as the steel coming up to his nose or his chest?
A: I guess there would be. The inconsistency would be that the height of the pins conflicted with what I saw actually in the plant, but I did not look at that time for high pins. They may have had them; they may not have had them.
Q: Let me show you, you've looked at the photographs, you have them in your file as well,

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showing you deposition Exhibits, Plaintiff's Exhibits 1A, do you have that there?
A: Yes.
Q: And compare that to 1C.
A: Okay.
Q: Are those different types of rack systems?
A: Yes, they are.
Q: How are they different?
A: From the pins racks?
Q: No, no. From one another. Is 1A different from 1C or is that the same type of rack?
A: It's difficult to tell. They look the same except if you look at 1A at the very top of the beam, there is what is called a clip joint on 1C that isn't on 1A. And the clip joint is a protrusion that comes out at the end of the beam, number one, and if you go halfway down the beam there are — I don't know what they are, they're protrusions that stick out and on 1A it doesn't have that.
Q: Do you know what the clip joints are for?
A: No, I don't. Well, I know what they're for in I-beams; that's where you secure it to another piece of steel.
Q: Do you know whether they serve any function in

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these racks?
A: I don't.
Q: Based on rather your review of this case what was Mr. Reber standing on at the time of his accident?
A: He was standing on a couple pieces of round stock, round steel stock.
Q: Based on your review how were his feet positioned?
A: One would have — one foot, his right foot I believe was up on an adjacent piece of round stock and his left foot was on another piece of round stock.
Q: Were his feet at the same level?
A: No, I don't believe so.
Q: One foot was higher than the other?
A: Higher than the other, correct.
Q: The right foot was higher or the left foot was higher?
A: The right foot was higher.
Q: And what is your basis for that testimony? Did that come out of his deposition?
A: As best I recall that's the impression that I got.
Q: And based on your view in this case where was the

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bar that rolled onto his foot located?
A: If I could look at his deposition — that is a little cloudy to me but it would appear that it came from the same level that he was either standing on or from the adjacent rack that he was reaching across.
Q: Is that the one you're referring to?
A: Yeah. That looks like it.
Q: That is Defendant's D from Mr. Reber's deposition.
A: Okay. That's it.
Q: And I think he had himself where the X is?
A: That's correct.
Q: At least according to this drawing if his two feet were on these two bars they would have been at the same level?
A: The impression I got from his dep is that one foot was up here or down here, ahead of the other one, maybe not higher but ahead of the other.
Q: And he shows that he was in the rack on the right of the diagram; correct?
A: That's correct.
Q: And that there was a pin in front of him, correct, or not necessarily in front of him but there was a pin —

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A: Would have been at the end.
Q: — distinguishing, separating, the rack he was on from the rack in front of him?
A: Yeah, and it would have been at the end of the rack system.
Q: The end of the rack system. So this diagram shows three racks basically?
A: Correct.
Q: And he was on the right. There was one in the middle, and then the steel he was attempting to lift was on the first rack; is that correct?
A: That's correct.
Q: What is your understanding as to where the piece of steel was that rolled onto his foot was?
A: As I said, it wasn't clear. It could be either one of these but this one in all likelihood would have hit the pin.
Q: The one in the middle if it would have moved?
A: Correct.
Q: And that would have prevented it from hitting his foot?
A: Correct, but the X here and I believe that's his X, is that the same as what I have?
Q: I believe so.
A: That would have come down on him, it could have

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come down on him just the same.
Q: How could that have happened?
A: It could have been a short piece. It was ten-and-a-half inches diameter, and I think they said it weighed three-and-a-half ton, and if it wasn't within the confines of the pin because the pin is very limited in terms of depth into the rack itself and it could have rolled down.
Q: This is one of the reasons why it's a little bit cloudy as to how this happened?
A: Correct.
Q: You have some uncertainties I take it as to how this accident actually happened?
A: Well, no, I have some uncertainties as to exactly which one of these pieces of round stock actually caused the injury from his perspective. I don't think he was that — that he noticed that well. It's not documented in his dep that well.
Q: Alright. And are you able to formulate an opinion as to where the piece of stock was that rolled on his foot?
A: No, not with any degree of certainty.
Q: Alright. And are you able to formulate an opinion with any degree of certainty as to what caused that bar to roll onto his foot?

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A: No.
Q: Now, let's talk about this racking system with the pin rack. Have you seen this type of rack at other facilities that you have inspected?
A: Not with the weights that we have here. I have seen it with thin wall conduit. I have seen it with one- to two-inch bar stock, but nothing of the magnitude of these pieces of stock.
Q: Do you have an opinion to a reasonable degree of certainty as to what would have prevented this accident from happening?
A: There's a couple things. There could have been better cribbing, interlocking, so that the round stock doesn't slide or collapse. There could have been aisles positioned in between all the steel separating the various sizes. There could have been written procedures and policies prohibiting employees from standing on the round stock. Actually, there is a two-part hazard associated with that. That's uneven work surfaces as well as the chance that because of the cribbing methodology that these materials could shift.
There could have been a written procedure, if I haven't already said that, that would require

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the employer to actually inspect the work site and determine whether the employees were following those written procedures. Lastly, I would have limited the height of the round stock to one layer, one level, with the type of pins that I saw when I made my visit which were rather short pins.
There would have had to have been some engineering done but that would determine what the strength of those pins were and the condition of the pins that I saw when I was there indicated to me that they were under quite a bit of strain or had been anyway.
Q: I want to go through some of those with you. You said better cribbing. What do you mean by cribbing?
A: Cribbing is what you stick in between the stock to enable you to do several things. Number one is maintain a symmetrical storage so that the stock isn't leaning, and, number two and primarily is to get your lifting attachments underneath the stock so that you can make a pick.
Q: Are you referring to the wood blocks that were used?
A: That's cribbing. That's correct.

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Q: And Lovejoy was using wood four by fours; is that correct?
A: That's what's commonly used in this industry, correct.
Q: And is that what you see in these photograph?
A: Yes.
Q: And is that what you saw when you were at the plant?
A: Yes.
Q: So you said that a better cribbing could have been used. What would have been better?
A: They could have used the four by fours, but if you look at some of the photographs and then some of the items that I saw when I was down there was that the photographs show that the cribbing was at various angles, and it essentially in my view prevented the stock from being interlocked so that it wouldn't slide or collapse.
And the photographs that were taken, I'm not sure when these were, obviously subsequent to this accident, it shows that that condition still exists; the angles of the cribbing itself were not square. Bear with me here for a second.
On photograph 1N — I'm sorry, yeah, 1N, the way this is stored is in itself a safety

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violation as far as I can tell which supports my opinion regarding 29 CFR 1910.176, and that's that the materials are stored in a manner that they're leaning and there is such a tremendous amount of weight on these pins. In fact N1 shows a significant amount of bending on some of the pins. Now, these are a higher pins than what I observed when I was in the facility.

Q: How high would you say these pins are?

A: They look like they're anywhere from 36 to 42 inches high, and I'm basing that on one of the pieces of round stock is actually marked eight-and-a-quarter-inch diameter, and if you multiple that that works out to be about 32 inches high.

Q: Okay. Now, in looking at one end for instance in this crib where we have an angle to the wood block, that's because the steel that is underneath the wood blood is a different diameter; correct?

A: One of the pieces, yeah, is larger. It's eight-and-a-half and the other ones I can't make out what they are.

Q: So as long as you have different diameter stock then blocks resting on top of them there is going

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to be this risk of having the blocking at an angle?

A: Well, it is, for me, my opinion is that you shouldn't store over — or one size with smaller sizes to create that condition. One of the things you do when you do a technical safety audit is you look at the symmetry of the storage whether it be rack storage like this or whether it be coil steel or cardboard boxes. If it's leaning and shifting towards one side as all of these are it would make me curious as to whether or not it's adequately supported.

Q: Is it your understanding that Lovejoy dealt with all sorts of different size diameter stock?

A: That's correct.

Q: Do you think it would have been feasible for Lovejoy to have stored only stock of the same size together, same size diameter?

A: Well, I see all kinds of eight-and-a-half, eight-and-a-quarter, close sizes, different heats, different strengths of steel, I see that. That is probably part of the reason they didn't do it, but I think it would be prudent if you were going to pass muster on safe storage to try to store all of the same size, and then part of

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the problem as I see it in storing different sizes, if you look at 1N, in the area that you pointed out, the area right here, if I wanted to get that piece of stock that's painted yellow out of that rack and the entire cribbing methodology is allowing these three potentially larger pieces to roll down, I'm not really sure how you would get that out safely if I wanted that one to the right. You would have to take all three of these other pieces out to do it safely because they are going to roll right into —

Q: You're talking about the ones on top of the blocking?

A: That's correct.

Q: Looks like there are four pieces on top of the blocking?

A: There are four.

Q: You would have to take all four of them out to get to the ones below?

A: Yeah, obviously, but if I wanted to get one of the ones out of the top which is the one to the far right, and it's spray painted yellow, I would have to take these three out at least to prevent them from rolling down and crushing my lifting attachment or make a separation of the chain or

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since — the webbing device I was using, so that is something I would bring up as a safety person that the storage methodology isn't correct. It may be convenient but it's not correct.

Q: Are there any written standards that you're aware of that dictate the methodology for storing this type of steel?

A: Just 1910 — not for this type of specific steel but a catch-all for all materials in storage. There are standards associated with coil steel but I'm not aware of, personally aware of, anything that deals with round stock.

Q: Just 1910 —

A: — 176, correct.

Q: Is there anything in 1910 that prohibits use of these types of pin racks?

A: Just the catch-all phrase that it shall be locked, blocked, and interlocked in such a manner to prevent sliding and collapse. That's a pretty broad interpretation of that standard.

Q: So that standard is a broad general standard; correct?

A: Dealing with storage of materials, correct. It's the only one that — other than the crane standard itself it talks about positioning people

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making lifts and things like that.
Q: Now, is there any evidence that any of the steel or that the steel that went onto Mr. Reber's foot had collapsed?
A: Not enough to convince me that that's what happened. Not that it couldn't but I wasn't convinced.
Q: That there was a collapse?
A: Correct.
Q: Is it your opinion that something Mr. Reber was doing when he was lowering the load caused the piece of steel to move onto his foot?
A: It could have been that. I don't believe that Mr. Reber's foot could have moved a three-and-a-half ton of bar stock. It had to be it was either on the precipice of a failure or bumped by something heavier.
Q: Such as when he was lowering the load. That would be the only thing that was moving at the time; correct?
A: It could have been. That could have been it. I didn't try to make a causal analysis as to what actually precipitated the event.
Q: Now, Lovejoy did have some written safety procedures; correct?

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A: I saw a safety manual.
Q: Have you, over the course of your career, have you inspected some steel service plants that didn't have any kind of written safety materials?
A: Yep, many. That's why they hire me. Can I take a break?
MR. SIGMIER: Sure.

(Off the record.)

MR. SIGMIER: Back on the record.
Q: We were trying to go through the things that you said could have been done differently to prevent this accident. We've covered cribbing; correct?
A: That's correct.
Q: You talked about interlocking as well. What type of interlocking did you have in mind?
A: The only interlocking that I would be aware of is a device that I have seen used that is shaped like this.
Q: Shaped like a V?
A: Shaped like a V that fits down between with a wire piece at the bottom so it would end up looking like that to keep the actual parts away from each other, so it should do two things; it

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levels the storage as well as allows you to get your sling and lifting attachments in but it limits you as to how much you can put on top of other pieces of round stock, so, in other words, you may have eight pieces of round stock sitting on four of these things that fit in between the subsequent lower pieces. It does a couple of things. It keeps it relatively level as well as — now whether that was a design that was — this is in the nuclear industry, so it may have been a design unique to that industry but it's one that I would recommend if I observed a condition like this to assist a client.
Q: Would you be able to draw me a diagram of what you have in mind?
A: It would be pretty rough but I'll draw it for you. The round stock will fit right in here. That would be about it, six for two, so six — it would limit you to how much you could store and what it does is it stabilizes these two on the bottom, and if this is the floor area, and then contains the two on top. I'm not sure if there is a circumference differential that would affect that but the ones I saw were all pretty much the same size.

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Q: And you saw these at a nuclear facility?
A: Nuclear Weapons Sundry Facilities.
Q: For storage of other kind of material? Were they weapons?
A: I can't tell you. That is one thing I forgot.
Q: Where was the nuclear weapons facility? Can you tell me that?
A: No. One of 18 labs, probably Pantek. They use a lot of exotic materials. For example, at the FERMI labs in Illinois, they, in their machine shops they use all kinds of exotic materials and various dimensions because they are always fooling around with different experiments and that's what made me suspect, as I originally told you, that could be something unique that some high-priced engineer probably designed it for them. Have I seen this in the private sector, no.

(Thereupon, Defendant's Exhibit A was marked for purposes of identification.)

A: There is a width dimension here also or a thickness dimension. If I recall they were anywhere from three to four inches and they would

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be cut from any particular hard wood or they could even be cut from metal but they were essentially spacers. Is it a good idea, I think it is.

Q: We have marked your drawing as Defendant's A. Then you also talked about spacing. What did you have in mind when you were talking about spacing?

A: Spacing?

Q: You said spacing could have been different to have prevented the accident.

A: Aisles between spaces is probably what I was talking about, but also some way to put cribbing in between and in this example here, on one end, if you notice that there's four pieces of round stock on the rack on the left. In fact there is two pieces in one rack and this one, this particular photograph in my view should have some type of spacing in-between this particular round stock so that you can get your lifting attachments around it.

If you notice there is nothing in the photograph of the second layer of round stock as it leans to the right. There's no way you could get a lifting attachment in there on any of the pieces that I can see, so you have to have a way

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to provide a space in between the stock so you can lift it up. I don't see how you could do that the way this is racked.

Q: So you're talking about some kind of vertical spacer?

A: I would have to be cribbing, again, some type of cribbing, spacing device. As a matter of fact I'm looking at one, two, three, four, five racks and none of them have spacers between them to accommodate a lifting attachment.

Q: When you say a lifting attachment what are you referring to?

A: A sling, a chain, if you use a magnet and back to that, say we're going to use a magnet to pull this, if I wanted the piece of stock that's to the extreme right I would probably end up pulling at least one of the other pieces right along with it to pull it up with a magnet, so the safest thing would be to use a lifting attachment, either a fabric sling or a chain sling and in order to use those two devices you would have to have a spacer in-between the stock and there is no evidence that there is a spacer.

Q: Do have you any opinion as to how Lovejoy went about, referring to Plaintiff's 1, how it went

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about getting stock from underneath the blocking such as we see in that photograph?

A: I thought that I read that they did have cribbing in there and that they would go in-between the cribbing, but this photograph doesn't exhibit that.

Q: Would you use a magnet to lift the round bar stock or would that just be for the flat-placed stock?

A: I think there are magnets powerful enough to lift that kind of stock but I don't know the weights of these metals. It would have to be within the capacity of the magnet itself. It it's not likely you would use a magnet, but just in case somebody did I mean you would have to have some separation by using spacers.

Q: Would use of a larger piece of cribbing between the piece that rolled on his foot and whatever the next piece was that it was resting on have necessarily prevented the accident?

A: I'm trying to envision what it would do. Not unless the cribbing was level. No, I don't think that would have helped.

Q: Would you say that the risk of being injured while moving this type of stock is inherent in

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this kind of operation that Lovejoy had?

A: No, I don't think so. I guess by inherent you mean can we assume that that's going to happen. I don't think so, not if it's done properly.

Q: So do you believe that there are ways to completely eliminate the risk of this type of an injury from happening?

A: Well, in my business I have a number of clients that work with this type of equipment that have had no injuries.

Q: How do you know they have had no injuries?

A: I have monitored them for ten years, some of my oldest clients.

Q: Even bruised fingers?

A: No. That happens. That happens.

Q: And these clients that you have, you monitor them for what purpose?

A: For the long-term clients we monitor their accident/illness records and if we see a particular area that needs assessment we focus our efforts on that particular area to find out if they are following the procedures that were developed in-house. We do quite an in-depth investigation of the accidents especially if it involves steel that were near misses as well as

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minor injuries because the next thing that will happen will be a catastrophic failure resulting in death, so if it's your finger today it might be your head tomorrow, and we have been pretty successful doing that.

Q: So your customers, long-term customers, that you were describing provide you with ongoing accident information?

A: We do audits on a frequent basis. Generally we wait for them to request it, but we try to get in at least once a year, and those that have sophisticated safety and health programs we know that they follow those programs so they doesn't need quite the attention of say someone that we just started monitoring yesterday, so we're comfortable with how they are doing things but we ask as part of our markers we ask to evaluate their injury/illness records to see where the injuries are occurring, and they could be anywhere, could be in production, could be in storage, could be in vehicles, but we try to keep a close eye on that.

Q: Have you reviewed Lovejoy's accident information in this case?

A: I have.

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Q: Did you notice that the number of accidents decreased from 1998 to 1999?

A: I don't know if I looked at that through those eyes. I looked for total accidents that occurred in steel handling, and they had a bad year in '99. 2000 and 2001 were the same, two lost workday cases, a total of ten cases moving steel or related to steel.

Q: What year was that?

A: From '98 to 2001 there were a total of ten. There were ten lost workday incident cases, two in '98, four in '99, two in 2000, and two in 2001.

Q: Do you have the OSHA log there?

A: Yeah, I do. Okay.

Q: The 2001, do you have that? That should be the top sheet.

A: No. I have '98. It was signed in '98. It would have been the 1997 calendar year so let me correct that for the record. '98's signed document is '97's record, '99's would be '98 and 2000 would have been 2000. I went by the signature dates so what I'm looking at on top is —

Q: Which one is that?

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A: For calendar year '97.

Q: Okay.

A: What do you want to know?

Q: First of all, there are eight accidents in '97; correct?

A: That's correct.

Q: And then going on to '98 —

A: Okay.

Q: — there were ten accidents; correct?

A: Ten recordable, correct.

Q: And in 1999 there were four accidents?

A: Okay.

Q: What do you attribute the decrease in accidents to from 1998 to 1999?

A: I don't know. What I did was I called out those that — only those that involved time away from work and only those that were involved with working with steel: Moving, material handling. I didn't look at the records in terms of whether there were ten because some of these are pretty minor and it wasn't of any interest to me.

Q: In 1999 they had one accident that involved days missed; is that correct?

A: No, that's not correct. What you have to look at is whether or not it was restricted work activity

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because that is the same as days away from work. I'll use the —

Q: Are you looking at 1999?

A: '98.

Q: Look at '99.

A: Are you going by the date up here?

Q: Yes.

A: Okay. In 1999 there were — there was one lost workday incident and four total recordable cases, and it's improperly marked and I couldn't tell what — excuse me, Number 4, if you look on 12/8, Mr. Moser the foreman he had fractures and stitches to a finger, and if you look at column two it shows, either that's a three or a two, I can't make it out, or it may be a zero.

Q: Okay.

A: Then they didn't carry the lost workday cases down so if you go to the very last page, it's the total page, so I could calculate just for that year, that is the only year where I saw that was missing, and I can assume that's because the working foreman filled it out, not the original person that normally kept the records, so it's a bad record for '99, but it shows a fracture of the right metatarsal, no lost workdays, no

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restricted activity. I question that particular record, and not that it's a big thing in this case to me, but the records if they are not accurate all the way through then I tend to give it less credibility. I don't know if that answers your question.

Q: You're having trouble — you think that a fracture and break of a right metatarsal necessarily would have caused days off?

A: Well, I broke my metatarsal and I remember I was off for a long time. It was quite painful. That doesn't mean the guy didn't have any problems or had problems but —

Q: You broke a toe?

A: Is that what he did?

Q: I mean isn't that what a metatarsal is?

A: No, metatarsal to me is the bones that are between the toe and the ankle.

Q: Did you have any kind of cast on yours when you had it broke?

A: Yeah. But other than that '99 wasn't that significant of a year to me.

Q: Then in the year 2000 they of course had Mr. Reber's accident?

A: Correct.

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Q: And they only had one other accident involved days missed, am I reading this correctly?

A: That's correct. Hold on a second. Yes, that's correct.

Q: Then in the year 2001 they did not have any accidents that resulted in days missed?

A: That's correct.

Q: So would you're seeing an improved safety record here from '97 through the year 2001?

A: Yeah. I think one could make that assessment provided everything was equal in terms of man hours worked and when you look at it like that you have to do some evaluation whether or not the hours are the same, but it shows improvement, but records alone for me aren't the only thing but —

Q: Are you formulating an opinion as to what the reason for the improvement was?

A: No.

Q: Generally do employees in the workplace have any

[redacted]ility to follow the rules that their employers put in place.

Q: You mention in your letter that two other accidents in particular, accident reports dated July 3, 1997 and March 3, 1998. Do you have those accident reports handy?

A: Yes, I do.

Q: Looking at the July 3rd, '97, accident, is that the one involving Robert Pearson?

A: Yes.

Q: And it indicates that he was putting three bars on the saw. What is your understanding of what happened in this accident?

A: He was transporting the bars using an overhead crane, using a chain lifting attachment device, and he claims that the chain slipped causing the bars to roll, caught his left hand in-between the bars. That's all I know.

Q: Did this accident involve blocking or cribbing?

A: No, not that I'm aware of.

Q: The accident happened, sounds like the accident happened while the steel was in the chains; correct?

A: Correct.

Q: So in that respect it is not a similar accident to Mr. Reber's accident?

A: Well, I looked at it from just material handling only. Material handling is storage, transporting and placement. That's how I looked at it.

Q: You refer to a March 3, 1998, accident in your

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letter. I think you may have gotten the date wrong because I didn't see an accident dated March 3, 1998?

A: Probably 3/19/98, same guy, Pearson.

Q: Did you find that accident to be similar to Mr. Reber's accident?

A: With the information I had available it was his left hand was smashed between two steel bars. Nothing else supporting what really occurred.

Q: So in your opinion were any of these accident reports that you looked at similar to Mr. Reber's accident?

A: The only similarity was the movement of the bars and that it was material handling.

Q: But none of them appears to be similar in the respect of an employee standing on a load of steel and a bar shifting or moving?

A: I could not make that determination.

Q: Did you look for that kind of similarity in these descriptions?

A: I did.

Q: And you did not see anything like that; is that correct?

A: Correct. There was no further investigation.

Q: In your report you talk about multiple

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four-colored photo reproductions of the accident area. Is that the photographs that we have been looking at?
A: That's correct.
Q: I wondered why you called them four-color photos. Is that just because there are four colors shown in the prints?
A: That is what my printer has. It's called a four-color printer and it makes all the colors.
Q: Those photographs were provided to you by Mr. Grieco's office?
A: That's correct.
Q: Alright. Moving on with your report, under Facts in Brief, on page three, do you have that?
A: Go ahead. Yep.
Q: You say that a piece of steel stock became dislodged. I think you've already indicated you have no opinion to a reasonable degree of certainty as to what caused the steel to become dislodged; is that correct?
A: That's correct.
Q: And under your opinions I think you have explained to me that you think this type of steel, these large bars were too large to be stored in the pin racks; is that correct?

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A: Can you say that again?
Q: It was a bad question. Let's talk about your opinion number one. You say that the storage racks used to store various sizes of the steel round stock were not appropriate. In which sense were they not appropriate?
A: The limited strength of the vertical pins and that was based upon my observations, when I visited the facility, of the damage that was already to the pins and the photographic pictures of those pins. Additionally, I'm not sure that those pins are engineered to support the kind of weights we're talking about when you're talking about more than one piece of round stock.
Q: There's no evidence in this case that a pin failed causing the accident, is there?
A: No.
Q: That's correct?
A: That's correct. My position on it was if I looked at the damage of the pins there was only one way that — well, it isn't the only way but it would be obvious to me that the stock itself was causing the damage to the pins.
Q: Opinion number two, the design of the racks forced employees to stand on the steel. That is

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what Mr. Reber was doing at the time of the accident; correct?
A: That's correct.
Q: But he was also in the process of lowering the stock that he was trying to position; correct?
A: That would appear to be correct.
Q: And did you see in his deposition that he admitted that if he would have moved out into the Ashley it would have been a safer way to perform this operation?
A: That's correct.
Q: Do you agree with that?
A: That's correct.
Q: Had you seen the depositions of two of the other employees, Mr. Coulter and Mr. Pearson, moved into the Ashley when they were raising and lowering stock?
A: Yes.
Q: So you agree that is a safer way of performing the operation?
A: No doubt.
Q: And opinion number three, Lovejoy failed to establish safe working procedures for cribbing. What do you mean by that "for cribbing"?
A: Well, cribbing is the separation, the spacers

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that go between the pieces of steel. That is a form of cribbing. That's as far as the cribbing. Your question only relates to the cribbing?
Q: Right.
A: What about the second half of the opinion?
Q: Well, can you tell me what was —
A: Oh, I'm sorry.
Q: Let me ask it a different way. Can you elaborate on number three in your report?
A: Yes. What I meant by failing to provide safe working procedures for cribbing is that allowing multiple sizes of material to be stored in the same bin area, no matter what cribbing one uses unless you had multiple sizes of cribbing I don't think you could ever get the steel where it was stored symmetrically where it wouldn't roll if you picked out a piece. The second half of that, securing lifting attachments to steel stock, that is part of the cribbing methodology. There is no choice for any of these employees other than to go stand on the steel which is not a safe thing to do anyway. The reason there was no choice other than to climb up onto the steel itself no matter if they were going to the right or to the left to pick up from another rack is that all the

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steel was stored together with no aisleways in-between, and that creates not only a potential for misjudgment of something that's not cribbed properly but it also makes for an uneven work surface.

It's a falling issue or an ankle sprain issue not related to what — especially to what occurred here, but had they had a procedure as you said, two people were in the aisle making a lift, one of them wasn't. Mr. Reber wasn't. Had they trained their employees that all employees will do it from the aisle then Mr. Reber who is described as a very good worker probably would have followed that advice. And, boy, was that a long answer to that simple question.

Q: Have you seen other operations like this? You have already established that you have been in many plants like this and have seen how they stored steel in racks; correct?

A: Correct.

Q: Have you seen other plants where the racks were configured like this where they were up against one another?

A: I've got to tell you, no, I haven't, not with the sizes we're talking about here, smaller sizes.

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Q: Whenever you've seen the racks there have been aisleways between the racks?

A: Generally speaking, yeah, or the rack will be against the wall so they have access from the front side along the entire length of the wall. I see that in pipe storage also, heavy pipe storage, i.e., the oil well industry, they will store extremely thick-walled pipe that way where they have to have aisles in-between, but you're not talking about the weights that we're talking about here.

Q: We have already covered 29 CFR 1910.176?

A: Correct.

Q: Is there any evidence in this case that the stock slid causing Mr. Reber's accident?

A: No.

Q: Now, let's move to five, opinion five, under C6, slings shall be securely attached to their loads. Is that an issue in this case? The slings didn't have anything to do with this accident, did they?

A: Could have if they would have placed the slings where it wasn't at the center, actual center of the load. I think one could make an argument that not having all the loads marked in the middle I consider that to be a secure issue whether or not it's going to slide out of the sling.

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Q: Is there any evidence that the — first of all, Mr. Reber was lowering a load that was in a sling; correct?

A: Correct.

Q: The sling being the chains that come down from the crane; correct?

A: Correct.

Q: Is there any evidence that the load was insecure in the sling?

A: Well, chains, I don't consider chains to be a good lifting attachment for steel stock. Web slings I prefer because you have a little bit of drag coefficient, a little stickiness. Chains are used but I always recommend using some type of fabric sling.

Q: Is there a fabric that can be used for this weight of steel?

A: I'm sure there are. I have lifted heavier loads with fabric type slings, nylon fabric slings.

Q: Are there any risks presented by the use of fabric?

A: Only if they get tore.

Q: But in terms of trying to determine what caused Mr. Reber's accident we know from his deposition that he didn't the load centered properly and he was lowering it, correct, he was going to reposition the chains?

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A: That sounds right.

Q: But other than being on level there is no evidence that the load was not secure within the chains, is there?

A: If it's not — to me, this is my opinion, if it's not determined to be in the center when you make the pick it's got to be lowered back down so you can move it to center. I have had fatalities where that's occurred and it slipped out of the sling that way, the load shifted.

Q: But that's not what happened to Mr. Reber?

A: I — we don't know. I don't know what caused that dislodgment.

Q: Well, we know the piece of metal that rolled on his foot was not one of the pieces that was in the sling; correct?

A: That's correct, but I don't know if in the process of lowering it or raising it or however he was doing it whether or not it had anything to do with this business of being off center. I don't know that.

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Q: Alright. So you don't have an opinion to a reasonable degree of certainty that there was something insecure about the way in which the load was in the sling that contributed to cause the accident; is that a fair statement?
A: That's correct.
Q: Then under C8, suspended load shall be kept clear of all obstructions. Was there an obstruction at issue in this case?
A: Potentially.
Q: What would that be?
A: That could be the height of the pins, it could be anything that would cause the load to be moved while it's in the slings.
Q: There's no evidence that the load was moving while it was in the slings, is there?
A: Other than what we discussed previously of it being level or off center.
Q: Do you have an opinion to a reasonable degree of certainty that there was any obstruction that contributed to cause this accident?
A: Other than where the pins were themselves, no. If you believe Mr. Reber and the height of the pins that he was trying to get the materials out of and he was reaching across another set

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of — in the middle of the diagram that we looked at, whether that constitutes an obstruction depends on whether you're the person trying to rustle these pieces of round stock from that far left-side, and that's where an aisleway would have facilitated this.
Q: C9, all employees should be kept clear of loads about to be lifted and of suspended loads. Now, the way for Mr. Reber to have been kept clear would have been for him to have moved out to the Ashley as he was lowering the load; is that correct?
A: That I agree with, yes.
Q: So that was his responsibility?
A: That's correct.
Q: And next, hands or fingers shall not be placed between the sling and its load while the sling is being tightened around the load.
That is not an issue in this case, is it?
A: Not in the Reber case. It was an observation I made from the previous accidents that occurred since 1997.
Q: Number eight, you say Lovejoy's supervisors failed to investigate serious accidents occurring in and around the storage rack area and failed to

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take corrective action to prevent accidents from reoccurring. What is your basis for that statement?
A: The ten accidents that occurred involving steel handling in the previous years.
Q: You mean the mere fact that they had accidents leads you to conclude that the company failed to investigate those accidents?
A: Yeah. I saw nothing that would support an investigation with abatement or corrective action to prevent anything from reoccurring with those accidents. That's generally what you should do if you have an accident is stop it from recurring by doing a faulty analysis perhaps or say, hey, we're going to change our process. I didn't see anything that that occurred.
Q: Perhaps we have gone over the basis for number eleven already. You say the injury suffered by Mr. Reber were easily preventable by using simple and straightforward material handling and storage techniques. What techniques should have been used?
A: Limiting height, segregating the various sizes of materials and putting aisles in to allow access for hooking up lifting attachments.

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Q: And the limiting height has to do with the fact that there were different diameter bars that caused them to be at angles at times; is that correct?
A: That's correct.
Q: Then going on to the second last paragraph of your report I thought we established earlier in your deposition that you believe that whether an accident is substantially certain to occur is a legal conclusion, something for a judge or jury to decide; correct?
A: That's correct.
Q: That's something that you don't feel qualified to give an opinion on as an expert; is that right?
A: That's correct, whether or not it's substantially certain.
Q: Okay. I think that is all I have, Mr. Hayes. Thank you for your time.

RICHARD HAYES

CERTIFICATE

The State of Ohio,) SS:
County of Cuyahoga.)

I, Sandra L. Rice, a Notary Public within and for the State of Ohio, authorized to administer oaths and to take and certify depositions, do hereby certify that the above-named witness was by me, before the giving of their deposition, first duly sworn to testify the truth, the whole truth, and nothing but the truth; that the deposition as above-set forth was reduced to writing by me by means of stenotypy, and was later transcribed into typewriting under my direction; that this is a true record of the testimony given by the witness; that said deposition was taken at the aforementioned time, date and place, pursuant to notice or stipulations of counsel; that I am not a relative or employee or attorney of any of the parties, or a relative or employee of such attorney or financially interested in this action; that I am not, nor is the court reporting firm with which I am affiliated, under a contract as defined in Civil Rule 28(D).

IN WITNESS WHEREOF, I have hereunto set my hand and seal of office, at Cleveland, Ohio, this ____ day of _____, A.D. 20____.

Sandra L. Rice, Notary Public, State of Ohio
1750 Midland Building, Cleveland, Ohio 44115
My commission expires September 26, 2004

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