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Official Transcript of Proceedings

NUCLEAR REGULATORY COMMISSION

Title: INTERVIEW OF KEVIN WENTZEL

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From: Mitchel Galanek

Subject: Review of NRC Incident Investigation Team Transcripts

Date: November 8, 1995

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The Nuclear Regulatory Commission will be at MIT on Monday and Tuesday, November 13-14, 1995 to allow for review of your transcripts. The review will take place in building 20. If you plan to review your transcript, please come to the Radiation Protection Office, Room 20C-207 between 9:00 AM and 5:00 PM on these dates.

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Thank you for your cooperation.

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NUCLEAR REGULATORY COMMISSION

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INCIDENT INVESTIGATION TEAM

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INTERVIEW OF KEVIN WENTZEL

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MASSACHUSETTS INSTITUTE OF TECHNOLOGY

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MONDAY, OCTOBER 23, 1995

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1:30 P.M.

INTERVIEWERS:

ALAN MADISON

BETSY ULLRICH

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

(1:37 p.m.)

MS. ULLRICH: Okay, we're on the record, and it's 1:35 in the afternoon on October 23rd. This is an interview with Kevin Wentzel, who is a member of the radiation safety committee. My name is Betsy Ullrich. I'm a senior health physicist with the NRC Region 1 office. Since you're the only other team member, let's do an introduction now.

MR. MADISON: I'm Alan Madison. I'm with the Nuclear Regulatory Commission out of headquarters. I'm with the office that has the program responsibility for the incident investigation program.

MR. WENTZEL: Okay, nice to meet you both.

MS. ULLRICH: Okay, let me go through the formal introduction to make sure I cover all the points I need to before we start. This is part of the incident investigation team that's been up here for about a week at this point looking into the contamination incident that occurred in the Cancer Center.

Part of our purpose is to try to establish what happened. We're also trying to identify if there are any probably causes and to provide feedback to both the R&D community as well as to the regulatory community as to what kinds of things could be done or could be improved to

prevent such a thing from happening in the future.

We are conducting these interviews and recording them so that we can get a transcript. This means that we don't have to worry about taking notes while we're talking with you.

MR. WENTZEL: Sure.

MS. ULLRICH: It also gives us an opportunity to go back and look at information. And you will be provided with an opportunity to review your transcript tomorrow -- as early as tomorrow, I should say.

MR. WENTZEL: Okay.

MS. ULLRICH: So that you can make any corrections. There will be provided for you an errata sheet. Any corrections that you need to make would be put on that sheet, and that sheet will become part of the record with the transcript.

MR. WENTZEL: Very good.

MS. ULLRICH: At the end --

MR. MADISON: You can make clarifications as well as corrections.

MR. WENTZEL: Sure, okay.

MR. MADISON: I'm sorry.

MS. ULLRICH: Yeah. No problem. In addition, when we complete our investigation, there will be a written report which will be published as a NUREG. And at that

point, the report will be public information and the transcript supporting it will become part of the public document room information.

MR. WENTZEL: Okay.

MS. ULLRICH: We'll give you this exhibit now. That's the information on how to get access to your transcripts for review and the name and phone number to contact to arrange -- most people are verifying that they're here before they come over to look at them to make sure that they're back.

MR. WENTZEL: Sure.

MS. ULLRICH: Okay?

MR. WENTZEL: Very good.

MS. ULLRICH: All right, then let's start out by asking, if you would, if you'd give us your name, your title, and what your background is in terms of being a member of the radiation safety committee.

MR. WENTZEL: My name is Kevin Wentzel. I'm an assistant professor in the Nuclear Engineering Department. I have been for about three -- almost three years now. In general, I've worked over the last ten years in the area of x-ray imaging and measurements of nuclear particles from fusion plasmas, high temperature plasmas.

And as such, I've been involved with a large number of handling sealed radioactive sources and radiation

measurement and detection, and those sorts of things. And about a year and a half ago, I guess it was, Mitch Galanek asked me to join the radiation protection committee, and so I've been a member in good standing for about that amount of time.

MS. ULLRICH: Okay. All right, could you tell us some background about the committee? Approximately how many members are on it?

MR. WENTZEL: There is approximately ten members, I believe. Harry Hemond is the chairman from Civil Engineering. It's made up of a variety of people who do a lot of different things with radiation, radioactive sources and so on. Both people who are in the physics area and people in the biology area. So they cover a fairly broad range of disciplines.

MS. ULLRICH: Okay. Typically what kinds of activities does the committee perform?

MR. WENTZEL: The committee really provides oversight for the radiation protection office. We meet quarterly, once every three months, and approve applications for people to own and handle radioactive materials on campus. And approve also of -- provide oversight to the various programs that the radiation protection committee undertakes -- x-ray sources, lasers, non-ionizing radiation programs that are set up to oversee

activities in those areas.

MS. ULLRICH: Now when you say the committee approves authorizations, what does that involve on the committee member's part?

MR. WENTZEL: We read through the applications for handling of radioactive material, and we either approve or make recommendations of whether amounts of material people are requesting to handle could be lowered or if there are ways to lower amounts of materials that are handled at any given time, and then either approve or make modifications to those applications.

MS. ULLRICH: Okay, okay.

MR. MADISON: Excuse me. You said you provided oversight. How do you -- can you describe how you provide oversight, what that entails?

MR. WENTZEL: Well, during the meeting -- during the committee meetings, each of the RPO programs, the radiation protection office programs -- for example, x-ray sources on campus, which are all handled by one person. We are informed whether there are new x-ray sources on campus and what are the operating protocols that have been established through RPO for those.

And then either, you know, say go ahead, this program looks good; or suggest modifications to those kinds of programs.

MR. MADISON: Do you ever do any audits of the RPO program?

MR. WENTZEL: We haven't done any while I've been involved with the committee.

MS. ULLRICH: Okay. Can you think back over the last couple of months and tell us how you first became aware of the contamination incident and what your involvement may have been?

MR. WENTZEL: We had -- I believe it was towards the end of August or very early September, I've forgotten the day of the particular meeting -- we had a radiation protection committee meeting, regular meeting, and Mitch called me -- Mitch Galanek from RPO called me to make sure I could make that meeting, and indicated at that point, which was probably a week ahead of time, that there had been a contamination on campus and we'd be discussing what had happened and what were the steps that were taken afterwards to follow up on it.

MS. ULLRICH: Okay. And that was the first you had heard about it?

MR. WENTZEL: That was the first I heard of it. So that must have been -- it must have been early September, because I was out of the country until September 1st.

MS. ULLRICH: Okay. And then what happened at

the meeting?

MR. WENTZEL: We met. I came in late because it conflicted with a class that I was teaching. And they were just beginning the discussion, I believe, of the contamination incident. They basically described what had transpired, how they thought the contamination had come to happen, or what they were speculating about anyway at that point.

MS. ULLRICH: Sure.

MR. WENTZEL: How they had gone about calculating exposures, and how they had gone about pinpointing when they thought the contamination had happened, and things like that. So there was a general discussion of what the incident was.

MS. ULLRICH: Okay.

MR. WENTZEL: And following that, there was a discussion -- and what the radiation protection committee should be.

MS. ULLRICH: Okay. And what ultimately did the committee discuss and decide?

MR. WENTZEL: Basically we decided that there really wasn't much of a response of the radiation protection committee could do as a committee, but the radiation protection office was responding appropriately monitoring the individual; and also, they had put

restrictions on the laboratory where the incident had happened, which were subsequently relaxed when things -- when more stringent controls it looked like were put on their P-32 and so on.

So basically our response at that point was to write a letter to both campus police and the individual involved saying that -- first of all, we thought the campus police should follow up with a criminal investigation. And second of all, we thought that -- you know, if this were a deliberate contamination by another individual, that such contaminations were abhorrent and should certainly be pursued to the extent possible at MIT.

MS. ULLRICH: Sure. So the committee's view is that this appears to be a deliberate kind of act, not an accidental contamination?

MR. WENTZEL: It's not clear to me that we came to the conclusion that it probably was.

MS. ULLRICH: Okay.

MR. WENTZEL: Given the evidence that's there, it looks -- I mean, my personnel opinion, it looks like it could very well have been. The material was missing from the laboratory for some period of time that can be identified. And subsequently, it appeared, you know, inside of another individual.

MS. ULLRICH: Yeah, okay. Has the committee,

to your knowledge, ever come across this kind of an incident before?

MR. WENTZEL: Not that I know of, no.

MS. ULLRICH: Okay. What typically are the kinds of incidents that you might have brought up to the committee?

MR. WENTZEL: We have, for example, doses exposure to x-rays from an energized electron beam, or we have -- there are a few internal contaminations. Usually, you know, they're spills. Spills are usually the primary kind of contamination that we work with.

MS. ULLRICH: Okay.

MR. WENTZEL: Or we see.

MS. ULLRICH: And could you give an idea of how many of these kinds of things get brought up at a given meeting?

MR. WENTZEL: I'd say on average it's one. So one per quarter or something like that.

MS. ULLRICH: Okay, very low?

MR. WENTZEL: Yes, very low. Yeah, I think in general, you know, the radiation protection office has a good program for minimizing those kinds of things at MIT.

MS. ULLRICH: Okay. Now do people in your laboratory work with unsealed material at all?

MR. WENTZEL: No.

MS. ULLRICH: No? It's all sealed?

MR. WENTZEL: Yeah.

MS. ULLRICH: And what kinds of activities are you principally working with?

MR. WENTZEL: Tens of microcuries. We have one americium source that's ten millicuries, --

MS. ULLRICH: Okay.

MR. WENTZEL: -- but it's contained in a stainless -- it's stainless steel sealed. So it's --

MS. ULLRICH: And does your laboratory have any particular safety procedures or security procedures for your material?

MR. WENTZEL: All of our radioactive sources are kept under lock and key, and there are procedures for handling -- particularly the ones that are most hazardous, there are written procedures for handling those.

MS. ULLRICH: Okay, okay. As a member of the committee, do you participate in evaluations of other researchers laboratories at all?

MR. WENTZEL: Not in evaluations. Only to the extent that we see applications for handling radioactive materials from other researchers.

MS. ULLRICH: While you've been on the committee, has the committee taken any -- I guess punitive measures to any persons who are authorized to use

radioactive materials?

MR. WENTZEL: We did recommend that -- I think about six months ago we did recommend that one researcher be forbidden to handle some particular isotopes. I think it was another case of P-32 or something that was used in the area of biology. And there seemed to be lax protection standards going on in his lab. I think actually it wasn't P-32. It may have been an iodine isotope.

And we did recommend that his laboratory sort of be restricted from handling radioactive materials until such time as he could show that there were better operating procedures put in place.

MR. MADISON: Was that in the Cancer Center?

MR. WENTZEL: I don't know. I don't remember where it was. So that's really the only incident I can remember of punitive or any kind of restrictions being placed from RPC onto --

MS. ULLRICH: But it is an option that the committee has then?

MR. WENTZEL: Oh, certainly. We can direct the director of RPO, Frank Masse, to shut down a laboratory is need be. There was one other case, actually, where we did tell somebody they couldn't operate an accelerator until we had written procedures and so on. So there have been a couple of cases when we've said no more until such time as

we're satisfied.

MS. ULLRICH: Okay. Have you had any means to call special meetings or any reasons to call special meetings?

MR. WENTZEL: No, not during my tenure.

MS. ULLRICH: Okay, all right. When this whole issue of the contamination incident in the Cancer Center occurred, did anyone gather any background information, if there were any previous problems of this sort in this particular laboratory?

MR. WENTZEL: I'm not sure.

MS. ULLRICH: Okay.

MR. WENTZEL: If it was done, that would have been done by Don Haes, who was probably the most familiar with the investigation through RPO.

MS. ULLRICH: Okay. And who did the report at the meeting?

MR. WENTZEL: It was jointly done by -- it was primarily led by Don Haes, but Frank Masse was also involved.

MS. ULLRICH: Okay, okay. At the moment, I can't think of anything. Do you have any follow up questions here, Alan?

MR. MADISON: Can you describe a normal meeting, if there is such a thing as a "normal" meeting

that happens quarterly?

MR. WENTZEL: A normal meeting, you know, brings us all together in this room. And we -- usually there are three or four items on the agenda. The first item is usually review of applications that are up for renewal -- review of not applications, but authorizations that are up for renewal.

The second item is usually review of applications that are new or amendments asking for increases in amounts of material that can be handled or so on. And then there are reports from -- at the end, there are usually reports from Don Haes on the laser program and Tom Fuller on the x-ray source program.

And then I think they have a program in place on the accelerators, since there are a few on campus. And so we usually hear about any kinds of new activities that are going on.

MR. MADISON: Do you normally get material -- how far in advance of a meeting do you normally get material --

MR. WENTZEL: It usually comes the day before or a couple of days before. We usually get a packet that contains all the authorizations that are up for renewal and any authorizations that are new, and we read through those.

MS. ULLRICH: Were you given any written

information about this particular information?

MR. WENTZEL: No.

MS. ULLRICH: This incident?

MR. WENTZEL: No.

MS. ULLRICH: Okay.

MR. MADISON: Have you been involved in any similar committees at other universities?

MR. WENTZEL: No.

MR. MADISON: I can't think of anything else either.

MS. ULLRICH: Is there anything that you can think of regarding the contamination incident that perhaps we haven't touched on?

MR. MADISON: I do have one question. Has the committee raised any potential problems with the radiation protection program over your tenure on the committee?

MR. WENTZEL: No, no, not as far as I know.

MR. MADISON: Is there a list possibly of proposed improvements to the program that the committee keeps?

MR. WENTZEL: There may be that you could be through Harry Hemond, who's the chairman of the committee.

MR. MADISON: All right.

MR. WENTZEL: I think, you know, minutes of all of our meetings are available or should be.

MR. MADISON: We've requested those.

MR. WENTZEL: So you've probably gotten those or can. I don't think there's been any serious criticism of the radiation protection program coming from the committee, per se. And as to anything else in the contamination incident, not really. But you know, you might see what campus police has been doing in their investigation.

MS. ULLRICH: Sure.

MR. WENTZEL: That was something they came up with at the committee meeting. We didn't have a representative from the police department here, and so it wasn't clear what follow up was being done in terms of criminal activities either.

MS. ULLRICH: That actually brings up another question on my part. Do you have any non-academic representatives on the committee?

MR. WENTZEL: That's a good question. I don't know. Probably, but I'm not sure.

MS. ULLRICH: Okay. An administrative representative or custodial representative, something like that?

MR. WENTZEL: We do have cases where an administrative assistant comes in representation of a faculty member at times, but that seems to be rare. And I

don't know if there are any non-academic people on the committee or not.

MS. ULLRICH: Okay, okay. All right, I think this is --

MR. MADISON: Do you know of anybody else that we might want to talk to or should talk to?

MR. WENTZEL: I would talk to people who are more familiar -- you know, if there are committee members who are in the Cancer Center who might be more familiar with the operating procedures of this specific laboratory, they would be good people to talk to. I don't know the names off the top of my head.

MS. ULLRICH: Well, this has been helpful to us though.

MR. WENTZEL: Okay, good.

MS. ULLRICH: I mean, to be able to talk to even people who aren't familiar because you have a different view of what's going on as a committee member.

MR. WENTZEL: Right.

MS. ULLRICH: So that's appreciated. If you do have any other questions or information, you can hold of us through that number.

MR. MADISON: I'm sure we can get through to you too.

MR. WENTZEL: Yeah, let me give you a card.

You can actually have my number.

MR. MADISON: And unless you have anything else, I think this concludes the interview.

MR. WENTZEL: Okay, well, thank you for your time and good luck.

(Whereupon, the proceedings were adjourned at 1:55 p.m.)

C E R T I F I C A T E

This is to certify that the attached proceedings before the United States Nuclear Regulatory Commission in the matter of:

Name of Proceeding: INTERVIEW WITH KEVIN WENTZEL

Docket Number: --

Place of Proceeding: Cambridge, Massachusetts

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.

_____

M. Rudoff
Official Reporter
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