OFFICIAL TRANSCRIPT OF PROCEEDINGS

Agency:

U.S. Nuclear Regulatory Commission

Office of Investigations

Title:

Investigative Interview of:

Richard Calfee (Closed)

Docket No.

LOCATION:

Houston, Texas

DATE

Thursday, December 17, 1992

PAGES: 1 - 17

ANN RILEY & ASSOCIATES, LTD.

1512 K St. N.W., Suite 300 Washington, D.C. 20006 (202) 293-3950

9403240102 930608 PDR FOIA BUDNICK92-612 PDR



ADDENDUM/ERRATA SHEET

| 'age | Line | Correction and Reason for Correction |
|------|--|--------------------------------------|
| | | |
| | | |
| | | |
| | | |
| | THE RESERVE THE PROPERTY OF THE PERSON | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| -1 | | |
| | 100 | |
| - | | |
| | | - $ -$ |
| age | Dat | e 1/12/13 Signature FM 12 |

| 1 | UNITED STATES OF AMERICA |
|----|---|
| 2 | NUCLEAR REGULATORY COMMISSION |
| 3 | |
| 4 | OFFICE OF INVESTIGATIONS |
| 5 | X |
| 6 | In the Matter of: |
| 7 | INVESTIGATIVE INTERVIEW : |
| 8 | Richard Calfee : |
| 9 | (CLOSED) : |
| 10 | X |
| 11 | |
| 12 | Omnitron International, Inc. |
| 13 | 8990 Kirby, Suite 200 |
| 14 | Houston, Texas 77054 |
| 15 | |
| 16 | Thursday, December 17, 1992 |
| 17 | |
| 18 | The above-entitled matter commenced at 4:15 |
| 19 | o'clock p.m., when were present: |
| 20 | RON LLOYD, Investigator |
| 21 | THOMAS W. RICH, Mechanical Engineer, IMNS |
| 22 | Nuclear Regulatory Commission |
| 23 | |
| 24 | |
| 25 | |

| 1 | Also Prese | nt: |
|-----|------------|---|
| 2 | | |
| 3 | | REBECCA D. FULLER, Investigator |
| 4 | | U.S. Food and Drug Administration |
| 5 | | |
| 6 | | JAMES KNAUSS, Director, Product Assurance |
| 7 | | Omnitron International, Inc. |
| 8 | | |
| 9 | | |
| 0 | | |
| 1 | | |
| 2 | | |
| . 3 | | |
| 4 | | |
| 5 | | |
| 6 | | |
| 7 | | |
| 8 | | |
| .9 | | |
| 20 | | |
| 21 | | |
| 2.2 | | |
| 23 | | |
| 24 | | |

25

ANN RILEY & ASSOCIATES, Ltd.

PROCEEDINGS 1 [4:15 p.m.] MR. LLOYD: Good afternoon. It is approximately 3 4:15 in the afternoon. My name is Ron Lloyd with the U.S. Nuclear Regulatory Commission, Section Chief for the 5 Incident Investigation Program. 6 What we would like to do is have each individual 7 introduce themselves by name and spell your last name if 8 it's difficult. 9 MR. RICH: My name is Tom Rich and I work for the 10 U.S. Nuclear Regulatory Commission in the Sealed Source 11 Safety Section. 12 THE INTERVIEWEE: I am Richard Calfee, President 13 14 of Omnitron. MR. KNAUSS: James Knauss, Director of Product 15 Assurance, Omnitron. 16 MS. FULLER: And I am Rebecca Fuller, FDA 17 18 Investigator. MR. LLOYD: Thank you. Since you have been 19 interviewed before by the IIT team, let me just state that 20 I'm sure you're aware of our transcription process. We'll 21 try to get copies available to you. We'll even address it 22

ANN RILEY & ASSOCIATES, Ltd.

to you if you misplaced the last one, and you'll have an

any corrections you choose to by an errata sheet.

opportunity to take a look at your transcript and then make

23

24

25

| 1 | THE INTERVIEWEE: Okay. I thought you guys last |
|-----|--|
| 2 | time told me you were going to send that to me and I never |
| 3 | received it. |
| 4 | MR. LLOYD: Those were sent to Washington, D.C. |
| 5 | In fact we just got them I think yesterday. |
| 6 | THE INTERVIEWEE: So they're going to send it on |
| 7 | down. |
| 8 | MR. LLOYD: They'll send it on down. |
| 9 | THE INTERVIEWEE: Okay. |
| 10 | MR. LLOYD: I have talked to the people there, so |
| 1.1 | they'll send that down here by Federal Express and it will |
| 12 | give you a chance to look at it and make any corrections and |
| 13 | then mail it back to us. |
| 14 | THE INTERVIEWEE: Okay. |
| 15 | MR. LLOYD: So I think that's it as far as the |
| 16 | intro because you have already heard all this before. |
| 17 | Could you restate for the audience that we have |
| 18 | now what your current position is and your responsibilities |
| 19 | THE INTERVIEWEE: I am the President of Omnitron. |
| 20 | MR. LLOYD: And what is your connection with the |
| 21 | Omnitron 2000? |
| 22 | THE INTERVIEWEE: It's a product of our company. |
| 23 | MR. LLOYD: Did you help develop that product or |
| 24 | was it partially developed when you came here? |
| | |

25

THE INTERVIEWEE: It was partially developed,

| 1 | mostly developed when I came here. |
|----|--|
| 2 | MR. LLOYD: What's your feeling as far as how the |
| 3 | machine operates, its limitations, its design |
| 4 | specifications? |
| 5 | THE INTERVIEWEE: I think it is the best machine |
| 6 | on the market by far. |
| 7 | MR. LLOYD: How closely are you involved with the |
| 8 | actual operation and testing and use? |
| 9 | THE INTERVIEWEE: That's a pretty subjective |
| 10 | question. It's I'm generally aware of the operation and |
| 11 | testing of the machine. |
| 12 | MR. LLOYD: Have you had any input as far as |
| 13 | making design changes or specification changes, material |
| 14 | changes? |
| 15 | THE INTERVIEWEE: I guess as the President of the |
| 16 | company you get a little input on everything but I haven't |
| 17 | been intimately technically involved, if that is your |
| 18 | question. |
| 19 | MR. LLOYD: What is your management process? Do |
| 20 | you have daily meetings, weekly meetings with people? |
| 21 | THE INTERVIEWEE: We generally have weekly |
| 22 | meetings with senior staff members. |
| 23 | MR. LLOYD: Do they discuss progress or problems |
| 24 | that they are currently having? |
| 25 | THE INTERVIEWEE: Each individual area discusses |

| 1 | what is going on in their area, sales, marketing, |
|----|--|
| 2 | conventions, engineering whatever. |
| 3 | MR. LLOYD: Okay. We have some general questions |
| 4 | that we've put together. We'd like to go through those. |
| 5 | As best you can, give whatever answers you can. |
| 6 | THE INTERVIEWEE: Okay. |
| 7 | MR. LLOYD. As factually as possible. If you have |
| 8 | any questions, please ask questions. If you are not sure, |
| 9 | just say that you are not sure and we'll continue and go on. |
| 10 | THE INTERVIEWEE: Okay. |
| 11 | MR. LLOYD: Tom? |
| 12 | MR. RICH: Since the last two source wire breaks |
| 13 | in Pennsylvania, has Omnitron hired any additional |
| 14 | personnel? |
| 15 | THE INTERVIEWEE: I don't believe we've hired any |
| 16 | additional full-time personnel. |
| 17 | MR. RICH: Have you hired part-time personnel to |
| 18 | look at the failure analysis? |
| 19 | THE INTERVIEWEE: As you know, we've hired Dr. |
| 20 | Massoud Simnad to assist us in that evaluation. |
| 21 | MR. RICH: Any additional people he's hired on |
| 22 | your contract? |
| 23 | THE INTERVIEWEE: I don't know who all he's worked |
| 24 | with out at San Diego but of course they've also been |
| 25 | working with the NRC's own experts in San Antonio. |
| | |

| 1 | MR. RICH: Has anyone received a reprimand from |
|-----|---|
| 2 | the cause of the wire failures or anything else going on |
| 3 | within the company since the wires broke? |
| 4 | THE INTERVIEWEE: Not to my knowledge. |
| 5 | MR. RICH: Who is the assigned person within |
| 6 | Omnitron responsible for the failure analysis on your part? |
| 7 | THE INTERVIEWEE: Tony Bradshaw. |
| 8 | MR. RICH: Okay. Will he be providing you |
| 9 | directly information relating to the root cause of failure? |
| LO | THE INTERVIEWEE: Yes. |
| 1 | MR. RICH: Since you've been at the company since |
| 12 | the beginning or pretty much the beginning of the |
| .3 | afterloader, what is the performance history of the |
| .4 | afterloader? |
| 5 | THE INTERVIEWEE: I'd say it's been excellent. |
| .6 | MR. RICH: Any units that had to be removed from |
| .7 | the clinics due to poor operating environment or because of |
| 8 | too many failures of parts? |
| .9 | THE INTERVIEWEE: None that I recall. |
| 0.0 | MR. RICH: Can you explain in some detail how |
| 21 | Omnitron International Incorporated began or started? |
| 22 | There's a lot of relationships along the line to the |
| 23 | documentation that we really don't understand. |
| 24 | THE INTERVIEWEE: Well, in general Omnitron was |
| 25 | founded back in 1988 by Dr. Michael Hayman, Dr. Sam Liprie, |

| 1 | who hired an engineering firm to develop the original |
|----|--|
| 2 | prototypes, engineering models of the machine. |
| 3 | MR. RICH: Was it called Omnitron International |
| 4 | at that point? |
| 5 | THE INTERVIEWEE: I believe it was. |
| 6 | MR. RICH: Okay. |
| 7 | THE INTERVIEWEE: And Mr. Chambers, our Chairman, |
| 8 | got involved along that time period also and the company |
| 9 | they were working with also did consulting work in the oil |
| 10 | business so when the oil business for them picked back up, |
| 11 | they got disinterested in the project and I believe that Mr. |
| 12 | Chambers was instrumental in getting some people out of |
| 13 | Georgia Tech Tony and Rick involved in making this |
| 14 | preliminary design more production-worthy. |
| 15 | He recruited me to come to the company in the |
| 16 | middle of 1990 at which time we moved it all here to Houston |
| 17 | and started preparing for our production and marketing of |
| 18 | the product. |
| 19 | MR. RICH: What was your past history before being |
| 20 | signed on to Omnitron? |
| 21 | THE INTERVIEWEE: You mean since birth or when? |
| 22 | MR. RICH: No what was your last job? |
| 23 | THE INTERVIEWEE: I was with Intermedics, |
| 24 | Incorporated, for about thirteen and a half years where I |
| 25 | was an officer of that corporation and responsible for |

| 1 | engineering research and development. |
|----|---|
| 2 | MR. RICH: Who finances the company? |
| 3 | THE INTERVIEWEE: Its shareholders. |
| 4 | MR. RICH: Do you have stock on the open market or |
| 5 | is it private stock? |
| 6 | THE INTERVIEWEE: It is privately held. |
| 7 | MR. RICH: Can you mention who the major |
| 8 | shareholders are? |
| 9 | THE INTERVIEWEE: The major shareholders are the |
| 10 | members of our Board of Directors, which is Mr. Chambers, |
| 11 | myself, Dr. Liprie, Dr. Hayman and Wayne Rollins Randall |
| 12 | Rollins at this point in time. |
| 13 | MR. RICH: What is the relationship between RADS, |
| 14 | which I understand that Dr. Sam Liprie is President of, and |
| 15 | Omnitron? |
| 16 | THE INTERVIEWEE: He was previously in the wire |
| 17 | building business on his own for a number of years as the |
| 18 | company RADS, SL. |
| 19 | MR. RICH: There's no other relationships to that |
| 20 | company? |
| 21 | THE INTERVIEWEE: No. |
| 22 | MR. RICH: What about relationship between the |
| 23 | Radiological Physics and Engineering Company and Omnitron? |
| 24 | THE INTERVIEWEE: Radiological Physics and |
| 25 | Engineering Company |
| | |

| 1 | MR. RICH: There was some documentation submitted |
|----|--|
| 2 | along with the prototype testing in the Louisiana history |
| 3 | file that mentions that company's name as doing the testing |
| 4 | or being responsible. What was the relationship and was |
| 5 | anybody from that company brought into Omnitron's personnel |
| 6 | department or |
| 7 | THE INTERVIEWEE: I think that may be Dr. Wright's |
| 8 | physics consulting company. |
| 9 | MR. RICH: Were they in charge of the prototype |
| 10 | testing, do you know? |
| 11 | THE INTERVIEWEE: The prototype testing of what? |
| 12 | MR. RICH: Of the nickel titanium wire and the |
| 13 | stainless steel wires? |
| 14 | THE INTERVIEWEE: I think that before she joined |
| 15 | us full-time she may have been hired in a consulting role to |
| 16 | do some of the testing on that wire. |
| 17 | MR. RICH: What is the relationship between Test, |
| 18 | Incorporated and Omnitron? |
| 19 | THE INTERVIEWEE: That was the company I mentioned |
| 20 | that originally did the engineering work and prototype |
| 21 | development back in 1988. |
| 22 | MR. RICH: Who were the founders of Test, |
| 23 | Incorporated? |
| 24 | THE INTERVIEWEE: I do not know. |
| 25 | MR. RICH: One more company I quess we're trying |

| 1 | to straighten out here. What is the relationship between |
|----|---|
| 2 | Tuttle Engineering Services Team, Incorporated, and |
| 3 | Omnitron? |
| 4 | THE INTERVIEWEE: I am not familiar with that |
| 5 | name. |
| 6 | MR. RICH: Did you hire Dr. Wright on after you |
| 7 | became President of Omnitron? |
| 8 | THE INTERVIEWEE: Eventually, yes. |
| 9 | MR. RICH: What education and training does she |
| 10 | have? |
| 11 | THE INTERVIEWEE: Best ask her that question, but |
| 12 | she has a Ph.D. in Physics is my understanding and a lot of |
| 13 | clinical experience. She's I think also immediate Past |
| 14 | President of the APM and the ACPM, so she's a well-known |
| 15 | person. |
| 16 | MR. RICH: What training experience has she had |
| 17 | with the ISO 2919 prior to her coming to Omnitron? |
| 18 | THE INTERVIEWEE: I do not know. |
| 19 | MR. RICH: Where was the prototype testing done or |
| 20 | nickel titanium? I understand you were one of the people |
| 21 | watching the test as well as signing off on the |
| 22 | documentation. Where were those tests performed? |
| 23 | THE INTERVIEWEE: That particular, the one that I |
| 24 | signed off on, let's see. There was some testing that was |
| 25 | done here and there was some testing that was done at our |

| 1 | lab in Edgerly. |
|----|--|
| 2 | MR. RICH: Where is the equipment that the tests |
| 3 | were done with? |
| 4 | THE INTERVIEWEE: Which tests? |
| 5 | MR. RICH: Okay, the temperature test involves an |
| 6 | oven. Where is that oven at this time? |
| 7 | THE INTERVIEWEE: I would think that that would be |
| 8 | at Edgerly. |
| 9 | MR. RICH: And there was also a puncture test that |
| 10 | involves a 50 gram hammer. Where would that be? |
| 11 | THE INTERVIEWEE: That also would be at Edgerly, I |
| 12 | believe. |
| 13 | MR. RICH: Is there any part of the testing that |
| 14 | was done for ISO 2919 equipment-wise that would be located |
| 15 | here that we could see? |
| 16 | THE INTERVIEWEE: Not that I am aware of but I |
| 17 | have to tell you that I don't remember all the specific |
| 18 | details of that testing. |
| 19 | MR. RICH: Do any of the other Omnitron facilities |
| 20 | do any manufacturing besides the Houston facility and Dr. |
| 21 | Sam Liprie's lab? |
| 22 | THE INTERVIEWEE: No. |
| 23 | MR. RICH: Have you thought about starting |
| 24 | procedure-wise or a documentation listing different |
| 25 | corrective actions that you will be taking as a result of |

| 1 | the failures? |
|----|--|
| 2 | THE INTERVIEWEE: Once we finish the analysis, I |
| 3 | would think we would if any corrective actions are required. |
| 4 | MR. RICH: Is there any procedures or functions |
| 5 | that you will change now, not as a result of failures but as |
| 6 | a result of investigations? |
| 7 | THE INTERVIEWEE: Well, we've discussed changing |
| 8 | the error message that would come up when you do an |
| 9 | emergency retract. I mentioned that in my last interview to |
| 10 | Dr. Paperiello. |
| 11 | MR. RICH: Were there any other previous |
| 12 | manufacturers besides SMA that you received the raw |
| 13 | materials from? |
| 14 | THE INTERVIEWEE: I do not know. |
| 15 | MR. RICH: Who would be in charge of purchasing |
| 16 | that wire? |
| 17 | THE INTERVIEWEE: Our purchasing is generally |
| 18 | handled by John Edison. |
| 19 | MR. RICH: Do you have oversight for all purchase |
| 20 | orders? |
| 21 | THE INTERVIEWEE: I do initial most if not all |
| 22 | purchase orders, yes. |
| 23 | MR. RICH: I have no more questions at this time. |
| 24 | MR. LLOYD: When do you expect a report on the |
| 25 | cause of failure? |

| 1 | THE INTERVIEWEE: Well, when we get the failure |
|-----|---|
| 2 | analysis complete. The commitment to Dr. Paperiello was to |
| 3 | try to have that complete by December 23rd. I still hope to |
| 4 | achieve that date. There were some, you know, delays in |
| 5 | getting our hands on it, as you know. In fact, the second |
| 6 | wire is just now undergoing analysis. The analysis on the |
| 7 | first wire is pretty much complete. |
| 8 | MR. LLOYD: What are the preliminary findings on |
| 9 | the first wire? |
| 10 | THE INTERVIEWEE: That it was fractured due to |
| 11 | overstress. |
| 12 | MR. LLOYD: Tensile failure, tactile, brittle |
| 13 | failure, bowments? |
| 14 | THE INTERVIEWEE: I am not a metallurgist but my |
| 15 | understanding of the situation is it was a ductile failure |
| 16 | due to overstress on the material. |
| 17 | MR. LLOYD: Was that supposedly when the wire was |
| 18 | being pulled out or inserted? |
| 19 | THE INTERVIEWEE: We believe it was when it was |
| 0 | being pulled out. |
| 21 | MR. RICH: Do you plan on sending anybody down to |
| 2 | Southwest Research to examine the testing going on on the |
| 2.3 | second wire? |
| 2.4 | THE INTERVIEWEE: That hasn't been determined yet. |
| 25 | We were very impressed with the quality of neonle those at |

| 1 | Southwest and we of course have documentation from what the |
|----|---|
| 2 | have done already in our presence during the testing of the |
| 3 | first wire and have been assured by them that they are |
| 4 | taking the same kind of documentation on the second wire, |
| 5 | so, you know, if Tony hadn't had to be here today he |
| é | probably would have been over there but we have a lot of |
| 7 | confidence in those people. |
| 8 | MR. RICH: Are you having any difficulties with |
| 9 | sharing information between Southwest and your |
| 10 | THE INTERVIEWEE: Not that I know of. I think |
| 11 | it's been a very cooperative relationship so far. |
| 12 | MR. RICH: That's good to hear. |
| 13 | MR. LLOYD: What about other areas? Beyond the |
| 14 | break of the wire are there any other changes that you're |
| 15 | looking at at Omnitron as far as training, oversight, |
| 16 | recordkeeping, quality assurance or QC, testing the list |
| 17 | kind of goes on and on and on about, you know, possible |
| 18 | areas where you could make changes. |
| 19 | THE INTERVIEWEE: Obviously you can make changes |
| 20 | in all those areas overtime, always. As we review this |
| 21 | I don't know that I can tell you whether there will be or |
| 22 | won't be. It's certainly possible. |
| 23 | MR. LLOYD: What about oversight at the Atlanta |
| 24 | firm that actually drills the hole and ships that to you? |
| 25 | THE INTERVIEWEE: I think that that would be a |

| 1 | function of, you know, what we find in this testing. To my |
|-----|--|
| 2 | knowledge we haven't found anything that would indicate an |
| 3 | out of specification condition or process-related material, |
| 4 | property, anything like that. |
| 5 | MR. LLOYD: Tony mentioned that there were no |
| 6 | tensile tests done on the wire with the hole drilled in. |
| 7 | You have a wall, a min wall I believe that's approximately |
| 8 | three and a half thousandths. It's fairly easy to do a |
| 9 | calculation on that that would show how many pounds that the |
| 10 | thing would take before it would break and it's a fairly |
| 11 | small number. |
| 12 | THE INTERVIEWEE: I beg your pardon? |
| 13 | MR. LLOYD: It's a fairly small number. |
| 1.4 | THE INTERVIEWEE: Is it? I mean I've |
| 15 | MR. LLOYD: And nobody has ever done those |
| 16 | calculations evidently and nobody has ever done a tensile |
| 17 | test. |
| 18 | THE INTERVIEWEE: I don't know if that's true or |
| 19 | not. I know that the testing to my knowledge that was done |
| 20 | is the mode of where it's used, where it's the kind of |
| 21 | stress it would be subjected to in real life. |
| 22 | MR. RICH: No questions. |
| 23 | MR. LLOYD: No further questions. Do you have any |
| 24 | further questions of us? |
| 25 | THE INTERVIEWEE: No. I just I would like to |

| 1 | get a copy of that first transcript and a copy of this one |
|----|--|
| 2 | when you get it produced. |
| 3 | MR. LLOYD: We'll do that. |
| 4 | THE INTERVIEWEE: All right. |
| 5 | MR. LLOYD: Thank you very much. |
| 6 | THE INTERVIEWEE: All right. |
| 7 | [Whereupon, at 4:35 o'clock p.m., the taking of |
| 8 | the interview was concluded.] |
| 9 | |
| 10 | |
| 11 | |
| 12 | |
| 13 | |
| 14 | |
| 15 | |
| 16 | |
| 17 | |
| 18 | |
| 19 | |
| 20 | |
| 21 | |
| 22 | |
| 23 | |
| 24 | |
| 25 | |

REPORTER'S CERTIFICATE

This is to certify that the attached proceedings before the United States Nuclear Regulatory Commission

in the matter of:

NAME OF PROCEEDING: Richard Calfee

DOCKET NUMBER:

PLACE OF PROCEEDING: Houston, Texas

were held as herein appears, and that this is the original transcript thereof for the file of the United States Nuclear Regulatory Commission taken by me and thereafter reduced to typewriting by me or under the direction of the court reporting company, and that the transcript is a true and accurate record of the foregoing proceedings.

Wanda Samo

Official Reporter Ann Riley & Associates, Ltd.