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ADDENDUM

<u>Page</u>	<u>Line</u>	<u>Correction and Reason for Correction</u>
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6	7	a very big → a little bit
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Page ____ Date 10/20 Signature Iakeji Iwasaki

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UNITED STATES OF AMERICA

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NUCLEAR REGULATORY COMMISSION

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INCIDENT INVESTIGATION TEAM

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INTERVIEW OF TAKUJI IWASATO

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MASSACHUSETTS INSTITUTE OF TECHNOLOGY

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THURSDAY, OCTOBER 19, 1995

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INTERVIEWERS:

BETSY ULLRICH

ALAN E. MADISON

THOMAS O'CONNELL

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

(2:06 p.m.)

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MS. ULLRICH: Okay, it's 1:05 p.m. on October 19th, and we're beginning an interview with -- I have to apologize for not probably having a good pronunciation. It's Takuji?

MR. IWASATO: I don't speak so good.

MS. ULLRICH: Okay, what is your name? How do you pronounce your name?

MR. IWASATO: Iwasato.

MS. ULLRICH: Okay. My name is Betsy Ullrich, and I'm with the Nuclear Regulatory Commission. I'm a health physicist. And we're here to investigate the contamination event that occurred in your laboratory. There's a few things I want to go through about the investigation team before we get started asking you questions.

One is to let you know that we're here to look at what happened, to see if we can identify how it happened, why it happened, and what kind of lessons we can learn from it to prevent it from happening in the future.

MR. IWASATO: Yes.

MS. ULLRICH: We're conducting interviews with people because we want to try to accumulate as many facts about what happened as we can. And we're transcribing the

1 interviews with people so that we don't have to sit here
2 and take notes. We're recording them, they'll be typed
3 out, and we'll be able to refer to them later.

4 You will also have an opportunity to review
5 those notes later if you would like. And when our
6 investigation is completed, there will be a report written.
7 And after that report is released, you can get a copy of
8 your transcripts if you would like them.

9 MR. IWASATO: Yes.

10 MS. ULLRICH: When the report is released, the
11 report and the transcripts will be available in the public
12 document room.

13 MR. IWASATO: So at that time -- they mention
14 my name or -- for in public, what I've told up here.

15 MS. ULLRICH: Alan?

16 MR. MADISON: The transcript itself will appear
17 in the public document room, yes.

18 MR. IWASATO: Okay.

19 MS. ULLRICH: Okay, let me introduce everybody
20 here next. You heard who I am. This is --

21 MR. MADISON: I'm Alan Madison. I'm with the
22 Nuclear Regulatory Commission out of Washington, D.C.

23 MR. O'CONNELL: And I'm Tom O'Connell, and I'm
24 with the Massachusetts Department of Public Health with the
25 Radiation Control Program.

1 MS. ULLRICH: Okay, would you tell us what your
2 position is in the laboratory?

3 MR. IWASATO: I'm a post doctoral fellow.

4 MS. ULLRICH: Post doctoral fellow?

5 MR. IWASATO: Yes.

6 MS. ULLRICH: Okay, and how long have you been
7 working in that laboratory?

8 MR. IWASATO: Two and a half years.

9 MS. ULLRICH: Okay. And did you -- have you
10 worked in similar laboratories prior to that?

11 MR. IWASATO: In Japan I was working.

12 MS. ULLRICH: Okay. This is the first
13 university you've been to here in the United States?

14 MR. IWASATO: Yes.

15 MS. ULLRICH: Okay. The event occurred back in
16 August -- the initial identification of a contamination.
17 Could you tell us a little bit about what you know of the
18 sequence of events? How did you find out about the
19 contamination? Do you know where you were during those
20 times? Were you working in the laboratory? Were you on
21 vacation in August?

22 MR. IWASATO: Saturday?

23 MS. ULLRICH: Yeah, okay.

24 MR. IWASATO: Probably on Saturday --

25 MS. ULLRICH: Saturday?

1 MR. IWASATO: Yeah. So on Saturday, I was
2 working mostly in different rooms -- different building.

3 MS. ULLRICH: Different building? Okay.

4 MR. IWASATO: And so I came back from that
5 building and Eugene was talking with the radiation --

6 MS. ULLRICH: The radiation protection?

7 MR. IWASATO: Yeah, radiation protection
8 department or people, yes.

9 MS. ULLRICH: Okay.

10 MR. IWASATO: Yeah, so they then --

11 MS. ULLRICH: Okay.

12 MR. IWASATO: So yeah, I asked what happened
13 there, and she told me that Eugene was contaminated.

14 MR. MADISON: Do you know about what time that
15 was, approximately?

16 MS. ULLRICH: Afternoon, evening, late at
17 night?

18 MR. IWASATO: Evening.

19 MS. ULLRICH: Okay. After 6:00, before 9:00,
20 after -- you said evening.

21 MR. IWASATO: If I -- I can't --

22 MS. ULLRICH: Okay.

23 MR. IWASATO: It's evening.

24 MS. ULLRICH: Okay. Had you gone back to do
25 work that evening?

1 MR. IWASATO: Yes.

2 MS. ULLRICH: Okay. And then what else did you
3 observe happen after that in the next few days or few
4 weeks?

5 MR. IWASATO: Yeah, so what I heard that a
6 contamination is very -- so it's 20 microcurie or something
7 like that, a very big. So I thought it was some accident.
8 Actually, he drank -- gradually that count increased and
9 finally 500. Yes. So --

10 MS. ULLRICH: Do you recall who or how you
11 learned that the initial amount was 20?

12 MR. IWASATO: I don't remember 20 or not.

13 MS. ULLRICH: A small number?

14 MR. IWASATO: I think two or three days later
15 after that incident, I met Eugene.

16 MS. ULLRICH: Okay.

17 MR. IWASATO: And I asked him.

18 MS. ULLRICH: Okay.

19 MR. IWASATO: And he said -- what he said --
20 Saturday night --

21 MS. ULLRICH: Saturday?

22 MR. IWASATO: Yes, Saturday night I met him and
23 I asked him are you okay, and he said I'm not okay. I'm
24 contaminated. And how much microcuries in my body, I don't
25 know, he said. And after two or three days, somebody told

1 me --

2 MS. ULLRICH: Okay.

3 MR. IWASATO: -- that, but I don't remember.

4 MS. ULLRICH: Okay. So Saturday night you
5 observed Eugene there with the radiation protection people.
6 Were you in the laboratory on Sunday at all?

7 MR. IWASATO: Sorry?

8 MS. ULLRICH: Did you then go back to the
9 laboratory to work on Sunday?

10 MR. IWASATO: Sunday? I don't remember.

11 MS. ULLRICH: .

12 MR. IWASATO: Sometimes I work and sometimes I
13 don't work.

14 MS. ULLRICH: Okay. How about on Monday after
15 that?

16 MR. IWASATO: Yeah, I worked.

17 MS. ULLRICH: Okay. Did you observe the
18 radiation protection office doing anything special in your
19 laboratory areas after that?

20 MR. IWASATO: Yeah, they work in laboratory and
21 they check contamination everywhere and on my bench or in
22 everybody's bench for our -- everywhere.

23 MS. ULLRICH: Okay. Did they find anything?

24 MR. IWASATO: I don't think so.

25 MS. ULLRICH: Okay. Did this contamination

1 event affect your work at all? Was there any interruptions
2 in your work?

3 MR. IWASATO: Yes. For two weeks, we couldn't
4 use radioisotopes.

5 MS. ULLRICH: Did the explain why? Do you know
6 why they did that?

7 MR. IWASATO: Yes, before they figure out what
8 happened, they want to halt.

9 MS. ULLRICH: Okay. Were you able to identify
10 how much material you had been using in the laboratory?

11 MR. IWASATO: What did you say?

12 MS. ULLRICH: Were you able to tell them how
13 much radioactive material you had been using in your
14 procedures? Did anyone ask you how much radioactive
15 material you had been using?

16 MR. IWASATO: Yes, yes. I made some report on
17 how much I use and what rem I use how much.

18 MS. ULLRICH: Okay. And how do you keep track
19 of that? How do you know how much material you used?

20 MR. IWASATO: Well, I note everything in my
21 notes.

22 MS. ULLRICH: Okay. And when you take
23 radioactive material from a stock vial, how do you measure
24 that? Is it by volume or by radioactive counts? What
25 would you write down as -- to describe how much material

1 you've removed?

2 MR. IWASATO: How much? How much microliter.

3 MS. ULLRICH: Microliters, okay. All right,
4 typically how often do you work with radioactive material?

5 MR. IWASATO: Once or twice a month.

6 MS. ULLRICH: Once or twice a month? Okay.

7 When you work with radioactive materials, what safety
8 precautions would you normally take in the laboratory?

9 MR. IWASATO: So I use a shield.

10 MS. ULLRICH: Okay.

11 MR. IWASATO: And I use a geiger counter and a
12 lab coat. And I wear gloves.

13 MS. ULLRICH: Okay. Do other people also use
14 similar protection?

15 MR. IWASATO: Yeah, I think so. I think
16 everybody use a shield. Many people don't wear lab coat,
17 but they wear gloves.

18 MS. ULLRICH: Gloves? Okay. And do you ever
19 see people in the laboratory eating food around the lab
20 benches or storing food in the radioactive material storage
21 area?

22 MR. IWASATO: I don't know.

23 MS. ULLRICH: Okay. Where do people --

24 MR. IWASATO: But usually people don't eat --
25 people eat lunch in the conference room.

1 MS. ULLRICH: In the conference room? Okay.
2 If we give you a piece of paper, could you draw a diagram
3 that shows where you work compared to where Eugene's area
4 is?

5 MR. IWASATO: Yes.

6 MS. ULLRICH: Okay.

7 MR. MADISON: And we'll call that Exhibit 1.

8 MR. IWASATO: So, this is the hallway.

9 (Whereupon, the above-referenced
10 document was marked as Exhibit 1 for
11 identification.)

12 MS. ULLRICH: Okay.

13 MR. IWASATO: This is entrance of Tonegawa and
14 the hallway, and this is Susumu Tonegawa's.

15 MS. ULLRICH: Okay.

16 MR. IWASATO: So my bench is --

17 MS. ULLRICH: Okay.

18 MR. IWASATO: There is Eugene's bench.

19 MS. ULLRICH: Okay.

20 MR. IWASATO: And that's a bench here, and my
21 bench is here.

22 MS. ULLRICH: Okay. So this, as you said, is -
23 - that's Eugene's?

24 MR. IWASATO: Yes.

25 MS. ULLRICH: And this is --

1 MR. IWASATO: Mine.

2 MS. ULLRICH: Yours. Okay, okay. you get
3 to observe him working at all? Do you know what his work
4 habits are in terms of radiation --

5 MR. IWASATO: Sorry, I don't know.

6 MS. ULLRICH: Okay.

7 MR. IWASATO: Because I don't -- not so close.

8 MS. ULLRICH: Okay. Do you have common work?
9 Do you ever work on the same type of activity that you
10 would consult with each other?

11 MR. IWASATO: No.

12 MS. ULLRICH: Okay, okay. How about -- you
13 work in a very crowded laboratory, a lot of people?

14 MR. IWASATO: Yes.

15 MS. ULLRICH: How frequently do people show up?
16 How many people are normally in the laboratory?

17 MR. IWASATO: How many people? On Saturday
18 or --

19 MS. ULLRICH: If there's a difference, how many
20 on a weekend, on a Saturday or a Sunday?

21 MR. IWASATO: On weekend, there are few people.
22 So -- and the same people are working mostly. So on a
23 Saturday on Sunday usually three or four people.

24 MS. ULLRICH: Okay, okay.

25 MR. IWASATO: But the same at one time. Weekly

1 and day time, almost all the people.

2 MS. ULLRICH: Okay, okay. Does it get very
3 crowded and people get impatient with each other in the
4 laboratory?

5 MR. IWASATO: Would you repeat that?

6 MS. ULLRICH: Are there times when it becomes
7 crowded and people get annoyed with each other or
8 impatient?

9 MR. IWASATO: I don't think usually. Lab is
10 not so crowded because not so many people is working here,
11 so people can go somewhere else or people --

12 MS. ULLRICH: Okay, okay. Would you know if
13 there were strangers in the laboratory?

14 MR. IWASATO: So sometimes I saw stranger. But
15 ally they are friend of somebody.

16 MS. ULLRICH: Okay.

17 MR. IWASATO: But recently I haven't seen.

18 MS. ULLRICH: Okay.

19 MR. IWASATO: So before the incident, I haven't
20 seen any --

21 MS. ULLRICH: Did you notice anyone unusual
22 during that period in August, the week before --

23 MR. IWASATO: No.

24 MS. ULLRICH: Okay, okay. Is the laboratory
25 very accessible to people who want to walk in and out the

1 building?

2 MR. IWASATO: Building? Yeah, building is --
3 because if somebody enter -- sometimes if a stranger want
4 to enter in there, that's possibility to enter. But this
5 lab is not so accessible because entrance only two.

6 MS. ULLRICH: There's only two entrances to the
7 lab?

8 MR. IWASATO: Yes. Usually lab has many doors.
9 But this one has only two doors. So if -- or somebody
10 notice.

11 MS. ULLRICH: Okay, okay.

12 MR. IWASATO: Very complicated. Structure of
13 laboratory is inside very complicated. So many people lose
14 their -- newcomer don't feel where they are. So I don't
15 think any stranger should -- where is Eugene's bench.

16 MS. ULLRICH: Okay. Have you heard of anyone
17 else having any kind of contamination incident, either
18 ingestion or a spill in your laboratory area?

19 MR. IWASATO: Would you say again?

20 MS. ULLRICH: Are you aware of anyone else
21 having an ingesting contamination like Eugene's or a spill
22 or some other mistake with radioactive material?

23 MR. IWASATO: I don't know if somebody ingested
24 like Eugene. Sometimes --

25 MS. ULLRICH: Okay.

1 MR. IWASATO: But if find out -- wash it off.

2 MS. ULLRICH: And clean it up? Okay, okay. Do
3 you know if anybody ever does mouth pipetting in your
4 laboratory, either of radioactive material or --

5 MR. IWASATO: Most definitely no.

6 MS. ULLRICH: Yeah, and not --

7 MR. IWASATO: They --

8 MS. ULLRICH: Okay. Let me take a break for a
9 minute and see if Alan has --

10 MR. MADISON: I have one specific -- you said
11 that you talked to Eugene Saturday night after he had come
12 back from the police and the hospital. Do you remember
13 what time that was?

14 MR. IWASATO: I don't remember, but before
15 9:00.

16 MR. MADISON: Before 9:00?

17 MR. IWASATO: Because I usually leave at 9:00.

18 MR. MADISON: Okay. Do you know Eugene outside
19 of the lab or do you just know him as a coworker inside the
20 lab?

21 MR. IWASATO: I'm sorry?

22 MR. MADISON: Do you know Eugene socially
23 outside the lab?

24 MR. IWASATO: Socially? So what is the
25 question?

1 MS. ULLRICH: Do you meet with him for lunch or
2 go to events together -- do things outside the laboratory
3 when you're not working? Do you play tennis together or go
4 to a movie or campus events with him at all?

5 MR. IWASATO: For me?

6 MS. ULLRICH: Yes.

7 MR. MADISON: Yes.

8 MR. IWASATO: No.

9 MS. ULLRICH: Okay.

10 MR. MADISON: Okay, can you point out the
11 location of where the radioactive material is stored?

12 MR. IWASATO: Yes, here.

13 MR. MADISON: Thank you. Has it always been in
14 that location? Has it always been in that location?

15 MR. IWASATO: Yes.

16 MR. MADISON: Okay. Thank you.

17 MR. O'CONNELL: I don't have any --

18 MS. ULLRICH: You have no questions? Okay. Do
19 you have any other questions of us at this time or is there
20 anything related to the contamination event that --

21 MR. IWASATO: So do you think it's some crime
22 of the --

23 MS. ULLRICH: We don't know yet. That's what
24 we are trying to find out.

25 MR. IWASATO: Okay.

1 MS. ULLRICH: Okay.

2 MR. IWASATO: But I think it's very unlikely
3 somebody poison him.

4 MR. MADISON: Do you have -- it's unlikely that
5 somebody --

6 MR. IWASATO: Unlikely, yes.

7 MR. MADISON: Why would you say that?

8 MR. IWASATO: You know, because if -- so as I
9 said, if stranger -- I think it's unlikely stranger find
10 where radioisotopes and where Eugene -- or if he target
11 Eugene, where is Eugene -- and Eugene usually bring lunch.
12 Also, it should have been contaminated in day time. But in
13 day time -- the refrigerator is around here.

14 MS. ULLRICH: Okay.

15 MR. IWASATO: So if somebody open the -- so if
16 somebody take and somebody notice.

17 MS. ULLRICH: You think somebody would have
18 noticed?

19 MR. IWASATO: Many people work here. So it
20 maybe not --

21 MS. ULLRICH: Okay.

22 MR. IWASATO: And if somebody inside poison
23 him, -- be called -- I don't think there are such stupid
24 people inside.

25 MS. ULLRICH: Okay.

1 MR. IWASATO: You know, they have a future.
2 But if that -- if 500 microcuries, it's unlikely to drink
3 by accident or -- I have no idea what happened.

4 (Laughter.)

5 MS. ULLRICH: Okay. Is there anyone that you
6 know of in the laboratory that we should speak to or who
7 might want to speak with us?

8 MR. IWASATO: Sorry, so what do you want to
9 know?

10 MS. ULLRICH: Is there anyone in the laboratory
11 that you think knows more about this than you do that we
12 should talk to?

13 MR. IWASATO: I have no idea.

14 MS. ULLRICH: Other than Eugene, who we are
15 talking to at length. He knows a lot. But --

16 MR. IWASATO: Yeah, he knows, but I don't know.

17 MS. ULLRICH: Okay. Do you know if anyone in
18 the laboratory wants to discuss this event with us?

19 MR. IWASATO: I don't think so.

20 MS. ULLRICH: Okay, okay. Unless there are any
21 other questions --

22 MR. MADISON: Is there something that you would
23 like to share with us -- any other information that we
24 haven't asked you about?

25 MR. IWASATO: No.

1 MS. ULLRICH: Okay. All right, I think we can
2 end the interview then.

3 MR. MADISON: We're going to give you a number,
4 a phone number, that if there is additional information you
5 want to give to us, you can contact us. And we're also
6 going to give you Exhibit 3-1 which explains the transcript
7 a little bit more.

8 MS. ULLRICH: We can go off the record.

9 (Whereupon, the proceedings were adjourned at
10 2:29 p.m.)

11

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 TAKUJI IWASATO

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.

C. Pyott
Official Reporter
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Exhibit 1

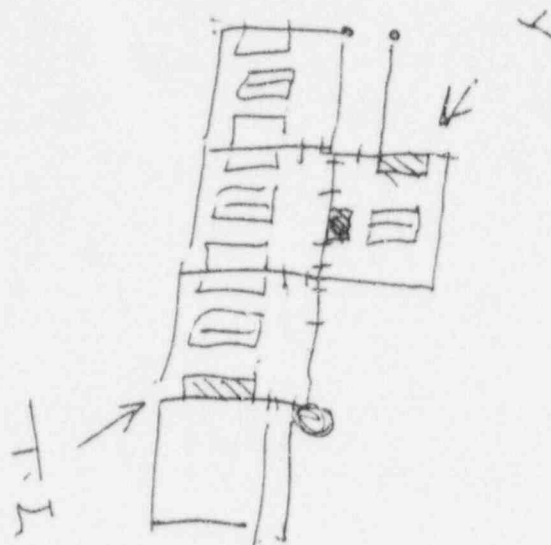


exhibit ↑ to be copied & bound

Takuji Iwasato

10-19-95