VIDEOTAPED
DOW AFFIDAVIT TESTIMONY

August 11, 2006
PARTICIPANTS

Dow/Conalco/Spectrulite Employees:
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— : Good morning, everybody. I'm who's sitting over by the table there is helping me coordinate this meeting this morning which is the second session we've had for the Dow/Spectrulite people to provide some testimony which we will use in our special exposure cohort application.
I certainly want to thank before we begin in particular — and — who've contacted a lot of you fellows. And —, I really appreciate your coming down for us and everybody whose come this morning. We -- we've gotten some really great information about the Dow site on the 21st of July. And what we hope to do this morning is to complete that story for -- particularly concentrating on the later period after Spectrulite bought the place in 1986.

So with that as a preamble, I -- I've looked through the affidavit topics. So we've identified a bunch of topics that we need to get on the record and for General Steel which we're going to have a little extra testimony about them this afternoon. But for Dow it seemed to me that actually most of the topics that we have some information on the older period. We also need some information from this later period and -- that you all can provide.
So I'm going to go through the affidavit topics. And what I'm asking everybody to do is if you see a topic and you think you have some comment to make, just speak up because that's -- that's what we're kind of doing.

So the new statement that I want to put on the record is that in March of 2005 the Pangea Group, P-A-N-G-E-A, here in St. Louis issued a comprehensive radiological survey report on the Spectrulite Madison, Illinois site. This report built on an earlier 2003 scoping report. And the purpose of that report was Spectrulite was seeking to terminate its thorium license and as part of that you have to go through a decommissioning process.

The radiological survey found elevated thorium 230 and thorium 232 activity above background and above Illinois state guidelines for decommissioning radioactivity materials licenses throughout the plant buildings, on the floors, in the
drains, on the walls, and on the rafters, and in soil outside the buildings. This study confirms testimony from numerous Dow workers that the plant was heavily contaminated with thorium. Of interest, beryllium was not mentioned in the report because although it's an extremely toxic metal it's not radioactive.

The second set of information that I want to enter into the record this morning came to me via an e-mail from — which was dated July the 16th of 2006, and it concerned beryllium. And so — says that beryllium also was used in the pot room where magnesium was melted. All the magnesium had from 200 to 600 pounds used in it per eight-hour shift. Where they ran thorium or special metals an instrument man had to be by the instruments to check the temperature. At times it got so smokey that one could not see over in the rolling mill on the other side of the plant. They used 11, four-foot fans, but when the humidity was higher the fans did not help. At times the smoke was so bad they had to shut the pot room down. And it's signed — .

And I just need to comment that the documentation this morning -- any information you all
particularly important because the Federal Compensation Act specifically compensates people for exposure to beryllium in the form of beryllium sensitivity or the chronic lung disease called berylliosis.

So the first topic that I wanted to open up the floor for general discussion this morning was as you all know that in uranium work at Dow according to the Army Corps of Engineers, the Department of Energy, and the FUSRAP Program was confined to 1957 to 1960 and possibly as late as 1961 in Building 6. And the job that Dow was contracted to do was to do experimental research and development type extrusion work and rod straightening under a contract with Mallinckrodt Chemical Works. And -- and they were indemnified for that purpose by the Atomic Energy Commission.

So does anybody here have any -- so I
think that's accepted. What I'm interested in can anybody verify that Mallinckrodt uranium was used?

And -- and I'm particularly interested in kind of expanding our testimony because -- from people who actually knew that it was Mallinckrodt uranium and particularly was it used in 1961 or later, or is that really accurate, that '57 to '60 is the period?

So is there anybody here that would know more about the Mallinckrodt uranium work? We think, —, right, that it was done on Press 7?

—: Yes. It was.

—: Okay.

—: That's what its -- all indications from the Freedom of Information -- all the records from the Freedom of Information Act said that they was extruded near the 4 Building which would lead to believe 7 Press was the press. It was the closest to 4 Building.

—: All right. One thing I
13  forgot. I -- I don't want to -- I'm sorry to 
14  interrupt the flow, but I need to do this first. Why 
15  don't we go around the room before we start and would 
16  each of you all start and give your name so the court 
17  reporter can get it. And please spell your name and 
18  say just a word or two about when you worked at -- at 
19  Spectrulite or Dow or Conalco and what -- what your 
20  job was and -- and the period that you worked there, 
21  you know, start and end. So can we start around the 
22  room and can you do that for us please. 
23  —: Yeah. My name's —, 
24  and I worked in -- at Spectrulite from 1988 until the 
25  plant closing. I'd worked in all departments, 

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1  probably in the pot room of casting for five or six 
2  years. Then I went to the rolling mill for one year, 
3  back to the pot room for one year and then to 
4  extrusion for five or six years. We had melted 
5  thorium chips in the pot room. And they had put up a 
6  flag line between the two different units. And the
7 people on one unit who was melting chips were given
8 these radiological badges, and the people on the other
9 unit did not receive these. And they -- all these
10 chips being melted would produce a lot of smoke and it
11 would go over that flag line. The smoke didn't know
12 it was not supposed to go over that flag line, and we
13 all breathed that in there. And --
14 — : We -- we will come back to
15 these topics.
16 — : Okay.
17 — : Primarily I want everybody to
18 please make sure that your name is on the record and
19 spelled correctly and the dates and -- and the basic
20 job that you did at the plant. So --
21 — : My name is — . I
22 worked at Spectrulite from 1990 until the plant
23 closed. I primarily worked in the pot room as a metal
24 caster and crew leader just about my whole time of
25 employment there.

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—: And I'm sorry. When did you leave?

—: When the plant closed. I believe it was 2003 --


—: -- 2002.

—: Thanks. Okay.

—: My name is —, and I started at -- actually it was Dow Chemical at the time in 1965. And I spent -- from 1965 to 1972 I worked in the extrusion department a cutter, a press helper, that kind of stuff. And then I went to casting where I worked from until '72 until close as a mag melter part of the time that I was there and then as a service crew leader that worked in and around the mag floor consistently.

COURT REPORTER: Service crew leader?

—: Service crew leader, yes.

—: —, thank you for coming this morning. That's -- that's good. We need to have some more information about the extrusion press and so forth. Good.
My name is —. I went to work at Dow Chemical in 1961. I retired in —. I went to work in 1961 as a production worker.

I worked there until 1972. At that time I went into maintenance as a mechanical technician, and I worked throughout the plant for — years.

— : My name is -- is —

—. I started in 1984 under Conalco as a spec lab operator. I did that for a year, and then I took over as basically — of the chem lab and the spec lab. I monitored all the lubricants in the plant. I'm the one that did the radiation monitoring, and I left there in —.

— : My name is —, and

I was hired in in — '89. And I worked to 2003 when it closed. My first positions were in casting where I was a sweeper attendant and cleaned the floors. I worked a little bit in leaching and back at casting. Then I worked a year over in the
rolling mills. Then the last 12 years I worked on the 7 Press in extrusion.

COURT REPORTER: Did you say bleaching or leaching?

— Leaching.

— I worked from 1993 to —, and I was a supervisor in the extrusion department.

— My name's —. I

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I worked there from 1990 to —. I started in casting and worked in the leaching department for about a year and a half. And then in about '94 I went to the extrusion department and worked on the 7 Press.

— My name is —, and

I worked at various departments since 1965. And I retired in 2001 as a press operator -- that's it -- in extrusion.

—, may I -- may I ask you did you work on a particular press?
— 7 and 9 mostly --

— 7 and 9. Okay.

— -- and the heavy. I was on the heavy too.

— Okay. All right. Thank you.

— My name is . I started with Dow Chemical the , 1953,

and I worked there until , 1989. I started in the casting department. At that time extrusion wasn't completely ready to -- for us to go to work. We -- we stacked ingots and unloaded World War II bomb bodies from railroad cars for about two months, and then we went in to extrusion. Went in to extrusion if you -- if your plant seniority allowed it, you bid on jobs. I bid on press helper, and I was assigned to Number 9 Press. And later on -- I don't know -- these years you get all mixed up after a while. But anyway, when my opportunity came to bid on the press as an operator I did so. And I worked for
years on that. And then as some of the first guys in
there began to go I got the opportunity to become the
crew leader. So the rest of all -- all the years I
was either an operator or a crew leader depending on
the workload that we had in the department.

— : I think at this point,

— , — , can you come up. — has some --

we're -- we're -- thank you all very much. Obviously
the folks that are here have expertise that was not
represented in the earlier meeting and that's
terrific. — has some additional information

about the period of time that uranium was worked on at
-- at Dow so I want him to get that please on the
record.

— : It is a -- I wasn't there, but

from '57 to '60 they said that they ran uranium on --
you know, in the extrusion. Well, according to the
contract book that we got it proves that they ran
uranium up until 1963, and it also was sent over to
the rolling mill to the flattening ovens to be
flattened, the rods over there to be flattened on the
flattening ovens. So that proves that uranium was in
at least two different departments. Now, I don't know
about the casting. I'm -- I'm not for sure on any of
that. But it -- we do know it ran up until '63 on
account of the contract book. And when we went on
strike in '63 then that's when they kind of dropped
it. So that's where that's at.
—: Okay. That's very helpful.
Thank you. Anybody else got any more comments about
uranium? I am interested of the group that's here do
you all -- do any of you all have any direct knowledge
about the Mallinckrodt uranium work, or was that all
done before you all? Now, — how about you?
Did -- were you aware of that?
—: The only thing I can say on
that I was aware of it but through the grapevine.
—: Okay.
—: Dow Chemical didn't tell us
anything about it.
—: Uh-huh.
—: But they weren't really --
they weren't kidding us. We recognized that uranium was dangerous.

—: Uh-huh.

—: But what are you going to do?

—: But you never saw the ingots yourself that you're aware of?

—: I have seen one ingot that I was told later was uranium but not by a company man.

—: And -- and not at the time that you actually handled it?

—: Not at the time I actually seen it.

—: Okay.

—: So that's about all I can give you on that.

—: All right. That's interesting. And -- and — , did I understand you to say that you were working on the presses about this era in '57 to '60 or --
—: No. I didn't -- I didn't come to the plant -- I did not come to the plant until 1965.
—: I'm sorry.
—: Yeah.
—: Okay. So that would be beyond the --
—: Yeah.
—: -- period with the uranium?
—: Yeah.

—: Okay. Very good. All right.
Now well, let's -- let's move on. By the way, if you all think of something later, we can intervene at any time. So you don't have to strictly stick to this order.
The second topic is we got some information that thorium was used widely throughout the plant. And so this morning I just wondered -- so I -- I think we have testimony that thorium in some
form was used in castings, in extrusion, and in the rolling mill. But if anybody can amplify where the thorium was stored and worked on later on in the Spectrulite or in the Conalco eras, that would be very helpful. —.

—: Yeah. We mentioned the thorium. In the rolling mill we salvaged the thorium over there. We used to have to sand this. And at the time we sanded this that -- then they didn't have no kind of protection for us and we breathed these -- off this thorium HM and HK metal. And I think that's what really probably caused my cancer. I worked there for years on that before I went into maintenance.

—: So tell us a little bit more.

And you mentioned the sanding. Tell me what that actually involved.

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—: Okay. What it amounted to you -- they'd bring down a sheet of thorium HM or HK.

We would take and sand this to get the dirt out of it.
Then they'd take it to the pickle line and pickle it.

Then they'd take it back to the sheet mill and maybe make 20, 30 passes. Then they'd take the same sheets back again, we had to salvage it again. They'd pickle it. We'd grind out the dirt with the sanders and gouge this metal out of there. And this was quite a process, but it was the only way they could do it was by using a sheet mill to roll this type of metal. But like I say, we had no kind of protection at that time.

We were never told what we was even working on really. And we breathed this dust eight to 12 hours a day.

—: Yeah. Okay. That's very important. —.

—: —, yes. Now, we was told there was any thorium stored in extrusion or ever processed in extrusion. So that would lead to believe that it would be clean of any thorium by-products that would be in that building, that particular building since as he stated they was handling the thorium in the rolling mill. Now, it would be sure -- it would be common sense to see that they would find the thorium in the rolling mill. Now,
they also processed the thorium in the pot room in casting.

— : Right.

— : So it would make sense they would find it there also in casting.

— : Right.

— : But extrusion -- to find it in extrusion to a place where they never handled it or processed it seems very, very strange. And --

— : Just -- just let's put on the record now that --

— : -- we was never told.

— : -- that extrusion was in the Number 7 Building; is that right?

— : The Number 6 Building.

— : The Number 6 Building?

— : Uh-huh.

— : All right.

— : Well, the radiological
—: Yeah.

—: But --

—: Well, definitely in this March, 2005 that building was involved with the thorium. So --

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—: But we was never told of it.

—: I understand that.

—: All the years I was there we never handled it or processed it, yes, it was still found in the beams of the building.

—: Right. Correct.

—: So now I'd like to turn it over to the people in the pot room.

—: Okay.

—: Okay. I can add a little bit to that.

—: All right, --.

—: I ran a bushel of -- of
14 pellets in extrusion personally, and the other guy ran
15 as many or more than I did. The only thing is every
16 time I'd run it I would ask, you know, what is this,
17 what are they going to use this for.
18 — L: Uh-huh.
19 — : Well, it's just a experiment,
20 you know, there's nothing in here that will hurt you.
21 That -- that's from company.
22 — : Can you remember did anyone
23 at any time mention the word thorium to you?
24 — : No. No.
25 — : Okay. We certainly heard --

1 — : But why -- why would they make
2 magnesium into little pellets, just magnesium alone?
3 — : Right. Well, we -- we've had
4 previous testimony that the pellets were not just
5 magnesium alone, that they were magnesium and -- mixed
6 with thorium. Is that -- is that -- is that possible
7 or --
—: Well, sure, it's possible.

—: Yeah.

—: That --

—: I mean, I --

—: That's what we're up against.

—: Right. I understand that.

—: They didn't -- they didn't

want us to know one thing about what was going on

except production.

—: Uh-huh. Well, I think what

you're saying is also important. It wasn't just that

nobody told you or volunteered that information; that

when you asked they specifically said there was no

problem --

—: That's right.

—: -- and it would not hurt you.

—: That's what the answers I got.

—: And so that -- that's a

different order of magnitude to me at least. Any --
any other similar thoughts or -- all right.

— : One -- one second.

— : —.

— : —. I worked in

casting. We did have thorium products stored in

casting for years, and it was in the northwest corner

of the leaching area at the time. And they'd been

there so long that they just become deteriorated. But

-- and then they moved them I think from there down

across the track well some place and eventually out of

the plant. But we did have thorium products in the

form of HM, HK stored there for -- for years.

— : Do you remember, was it like

plates or billets or what?

— : They were like slabs, a small

slab I believe.

— : Can you give us an

approximate size of the slabs?

— : Oh, they were small slabs so

it would probably be 15 inches -- no, 12 to 15 inches

thick and the width was -- what -- what would the

width have --

— : It would have been eight
inches long and probably 39 inches wide I think.

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1 —: Something of that nature.
2 Yeah.
3 —: I don't know exactly what the
4 mold was.
5 —: Approximate. But it was a
6 smaller slab than a normal size slab that -- that we
7 normally cast in the cast house.
8 —: Okay. And could you estimate
9 just like in feet or something like that the total
10 area where that material -- how much space did it
11 actually occupy would you say? I'm talking now about
12 the long-term stored product.
13 —: It was -- it was a small area.
14 It was probably about oh, I guess 12 feet in width to
15 about 20 -- 20 feet or so in -- in depth.
16 —: Okay.
17 —: And it was just fenced off.
18 It wasn't -- you know, it wasn't enclosed any more
than just a fence. But we knew what it was because

every once when inventory come around that material

had to be reinventoried so that we would know what was

in the -- in the plant as well as each building.

Were there any -- were there

any signs on there that said radioactive material

or --

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— : No.

— : Okay.

— : No.

— : All right. And again, this

is just for the record. But did anybody explicitly

from the plant come up to you and say the material in

there is thorium and it's dangerous?

— : Well, we were told it was

thorium. I mean, you know --

— : Okay.

— : -- we didn't really have to be

told that because we worked around it on the mag floor
13 --
14 --- : All the time.
15 --- : -- and we knew it was.
16 --- : Okay.
17 --- : But we knew that it was thorium.
18 --- : Okay. Got you. All right.

Thank you very much. All right. Let's see if I've got my machine to wake up here. There you go. All right. Okay. Let me make sure -- all right. There we go.

--- : You jumped ahead I believe.

--- : All right. So this affidavit says what forms of thorium and beryllium were used at the plant. And people have mentioned we just heard thorium slabs, but billets, ingots, pellets. And we've heard -- I didn't put this on this slide but plates of -- of thorium. And I understand from — that maybe there are people here who know
more about beryllium that was used at the plant. And so we'd be very interested in any kind of additional testimony you all might give about either of those.

—

—: Yeah. Yes, sir. My name's

—. One of the sources -- or several of the sources I've talked to, people who worked in the pot room have told me of a situation where they used to alloy a can with small ingots inside. These were about ten-inch tall cans, four or five inches in diameter, gray-silver in color. Now, I remember seeing these cans when I worked in the casting the first year. They would be sitting up against the wall. They would be rusty, slightly deteriorated, dust on them, some cobwebs maybe. So you know, I never paid attention to them. Now, some of the people I've talked who was -- one was— who worked there for 31 years.

—: Can you spell that name
please.

—: __, and he lives

up in __, Illinois. And he told me in '67 and

in '60 -- all the way through '69 one of their jobs

were to bust open these cans and remove these three to

four ingots that were inside. They were about the

size of a stick of butter is how he explained it.

Now, another employee told me that later on in the

'90s when they would add -- add these ingots they

wouldn't separate them from the cans, they would alloy

can and all. And he told me that he believed that it

was thorium in these cans, and that it was thorium

ingots they were removing. So if anybody else has any

information about these cans they would alloy in the

pot room or see them against the wall. They had

Russian writing on them on the sides. And that's the

reason that he -- it reminded him -- he remembered it

so well was because back in the '60s it had Russian

writing on them and they were -- well, we was

literally at Cold War with Russia. So this was

something that stuck in his memory. And —

who should be here later to give testimony also stated
that he remembers alloying these cans at one time too,
the whole can.

— : Okay. Anyone else here have

any information about thorium or beryllium, the forms?
And this -- I -- I found that story very interesting
why thorium would be packaged that way and the
connection and in Russian. Some people have mentioned
that there was a connection with materials from
Chernobyl in Russia. Now, I don't know if this had
anything to do with that or not, but it was just, you
know --
— : No, sir. This was from later
on in about 2001 and I'll bring it up later on.
— : Okay. Good. All right. All
right. So -- so — , maybe I should ask you. I
know you mentioned to me that somebody might be here
who knew more about beryllium being used. That --
that's one topic --
— : Yes.
we really need to expand.

Can -- can you just fill us in where we are on -- on that story?

Well, I will be here at 3:30.

Okay.

And he worked in the pot room for a while. And he did do thorium runs and beryllium runs as --

Okay.

-- several other pot room employees here today. And they would have more knowledge on the thorium runs in the pot room. I was only there for a year.

How about you fellows that worked in the pot room? Do -- do you remember being having beryllium in that -- in that room? Oh, yeah. Good.

I'm --, and I'd wrote a
little bit about what I remembered about the beryllium. The beryllium we used for alloying was a 50/50 mix of aluminum and beryllium so I was told. It came in five-gallon, black sealed cans and it was used in the AZ 20 alloy of magnesium. There were different ways that we could alloy it into the metal. We'd use it -- we'd sometimes put it in a sludger and lowered it up and down in the molten metal until it was melted, or we'd place it on hand skimmers and wash it in by hand, or we'd place it in handheld ladles and wash it into the molten metal. Then the metal casters would -- if it was -- needed more beryllium, they would put this beryllium into handheld ladles and pump the molten metal over onto it as it was being pumped into the settling or the casting pots. And to get smaller pieces for smaller amounts of alloys it would be taken down to the subbasement and broken up with like a little hydraulic press.

— : Yes. I heard that story.
And in the basement when it was broken up now would that material fragment and form particulates or -- or dust or anything, or did it just break cleanly?

—: My name is —. I was a crew leader in the pot room, but it was part of my job to go downstairs and break the beryllium up. It was just actually a small press that we used to break it up into smaller pieces --

—: Uh-huh.

—: -- so it would fit into the ladles. There wasn't a lot of dust or a lot of small fragments came off it. You really didn't wear any protection. You just went down there and broke it up. I didn't know too much about beryllium. One thing I would like to comment on is I've done some research, and it seems that beryllium is used in a lot of car manufacturing parts.

—: Uh-huh.

—: And later on back in the early '90s to late '90s we primarily ran ingots down there.

And everything we melted in was either steering wheels
or dashboards. And I don't know what percentage of beryllium was in that type of stuff that we remelted in, but it was really dirty, nasty work doing those ingots at that time.

— : Would you say then -- I'm trying to put a time line on this -- that -- that beryllium then was used throughout the '90s?

— : Oh, yeah. We used beryllium very frequently the --

— : Okay.

— : -- whole time that I was there. I hired in from 1990 until the plant closed.

We used beryllium twice a month probably on our runs.

— : Okay. Well, I'd just like to put into the record again that we recently in July visited the Illinois EPA and learned that every two years they sent inspectors into the plant from 1973 to 2004 for the state air pollution permit. And those permits all said that the work at Dow was to be a secondary smelter and a refiner of aluminum and magnesium. But there was no mention in any report for
any of that period of time about either beryllium or thorium. And so this kind of testimony to me at least indicates that that agency really should have known about that.

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— : Well --
— : I mean, it was common, it was used, and -- and they really didn't even recognize that that was a -- a major thing that was done at the plant.
— : I don't know -- I don't know personally about the thorium runs. We were never told we were running thorium if we were. The only time I knew anything about any thorium is when, as — said, we melted chipped -- thorium chips in.
— : Uh-huh.
— : And they ran a rope down the middle of the pot room and said don't cross the rope, it won't hurt you. And that's all we were ever told.
They were given -- people who were melting chips were
given badges, but no one else in the pot room was. So if you were working on the opposite unit, you didn't have anything.

So that's a truly amazing story to me. So they -- they said -- they didn't tell you there was a problem but they did rope it off.

Right.

And so -- well, so I've --

I've seen diagrams of the plant and how the pots were arranged. But I guess what I don't understand is so

-- so the idea was that there was one part of the pot room that should be -- did they tell you to be careful over there or --

I believe they melted the chips on the billet unit.

It was the slab unit.

Okay.

Was it on the slab unit?

Yeah.
And the other shift was running the billet unit which there was probably I'm going to say 25, 30 feet between the units. — That's what I was getting at. — And they just roped it off and said don't cross this line. — Okay. — The smoke won't hurt you. So -- — Okay. That's great. — I just want to add my job was I was — the chem lab and spectroscopy lab. And I think you need to know when these guys in the cast house -- when they were alloying any new alloy has to be established in the spec lab. And we ran a meter and a half light emission spectrometer. And what we'd do is your base metal was magnesium and then we add the subelements. And as the cast house melted the metal they'd pull
what they called a pin. They'd send it to the spec lab. We'd arc it on the spectrometer, and it would give you percentages of all the elements. This is how the people in the cast house would know to add beryllium, add iron, whatever to get it up to the specs so that they could cast it. So in the tech department, yes, we knew the thorium and beryllium was in the alloys because I had to set the program up in the computer.

—: So let me -- I mean, this -- this is of extreme interest and why we're so happy that you could come today. So I think it's a good time to touch on this. So I assume for each time you made a spectroscopy measurement there was some record of that?

—: Yeah.

—: A report --

—: Yeah. When --

—: -- to document the alloy?

—: Right. When they start running the thorium magnesium alloy they'd pull pins until we got it right in the pot. And it was all
1 connected to computers. The guy on the cast house
2 floor would get a computer printout of what was in
3 that alloy. He'd add some if he -- if something had
4 to be cut, they'd dilute the metal. Okay. And then
5 they had to pull three patch pins from each run.
6 Those patch pins had to be kept. And in the spec lab
7 we printed out on a computer printout what the
8 analysis was all the way through the buildup of the
9 alloy through the three casting. And all of that had
10 to be kept. You can't throw those pins and that
11 record away. So it's got to be there.
12 — : Well, that's excellent. So
13 maybe also describe for people like me who really
14 don't know what a pin -- what does it look like
15 physically?
16 — : Okay. What they had was
17 they had like a suction devise. They would take a
18 glass tube about six inches long and I think it was --
19 if I remember it had like a quarter inch or
three-eighths of an inch, about like a pencil. Okay.

They'd draw this up and they'd cool it. Then they would shatter the glass off the pin and send it up to the lab. The lab would then machine the pin down to a certain diameter. That was then put into the spectrometer, sparked against a graphite rod.

COURT REPORTER: What against a graphite rod? What against a graphite rod?
—: The magnesium --
COURT REPORTER: Spoke against it?
—: Spark. Sparked against it.

It was a high voltage --
—: Spark.
—: Okay.
—: Spoke. She's trying to get that word.
—: Oh, a spark like in a match, you know, S-P-A-R-K.
— And the arc from that sparking would go through filters, and each element had a different wavelength. So that light would travel that wavelength through a slit, give us a reading --

— Right.

— -- of what the percentage of that alloy was. And that -- that's how we did it.

— Can I ask just one other question. Did -- did you ever -- now, I guess we don't have any reason to think that uranium was ever cast in the plant. But did you by any chance ever see any alloys or any -- any evidence that there was uranium used?

— No. We didn't.

— Okay.

— We didn't. We had certain elements that we had to look for for it to meet the specifications.
—: Uh-huh.

—: I mean, we didn't run through every element on the periodic table --

—: Right.

—: -- just certain ones. And in the mag thorium; thorium being one of the primaries that we had to look for.

—: Okay. That's fine. That's --

—: Can I ask a question, —

—? —, do you remember if they ran thorium specifically on the billet unit or on the slab unit?

—: I know I had to go out and take the radiation level out in the -- and I can't remember which unit was which.

—: Would they run thorium slabs or thorium billets?

—: When they run thorium we
had -- we took this old radiac instrument out there
and took background readings.
— : So did anybody in the pot
room remember if they ever alloyed any billets or any
slabs?
— : Slabs.
— : Okay.
— : Yeah, — . We used
to run the alloy that -- that we used thorium in was a
small slab, and that was ran on the slab unit. And it
-- then you know, I can remember it because you did
wear those badges which were supposed to record what
level that you were exposed to. But that was
something that we were never told what level it was or
didn't hear anything else about.
— : We're going to talk about the
badges in a little bit, but --
— : That makes perfect sense what
he says.
— : Hold onto that because we --
we need to come back to the badge levels. Okay.
— , maybe this is a good time. I -- I'm not sure
there's a topic that addresses this. But -- so -- so
when you mentioned the -- when you mentioned the

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— : Well, okay. Prior to

starting at Conalco when I was in the military I
monitored radiation levels in the Air Force.

— : Okay.

— : And I worked at Wright-Pat
in Dayton, Ohio where we had an inactive nuclear
reactor. So I've dealt with everything from alpha,
beta, up to the 2,000 curie cobalt sources. And when
we started this run I asked the tech department
manager if I could contact OSHA or the EPA and get
guidance on this. Well, I was told not to contact
those agencies. So they found this -- I don't know if
anyone remembers the old in World War II --

— : Let --
—: -- and the Cold War --

—I'm -- I don't want to interrupt you, but I'm going do it --

Okay.

—: -- because it's important.

What -- what year would you say that was roughly?

—: That I monitored it?

—: Well, no, that you asked the question about should OSHA and NIOSH be contacted just approximately.

—: Well, it was just -- I'm not sure what year it really --

—: When you first started?

—: When we first started setting up to run the thorium --

Okay.

—: -- and they started talking about monitoring.

—: Uh-huh. So put a -- put a
date. I can't do it. I need you to do it.

—: Gees, I don't remember what year it was that we made those runs.

—: Well, you could make a guess.

I mean, if --

—: Mid '80s.

—: Mid '80s. Okay. That's fine.

—: But what they came up with was an old civil defense radiac meter that they had found in the basement. Okay. And thorium being --

your primary thing you want to watch is the alpha, okay, because that's what you ingest.

—: Right.

—: And even the -- I had three ladies that worked for me in the spec lab. When they got their badges I don't think anybody ever told them you can't wear these outside in the sunlight because the sunlight will give you a reading on the badge when
they analyze it. You know, I think they just went around and they handed out these badges. And when they collected -- the last I heard they were stored in a room out in extrusion. It was a -- a storage -- I don't know, like an eight-by-ten room out there. And they had drums in there, and that's where everything ended up. But when we did radiation measurements it was like okay, they wanted them outside in the sunlight. Okay, fine, we did that. Then we'd walk around randomly in general areas and take background readings. But to me they should have been doing like they're called swipe tests where you take a piece of felt paper, wipe in on the equipment, send it off to have that analyzed. That would give you what level was on the equipment. I never did that. And I don't remember ever seeing anyone come in the plant and do that.

—: Did you ever bring that up, that that would be a --
— : That's --

— : -- a way to do it?

— : When I talked to my -- —

— was the department manager in the tech department. And when I approached him about contacting OSHA or EPA to get guidance on this I was told not to contact them because they're -- the federal government's only after one thing and that's to come in and start fining them. Well, no, it's not. Those people are there for guidance, and I was told not to contact them.

— : Well, you're -- you're quite right, and you should know that at least recently that's what we've been interested in doing is getting in -- back into the plant and doing those -- those swipe tests that should have been done all along. And that's why we are so concerned about the current cleanup operation that we understand is going on where they're pouring new concrete over the pot room floor. And what -- what we're worried about is that once that's done that will be a major source of access to the contamination probably of both beryllium and
thorium that we will not be able to document anymore.

— : Well, yeah. If you pour concrete floors in there, you're not going do get any readings off the floor.

— : Right.

— : I mean, if there's real strong gamma or even some beta may come through it.

— : Right.

— : But any alpha, once you pour the concrete --

— : Right.

— : -- you're not going to read it.

— : And the beta will be eliminated and -- and maybe a little bit, but the gamma will be sharply attenuated --

— : Right.

— : -- by the concrete. Well,

that's what we're worried about. So okay. Well,
17 that's -- that's -- that's very useful. And you're
18 quite right, the agency should be there and are there
19 to provide guidance and help and technical support and
20 -- and so forth. So yeah, —.
21 —: —. I just wanted to
22 add one thing.
23 —: —.
24 —: You were talking about trying
25 to get back into that plant. But you know, that pot

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1 room floor has been redone several times.
2 —: Okay.
3 —: When I was there from 1990 on
4 the new concrete was put in probably two or three
5 times in those -- that span of years.
6 —: We're going to get into a
7 topic about the various cleanups that have been done.
8 So I -- I definitely need to get that flushed out a
9 little bit more. So we'll -- we'll come back to that.
10 All right. Well, that's --
— : — .

— : Yes. Excuse me.

— : — . When I hired in in '93 I was talking to my supervisor, — .

And outside the pot room -- I was working in the extrusion department, and the office faced the pot room. And outside the pot room was all these old empty pots. There had to be 50 or 60 of them out there. And I can remember asking the question, I says why don't you -- if those are scrap, why don't you get rid of them. And he made the statement at that time, he says well, we don't want to talk about anything like that at this time. So those pots had to be contaminated. And then a couple years after that they did start cleaning them up and shipping them out of there. I don't know where they ever went.

— : I'm sure you're right, they had to be heavily contaminated. So okay. All right.

So what years was thorium worked on at Dow
Spectrulite? And I think what we're really trying to do is to put the -- the boundary on when thorium was -- was actively processed at Spectrulite. And some people have said it was up through 1998. But I thought this would be a great opportunity to -- can you all add anything more to that from your own knowledge of where thorium was actually used in any part of the plant? I mean, we -- we can let the 1998 date -- I think that's on the record. I can't remember actually who put that on the record. But okay.

—: Excuse me.

—: Bobbie Jones.

—: Yes. And to be specific about a particular date I cannot, but it had to be in the late '70s to some time in the '80s that we would make those runs. And I don't know when exactly they were. But as I said earlier, the product of that which had laid around in the cast house for years to the point of deterioration. So it had to be I would say in that time frame because I was -- I had -- I was on the mag
floor at the time when we was making those runs. But
to put a specific year on it, I can't do that.
—: But throughout the '70s and
1980s?
—: Yes.
—: Okay. That's great. You
know, the way this process works the more individual
testimony you can gather that -- that kind of adds to
the story is -- is good. So that's great. Okay.
So we've talked about a few -- in past
meeting about a few of the defense contractors that
had thorium work for Dow. You know, one -- one that's
not on here that we found out about was Rocky Flats,
you know, which was a Atomic Energy DOE plant, nuclear
weapons plant. And apparently there was an active
exchange program of both personnel and thorium between
Rocky Flats and Dow. There was an exchange of
personnel even between the two sites.
We have some testimony from — and
I think maybe one other person about -- well, —
— had -- had some about a Martin-Marietta
connection with Dow and thorium, had some information about Boeing, and he had some information about the Air Force.

And last night I came across a very interesting historical anecdote that relates to this area right here. And that was that McDonnell-Douglas had thorium magnesium sheets. And for some reason that wasn't clear from the document I read, it was a 39-page report, McDonnell-Douglas gave that material or lent that material to Washington University who as you all may know had an ammunitions storage depot at Tyson Valley, and that still exists. And so one of the concrete bunkers at Tyson Valley, actually Number 35 was used as a storage site for the McDonnell-Douglas thorium magnesium slabs.

Well, in about 1993 for some reason the Nuclear Regulatory Commission was examining its old licenses to make sure that they were up to par. And they re-examined the -- the Washington University
16 license for source material, and they found that
17 everything was okay except that this thorium stored
18 out at their Tyson Valley facility, that they were
19 actually not licensed for that purpose.
20 And so the NRC apparently contacted
21 McDonnell-Douglas and Washington University, and
22 there's a letter there to — to this
23 effect. And they promptly removed the thorium from
24 Tyson Valley. But of great interest to me was where
25 did they send it but to Spectrulite. So this is in

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1 1993 just after Spectrulite acquired its new license
2 which they acquired on September the 9th of 1993. So
3 there is a definite connection with McDonnell-Douglas
4 to make a long story short and thorium at Dow.
5 So I just thought this would be an
6 opportunity. Maybe you all know about other specific
7 uses of thorium and people who Dow contracted with or
8 Conalco or Spectrulite for their Dow -- for their
9 thorium products. So — .

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—: Okay. —. I

personally did work for Martin-Marietta on the light press and as several other helpers and operators. The reason I know they were Martin-Marietta because they identified themself as Martin-Marietta. And this was in -- I believe in '83 -- or '93 -- 1993 when we ran this metal for them. It could have been as early as '92 because we had two campaigns where we ran this. They were work cycles where they leased the press out for an entire week and nothing else could be ran on that press because it would be contaminated with their alloys or their alloys would be contaminated with our metal. So they leased out and owned it for a week while we did the work for them.

And I remember personally running it twice, two different campaigns and they were about a month and a half apart. And the second campaign wasn't a week long, it was about a three, three and a half day production. Now --
—: And you told me that Martin-Marietta personnel were there for this?
—: They were actually there on the site. Their employees were walking around monitoring, they were taking samples, cutting samples. And another job of theirs was to oversee that all scrap, every saw chip was accounted for, and weight was very important to them. So this seemed very peculiar because no other customer was ever there on the site with their own metal observing it. So this was very different, and that's why it was so easily to remember.
—: That's good.
—: And I believe — also ran it for them back in the '80s. But back then I don't think they identified themself.
—: No. I didn't know. No. I was fairly new on the job, and I didn't know any much about what was going on any -- anyway. And they didn't tell me what we was doing. I was just doing what they told me to do, and --
—: But do you remember
1 Martin-Marietta people being there?
2 —: Yes. I remember that.
3 —: Oh, okay.
4 —: Yeah.
5 —: So at least we can
6 corroborate not what the metal was but at least --
7 —: Yeah.
8 —: -- Martin-Marietta people
9 were there in the plant in 1983.
10 —: Yes.
11 —: Okay.
12 —: I can't recall what year it
13 was, but it was -- I can recall when it was. It was a
14 -- it was on a Wednesday before the Thanksgiving
15 shutdown, but I don't know what year. Martin-Marietta
16 people was there monitoring a special job that we was
17 pushing on the heavy press. And the guy had to leave
18 because he had to catch a flight home like at three
19 o'clock in the afternoon, and I was coming on. And I
was told to go out there and work with him and get the specs from him on the container temperature, billet temperatures. And our container wasn't heating up very well that day, and he wouldn't push until we got to the right temperature on the container. And he had to leave to catch his plane, and I stayed with the project. And I had to call him later that night. It was like 2:30 in the morning when I got home I called him from my home phone at that time and let him know that we got the job done. So they were definitely on the site.

— : Did they mention to you what the use of this was, or -- I mean, did they bring the extrusion, what it is a die or something to -- to actually determine the shape or do you remember --

— : I can't remember -- I can't remember the shape or the die. I believe the metal was shipped in for -- for them. It was brought in from outside. We didn't cast the metal there. I
think it was used for something with the space shuttle.

—: Okay. All right. —.

—: Yes. I was just talking to an employee two nights ago who stated that same thing, this metal that they was producing was some type of mounting bracket for the booster rockets onto the space shuttle and that was what they was describing they were told that it was for, this same -- the same extrusion.

—: Now, is there anybody here today -- the connection with Rocky Flats is important because under the Federal Compensation Act if -- if the Atomic Energy Commission or the Department of Energy had any ownership relationship at Dow. And that -- actually, it would mean they would have to own part of the buildings there or have to have -- well, basically that's it, own part of the buildings. So we really don't have any firm evidence that that's true.
But I am interested in this connection between Dow and Rocky Flats. Now, we think that Dow managed Rocky Flats for the Department -- for the Atomic Energy Commission between 1952 and 1975. So that relationship ended in 1975. But— or anybody who was there earlier than '75, do you remember anything happening with respect to Rocky Flats that —

—: No. No.

—: All right. Good. We'll wake up here in a minute. Okay. Here we go. All right.

We just talked about Affidavit 6 which was the relationship between Dow and Rocky Flats. We've talked -- Affidavit 7 topic was what was the volume of thorium that was processed at Dow over the years. And we certainly talked about -- — told us about thorium that was stored in castings and -- and the area that that occupied. This is a very tough question. Obviously, no one person knows the total

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volume that was processed. And I think we've gotten pretty good input that -- that thorium was used over a long period of years, that it was processed as special metals sometimes, but there were many products that involved thorium. So I think we better move on beyond that because I'm not sure we'll ever get a -- unless we get access to plant records which is something we're also seeking to do at both Dow Midland and at the Spectrulite plant here. You know, there must be manifests of materials. So we might be able to get at it that way. We might be able to get at it through the licenses and now at least we do have some of the license documents for the thorium which -- which should actually document how much was used. So I think we can get at that another way.

I think we -- Dow -- the Affidavit Topic 8 has got to do with how often the thorium was run on the extrusion presses, in castings, and the rolling mill and what was the purpose of these various metal forms. This would be the time. There are several -- a number of people here who've -- who operated extrusion presses. Is there any more information that anybody would like to tell us about thorium in the
25 rolling mill or in any of those areas? I think we've

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1 -- have we got that testimony pretty well?
2       —: Well, I'd like to just add
3 one thing, that we ran about six billets per day per
4 week for that five-day work week. And then the second
5 run was also about five to six billets a day for about
6 three days.
7       —: Okay.
8       —: So if you figure each billet
9 weighs around 1,200 pounds, you can get an estimate
10 weight of the ran we did for Martin-Marietta during
11 the two campaigns that I ran.
12       —: That's very useful. The
13 reason this is useful just so you all know, this level
14 of detail is because bottom line is NIOSH -- or Batel
15 is going to have to calculate an individual radiation
16 dose for people who submit claims. And so each of
17 these individual episodes is something that they would
18 have to calculate if you happen to be operating the
extrusion press during one of these runs that —
described for example. So it's very important to know
what the -- the form and the -- and the volume of the
metal actually was, what was the -- and -- and so
that's -- they would -- if they knew that information,
then it would help in calculating a dose. Okay.
Yeah. I'm sorry.

After they had -- you would run
a run in the pot room you'd sludge out the waste after
the metal was pumped forward, and it -- we'd call it
sludge. Well, I was just talking to —, and
he said after running the thorium they would sludge
this material into barrels. And usually it -- this
metal would go back to the leaching process to
retrieve metal out of it. Well, I just wonder what
they did with the -- the barrels of this. Did they go
ahead and leach it with the regular sludge that we
ran, or was it shipped out, or you know, did we handle it again and not know it?

— Well, we've gotten some testimony that -- that several things happened to it. One thing that happened to it is some of those barrels were taken outside to an area that's beside the castings area. Apparently there was an approximately 40-acre plot of land that was owned by Dow, and the barrels were actually buried. And some of the evidence is that they were buried down to a depth of about eight feet.

And then also there's additional testimony that some of that magnesium thorium sludge was actually piled outside the castings room. So there was material below ground and above ground. We do know that in 1993, 1992, '93 a company called ERG, the Environmental Restoration Group came in and cleaned up 1,000 railroad cars full of that sludge from that area and shipped it out to Utah probably to EnviroCare. So
that's a pretty large amount of material that accumulated in the way that you mentioned. What's interesting is in that ERG report they mentioned dredging down to about four to five feet below the surface. But the testimony is that some of those barrels are -- were buried below that level. So it may be that some of that material was never cleaned up.

And we -- we believe that that plot of land -- in fact, we're trying to find out this for sure. But Dow held onto that land for quite a long time during the Conalco era. We don't really know yet whether Dow ever got rid of it, and it may still be owned by Dow Chemical in Midland. And it's -- from everything that I've heard it's -- it's highly possible that some of that material is still buried there in that same area. So -- and I -- I don't know about -- I -- I -- we have also heard what you said, that some of it was reclaimed and I guess it was...
recast. And I don't -- so I don't know.

—: Yeah. We had remelted some of that stuff in the pot room.

—: Okay. So that story is building and sounds pretty good. Now, I put into the record before that we know of at least -- we had known up until recently about four thorium licenses at Dow, Conalco, and Spectrulite. And then I'd just like to add today that we now have firm evidence that the current Spectrulite Consortium, Inc. thorium license is -- the number of it is IL-01750-01, and that was awarded in September 9th, 1993.

Now, I just -- I had mentioned about the thorium -- this is Affidavit Number 11. And it says who knows about thorium being buried near the castings department at Dow. Is there anybody who has any personal knowledge of that beyond what I've mentioned?

—: I do.

—: —, here you -- you can use that.

—: —. Back in about '72 I got bumped out of the rolling mill and I got into...
And we had to go and bury about eight slabs of thorium metal over there. And — -- I can't say his last name.

COURT REPORTER: Say it again for me please.

—: —, but I don't know how you spell it.

—: But anyways, he --

—: Give it a -- give it a try on the spelling.

—: I'm not even close on that one.

—: He dug up the hole and I dumped the slabs in it. And that's the -- I guess about the southeast part of the Dow ground over there.

I know that's in there. And we also put some other barrels in there. I don't know what was in there.

But everything that was dumped over there was all
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17 radioactive materials.
18 — : — , hold onto that. How

19 deep would you say you buried those barrels?
20 — : They were probably about

21 ten -- ten foot deep or better over there. And they
22 covered it up with I'd say at least six, seven foot of
23 dirt or -- not -- not actually dirt but it's other
24 materials that was around in that area, sludge and all
25 that. So --

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1 — : And what would be the
2 building closest to that area?
3 — : Casting, 7 Building.
4 — : All right.
5 — : They got a -- Dow built a

6 building on there right now that's sitting on there,
7 and it's just east of where the building is at.
8 — : Can I ask you a question,—
9 — ?

10 — : Yes, sir.
— : Do you remember what year they finished -- they stopped burying material out there in that field? Do you have an estimate?

— : I don't have any idea what year they quit burying --

— : Barrels?

— : -- stuff over there.

— : What -- what was the year that you buried material?

— : That was in '72.

— : '72, okay.

— : Yeah. I got bumped out of the rolling mill for a short time.

— : Okay.

— : — , can I say something?

— : Yeah.

— : — told me that when he was there -- there in 1967 they was also
5 putting sludge in barrels, but he wasn't burying them at the time. They had some men he told me that would come with an old pickup truck from somewhere in East St. Louis, some just offsite employees they would hire and they would load up four barrels at a time and disappear with them. And he asked them one day, he says now, you're not taking it right over to the river to the boat ramp and dumping it behind us, are you. And the guys looked at him strange and asked them why. He goes well, that's where we put our boat in at, that's where we fish. They go oh, no, no, we got a place for it. But several months later he was fishing up and down that stream right there and he noticed one of the barrels off to the bank not far from the boat ramp. — : And he thought it was one of the same barrels? — : And he thought it was the same barrels that they loaded onto a truck maybe months earlier. And he's willing to give testimony if he ever make it down here. His health is
questionable.

—: And this is —?

—: —.

—: Okay. Well, we'll definitely try to get him on the record. I thank you very much for that.

—: 1967 was the date he told me.

—: I understand. That's great.

All right. Affidavit Number 12 --

—: Can I ask you something, —?

—: Of course.

—: On the burying of the -- of the slabs and that it wasn't too far away from where the houses are at right alongside the plant. So they're -- they're kind of close to it also. So they --

—: Are they within a block of that area?

—: Oh, I'd say less than half a block.

—: Less?
—: Yeah

—: That's where the grade school was.

—: Yeah. We -- we will -- well,

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let's see if we can do it right now. We'll come back.

—is a master at finding great pictures of

things. And I'm not sure we have it on this. Yeah,

we don't. But on the GSI PowerPoint we do have some

aerial views. What you can see here is that this is

an -- an aerial view of the general area of the Dow

plant. And you can see that at the left the big plant

on the left center is Granite City Steel. Dow

Chemical is at the upper right of the picture. Right

below it is General Steel Industries at kind of the

middle picture on the right. And then the plant on --

at the -- at the bottom is American Steel. But you

can really see that at -- at General Steel for

instance and -- and also now we're -- know at Dow, you

know, that there were -- there was a lot of housing
16 and residential development. There's an elementary
17 school right near Dow. And I think — has
18 some evidence that maybe we can talk about in this
19 next topic that actually they removed the walk that
20 leads up to that elementary school. And so -- so a
21 lot of these activities and the burial that we're
22 talking about of this thorium radioactive material is
23 now we've heard, you know, is -- is less than a block,
24 maybe a half a block away from occupied homes that
25 have been there for quite a long time.

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1 Okay. So -- so the next topic is to fill
2 in the record on the various cleanups that we know
3 that have taken place for thorium. And so now we're
4 switching away from dumping the material to various
5 cleanups most of which we think were probably
6 conducted by Spectrulite itself with or without the
7 supervision of the state agencies. And I've already
8 mentioned the cleanup by Environmental Restoration
So anybody who wants to add anything about later cleanups, this is the time to do it. And this is particularly relevant because we think these cleanups were really done by the company without proper supervision. So I'll just tell you a viewpoint from the beginning. Yeah.

—: One of the very first cleanups that I ever witnessed of anything of any type was with —. He was in the clothing department at the time, and I was -- I think I was stationed over there for a short period. And they was having cleanup in that lot he was talking about. They had all those guys walking around in their moonsuits and their hoods on. And they was digging down around four to six feet -- five feet and removing this material. And I observed it, and — was observing that cleanup at the time.

—: Now, are we talking about the lot next to the casting?
—: This was the lot next to the castings.

—: Building 7?

—: Yes. This was a government cleanup I believe because this had no company people involved from our factory, no forktrucks, none of our equipment was involved. And like you mentioned earlier, I remember shortly after they did do that cleanup they removed the whole lot, the whole alleyway was ground down to -- maybe eight inches was removed from the whole alley and they replaced all the gravel.

And the alley led right to the front of the elementary school.

—: Now, could that have been this ERG 1992 cleanup?

—: This was -- I think was in '92. Was that right, —?

—: I -- it could have been.

—: Because he's including --

—: I think you all -- I think everybody would have seen it. I mean, a thousand --

—: Oh, yes. There was a lot of
1 people out there.

2 —: In fact, they also removed 30

3 railroad cars of material that had PCBs in it.

4 —: Right. Right. Which was

5 used in all the cooling and the electrical equipment

6 throughout the factory --

7 —: Okay.

8 —: -- all the substations.

9 —: Yeah. That's exactly right.

10 In transformers is what -- where that -- yeah. Okay.

11 All right. How about -- how about Spectrulite

12 cleanups? Now, —, who is not here today,

13 but he put on the record that he was aware of at least

14 -- of several cleanups, but one of which was as early

15 as 1998 before the Army Corps came in and did their

16 cleanup. I think he's the only one that's mentioned

17 that particular cleanup. But -- and we certainly know

18 that there's a current concrete pouring. And -- and

19 you all mentioned that there had been multiple
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20 concrete pourings in the pot room. So maybe this
21 would be -- can you all expand on that any more? I
22 mean, was this during the 1990s or --
23 — — . Yeah. I worked in
24 the pot room from the time I hired in until the time I
25 ended basically. And I know they've redone the

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1 flooring at least twice where the floor was just ate
2 away. It was so bad that actually the forklifts were
3 falling through the floor.
4 — : Right.
5 — : So they had to redo it as far
6 as going in and putting all new structure.
7 — : So that's a safety thing and
8 a --
9 — : Right. Right.
10 — : -- structural integrity of
11 the building. Yeah.
12 — : It was just so bad that the
13 flux and everything just eats the concrete away in
there. So it was just redone I know at least twice
while I was there. But as far as a cleanup I was
discussing that with —. From 1990 I never saw
any type of cleanup done in casting as far as --
—: Okay.
—: -- coming in and cleaning
anything up.
—: So well, let me just -- I'll just
tell you and I -- my memory may be imperfect of
what — told us. But my understanding was
that the -- that there was a lot of this slag
generated and some of it was put outside, but some of
it was in the building. Some of it was actually in
the castings department.
—: Tons of it.
—: Yeah. And so the idea was
that periodically this material would be gathered
together. And there's even some descriptions that a
— may know about this, I don't know --
that -- that actually they would -- there was a lot of slag, some of which was radioactive, some was not.

But it would be separated with a Geiger counter, and they'd go in and put the radioactive slag in one pile and the nonradioactive in another pile. But — tells a story that that material was picked up. Some of it was taken off site definitely. There was one -- one episode he recounts that it was taken to California.

But other -- to reclaim the thorium. But there were other times when it was sent out of state. So -- and —, I thought there was a story -- you had another story about the slag being loaded into open bed trucks and taken to a landfill.

— : Yes.

— : So maybe -- maybe you could tell us a little bit more about that.

— : — who was supposed to show up today didn't make it.

— : How did you tell his name?
— : —. —. 

—: Okay. Uh-huh.

—: And he worked there from '89 to — also. And he told me that in leaching when they finally shut it down because it was building up so much as — said in the first deposition. It was building up so much that they couldn't keep up with it. So they finally had to deal with it by sending it out. Well, they shut down the leaching department completely, and they cleaned up all the dross -- or the sludge that was left over. And by cleaning it up they dumped it in every container, every trash container they could find, every dumpster and even back -- they had trucks back in and they loaded up trucks and it left uncovered. And once they got it completely cleaned out, it took about a week, — came out there and seen that it was all gone and couldn't believe it. He was the head supervisor of the whole factory. And he patted him on the back and gave him a big smile and told him he saved the company a lot of money. And if anybody in this room knows — he does not pat people on the back and tell them they did a good
25 job. So this -- this absolutely stuck in his mind and

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1 the other coworker — who I also asked about

2 this story. And they said after they loaded it up the

3 thing he remarked on was you saved this company a lot

4 of, lot of money, I can't believe the trash company

5 took that, there was some radioactive stuff in this

6 and I can't believe they took it. But he was so happy

7 that one of the employees turned to the other and said

8 well, I guess I know what we're going to die from now

9 jokingly and not knowing that it may be true. But

10 after they cleaned all this out of the leachings and

11 everything they -- he never really thought about the

12 radioactive material they threw away.

13 —: Can -- can we put a date on

14 that cleanup maybe?

15 —: When was the end of leaching

16 shut down? The people in the pot room should know an

17 answer to that.

18 —: About 1991. It was right
19 after I hired in that leaching was gone.
20 — : Maybe — also worked
21 in leaching for a short time. He was a manager.
22 — : I worked in leaching for --
23 from 1990 to 1991.
24 — : And I -- I notice in the
25 plant that dross -- they call it the dross storage

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1 room. But was there a room in particular where that
2 sludge was stored, I mean set aside for that? I -- I
3 just saw that in this new report.
4 — : Well, I think dross was the
5 term they used for aluminum sludge, wasn't it? And
6 then the -- yeah. Then sludge is what they --
7 — : Okay.
8 — : -- called it over in
9 leaching.
10 — : Dross would just be --
11 — : The aluminum.
12 — : -- specific for aluminum?
— : Right.

— : Okay.

— : The aluminum at the other end of the factory.

— : All right. Good. Thank you.

Sorry.

— : I'm going to say some time in 2000 to 2001 we had probably 14 to 17 slabs of thorium metal that came from casting. I don't know if —

knows when they brought them to the rolling mill, they were stacked against the 2 Mill motor room.

— : Put your thing -- yeah.

That's good.

— : I'm going to say they were there at 2 Mill for probably five to six years along with a bunch of this -- the big scrap boxes that we used for scrap and some of the small boxes. And it was all stored against the 2 Mill motor room. And some time in 2000/2001 an outside company came in with
7 the moonsuits, the whole deal, picked everything up
8 and put all the scrap metal in barrels with the lock
9 rims on them and hauled everything off.
10 The -- the reason I remember that they
11 were thorium slabs is because we had a girl named
12 — (phonetic) who bid a job on 2 Mill as an
13 —. She was awarded the job, and not
14 long after that she reported to the company that she
15 was pregnant. As soon as they found that out they --
16 they told her she couldn't have the bid, she couldn't
17 work on 2 Mill because of this thorium metal that was
18 stored I'm going to say 75 feet directly behind me
19 against the 2 Mill locker room. And it -- it was
20 still up in the air when we -- when we went on strike.
21 She hadn't gotten the bid, she -- they -- it had been
22 cleaned up prior to that, but she -- they -- they
23 still wouldn't allow her in that area.
24 — : Uh-huh. Well, this is --
25 this is another -- you know, I find that testimony
very interesting because it definitely indicates that
the company was aware of the danger of thorium. And I
mean, we've heard a number of instances although, you
know, you all were not explicitly told about it. But
I mean, that -- that's pretty good evidence that that
was true.
—: Well, we were always told
there was not enough radiation in there to bother
anybody. I was in the pot room for some of the
castings of the metal. And --
—: Right.
—: -- I even asked one time about
the -- the badges. I said well, what -- what was the
results of the badges and they said oh, no problem,
don't worry about it.
—: Well, we're going do get into
the badges in just a minute. So yeah. I -- all
right. Well, that's -- that's extremely useful.
Okay. The only thing to add to Affidavit 13 about
which agencies granted the Dow thorium licenses was
what I just mentioned, that the Illinois Division of
Nuclear Safety -- I think then it was called the
Illinois Department of Nuclear Safety granted the new Spectrulite thorium license in September of '93. Affidavit Number 14 is some old history,

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but I just -- it's interesting who remembers what. So I'll just bring it up that we -- we now know that in 1951 when Dow bought the plant from the government, that for the -- the decade of the '50s, from '51 to '59 specifically they were under -- the plant was under what's called the National Industrial Reserve. And the document -- the warranty document also mentions the National Security Clause. So this apparently was a program in force at many plants so the government had first call on use of the equipment. And I guess that really antedates and as far as I know that -- that stopped at the end of the '50s. So I just thought we'd pause a minute and see if anybody has any information about the -- you know, the National Industrial Reserve and -- and any time the government would come in and take over
the equipment or to use the equipment at Dow. And we also have other evidence that large amounts of the equipment at least in the Conalco era were owned by the Air Force.

So okay. All right. We've probably got that point documented as well as we can. I think we've really been over the beryllium story so I'm going to bypass that.

Affidavit Number 16 has to do with what POHLMAN REPORTING COMPANY     (314) 421-0099

— in particular has mentioned as the special metal product -- projects. We've heard a number of you all mention these. And certainly the description of the special extrusions of thorium for Martin-Marietta are one excellent example of special metal products. But did any of you people in the pot room, the extrusion, castings, or the rolling mills know of any other special metal products that you'd like to put on the record?

Now, some of these special metals I think
were alloys that had to do with the space shuttle and
with, you know, missile work and rocketry and all that
kind of thing and not necessarily with radioactive
materials. But anybody have any information about
other projects referred to as special metal projects?
Uh-huh.
—: —. We had ran some
metal down on the heavy press, and I was told it was
they -- that that was used as a -- it was big heavy
I-beams. And it was used for holding the -- the fuel
pods for the space shuttle.
—: Okay. Good.
COURT REPORTER: Pods?
—: Fuel pods.
—: Uh-huh. —.

I don't -- I don't
know this to be true but maybe some of these older
guys if I refresh their memory. It seems to me, and I
don't know a date, but the Air Force came in and
completely rebuilt the intermittent unit at one time
and they ran one billet on that unit and shut it down
and it was never used again. And I don't know if some
of these older guys remember that happening.

— : Tell me what the intermittent

— : It was basically a billet
unit. Most of our other units were continuous cast,
there was a saw downstairs. The intermittent unit
done it in drops.

— : Okay.

— : They dropped one -- one long
billet, then they'd have to pull it out and start
another one. But that intermittent unit was only used
at that one time that I know of.

— : Wasn't that a Tomahawk

— ?

— : I don't know what kind of --

what it was, but I knew it was something that was --

— : They did have a Tomahawk

missile run.

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— And do we have -- could we put a year on that or an approximate?

— I can't. I -- I don't know.

That's why I brought it up.

— What do you think?

— Early '80s.

— That's good. We're just trying to get an approximate timespan.

— It was in that area.

— Great. Yeah.

— Yeah. I ran a job down there one day for Martin-Marietta. But I don't know, I thought it was a late '80s. It could have been '91.

I don't know. It was somewhere around in there. But anyway, they came in and they ran the metal. They had, you know, hot billets. Like they was 1,000, 1,100 degrees, or something like that. They -- well anyway, we all thought they was going to catch on fire and come out liquid. But that's what we had to run.

And they came in and they had mops and big gloves.

They greased the containers and put the carbon blocks
in behind the billets, and they was doing all that.
And then the -- when I got ready to start the machine,
why, I turned around to ask them something and they
was all squatting down on the floor. And I said what

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1  -- what's going on here. They said well, we don't
2  know what that thing's going to do. I said well,
3  thanks for telling me. But I know it was done.
4   — : That was unusual behavior, is
5  that what you're trying to tell us?
6   — : Very.
7   — : Uh-huh. So okay. But -- but
8  once again, they -- they really didn't mention
9  specifically what the metal was or what it was going
10  to be used for?
11   — : No. They said they didn't
12  know what it was.
13   — : They said they didn't know
14  what it was?
15   — : Hell, they didn't have no
idea what it was going to do.


— : That's the reason they was hiding down behind me in the --

— : I understand.

— : -- panel board.

— : Any other special metals?

Well, we've got a pretty rich accounting of that I think. Okay. So all right. So Affidavit 17 concerns destruction of records. And what we're talking about here now is not routine companies getting rid of old records that they don't need to keep any more for tax purposes. That's not what we're talking about. But there have been allegations that at Dow and -- and at General Steel which we'll get into this afternoon that the company at various times ordered important records to be shredded. And for instance, we had some -- was telling me about the pins and the records of the spectroscopy that had to be kept. So
I'm talking about records like that that would be documentation of plant operations and processes, things that would really help us a lot if we had those records, you know, to tell what kind of alloys were used, et cetera. So I'm just interested in anybody who has personal knowledge about that. All right.

— : — who was a custodian out in the front building was told that -- him and — who was at the last deposition meeting was told to throw away files and documents that were stored in the basement. And it took them almost a week to do this, and they didn't take their time at it. It took a lot of work because there was a lot of documents, and a lot of it was payrolls. But there was a lot of boxes that were marked do not open and things of that sort that they were supposed to toss away without opening. And they did just that there, do what you're told. But they said there was a number of boxes that were taped shut and say do not
open that were full of paperwork because of their weight. And he was told to destroy them, so he would have more information on what they were and so would —.

—: How did they destroy them?
—: Huh?
—: How did they destroy them? Did they just --
—: They actually just put them in a dumpster and just hauled them off with the rest of the trash, paper trash and nonmetallic trash.
—: Okay.
—: So he just --
—: So they were hauled away as trash, as paper?
—: Yes, sir. I took them a week.
—: Yeah. Sure.
—: My name is —.

I was in the spec lab. Part of my job was to program the computer that ran the spectrometer to get the readings. Now, one thing that we were told -- I was
actually directed to do is -- one of the elements we'd always watch for example was iron. Okay. Well, when you'd run iron you would have to set a range, a high and low. Well, on the computer I can spark a known iron and get a reading. I can go in and tell the computer that the reading that it produced is actually higher. Program that into the computer, and every element that you guys would send would come out in the spec. Okay. Well, whenever I was directed to do this it's documented on that computer printout that the iron or whatever the element was that we were sparking to get it to read right is documented on that computer printout. And that's my question, where are those computer printouts?

— : Right.

— : Because I never changed an element without it being documented on that computer printout. And they've got to be there somewhere.

— : Right. Well, like I say,
that -- you know, we -- we are trying hard to get access to the company records. And we think that some of them are here actually at Spectrulite. And fortunately, when they went through bankruptcy proceedings those papers were placed in the -- really in the ownership of the bankruptcy court, and they still reside there. So — thinks we have a -- a legal right to those papers. Now, the ones at Dow Midland, you know, a private company, that's going to be harder. But we have approached them and asked them do they have a -- an archives and can we access them. So that's a matter of we're -- we're working on that hard. But we need those records. We -- we really do. Okay. Just one other thing I'll enter into the record for — is a short -- a document about the destruction of records. And it's signed by — — , and that's — (sic), by — , by — , and by — . And it says
just before — retired —, —
—, and myself were relamping the basement of
Number 1 Building when — and—
were throwing personal files in a scrap tub then
removing them and putting them in the dumpster.
Therefore, a lot of their records were destroyed. So
we certainly have several episodes where papers were
placed in a dumpster and gotten rid of. We don't yet
know specifically what those records actually were.
Yeah.
—: It's — again from the
spec lab. And if you're looking at records one other

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thing I'd like to mention is all the plant affluent,
that's all the liquids and that that are discharged
from the plant, it all goes through a main sewer. And
we monitored that with a -- it's little water sampling
pump that at given times will take a sample. Well,
when all this -- whether it be the radioactivity or
the oils that we purposely dumped in the sewer all
went to Granite City Water. And any time oil gets on anaerobic bacteria it kills it. Well, you can't regrow it. What you have to do is take all the rock out and replace it. So there's got to be records of all -- every time that happens the company is billed for that anaerobic bacteria in the rock. So if you're looking for records, there's another set of records you need to be looking for --

—: Oh, that's a good --

—: Granite City Water Company.

—: -- is Granite City Water Company.

—: Well, that's excellent because they may have those records. And -- and when you say you monitored the affluent, now did you measure like gross alpha and gross beta or what?

—: No. On -- on water all we were concerned with at that time -- the only thing we tested for was oil in the water.
— : Oil. Okay.

— : But if all this stuff is buried, I mean, I used to have to go -- we had wells drilled around the plant and we would measure the ground water level especially over where the barium pile was which is -- it was just east of the plant,

all these mounds you're taking about.

— : Uh-huh.

— : They were white PVC pipes put in there.

— : Uh-huh.

— : And we had to measure the ground water levels. Well, you'd measure them, write them up, and all this was given to the tech department manager. Now, why it was important what the writing was --

— : How -- how -- how low was --

where was the water table? Was it -- do you remember?

— : I don't know. All we did was measure it --

— : Uh-huh.

— : -- give the results to the tech department manager. And where it went from there
Now, those wells --

-- no one knows.

Do you think those wells were monitoring wells just for the ground water level or --

I think --

-- were they actually monitoring what was in the ground water?

I don't think they were monitors. We didn't sample the ground water.

Okay.

All we did was measure the ground water.

Just -- okay.

-- , do you think that they could have been checking the ground water level for the subbasement since it was so far under ground to keep it from flooding.

Well, from what I've heard
today where they buried thorium and barium if that
gets in to the ground water, okay --
— : Then it could -- the whole community.
— : -- now you've got a problem with drinking water. And like you said there's
residents there.

— : Right.
— : So what I'm starting to believe right now is we were checking the ground water
levels because you had buried stuff there in I think one guy said '72.
— : Uh-huh.
— : Well, those steel drums buried in the ground aren't going to last forever.
They're going to rust and rot away. Now you've got the material laying there. And if the ground water comes up, it get saturated with the material and goes back down. The drinking water for this area is pulled

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out of the Mississippi. So like right now I'm
beginning to wonder what they were monitoring these
for.

— : Well, I -- I definitely share
your concern. And I -- I think there is one story
about a woman who is -- is going to come and talk to
us hopefully on the 22nd of this month about ground
water being contaminated that ran over to the Fox
Brothers plant. But as far as I'm aware I still am
looking for and can't find any agency of the state or
the US EPA that's come in and actually monitored the
ground water at that site, although it's -- I mean, I
think there's a 99 percent chance that it's bound to

have been impacted by all that material buried. A
thousand railroad cars full of thorium and 300 -- 30
cars full of PCB oil, I mean, there are a lot of
things that have gotten -- have --- are probably in
the ground water and needs to be monitored. I -- I
frankly am astounded that that hasn't happened in all
these years. But --

— : One other thing is --

— : That's one of the reasons we're after the agencies.

— : -- our -- it wasn't plant personnel that drilled these wells and put these PVC pipes in. It was an outside company.

— : You don't know who it was?

— : I have no idea who it is,

but --

— : Uh-huh.

— : -- if you have to hire an outside company that's going to do this drilling,

don't they have to get a permit from the city?

— : Oh, yeah. Absolutely.

Right.

— : See, so there's -- there's a way to find out who they were.

— : Well, we do -- we do know
about this Environment Restoration Group who came in and did the big cleanup, and I've written to them. They haven't responded. So that will redouble our efforts. We'll -- we'll have to keep after them. Now, this -- they -- they do have a report about their cleanup activities. They did not mention ground water. So yeah.

A quick question.

What years would you guess that was?

Again, it had to be in the late '80s.

Okay. That's great. Okay.

Well, we're -- we're doing well on time and we're -- we're getting through here. I think we're doing all right. Affidavit Number 18, in the Pangea 2005 report they mentioned the nondestructive testing room at SpectruLite. And we have heard some evidence that there is a small Betatron type x-ray machine and that there were smaller, you know, conventional 195 kilovolt portable x-ray units in many departments of the plant. So --, can -- can you enlighten us?
There was a nondestructive testing room and -- and in those days, you know, cobalt 60 sources, iridium. They probably -- we've heard some evidence that there

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was ultrasound used at Dow. Any -- any input you could have on that?

— : Okay. Well, I left there in '94.

— : Uh-huh.

— G: Okay. But if there was an NDI room at Spectrulite, it had to be a -- the doorways, the entryways had to be marked. There had to be a big yellow sign with the big radiation emblem on it. So when I left there in '94 there was no NDI room that I knew of. Because you -- you couldn't miss it. This had to be a marked area because of the radiation. When they're x-raying a slab, a billet, an extrusion they have to aim this x-ray in a certain direction. I mean, you don't want to aim it --

— : Right.
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— : -- and then the secretary's

sitting in the next room. But I don't recall that

there was never to my knowledge any type of room like

this.

— : Well, it -- it --

— : Now, it -- it may have come

after I left. But you had to have been able to see

it.

— : Right. This was -- this was

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2005. And you know, what -- what that report has is

many building floor plans that -- marked out with

grids and they divide it into survey units. They --

ey they really surveyed the entire plant. And I remember

in particular that the nondestructive testing lab was

definitely marked on the floor plan. And they divided

areas into Class 1 and Class 2. Class 1 areas they

surveyed a 100 percent of the floor space. Class 2

areas they had to survey ten percent of the floor.

But the NDT room, the nondestructive
testing room was a Class 1 area, and they -- and they completely surveyed the floor. And there were some -- there were definite elevations of activity. And I think they were testing beta and gamma primarily. They -- I can't remember whether they had a -- an alpha sensitive probe. But anyway, there were -- there were levels above background. I'm not sure they were above the -- the decommissioning guidelines. But anyway, that room was definitely there. The report didn't -- didn't say a word about what was in that room, what kind of equipment was there. But if you would be willing to, I mean I could get you a copy of that section and show you that area. And we -- I probably do need to do that because you guys would know. I -- I should have brought it. I just didn't have time to do it. I just got that report.

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1 just didn't have time to do it. I just got that report.

3 —: —, this is —

4 —. The room you was describing may be the
storage room where they would keep all the materials
for sonic testing the metals. This may be the same
room in which you speak. Now, when they used to sonic
ultrasound this metal it wasn't an ultrasound they was
using like they would for a baby or something of that
nature. This was a little more elaborate. And they
would scope the billets as they would come off of the
-- out of the casting --
— : Okay.
— : -- before so they would send
them over to extrusion. And the reason for this was
if there's any cracks or fissures inside, this here
machine would detect them going through the metal --
— : Sure.
— : It wad basically like an
x-ray, a handheld x-ray machine.
— : Yeah. We understand that.
— : And now, this room that they
always get them locked up in was very secure.
— : Okay.
— : And it was off to the side.
And it may be the same room which you speak of, the nondestructive testing.
—: Yeah. Okay. Well, I --
—: And these people -- I was only there a year, but the guys who worked in casting may know which room I'm talking about where they kept equipment.
—: Yeah.
—: There -- there were -- there is a couple of rooms that would probably fit that description. And one would be just east of the -- no, west, west of the 80-inch peeler. That room was an inspection room at one time.
COURT REPORTER: The 80-inch --
—: Peeler, yes, P-E-E-L-E-R.
Now, there was another room also there at the corner, near the corner of the casting area going west towards the extrusion area. But the other area that I mentioned first, that was the x-ray equipment in that room at one time. But I don't know anything about the nomenclature of it or anything else. But I knew it --
it was an x-ray room.

— Well, that's very helpful.

That's good.

— Yes.

— If -- if we could get you that floor plan and that little description, could I get you all -- you all to look at that? Because you'd probably know --

— Yeah.

— -- right off the bat that's the room I'm talking about.

— Yes.

— Well, let me ask you this about the -- I mean, almost every steel plant had several ways of looking at billets and castings for structural defects, ultrasound was one. But in most places -- and -- and you know, and the small x-ray units would do that for small, thinner plates and things like that. But for a big heavy casting or one
of the big ingots for instance you -- you really
needed more gamma penetrating power for that. So
typically they used cobalt units, cobalt 60 units.
And you know, as you all said they -- they can go up
to several thousand curies. A lot of them were in the
range of 60 to 80 curies. But — , at the time you
were there were there any cobalt 60 sources at all?
— : No. I don't recall any
cobalt because it would have had to have been
monitored. I mean, you got to have a special license

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for cobalt 60.
— : Yes, you do. Right. So
that's all I'm --
— : And it's got to be
monitored.
— : I'm just trying to get on the
record that as far as you know there were --
— : No.
— : -- there were no licenses.
Iridium 192 is another common, not there? Okay.

That's fine. Now, how about the portable x-ray units though? We've heard that they were there in many departments. I don't know. It seems like those units although -- well, now at least they're licensed by the Illinois Division of Nuclear Safety. And I think they said they -- the latest statistics I saw is that they oversee the operation of 25,000 x-ray units in the state of Illinois. How about in the days when you were there, were -- were any of your machine monitored or --

—: Calibrated?

—: Well, how about this, do you know the machines were there?

—: No.

—: Can you confirm that?

—: I have no knowledge of there being any x-ray machines then.

—: Maybe not. I mean, if --
If they were there, they came in and went to the plant and nothing was ever said.

That's why we're trying to get various inputs.

Because --

But you would be very knowledgeable. I mean, that's hard to imagine that they would be there without your knowing about them, right?

Would -- if they were actually x-rays out in the plant --

I'm talking about x-rays.

-- to x-ray a billet or a slab?

Yes, to look at metal for --

for --

The guys that were working out there would have to have known about it because they got to be -- they got to have the badges.

Correct.

You know, I mean, you can't
just go in to a plant and start x-raying stuff.

— : Well, then let me ask you

this. Maybe we ought to -- maybe it's time to talk a
little bit -- let me see if we're at that point.

Yeah. So Affidavits 19 and 20 are about film badges
before and after the Spectrulite era. So 1985 and
earlier and 1986 and later. And what we've heard as a
broad generalization is that there were very few
badges worn before Spectrulite. There were more
badges worn after the Spectrulite era. We do have
confirmation from both Landauer and by NIOSH that they
have zero -- zero radiation monitoring data for the
Dow plant. So there is a big -- a major disconnect
between what we know is true, that people wore badges.

But we don't have any testimony yet at -- certainly at
Dow that anybody ever saw any radiation reports. At
-- at GSI we do know that at least two people have
come forward and given us their own individual Atomic
Energy Commission dosimetry reports. That's two --
two workers out of 3,000. At Dow we have no evidence
that those badges were read, went out of the plant,
were returned. So -- so I -- I -- this is extremely
important because this has to do with our special
exposure cohort, with the way you all's claims can be
processed for dose reconstruction.

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So anything anybody wants to say about
film badges would be useful. I do understand what
you've said, that several people have seen them in
buckets which might mean that they weren't ever read
or analyzed, but that not necessarily so. So -- so
—, maybe you -- you brought up about badges. So --
so tell me what you know about film badges at Dow.
—: Well, at Spectrulite.
—: At Spectrulite, right.
—: Okay. We started --
—: So we're talking about the
later era. Yeah.
—: The only knowledge I've got
of it is the three ladies that worked for me in the
spec lab started out with a pocket dosimeter which at
the end of the day you put it in an instrument and you
can look through it like a little microscope and read
what it was. And then there were badges, but who
collected them and were they ever shipped off, I have
no idea.

—: Well, here would be my
question that I don't understand. Who would be -- I
mean, just what department at your plant would be
responsible for that? Well, let -- let's ask the
broader question. Was there a radiation safety
officer at Spectrulite?

—: Not to my knowledge. No.

—: Well, who would be the person
you would most likely think would -- I mean, somebody
had to collect the badges and send them off to be
read.

—: I would think if -- a plant
that size if they were going to be collected, they
would have been collected either by human resources --
—: Okay.
—: -- or by the tech
department. But I never went around and none of my --
the ladies that worked for me never went around and
collected them. But that would be your two logical
places. Now, they did establish -- right before I
left they had a safety guy -- I think his name was
—, used to be a guard.
—: --.
—: --. Now, as a
safety guy -- and I don't know if you've contacted him
or not, but maybe he collected them and shipped them
off.
—: Yeah. We --
—: But the tech department to
my knowledge --
is actually employed now I understand by the company that bought the aluminum assets, Magnesium Elektron. And he now works for them. So he -- — has talked to him. I think — talked to him. I mean, — has talked to him. So several people have talked to him. He's still around and still available. Right.

—: If I remember right the foreman came around and collected those badges, didn't they, —?

—: That's right.

—: Didn't we have to bag our clothes up?

—: Yes.

—: Every day when we would finish our shift --

—: Uh-huh.

—: -- you'd go in the locker room and you'd throw all your clothes in a -- in a plastic bag and put a twist tie on it. And then I don't know what they did with them from there.

—: What year did that start?

—: But -- but you think at the
same time the badges were collected each day?

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1 — : I think they were. We turned

2 in to the -- to the shift foreman, whoever your shift

3 foreman was at the end of the day.

4 — : Now, did -- did you all as

5 individuals though -- maybe we need to get this on the

6 record. There are one, two, three, four, five, six,

7 seven, eight, nine, ten, eleven -- there are 11 people

8 sitting around the table. Did any of you all ever see

9 any badge -- film badge reports on yourselves?

10 — : No.

11 — : I asked after one of the runs.

12 I asked — . I asked whoever my floor foreman was

13 at the time, and they says oh, they came back, they're

14 great, don't worry about it. I said well, where's the

15 paperwork. Well, I have -- I'll take it out it later

16 on, you know. I never did see any paperwork on it.

17 — : Okay. So --

18 — : Never.
— : So let's put this on the record. Nobody ever saw any records?
— : No.
— : You did ask about the records?
— : I did. Yes.
— : You were told that they existed, that they were okay?
— : Came back no problem.
— : But nobody ever saw them?
— : No.
— : Let me put this on the record.
All my years there I never seen a -- a badge. I didn't know what a dosimeter badge was until about six or eight months ago I happened to be in the hospital getting some tests, and some of it was under atomic medicine. Well, this gentleman had a badge on him, and it wasn't a familiar badge, you know. But anyway, it was a badge and I had to ask him. And I said what
13  -- what is this you're wearing? He said that's a
dosimeter badge. He says I turn this in at the end of
the month and they give me another one.
16  — : Right.
17  — : Well, I never seen anything
like that when Dow was there.
19  — : Okay.
20  — : And that's up until November
21  of '89.
22  — : Okay. All right. Anybody
else want to say anything about film badges? Well,
let's -- let me ask you this. Of the 11 people here
did -- did any of you all individually have a film

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1  badge?
2  — : Yes.
3  — : Yeah.
4  — : You did?
5  — : I did.
6  — : I did too.
—: Okay. And —, did you

—: Did you ever ask about -- I mean, I assume you -- well, did

—: You ever ask what -- what they showed?

—: Yes. The similar question as

—: We would want to know what was the reading

—: Or was there a reading since the badge was just a

—: Badge there wasn't a gauge on it --

—: Right.

—: Where you could look at

—: Anything and tell. But it was always that there was

—: No -- no reading.

—: Should we quit now?

VIDEOGRAPHER: You've got five minutes.

You can finish this.

—: I'm sorry. Go -- I'm --

—: But anyway, there was always

—: That there was no reading. And each time we would run

—: That particular alloy we would, you know, be told

—: Everything was okay. Never seen any records or
anything, but just taking their word for it that
everything was okay.
—: Very good. Okay.
—: — who should show up
a little later, he's supposed -- he's working day
shift today also stated the same thing, that he had
badges and repeatedly asked what they was because he
was quite worried about it. Because the reason to
wear a badge is enough to be concerned. But not
having the readings is even more concerning. And he
also got the same response. So he'll be here to
testify to that later.
—: That's excellent. Okay. So
we have to stop right now and change tapes. But
that's really spectacular so far. So that -- that's
really good. We're doing very well. Why don't we
take about five minutes to get something to drink and
go to the bathroom or whatever you need to do and we
will reassemble and finish up here in short order.
(Whereupon, a short recess was taken.)
—: This is — again. So
we're reconvening after a short break. It's -- it's
August the 11th. This is the second Dow affidavit meeting. During the break I became aware that — has a story that we want to get on the record.

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1 about the use of the wrong type of Geiger counter.
2 And — , this is not really -- doesn't fit exactly
3 under a topic. So if you could just tell us your
4 story, I -- I think that would be interesting.
5 — : Well, the thing is we used
6 -- in the Air Force when I monitored radioactive
7 material for a certain element, alpha you have to have
8 an instrument that has a mylar window on it. Okay.
9 If you use a radiation instrument that is for beta and
10 gamma, its got a steel or an aluminum sleeve on it.
11 Alpha won't -- it won't go through it. Okay. So
12 you're not going to get any reading.
13 And this is old radiac instrument that we
14 used at Spectrulite, all it was good for was you could
15 take a background reading out in the sun, but it's
16 only going to give you beta gamma because you -- you
can't open it. Alpha instruments, you actually have
to hold it and get it down oh, I'd say within about a
quarter of an inch for it pick up the alpha radiation.
And that's what my question was, let's
contact OSHA, get guidance, and they'll tell you what
to do. But when your department manager tells you no,
you're not going to contact anybody because they'll
fine us, you know, you're stuck with an old civil
defense radiac meter. So yeah, we went around and we
took readings but you might as well have had a
popsicle. You know, you'd get basically the same
results. So that's what we were talking about at the
break.
—: That's terrific. All right.
Thanks for -- that's very important obviously. Oh, I
guess I just need to add just for the record thorium,
of course, is a big time alpha emitter as is uranium.
And -- and it's really the alpha particles that get
ingested by being attached to particulates and dust,
so-called fine -- very fine particulates and the
smoke. And it gets inhaled into the lungs and stays
in the lung and exposes lung tissue, and that's
responsible for thorium being a potent even pulmonary
carcinogen. So what -- what — was just saying
means that the alpha -- the most harmful aspect of
thorium was not monitored for.
And then we have a story that —
wants to put on the record. I -- I think it's
important because it's a partial answer to the
nondestructive testing efforts at Spectrulite. So
— , why don't you tell me what you were telling me.
— : — . And back -- we
were talking about x-ray machines being in the plant.
The only x-ray machines that I know of were when we

1  would run ZK billets which had zirconium in them they
2  would an outside contractor in to actually x-ray our
3  test slices. He would be outside the plant over on
4  the -- I want to say the east side of casting sitting
there in the alley. And he would actually do the
x-raying of our test slices and see what that was.
But that was the only type of actual x-ray machine I
ever knew of that was in the plant other than what
they used to scope billets with. — may be
able to give a little more detail as to what they did
actually when they did that.
—: Do you know what kind of
source they used in -- x-ray source? Was it a -- was
it cobalt 60 or an x-ray machine?
—: That I really -- I don't know.
—: All right.
—: I just know that that was an
outside contractor who done the x-raying of those test
slices.
—: I this that makes a lot of
sense. And I -- I forgot to mention that at General
Steel we know that they had -- St. Louis Testing would
come in and do that kind of work. And so okay. Very
good. All right.
—: —.
— : Yes. — , hi. How are you?

— : Hi. Can I go ahead?


This is — .

— : — . The source that was used outside of the shooting room was a cobalt source, and it was a very small one. I think it was five curies or less. And the operator was the owner of the company. It was — , — . And he tested all of the ZK slices that we used.

— : — , while you're up at the microphone do you have insight why only the zirconium alloys were tested with the cobalt? I mean, it would seem like at a big place like Dow there would be other alloys that needed testing.

— : My knowledge is zirconium was used for battery strips and they had to be absolutely pure. And any -- any flecks of dirt in there -- plus the zirconium was kind of a dirty alloying material anyway. And any -- any dirt that got into the zirconium, of course, went into the --
into the ingot. And if they found so many specks in
the test slice, then they scrapped seven billets
before that and seven billets after that until it was
perfectly clean.

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— : That makes sense. So they

had, okay, quality control then. All right. Let's

see. I think we -- we can move through the rest of

these quickly. The general topic in Affidavit 21 and
22 topics has got to do with radioactive material from
Mallinckrodt. This is not really directly tied to Dow
operations or Spectrulite or Conalco operations. But

we know that very near the Dow plant Mallinckrodt
radioactive waste in -- in barrels that we were
talking about were stored at the Granite City Army
depot and around or near Fox Brothers. And we think
the Illinois EPA was involved in that cleanup effort.

So I just wondered if any of you guys in

the later periods were aware of those activities at

Granite City Army depot or at the Fox Brothers. Any
additional comment about that? Okay.

Now, this is -- this is quite important.

And let me just summarize what I think we've heard.

And it -- the question is describe the radiation safety program and protective clothing measures at -- at Dow, Conalco, Phelps-Dodge, Spectrulite. And I think what I've heard is there probably was not an organized radiation safety program and minimal if any protective clothing. And I'm talking about protective clothing that would protect you from radiation and --

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and particularly gamma radiation, beta, alpha, et cetera. Any comments on -- on those two aspects? And the comment could be if there was none or was there any kind of radiation safety program that you know about. —, what would you say about it from your point of view?

—: As far as a radiation safety program at SCI when I was there we didn't have one other than we took this old radiac meter. And my
concern was the three girls that worked for me in the spec lab.

— : Uh-huh.

— : Because when they'd arc that magnesium pin it's in a little steel door. You open it up and you'd see this little puff of white smoke come out. Well, that's from arcing the magnesium, you know, where it's right here in their face, you know. And nothing was ever done about that.

So that's why I'm getting involved in this.

— : Well now, some of the magnesium though, was that not alloyed with thorium?

— : Yeah.

— : Yeah. So --

— : Yeah. The -- the thorium magnesium runs went -- it was at same kind.

— : So -- so -- so they were --

they were also exposed probably to small amounts of the thorium that were --
—: Sure. Because they had to

machine the pins.

—: Right.

—: Then they to spark the

pins.

—: Okay. All right. Fair

enough. All right. —.

—: —. I was

referring back earlier about the hand salvage we done

there on thorium.

—: Uh-huh.

—: For years we used no

protection at all. Later on they came out and they

gave us coveralls to wear. And then paper masks which

will not filter out the dust.

—: Right.

—: That's the only protection

we had.

—: But never any kind of the

hepa type?

—: No.

—: The -- the big mask --
1 — : No.

2 — : -- and the carbon filters.

3 All right. — .

4 — : As far as the thorium goes I

5 -- I'm not real sure about the protection they used earlier. But it wasn't up until I would say 1995 did

6 they even start a respirator program. When I hired in

7 in 1990 we wore respirators for nothing. Then I'd say

8 around 1995, maybe '94 they started a -- a respirator

9 program, people had to be clean shaven. But other

10 than that there was never any kind of --

11 — : No. But that's good. But I

12 mean that was in the pot room in particular?

13 — : Yes. Yes.

14 — : Okay. And -- and tell me

15 about that. What -- do we know what types respirators

16 and was everybody required to wear them, et cetera?

17 — : We weren't ever really

18 required to wear them. They were there if we needed
them.

—: Uh-huh.

—: Everyone had to be clean shaven of course --

—: Uh-huh.

—: -- in case there was some reason for staff to don one. But other than that I really don't know what types they were. I can't even remember. I just knew they had the canisters.

—: But they were the kind with the -- were -- were they the kind with the dual canisters --

—: Yes.

—: -- that --

—: They -- they had the canisters on them.

—: All right.

—: But they were just put in a cabinet hung on the back wall. And then that went
away, and we would actually -- if we needed one, we'd have to go to the foreman's office and ask them for one.

— : Uh-huh. Do you -- do you remember people actually doing that?

— : There were certain people who wanted a respirator, who wore them all the time. When I hired in I was a metal caster --

— : Uh-huh.

— : -- never needed a respirator.

And like I said, I would say around 1995 if my memory serves me right that's when they went to a respirator.

— : So after 1995 they were available to certain people if they requested?

— : Right. But you weren't required to wear them.

— : Well, okay. Well, that -- that's very good. We hadn't heard that before. — .

— : My name is — . I have a
question on that. I was trained in the Air Force on respiratory protection, and I want to know was everyone issued this mask? Were they fit tested for it? Was it leak tested?

—: Yes. We were fit tested. They put the bag over your head and tested you with the smoke to see if you could smell it or taste it. We were fit tested. I believe it seemed like maybe they fit tested us once a year if I'm not mistaken.

—: That's good. Yeah. —: —. The problem with these things was in that environment in there when you put your mask -- or your respirator on to breath through it it would fog up your safety glasses so you couldn't see. So they was useless to me. It was either wear the respirator and not see or see through your safety glasses and not wear the respirator. So it didn't do me no good.

—: I -- I think you're right.
We used to use those -- have them available in the autopsy room at — , and they were just so horrible to use. And I can imagine in a smokey environment. They're also hot, uncomfortable. A lot of people probably didn't use them for that reason. Yeah. Oh, — liked his respirator so he's going to tell us about it.

—: —. I hate to keep interrupting, but I think the main problem with the respirators in the pot room was the fact that communications was very important. You guys remember you had to constantly talk. There was a metal caster and -- two metal casters actually, and they had to talk back and forth because magnesium is very volatile. If anything happens, why, you'd blow the roof off. And you couldn't communicate with those respirators on. You just couldn't talk.

—: Okay. —.

—: Yes, —. I remember that we had a safety meeting once every month in extrusion, and it was separate from the other buildings of course. And it was never ever once mentioned the word radiation in all the years I worked
there. And the very first time that it came up was

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1  never in a safety meeting or from company people, but
2  it was when the company was coming to clean up in June
3  2000, July 2000 cleanup. That was the first time most
4  of anybody in extrusion ever heard of radiation ever
5  in that factory. It was never brought up, never
6  mentioned at the safety meetings every month. And
7  that if -- even the supervisors I don't think were
8  told what was wrong.
9  — : Okay. That's -- that's --
10  that's very useful. Okay. Let's see. Maybe—, I
11  can address this to you. You know, I've talked a
12  little bit about our interactions -- current
13  interactions with the Illinois Department of Nuclear
14  Safety and the EPA from Illinois. But are -- you are
15  aware of any inspections during the time you were here
16  by either the Atomic Energy Commission, the Nuclear
17  Regulatory Commission, or the Illinois Department of
18  Nuclear Safety?
This is No. As far as I know there was never any inspections. If they did, it was done through the back door.

—: Now -- now, the Illinois EPA claims that every two years they came in and made an inspection of the aluminum and magnesium refining and smelting operations, which I think you all would call it castings. But did -- did Illinois EPA ever notify you that they were --

—: No. Anything like that it would have been through the foreman out on the cast house, but --

—: Through the foreman. Okay.

Very good.

COURT REPORTER: Out on the what?

—: Cast house.

—: All right. I just -- you all have mentioned this morning -- — and —

— have provided me -- are you all -- what I'm
trying to find is a list of the types of alloys that were produced. And you all have told me a bunch, and we've captured a bunch of that. I guess this is sort of the missing records that we really need of kind of a comprehensive list particularly of the alloys that have, you know, thorium in them and beryllium. So I think I'm not going to belabor that point. But again, if anybody has any access to that sort of a list. Well, let me -- let me ask you all just as a general question did you all ever see a list of all the alloys and metals that you all worked with, I mean, in extrusions or casting or anything like that? —.

—: Yes. I spoke to —

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1 (phonetic) -- a — who worked also in the
2 pot room with — and —.
3 —: Okay.
4 —: And he says that he has at
5 home somewhere and he's looking for it right now for
6 me a sheet which also has all the alloys and what it
takes and what they are and how to mix them. And
apparently -- I don't know why he has it, but he said
it seemed important at that time and not to lose it.
So -- so he's looking for that and he's going to give
it to me. And I can turn it over to you as soon as I
get it.
— : That would be wonderful. All
right.
— : I got a comment on that.
— : Certainly.
— : Any alloy that was made at
SCI, well, the spec lab had a list of every one of
them because we had to know what the breakdown of
every alloy was. And I mean, it was scattered all
over the tech department. So somebody's got to have a
copy of that.
— : Well, like I say, we -- we
have got some positive feedback that we can look at
those records. And unless they've been gotten rid of,
maybe -- maybe that kind of record will be there. Who
knows. So that -- that will be within the next couple
of weeks I hope that we get in to see that. Okay.
Yeah.
I think there's just one last new
affidavit and that is just an opportunity before we
break for lunch here that if anybody has any -- any
kind of evidence or testimony that they'd like to put
into the record about Spectrulite in particular, their
operations, incidents, you know, in the pot room or
elsewhere. We've talked about private company
cleanups, I know that. We've talked about radiation
safety. But any -- anything about your health
concerns, about how you were or were not told about
the radiation dangers and so forth.
We haven't talked at all about the role of
the unions and how you all were represented to
management, you know, your -- the possible risk to you
all. So this would be the time, kind of a free time
to put on the record whatever you might want to about
your workplace conditions. Yeah, — .
— : — . I'd just like to
state that from the time I hired in we were never told
of any kind of safety concerns as far as any of the
alloys go, manganese, beryllium, zirconium. We didn't

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1 know any of it was bad for you, we were never told
2 that. We were just run it.
3 —: Okay. Thank you.
4 —: I was awarded a bid in the pot
5 room, and I worked in there for like two weeks. And I
6 would break out in this real bad rash on my hands.
7 And so they took me out of there until I healed up.
8 And then I went back in there and worked another two
9 weeks and the same thing happened to me. And they
10 told me that I was probably allergic to the flux. But
11 I worked in the leaching process for two years, and
12 the same flux is in the sludge and it never affected
13 me. It was only when I worked in the pot room when I
14 had that problem with the rash breaking out on my
15 hands.
16 —: Actually you bring up
something pretty interesting that I forgot to ask.

But now like in an incident like that did you all get the feeling that there was any kind of plant doctor or -- not that lived at the plant? But in other words, for an incident like that could they refer you to a hospital nearby or did anybody mention anything like that?

—: No. They just -- they sent me down to the emergency room and then they just treated me there with a hydrocortisone cream and I just kept putting it on there for --

—: But -- so there was a -- a treatment room in the plant?

—: No.

—: Oh, this was an emergency room of a local hospital?

—: Right.

—: Okay. Well -- well, that's useful. That kind of information is useful. Okay.
11 Anything else?
12 — One thing I did want to mention -- -- that there is supposedly
13 the cleanup going on right now. And what I found out
14 it was not actually a cleanup but a restoration where
15 they were having -- they're rebuilding the back of
16 casting behind the pot room. And a customer is
17 supposed to be renting that area out. And all the
18 information I know so far is that this customer is
19 from the Paducah, Kentucky area and they requested an
20 indoor rail facility. And all this is all the
21 information I have so far, and this is also from —
22 — who is working with the -- the guy's
23 brother who's out there now filling in the concrete
24 and pouring slabs. So this is like secondhand

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1 information from an employee's brother.
2 — I'm pretty sure today we're
3 going to hear from — who's the— of
4 IEMA.
— Uh-huh.

— And he has assured us that we

-- we will know all the details of what's going on at

that present operation.

— Very good.

— And we've asked him to fill

us in on any and all previous cleanup operations.

— So far all I have is

secondhand information, but it seemed very reliable.

— That's good. Oh, yeah. No.

No. Well, we did get confirmation yesterday that

there is a cleanup going on. And the fellow we talked

to said that was all he could say. So he asked us to

call the director, and that's what we did.

So well listen, I think we looked at

— beautiful map just to remind you all. So this

has been a terrific, really great session this

morning. I've learned a lot of things I didn't know

about at all. I really appreciate your coming. Yeah.

— One quick question that

came up at other meetings about the plant safety.
Where did you guys eat your lunch, were there lunch rooms?
—: Good point.
—: —.
—: When I hired in in 1990 as a metal caster we are not allowed to leave the mold, and I ate right there on the floor while I watched the mold as the metal was being cast.
—: Did the dust ever get in your food?
—: Well, I'm sure it did.
Probably lots of other things too.
—: In extrusion everybody also got ten minute breaks and a half hour lunch break.
But because we was on production on the presses we only got a lunch break. So that meant usually we had to eat snacks and meals and everything while we was on the job because we only had 20 minutes throughout the whole day. Where other people also had breaks, we didn't. And when we ran that metal for Martin-Marietta I remember specifically they bought us
pizzas, and we was standing there eating pizza with
one hand leaning against the raw metal with the other.
And there was no precautions or warnings whatsoever.
But --

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— : That's a great question.
— : And — would know.
— : So -- so this would be a major route for ingestion.
— : Absolutely.
— : The ingestion route for radiation exposure.
— : Inhalation and ingestion both. Yes.
— : —. Also in the pot room I was a melter. And lot of times we had a little shanty that we could go to to eat our lunch. But if you -- if you had a problem out on the floor, a lot of times I would walk out of that little shanty with my
16 sandwich in my hand and go out on the floor and eat.
17 So we was eating on the floor a lot of times.
18 —: I hear you. Okay. Very
19 good. Let's just mention that if you all at any time
20 after this meeting -- we have another opportunity on
21 the 21st and 22nd when NIOSH comes and has their
22 official outreach meeting. And of course, all of you
23 all are encouraged and invited to come to that. I
24 mean, that's our opportunity to put other -- any other
25 information you have or this information on their

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1 record. Now, we're going to send NIOSH copies of this
2 transcript, the videos, everything. So everything
3 you've said today will go to NIOSH.
4 But if at any other time you all know of
5 other people who can really contribute to these kind
6 of issues, then please have them get in touch with us.
7 And you know, on this last page I've got my phone and
8 fax and e-mail and — phone and e-mail.
9 And please give us a call or — a call, and we
will make arrangements to have you be able to get your
information into the record. So let's go have some
lunch. I appreciate your coming, and I wish you well.
And we'll be working on your behalf.

(Whereupon, a lunch recess was taken.)

—: Okay. This is —

again. We're at SimmonsCooper. It's August the 11th,
2006. This is the afternoon session of our second
affidavit meeting that has to do with the General
Steel Industries group of people. And before we get
into their testimony — from the Dow -- from the
Spectrulite plant has some information that I've asked
him to put on the record about incidences involving
explosions at the Spectrulite plant. And I would like
to give him a chance to put that into the record, and
then we'll on to the GSI information. So —.

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1 could you -- could you go and tell us what you were
telling us at lunch time about incidents in the pot
room and so forth.
—: —. I was in I believe four explosions in the pot room. And these explosions are very, very powerful. And what concerns me is if thorium had been melted in there before if these particles had got up into the rafters of the roof.

And during these explosions I'm concerned about these particles being brought down from the explosion and being in the air and being breathed or taken in and even as with me getting metal -- metal burns on me if this was -- also brought it in to my -- to my body being burnt in my body.

—: You mentioned -- maybe you could describe for us a little bit about how powerful the explosions were. And I think you mentioned that several people were killed --

—: Different --

—: -- as a result of these explosions.

—: -- different explosions we had different people -- several people killed in. The instances when I was in the explosions -- my first explosion some oxidized metal apparently had went
under the liquid bath and created an explosion. And I remember running. And when there's a blow you've got some hang time of the metal being in the air. Well, that thing is so powerful I'm concerned that the particles that could have come from the rafters come down and mixed with the molten metal that was in the air and then this molten metal coming down on me and burning me and therefore putting it into my system. — : Uh-huh. — : And that was the first instance. — : Tell me about when we're -- what's the time frame that we're talking about? — : I don't understand which -- what time? — : What year would this -- would these incidents have occurred? — : These instances occurred between probably '89 to say maybe '93 or '94, the
20 explosions I was in.

21 —: Good. Okay.

22 —: The second explosion I was in --

23 —: Let me -- I -- I want to --

25 the point I'm trying to get is that NIOSH often claims

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1 in these explosion type incidents that it -- that they
2 rapidly -- the company comes in and they rapidly clear
3 the workers out of the area and so forth. But so what
4 would be a typical -- let's say you sense the
5 explosion, the explosion occurred. Would they -- I
6 guess they would move everybody out right away and so
7 forth. And then how long would it take to -- in other
8 words, how long were you all actually in the smoke and
9 the dust and all that kind of stuff?
10 —: After the explosion?
11 —: Yeah. I mean, minutes,
12 hours?
13 —: I would say probably up to ten
or 15 minutes. It depended on if we needed to be in there putting out fires or --

— : Okay.

— : -- trying to protect equipment.

— : Uh-huh. But you didn't automatically clear the area completely. Is that -- I mean, you were the firefighters?

— : Basically.

— : You were the first responders

— --

— : Yeah.

— : -- as well as the victims?

— : Yeah.

— : Yeah. Okay.

— : We would get out of there to keep -- you know, keep ourselves safe at first.

— : Right.

— : And then we'd -- would go in to take care of equipment.
—: Okay.

—: Depended on your injuries too if you'd stay out.

—: In any of these incidents did anybody from the plant suggest that you needed to be looked at by a doctor or anything like that?

—: Well, that was pretty -- pretty self-evident. If you got burned, you would stay out of the pot room.

—: Yeah. But I mean, did -- in other words, was the company -- did they try to get you all -- did they take you to a hospital?

—: Medical -- ambulances and stuff usually came to the plant --

—: Okay.

—: -- to the -- to the pot room.

—: Okay. So this -- and -- and if -- when the men were killed were there other people injured?
— : Yes.
— : Okay. I mean, physically like bones broken and -- or burns probably?
— : Burns mainly.
— : Uh-huh. Okay. Did anybody ever have to have any skin grafting done for their burns?
— : Yes. — , —
— (phonetic), — (phonetic). I'm sure there was others. I can't recall right now.
— : So that means at least three people had burned -- third degree burns or get down deep enough that your skin can't regenerate and you have to be grafted. So --
— : Yeah.
— : -- that's a very severe burn.
— : Yeah.
— : Okay.
COURT REPORTER: The one you said was — , right?
— : —.
COURT REPORTER: A woman,— ?
— : —, yes.
— : Okay. And to -- to your knowledge -- I mean, I -- these would be called an explosion, I -- I understand that. Were there -- were there other incidents that you would call fires or in other words, lesser events but still the same kind of thing with magnesium flare-ups and things like that?

I don't know. I'm just asking.

— : They were basically explosions.

— : Okay.

— : When you had problems with the metal it would -- we had mag create fires without explosions, but they were pretty contained to the unit and didn't really spread out.

— : But there was a -- there's a well-documented magnesium thorium explosion event that occurred at Sylvania's plant in New York. And there was -- in investigating that particular incident there was a lot of discussion about whether you had -- they had had a rapid fire or an explosion. And what
happened was it was enough of a explosion to blow a
hole in the floor big enough that one -- the lab, the
thorium lab collapsed down into the next level of the
building. And I gathered from kind of tongue-in-cheek
a lot of the people thought that was kind of splitting
hairs whether there was an explosion or a rapid fire,
a rapid burn. And it certainly sounds from what

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1  you're describing with people killed and metal being
2  warped, steel and so forth that it -- it was an
3  explosion.
4    —: Oh, yes. They were explosions.
5    —: Okay. All right. Now, I
6  wanted to get that.
7    —: —.
8    —: Yes.
9    —: —. I spoke
10  to a foreman, a supervisor who gave me permission to
11  use his name, — who was working out there
12  as a -- in the lab out in casting at -- when he
started. And he started out as a security guard back in the early '90s, late '80s. And when he was a security guard there was an explosion in the pot room, and it was a very bad explosion. And in fact, it caught the roof on fire. They have a tar covered stone roof on it.

— Oh, yeah?

— And he actually had to get up on the roof to extinguish the fire because the tar caught on fire up there. And he was told to be real careful around this because they was alloying thorium when it blew. Now, how he remembered this I don't know, but this is what he related to me. And apparently he -- you know, he must have knew what he was doing because he went from security guard to supervisor. So he was a pretty bright guy, so I'm sure he remembered. But he told me specifically that is was a thorium run that blew one time and he had to put a fire out on a roof. So this is when he was
7  still a guard.
8    — : Do you have a time frame?
9    — : Yes. It was the early '90s.
10    — : The early '90s.
11    — : Maybe '89 even.
12    — : Okay. Very -- very good.
13    — : —.
14    — : Yes, sir.
15    — : I -- I was involved in
16  most every one of these incidents that — has
17  talked about. Luckily I wasn't in the pot room, but I
18  was either a foreman on the shift or a general foreman
19  of the department. Magnesium cannot stand any
20  moisture subsurface. We were careful about putting
21  scrap in there. And a lot of times people would have
22  a Coke, throw their scrap Coke in the -- or their can
23  in the -- in a box of scrap. And if that went into
24  that molten bath subsurface, it only takes an instant.
25  There's only two elements in water, and that's
hydrogen and oxygen. And that magnesium will burn that oxygen, create hydrogen gas, and we have a hydrogen explosion. And that's ear splitting and volatile. It's almost like being struck by lightning right there -- — : Uh-huh.

— : -- and it will -- it will blow. The configuration of the magnesium pots were oval at the bottom, open at the top. And when an explosion occurred it exploded upward and outward. And it blew the roof off of the building several times, caught the building on fire several times, two fatalities.

One young man was putting a pump into the molten bath, and the pump had a hollow shaft in it. And during the cleaning process moisture got into that hollow shaft through a weep hole, and it -- it wasn't drained out. And when it went into that magnesium it -- it blew that pump half way across the building just like a torpedo would arch through the air or a rocket would arch through the air and killed that young man. And another time the pot froze over and
formed a crust on the top of it. The magnesium shrunk, and there was an area between the magnesium and the top crust of about six inches.

When the pot was refired the top crust did not melt, and all the gas built up between the top crust and the magnesium. And as soon as we broke through the top crust it exploded. And that was a very bad one. That was when was --

- : -.

- : -?

- : --, I believe it was.

- : I -- I can't remember his

-- couldn't remember his last name. But unfortunately I had to help both of those gentlemen out of the room, and they were helicoptered over to a burn unit in St. Louis somewhere. Both of them expired. And it threw that magnesium all around that room. And anybody that was in there got -- got burned or got hit with it.
— : Uh-huh. Okay. Well, I --

— : I'm very familiar about

the explosions that — was talking about.

— : —, let me ask you from your

prospective how long -- what would you say in -- in
those -- let's say the two fatal incidents, the
explosions what would be kind of maximum time that
workers were exposed to that environment? You know, I
-- in other words, was it just 15 minutes or --

— : Well, in --

— : Well, like yourself for

instance when you were intervening in that were you
there more -- how long were you there?

— : Well, I went into the pot

room and -- and helped direct the fire department to
put out the various fires that was in there after the
explosion happened --

— : Okay.

— : -- and tried to keep them
from throwing water on more magnesium that would cause
and then create -- and create more explosions. So I
worked with the fire department.

— : Uh-huh.
— : People who were injured,
we cleared an -- an ambulance lane for them through
the warehouse and they -- so they could bring the
ambulances in and -- and take them back out to --
— : Uh-huh.
— : -- the industrial

medicine department at St. Elizabeth's Hospital is who
we dealt with.
— : Okay.
— : They had a -- they had a

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1 — : St. Elizabeth in Belleville?
2 — : In Granite City.
3 — : Granite City, Illinois.
4 Yeah. Okay.
— : And so maybe it was ten,

15 minutes before an ambulance got there. In my case

I spent the whole rest of the afternoon in there.

— : Was it dusty?

— : Pardon?

— : I mean, the air. I would

think that if you had an explosion --

— : Oh, yeah.

— : -- like that it was probably.

— : Oh, yeah. You couldn't

-- you couldn't see for a while.

— : Okay.

— : And -- and what was worse

than anything was the dust and the dirt and the smoke

went down in to the subbasement and to the basement

where inspectors were working down there. And they

had -- they had 200 inches, that would equate to what,

18 feet of stair to climb --

— : Okay.

— : -- to get out of that

atmosphere down there.
— : So it wasn't just the people in the pot room?

— : No. There was a basement level where the furnaces were and then there was a subbasement where the inspectors were. And if that filled up with smoke and -- and soot and ash and whatever, they had a little bit of a chore to climb the stairs.

— : And -- and it was open to that area? In other words, the pot room -- I -- I just can't imagine the configuration. How did the smoke from the pot room get down below?

— : Well, the -- the pot room on the -- on the ground level the furnaces were about three feet above the floor level, maybe four feet. And they went down into the basement, and that's where the furnaces were. And the -- the Angela (phonetic) burners on the pots were what was actually firing those pots, and they were on the first level. And then you went down another level, and that's where the saws were. As the castings came down in the
continuous cast they went through two levels and then
down in to the subbasement, and that's where they were
-- and that's where they were cut.
—: Okay.

—: Any smoke that
occurred -- I mean, the floor was basically open. The
furnaces were open. And -- and those explosions are
volatile. I mean, they'll -- they'll shake the whole
neighborhood and not just -- you know, not just a
certain area. I mean, they're -- they're terrible
explosions. And it's a wonder that there weren't more
people killed in those explosions other than just the
two principals who were close. I know — was
involved in a couple of them and he seemed to always
get hit.
—: Yeah.
—: If I remember right,
there were people on both sides of you that didn't get
hit and you got hit, right?

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— That's how it was.

— And I remember one explosion that I was standing close to a pot and --

and another rather large fellow. And the pot started to sizzle and was going to blow. And we turned around and ran for the door, and they said it looked like a couple of elephants coming down there. But I wound up hurdling a bench and -- and got outside. And there was a -- there was a black fellow followed me, right behind me. And he laughed and he said I never could

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1 -- I never realized that a fat white guy could outrun

a skinny black guy. So --

— It's all got to do with

motivation.

— Yeah.

— , do you

remember any thorium blows or explosions?

— No. And to be honest

with you I don't think we made any thorium alloyed

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metals after the time that they lost their license or
gave their license up which would have been in the
late '80s I believe. I know there was a lot of
thorium stored around.

—: Now, that was a -- no.

Spectrulite was licensed with STB1488 in 1986. And
then that was terminated and renewed as this IL
whatever is O1570 in 1993. So they were never without
a license, a thorium license. Yeah.

—: Well, it's -- it's very
possible. I -- I don't even know.

—: I mean, I don't know -- I
don't know yet right now exactly what they -- you
know, what work they performed under that license.

But they definitely had the license. And in fact, the
Illinois license is in effect today. They're trying
to terminate it, but they -- they can't terminate it
until that building is cleaned up.

—: I see.
— : So that's what they're trying to do right now. All right. Well, listen that's -- that's extremely helpful and good. That's -- that's great and if I may then let's move on to the -- wake up here thing. So -- so let's turn to GSI.

(Whereupon, the GSI Affidavit Meeting was held.)

(The following discussion was held following the GSI Affidavit Meeting.)

— : Okay. This is —

again. It's August the 11th. This is the second of the Dow affidavit meetings, and we are pleased to have who's joined us. And — and he are going to have a conversation about some unique information he has to share about the Dow plant.

— : My name's — , and I worked there for 14 years. I started in '89. And I've known — since high school, we went to high school together. So when he hired in we knew each other.

— : Right.
— : There wasn't a lot of people we knew. And you first got hired in I believe it was in leaching.
— : Yes, sir.
— : You was in that leaching where they would --
— : Leaching.
— : -- take all the mag sludge and thorium alloy sludge and dump it.
— : Bus barrels.
COURT REPORTER: Speak up both of you please. What did you say?
— : Bus barrels.
COURT REPORTER: Bus barrels?
— : Open up barrels with jackhammers. Yeah.
— : What was in these barrels?
— : Sludge.
— : Sludge. And is there any
reason there would be sludge in barrels and not dumped on the floor and --
— They -- they was there for years and years. They was just old barrels, and they
— They were old barrels.

— We was doing a cleanup, some type of cleanup to get rid of the barrels.
— Okay. Now, I heard one of the other guys say in the older processes they didn't dump the sludge in the floor because it would mix with the regular sludge. And it being thorium or beryllium sludge, they would never mix them. So they would always put the more hazardous stuff in barrels. Did you ever hear anything of that nature?
— I never heard that, but I've seen --
— In the early days before we were there?
—: I never heard that, but I know there was barrels and barrels --
—: But you did see barrels?
—: -- and I mean tons of it. And it was there way, way before I was there. It was old, extremely old.
—: That's what I heard too.
—: Right.
—: Was it when -- when you looked was it marked in any way?
—: No.
—: Okay.

—: Not that I remember.
—: Danger or caution?
—: No. None of that.
—: Okay. Very good. And — ,
just for record what -- what years did you work?
—: '89 to — .
—: 1989 to — ?
— Well, when did we leave? When did we go out?
— It was July.
— Yeah, —
— Yeah. Right.
— Okay.
— —
— Thank you.
— When we got hired in. And how long was you in leaching?
— For about a month.
— A month. Did you ever notice any rashes or anything of that -- nothing peculiar?
— No. I know when we'd clean the press, I mean, you'd get terrible vapors off of it. And we took the stuff outside.
— Ammonia vapors?
— Yeah. And we took stuff outside and dumped it on the ground. It was extremely
filthy.

—: The reason I ask is another person was talking about working in there for years and never was allergic to anything.

—: Right. I did get sick back there once. I don't know if it was something from home or there. But it was a real -- it was a different type of sickness. You know what I mean?

—: What was it you was around --

—: I made it through.

—: -- when it happened? What type of materials or --

—: Well, there was a pile -- besides the barrels there was piles of sludge, and we actually worked right in the middle of it. I mean, it was there, dust. I mean, you was just in the middle of it, you know.

—: Nose bleeds or anything of that nature?

—: No.

—: Nothing like that. Good.

—: Just real nauseated, just a terrible feeling one day, you know.
— : Now, when you worked in the

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1 pot room what years was that you was in the pot room?

2 — : I was in there for five years.

3 So I guess '89 to whatever, five years.

4 — : And while you was in there

5 you ever remember any thorium runs?

6 — : I remember what we took from

7 the leaching process coming to the mag floor, you

8 know. And that's what the word was, we're getting rid

9 of some bad stuff, you know. And they really --

10 nobody really told us exactly what it was. You know,

11 we just assumed it. Then I worked in there during the

12 cleanup and wore the badges that got lost.

13 — : The badges were wore during

14 that cleanup though, not during a production?

15 — : Well, one unit was running and

16 the other unit was a clean --

17 — : Oh, I understand. Okay. So

18 one unit was wearing badges and the other unit wasn't?
—: Right. Exactly.

—: Was it the billet unit that was running wearing the badges?

—: The slab.

—: The slab unit. Okay.

—: The slab.

—: Do you ever remember the billet unit ever running anything like thorium or beryllium?

—: Well, whatever came from the leaching process went to either unit.

—: Uh-huh.

—: You know, whatever you was running, just a little bit of this and a little bit of that. They was real particular of how much. You know, you could only use just a little, you know.

—: What I was trying to find out was if they ever ran any thorium on billets form. But it -- as far as you know it was only slab form on the
slab side?
— : Well, on -- during the cleanup it was just a melting process.
— : Uh-huh.
— : Just melt it, you know.
— : Just -- okay.
— : And it'd get dumped out in the tubs, and I guess they got shipped or whatever.
— : This would make sense because the slabs were -- thorium slabs were produced over in the rolling mill, I mean the sheets. And they would have to come from slabs. And since we never produced any thorium over in extrusion that we know of that would give credence that there was no thorium billets produced for us to run. Because if you -- all you ran was slabs with radioactive or highly contaminated material and not billets, that would make sense because we never ran anything like that in extrusion but they did a lot over in the rolling mill. Is that
right?

— : Well, there was some slabs in

the -- the rolling mill up against the wall that had a
little warning on it.

— : What wall was this?

— : I guess it would be the west

wall. It'd be next to the old slitter they removed.

— : This may be what --

— : -- past the 2 Mill. Right --

real close to the 2 Mill.

— : This may be what--

was referring to --

— : Yeah. I remember them.

— : -- as the thorium slabs.

— : There wasn't a lot. I'd say

six, eight, five, or something, you know.

— : Okay. And was they pretty

wore out or --

— : They were just old. Old metal
just laying there, you know.
— That's what he -- okay.
— That's why --, when she became pregnant she had to leave work for a while.
That's what I was told.
— Uh-huh.
— You know, I'm not --
— Well, that's exactly the same story.
— Let me -- I'm -- I'm getting off here. --, you're talking about a cleanup operation?
— Yes, sir.
— So maybe I need to understand. So when are we talking about now?
— Well, in '89 I hired in. So I guess in -- shoot. The cleanup -- well, I know -- I know exactly when the cleanup was because I -- right before the cleanup I bought a new -- brand new car because I got laid off. In '92 we did the cleanup with the badges, the suits, and the paper masks. And there was like -- like something you'd -- like a
flagging running around parts of the unit. But it
didn't matter because everybody had to get around on
the other side of it anyway.

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1   — : In 1992. You -- you were not

2   here when we talked about this. But there was a

3   company that came in called Environmental Restoration

4   Group.

5   — : Uh-huh.

6   — : And they cleaned -- what --

7   what their report talks about is not cleaning up

8   inside the pot room, but they were cleaning up the --

9   the acreage with the buried material next to the

10  castings department to Building 7. So this is a

11  different situation. You're not talking -- they --

12  they came in and they cleaned up and they took a

13  thousand railroad cars full of material of sludge

14  away. But this is something different that you're

15  talking about, right?

16   — : Yeah. I'm talking about
actually a melt. We're melting the barrels --

—: Okay --

—: Of sludge.

—: -- yeah, of waste.

—: And the barrels had been there for a long time. That's what you're saying?

—: Yeah. Just pretty --

—: And now they're getting rid of it?

—: Right.

—: All right. I'm sorry.

—: Now they're getting rid of it.

Yeah. Exactly.

—: Okay. I'm with you.

—: And you said you wore a badge during this process?

—: I wore a badge, like a

abatement type suit, and a dust mask which not a lot of people wore. You know, it was just a dust mask.
And we -- they picked certain people to do this. It was kind of odd. You know what I mean, certain people was picked out, so we did it. You can't tell them no.

— : Not a -- not a standard work crew but individuals that worked on -- in the --

— : Yeah.

— : -- in the pot room?

— : Yeah. Yeah.

— : Okay.

— : And we had the spec lab people out there. We had --, --, -- -- that's company people. And me and — (phonetic), we was kind of curious about this stuff. You know, we talked about it, but you couldn't say much about it because you got to do your job. You know, you're going to get in trouble if you don't. And as we would do the cleanup we would get more scareder (phonetic) every day because some foremens was pretty brave about it, and other foremens like they'd stay way away, you
know. And some would say it wouldn't hurt you, and we
didn't know. But you got this in your thing right
there what I told you. We had a -- a lady out of the
lab, —, I can't remember her last name.
—: I believe —
identified her as — (phonetic) or —
—. That's it.
—: But as we worked there longer
as the days went on you'd get pretty paranoid in a
way, you know. And I remember asking this — --
and if you get ahold of her, I bet she might remember
it too. Because I was kind of curious if this was
going to hurt us. You know, why are we throwing away
our clothes. You know, we're putting our clothes in
trash bags and they're getting pitched somewhere I
guess.
—: Uh-huh.
—: Because usually they just got
washed.
—: That's good -- that's good.
You'd put it in trash bags after every shift, or was
it just this --

—: Every shift.

—: -- one shift?

—: Yeah. Every shift.

—: Every shift?

—: Every person's clothes got put

in trash bags, clear trash bags. And she -- I asked

her one day in there -- I said I was -- like I said, I

was scared about this stuff starting to bother me.

And I said if -- she said don't worry about it, it

ain't going to hurt you, blah, blah, blah. And she goes

there's more radiation comes out of a microwave than

it does out of this. Well, we was sludging in the

barrels.

—: So you knew there was

something out there?

—: Well, we had Geiger counters

too. I don't know nothing about Geiger counters, but

we had them. So we -- there was training, period, you

know. But anyway, we went -- me and her went to the

Geiger counter right in the shack. She put it up
there, and the needle just like barely moved. Then we
went straight to the barrels with hot molten sludge in
it, and the needle pegged out. You know, so that was
pretty crazy.

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1
—: Now, you said you wore a

2 badge during this cleanup. Did you ever get your

3 readings off your badge or --

4 —: Never have.

5 —: Did you ever ask?

6 —: Yeah.

7 —: Repeatedly?

8 —: Right after the cleanup I was

9 laid off for six weeks, the whole crew was.

10 —: Uh-huh.

11 —: And as soon as I -- I can

12 remember it as plain as day because I bought a car as

13 soon as I got laid off.

14 —: Right. — you mentioned.

15 —: It was kind of crazy --
— : Yeah.

— : -- but I did it, you know.

But as soon as I came back my first safety meeting was on a midnights. I asked about the badges first thing.

Well, there was a bunch of old-timers in there and they said -- they said oh, don't worry about it, we used to sit on this stuff and all this stuff, you ain't going to turn green and stuff like that, you know so --

— : Where was --

— : -- or glow.

— : Where was —

after this when you came back?

— : I never seen her again.

— : She was never there after that?

— : I never seen her again.

— : Did she report the findings to the company that you know of, or did she say she
was going to report her findings that you and her
discovered?

—: Well, when she seen the Geiger counter do that she changed. I don't think she wanted to be in there no more either.

—: Uh-huh.

—: You know I mean, can you blame her, you know?

—: No. No. That's very good.

Now, while you was in the pot room -- I was speaking to another employee who talked about a pot -- or about cans, aluminum cans larger than a soda cans, about twice the size.

—: Yeah.

—: And they had little ingots inside of them. Do you ever remember alloying those cans?

—: You know something, I do, but I -- I couldn't tell you what it is, you know.
Because we alloyed so much stuff here and there like little specialties seemed like once a month.

—: mentioned steering wheels and a lot of car parts.

—: Yeah. That was from GM or something. But it was always -- there was always something going on that'd be a little bit -- I mean --

—: I personally remember seeing one of these cans sitting on the side of the wall on a thing. And I asked if you ever --

—: It was --

—: -- noticed it when they had Russian writing on it. Nothing of that nature. But did you alloy them? Ever alloy a can or --

—: Yeah.

—: -- any of the content?

—: Yeah.

—: The whole can, or did you have to break it open?

—: I don't think we broke it open.

—: Okay.
—: No. I think we -- it just melted.

—: Did anybody --

COURT REPORTER: Both of you speak up.

—: I really can't say on that.

—: Did they tell you the --

—: I remember it, but I can't remember --

—: -- what the alloy was you was putting in or -- in the cans?

—: No. I don't remember.

—: Okay. That's good.

—: I don't remember.

—: -- can I ask you a question about -- I'm trying -- I want to make sure I understand. So at -- so on the -- on the cleanup operation did you basically clear out those barrels of the old material?

—: Yes, sir.
— : Melted them all down?

— : Right.

— : And then so that process ended. And then did they say well guys, you all have -- did they give a paid vacation?

— : No. We was actually laid off.

They laid off our crew.

— : They really laid you off?

— : I mean, maybe not just the pot room. There was so many people got laid off, and most of the people in the pot room was newer --

— : Okay.

— : -- you know. And I -- yeah.

We just got laid off.

— : But I mean, do you think that was a coincidence? I mean, that sounds like an odd --

— : I thought, yeah, it was -- I thought maybe it was like they with lead or something, maybe it's to let the stuff to get out of you for a
while, you know, or don't ask about the badges. I didn't know. Me and my friend — we'd question each other about it, you know. So --

— : But -- but it wasn't like a firing, right? You -- but --

— : No. It was actually --

— : But you were not paid?

— : I -- I signed up for unemployment.

— : Okay. But I mean, the company stopped paying you?

— : Exactly.

— : And -- and what -- and I am curious. What is the reason they provided to you?

— : Shoot.

— : I mean, you've done a job, you've cleaned up something. Now do they just say --

— : I guess it was --

— : -- thank you very much, we'll
see you in six week?

—: You know -- you know you got a good point there. Yeah.

—: I think I can add to that.

COURT REPORTER: Your answer?

—: He's got a good point there.

I actually don't know why I was laid off truthfully.

—: After the 1991 Gulf War a lot of the military orders --

—: --, I -- I'm interested though --

—: -- dropped off.

—: I want to -- yeah.

—: That would also --

—: I would like to stick to --

-- what he remembers.

—: That's what I was trying to add to it.

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—: There you go.
—: Well --

—: Military orders --

—: No. I want to know what --

—: -- completely dropped off

after that and so did a lot of production. We went from three shifts to one to two shifts. So after '92 a lot of the factory throughout the rolling mill --

—: Right.

—: -- extrusion, and casting did have a drop in production because of -- of orders.

—: But I still think that's a --

that's a remarkable coincidence.

—: You -- he's got a good point because that pot room it ran. That was the heart of the plant, and they ran it to make --

—: Right.

—: I mean, that's where -- that was money maker right there, you know.

—: Was this a radiological cleanup, or was this like, you know, your bedroom clean -- I mean, just clean your work area up type clean up?

—: Well, we melted radioactive
25 chips with the Geiger counter.

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1 —: So it was a radiological

2 cleanup?

3 —: Yeah.

4 —: No dust removed over the

5 beams, nothing of that nature?

6 —: Wherever -- at the end of

7 every shift you took a air lance and you blew all the

8 dirt out in the middle and swept it up with a sweeper.

9 —: Oh, you did?

10 —: And I mean, they probably

11 still do that there today. Yes. Every shift.

12 —: And -- and when you -- when

13 you did that did they check any of that with a Geiger

14 counter, or it was just swept up?

15 —: No. The Geiger counter would

16 be like just setting in here laid on the table. If

17 somebody wanted to pick it up, they would. We -- we

18 didn't even know what it was, you know. Because --
— : -- ain't nobody was checking nothing. Yeah. Right.
— : Sorry. Okay.
— : No. That's fine.
— : You was in maintenance.

About what time was you in maintenance, '96, '97?
— : I worked on leaching for a month, mag floor for about five years and I think the aluminum unit for about four years or so, then I went into maintenance.
— : And then you went into maintenance?
— : Right.
— : Okay. Now, while you was in a maintenance did you ever watch any survey teams or radiological teams come in and take any readings or samplings?
—: Yeah. It was kind of --

anyway, back on the pot room they took like 7 or 13 barrels, that's all they could have. I remember a number and it was real weird. And they put it back in this room back there. I remember that plain as day too. But anyway, back to the other cleanup in extrusion.

—: This was around 2000?

—: Yeah.

—: Okay.

—: For some reason I just happened to be working that shift on days. —

— (phonetic) asked me if I could take two people on top of grandma crane which we called it, take them above 7 Press and stop at a certain location so they could collect dust for samples. Okay. So I drove grandma crane with them guys on top of the bridge to 7 Press, stopped the crane, turned off the power, got on top with them, and watched them and
7 asked questions. Well, they had like a Tupperware  
8 container type deal with a plastic lid and some almost  
9 like soup spoons, you know, just big spoons. And they  
10 had aluminum foil for something too. And they had  
11 Geiger counters also. Well, they got on top of the  
12 bridge up into the steel reaching height and took the  
13 stuff off and put it in these little containers. And  
14 I asked him -- I go hey, I go I work up here every  
15 day -- matter of fact, I cleaned them cranes too. But  
16 I work up here every day, is -- can this -- is this  
17 going to harm me. And the dude told me that it's not  
18 going to bother you unless you eat it or breathe a  
19 whole bunch of it. And I said okay. And then I --  
20 then I said well, what happens if you breathe a bunch  
21 of it, what's it going to do to you. And this guy  
22 told me -- it's a young dude. He said it's probably  
23 -- you'll probably get blisters and tumors in your  
24 lungs.
25 — : Were there only two of them?
—: I thought there was two.

There might have been three, but I thought there was two.

—: Maybe one was on the ground?

—: —, I want to ask you a question please.

—: Okay.

—: So -- so all of that, I understand the context of it.

—: Right.

—: But what I'm very interested in is did these people who you were kind of guiding up to the rafters -- did they identify themselves as to who they were?

—: No. They -- they might have, but I can't remember. I didn't -- I'm sure I had to know who they was. I -- EPA Cleanup or something.

You know --

—: Were they just wearing coveralls?

—: No. Now, wait a minute. I want to find out what — -- let's see. Did you know
they were there?
—: To see if there was any
radioactive stuff in the --
—: Okay.
—: -- steel, up in the steel on
top of the crane.
—: Right.
—: Yeah.
—: And then -- and -- and so
they were up there taking these samples. But were
they -- and they had a survey meter with them?
—: It was a Geiger counter.
Yeah.
—: Uh-huh. And were they
telling you we're getting high readings or --
—: I did look at it then too
because --

—: Uh-huh.

—: -- I was curious.

—: Yeah.

—: You know, I -- I went -- I went right up there with them, you know.

—: Okay. That's good for you.

—: You know what I mean? I mean, I watched because I wanted to see what's going on.
called the FUSRAP Program.

— : Uh-huh.

— : And they were looking -- they really only cleaned up uranium dust.

— : Okay.

— : Now, their detectors also and their testing detected thorium.

— : Right.

— : But so -- you know, but officially that's all they cleaned up was the uranium.

So -- so that's -- that's interesting.

— : I have a question. You said they put it in Tupperware cups. Did you ever see them do any swipes with like coffee filters or little round filters of any type?

— : I watched the whole thing.

They was up there maybe a half hour or 45 minutes at the most.

— : So they never really took any
swipes, they just took samples?
—: No swipes.
—: Okay.
—: They picked up the -- actually picked up the dust.
—: That -- that's good. So --
so — brings up an excellent question because in that report that they filed they were supposed to have taken swipe samples of the surface of the Number 7 Press. And of course, I would be and — would be and you might be very interested in what those results were. And I can't find the data. I can find in the report that they say they were going to do that. But did you ever see anybody? I mean, that's what— talking about. Not just up on the rafters, but were they taking swipe samples --
—: I can --
—: -- of anything?
—: -- guarantee you they didn't take no type of swipes. I never even heard of a swipe or I don't even know what it does.
—: So a swipe is like a pad and

-- and literally they would take it and --

—: No.

—: -- you know, wipe an area of

a machine and then drop it into a container to keep it

--

—: No.

—: -- pure.

—: No, sir.

—: Okay.

—: I watched them now, and I'm

not --

—: That's great.

—: I mean, I really watched them.

—: All right. Well, that's --

that's very important. All right. Thank you.

—: Now, after this radiational

survey they had was there any other surveys that you

spotted when you was maintenance or was it --

—: Yeah.

—: -- or observed?
—: Exactly. The very next day I believe or the day after -- I thought it was the next day — told me also you're going to take -- it was a different group of guys or guy, or maybe it was a different group of guys or guy, or maybe it

must have been one guy -- and go outside of casting right where the old leaching process, where we stored the pots. There was a aisle way and then we used to have pots there. There might have been a few pots still out there.

—: These were old pots that were used?

—: Yeah. Used pots. They always was out -- they always put them outside before they pitched them.

—: Could they have been -- they were used once before and thrown away, or were they just stored out there after they're used?

—: Well, when times got rough they'd bring them back in and we'd stick them back in
16 the unit so they could use them, you know.

17 — : Could they been thorium pots

18 that were just -- installed just to run thorium and

19 then removed?

20 — : Hey, you never know.

21 — : Do you have no idea?

22 — : I don't know.

23 — : You wasn't in there long

24 enough?

25 — : It could be possible.

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1 — : Okay.

2 — : But anyway, I took another

3 person or two -- I want to think it was two --

4 outside. And he told me to take the Bobcat and dig

5 down to ground level because they're going to take a

6 ground sample. Well, that's what I did. I dug down,

7 and they -- I guess they took their sample and I left.

8 — : No where near extrusion?

9 This was in the casting area?
—: Across from extrusion.

—: Okay.

—: Nowhere near it. They took a

ground sample I guess. That was my job just to dig it

out so they could take a -- they wanted -- they showed

me a spot right where to dig at. And that's what I

did and I left.

—: And how far would you say

that spot was from the building, the -- the wall of

the building?

—: Outside of casting I would say

across the -- the roadway -- shoot -- 15 foot, 20

foot. Twenty foot. Twenty-five at the most.

—: Okay. Okay. Great.

—: Did they remove any sample or

did they just take -- I mean, remove any soil --

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I don't know. All I know is I -- that was my job --
Okay.
-- to do that so they could get in there. They was going to auger down so many feet or a little ways down.
You mentioned --
Yeah. How -- I'm sorry. How deep do you think you went with that Bobcat?
Just enough to get into some good dirt.
Okay.
I mean, an inch or two, you know.
Okay. Just you scratched the surface up?
I just scratched the surface.
Okay. Got you. Okay.
Excellent. Okay.
Do you have any memory what they did with this area after you -- after the samples
and cleaned it up?

— Well, I know for sure. They

took truckloads and truckloads, and truckloads

and added -- I can't remember what they hauled all the

--

Of soil?

Yeah. They -- they completely

cleared that out. Now, this wasn't right -- right

after, but it wasn't long after. They took all this

dirt because I was talking to somebody because you

know how people talk at work. But I remember the

truckloads were flying in and out of there of dirt.

And it's like man, if that stuff's contaminated, it's

just blowing in the air.

And they didn't have no tarp?

I mean, that's back before you

had --

They didn't have them covered?
—: -- they had the tarp.

—: Uh-huh. Okay. So they were open trucks that they were loading the soil into --

—: Open trucks.

—: -- and hauling them off?

—: Eighteen wheelers, big trucks.

—: Eighteen wheelers. Okay.

—: Yeah. And --

—: Wait a minute. We've got to stop. Do you have any way to know -- do you -- was it your feeling that the -- the -- the guys that were up on the rafters, were they the same group of people that were driving these trucks away?

—: No. No. They -- I guess the guys were -- they'd be like, I don't know, chemists or lab type people, you know, that were doing the sampling I would assume. They wasn't the truck drivers. No. Now, the truck drivers I never seen personally up close, but I -- I could look out of
casting or extrusion because I got around the whole plant.

— : Uh-huh.

— : I could see what they were doing. I mean, I couldn't stand there all day and watch them, but I'd notice, you know.

— : Do you -- do you remember were the trucks marked in any way?

— : You know something, I almost think they was like a local type trucks, you know. I don't remember no specific marking like you would really notice. It seemed just like regular old truck drivers you see every day. So --

— : But I mean, now we're talking about 18 wheelers, the regular closed, covered kind that we're talking about.

— : Open like you could dump in.

— : Oh, open.

— : Yeah. Open top. The top was
open.

—: A great big huge.

—: Yeah.

—: Okay.

—: Right.

—: All right. Now well, I--

—: Now like I said, I didn't stand there and watch, but I noticed them.

—: I-- I usually like to ask people and just let them talk, but I'm going to -- I need to intervene --

—: Okay.

—: -- because from what we all know the Army Corps of Engineers came in. They were forbidden to look at anything except the rafters. And so they did that. They did not remove any dirt. They didn't do any kind of removal action outside. So from everything that I know then that was something done by

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1 either Spectrulite or somebody they hired. But it had
nothing to do with the Army Corps of Engineer

remediation of the uranium which was only on the rafters. There was no uranium detected outside the building. In fact, in the official report there's no -- anything detected outside. There was a little radium 226 which the Army Corps said was natural for this area of Illinois in the soil. But what you're describing -- and I just want to get it straight, that's why I'm talking -- you're talking about so --

so the -- what the truckloads took away. Did somebody dig down into the ground then? In -- in other words, you're -- I'm not -- you said you scratched the surface?

—: Yeah. That's what I did.

—: What were they taking away?

—: I guess the soil.

—: But I mean did they take --

—: You know, I mean, it was --

—: -- the old soil --

—: -- it was --

—: -- or was there sludge or slag outside?

—: Well, there was -- we put old
pots out there.

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—: Okay.

COURT REPORTER: Old pots?

—: Yeah, pots.

—: Pots, P-O-T-S, right?

—: Pots, yeah. And it was like a

wasteland out there.

—: All right.

—: And I mean it wasn't

beautiful. It was like junk piled here and pots and

it was just -- like in between the building you'd

throw a bunch of junk, man, you know.

—: Okay. So -- so those trucks

could have been taking some of that junk?

—: No metals, all dirt.

—: And it was trucks?

—: All dirt?

—: It was all dirt.

—: All right.
—: Because alongside the building was the junk and out in the middle it was the dirt.

—: That's fine. Okay. Good.

—: What would be your estimate of how many trucks were probably hauled off?

—: Like I said, I -- I didn't watch it. You know, I'd oversee -- I seen it, but I didn't watch it.

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1 didn't watch it.

—: More than one?

—: Oh, hell, yeah. A lot. A lot. There has to be.

—: Okay. So if there was this hole in this ground, did they refill it or would --

—: No. All I know is I seen what they was doing. I'm busy. You know, I can't stand out there and watch them dudes do that.

—: Right.

—: But they came back and they
planted grass and it was beautiful. It was the best
looking lawn I ever seen in my life. You know, it was
like what the heck's going on here, that looks nice.
Nobody in the whole world's going to see it, but
that's what they did.
—: So someone had to fill the
hole back in apparently?
—: Well, I don't know -- even
know if it was a hole. I can't remember them digging
a hole. I mean, I remember them trucks coming in and
out and all the sudden this was a big, nice cleanup.
And I had the dudes out there so they could auger, you
know, for a ground sample. And all the sudden they
got it cleaned up and pretty grass. You know, I'm
back to work, you know.
—: That's very interesting.
—: —, may I ask you a
question because this may be -- you know, in all my
notes I have a sort of a question mark because I -- I
never got a real good date for that cleanup that was
don't the US Army Corps of Engineers, but this may be
the one we're talking about. So it was really
followed right on the Army Corps of Engineers being
there, right?
—: No, sir.
—: Now, we're talking about
2000.
—: Right. July, 2000 he's
talking about.
—: Right.
—: I believe a radiologic survey
that they took before the cleanup was done around May.
—: Right.
—: And --
—: But when -- when was the
actual --
—: The cleanup was July -- the
4th of July week of 2001. And I believe --
That's not true. No. The -- the Army Corps of Engineers cleanup was in 2000.


—: 2000.

—: The 4th of July week of 2000.

—: Right.

—: I'm sorry.

—: Okay.

—: And --

—: I'm trying to figure out when

exactly this operation that — is describing took

place.

—: I believe it -- according to

what he was saying about the survey going over the 7

Press --

—: Right.

—: -- well, that had to be done

before the initial cleanup.


—: And I believe that was done

around May if I'm not mistaken --
— : All right.

— : -- from what I remember. So

his time line should be a month or two behind that

which is close to the cleanup by FUSRAP over the

presses.


— : So the two seem to be really

close together in a time line.

— : So do you think this -- that

the truck -- the truckload episode could be also in

July?

— : I believe so.

— : Okay. Okay.

— : Yes, I do. Because --

— : So I mean, it's right at the

same period of time?

— : He said they took a survey

shortly afterwards. And if it was -- the first one

was in May, then it could have been right beginning of
June.

— : Okay.

— : So July was the cleanup another month later. So yes, this all makes sense.

— : Okay.

— : The time line fits in.

— : That's great. Okay. All right.

— : Do you remember --

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— : So July, 2000 was also --

somewhere in that time frame was this cleanup with the trucks that we're talking about. Okay.

— : I think so.

— : That's great. Okay.

— : Was there any other -- well,

you were in rolling mill and you was in all the departments because you was a maintenance man.

— : I was all over the place when

I was there.
—: You was all over the place.

—: Yeah.

—: Did you ever see any warning signs anywhere for any type of metals or materials?

—: The rolling mill by the slabs there was some type. It was like nothing hardly though. I vaguely remember something, but it wasn't flagged off. I think there might have been an old yellow flag laying on top of it, and everybody said stay away from it or something. I didn't know.

—: That was the only type of warning there was. Okay.

—: That I remember.

—: Okay. Was you ever -- you had safety meetings every month, once a month just like everyone else I'm assuming.

—: On and off. Sometimes you'd just sign off.

—: Without even having a
—: Yeah.
—: You'd just sign it like you was there?
—: Yeah. Right. Then sometimes they'd skip too, you know how it goes.
—: Okay. Was there any mention ever of any radiation or beryllium or any hazards associated with any of this?
—: Never. No training. I've never had no training on nothing.
—: No warnings?
—: Not even on -- when we did the cleanup nobody even trained us.
—: Was you ever --
—: No MSD sheets. I've never seen one. They might have had them in the office, but they wasn't out around by us.
—: MSD sheets are material safety data.
—: Right.
—: And that's reports you read to find hazards in the workplace. Whenever you started a new job you had to read the MSD sheets to know what hazards were around you. And none of these ever mentioned radiation, radioactive materials, or any processes in my department. Was there any in yours, any material safety data sheets you ever read?

—: No.

—: Do you read a lot of them?

—: I ain't never run -- read one in my whole life --

—: Never read one --

—: -- to tell you the truth.

—: Okay.

—: Yeah. I mean, I work at a place right now and I don't read them. They got a pile of them there.

—: But they are available to read, right?

—: Oh, yeah. Yeah. You could get them if you need them.
— Do you think they might have been available at Spectrulite?
— If you wanted them, you could go get one. Yeah. They --

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1 — Okay. All right. Good.
2 — Yeah. Yes, sir.
3 — Okay.
4 — And I wanted to know --
5 — I -- it might be a hassle, but
6 --
7 — Some employees were made to read this and sign and date the back of them so they knew that the supervisors would be covered if any accidents or illness or any injury.
8 — Uh-huh.
9 — Then they would say well, it says here that you're supposed to be wearing gloves.
10 And then if you wasn't, then the foreman would hold you responsible. So --
—: Oh, but that was sort of selective. Is that what you're saying?
—: Well, yeah. It was actually mostly production workers.
—: Okay.
—: You know, for material handlers and such they didn't have to so much. If they put them out on the floor to handle material, they usually didn't make they can read material safety data sheets.

—: Okay.
—: But only in production.
—: Okay.
—: And back to the rolling mill a little while later in -- after the cleanup and all that I was a plant service attendant and I was unloading some diesel fuel off a trunk, pumping it in the pump house. And there was a water leak out there. And there was some millwrights out there, and they had
a hole dug and they was going to repair the water leak. And there were -- I guess it was EPA too. I'm not for sure who it was. But there was a guy out there taking a sample.

— : It was an outside source?

— : Yeah. Outside. He was taking a sample, and I asked him about the sample. And he said he's never got a good sample out there yet. So I just -- we kind of laughed about it, you know. Kind of figured it --

— : So was it a water sample he was taking or a ground --

— : Ground sample.


Okay.

— : Right.

— : Didn't say what he was checking for, right?

— : No.
—: Okay. And of course, you never asked --
—: No.
—: -- because --
—: It was just like he ain't going to get one, he knows he ain't he probably did it so many time. I don't know who he was.
—: Well, I know from experience there that asking a question does not necessarily give you the answer or a correct answer. So I can understand why a lot of people didn't ask what was going on. And right, that makes sense.
—: Let -- let me ask you a general question about that though, about what — just said. Now, I -- you need to be honest about this. Were you afraid to ask a question?
—: Well, you -- that's my job and you can't stir up too much waves, you know. Because as I learned as I worked out there if you're a troublemaker or they don't like you, they'll wait you out. They can fire you for anything, you know what I mean? So you really just -- you do your job and go
home.

—: I can second that.

—: Now, in those days --

—: I liked my job, you know.

—: Sure.

—: I liked working there.

—: No. That -- that's fine. I understand. But now, so we're talking about -- so you worked there in 1989.

—: Thirteen years.

—: Thirteen years. And part of that time then the union was still there and active and all that.

—: The whole time.

—: The whole time?

—: The whole time.

—: Okay. So the union was active up until when they went in to bankruptcy?

—: Yeah.

— : That's right.

— : Yeah. Okay. So while you were there though the union was basically overseeing, supposed to be.

— : Supposed to be.

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— : Yeah. Now, how -- and so that's -- that's another really big issue. So I would think, not knowing you know, that if you couldn't go to the management of the company, at least you could go to your union representative. Were they helpful?

No? Now, you be quiet.

— : Yeah.

— : Would -- were they helpful?

— : Well, they had a motto. We --

there was a motto we went by. They worked out there and the union reps would pretty much stress this. In the front of the contact book or in the back of the contract there was a saying they would say they can do
that. That's -- they did what they want.

—: And -- and that's -- how --

how did you interpret that?

—: Do your job and work eight

hours and go home or 16 pretty much.

—: And they -- they could do

that would refer to management?

—: Oh, yeah. Yeah.

—: Okay. And the implication

was that -- now I'll ask you a question. I don't want

to put words in your mouth, but I want you to say no

if I'm wrong. I mean, did you take that to mean that

management could have their way regardless of what you

wanted or --

—: They would have their way.

—: They would have?

—: They would have their way --

—: Okay. That's fine.

—: -- bottom line.
— : All right. I'm sorry. Go ahead.

— : My impression of the union at the time was they were a small linked group of old-timers that when a new hire, say, even as 16, 14 years we're still considered a new person.

— : A new hire.

— : Right. A new guy. They never gave much credence to as far as grievances or claims.

— : Uh-huh.

— : And I was also under the impression that they were -- the president of the union and some of the union officers were also in the same frame of mind of don't make waves, it just makes trouble. And unless it was a serious claim nobody would go to the union.

— : And did that apply equally to the older -- or the people let's say who had been
— there much longer?

— : There was a few that was in

the clique. They were called the disciples because

there was a small handful of 12 of them or so.

— : The disciples?

— : Yes. And they were mostly

officials in the union also. They would get sweet
grievances where other people couldn't get
grievances.

— : Okay.

— : And -- and when people

realized this and found out real soon when they

started working there they realized the union wasn't

there to save their job, you know, it was just there
to keep the company from taking it from them. Once

people realized how the union worked they worked with

the union, not the union working with them.

— : Okay.

— : Well, I'll tell you a good

everyday. I was on the safety committee I think for

two months. And my first meeting I kind of sat in and

didn't say nothing. The second meeting I went to I

think — (phonetic) was the plant manager or
something like that. And I made a few remarks about

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1 some stuff that might not be real safe around there.
2 And he met me out at the timecard clock and he said if
3 you don't shave -- if you don't -- if you come --
4 don't come in with a fresh shave tomorrow, I'll send
5 you home. I don't -- so I bailed out. I was done
6 with the safety committee.
7 — : I see.
8 — : Okay.
9 — : One more thing I was wanting
10 to ask you.
11 — : I think his name was — .
12 — : — with a — .
13 — : Well, I thought I was doing --
14 I thought I was doing good trying to help them out
15 with safety and the next thing you know the dude's
16 threatening me. So I said see you, I'm done with that
17 stuff.
18 — : You mentioned something about
welding lids on barrels. Do you have -- can you explain.

—: — did.

—: —, that's — (phonetic).

—: —, yeah.

—: His nickname is —. He's a welder, a maintenance welder at the factory.

—: He was scared, man. He was scared. He always talked about it.

—: What was -- do you have any idea what was in the barrels?

—: Yeah. I think he knew a little bit about radiation. I don't know. You know,

he was -- he was just -- he was scared about it. He didn't want to do it, but he did it.

—: I know —.

— R: And me -- me and my one friend

— -- I mean, this might sound kind of
13 weird, but when we get by them barrels it felt like
14 you could feel it in your bones. It wasn't like -- it
15 was like a real mild ache. You could like sense
16 something, you know. It was weird, you know. I've
17 never felt that feeling in your life.
18 — Have you ever noticed anybody
19 in the past or afterwards welding barrels shut?
20 — I've never seen that anywhere.
21 — You've never seen anybody
22 before or since --
23 — Nowhere in my whole life. No.
24 — -- at the factory?
25 — No.

— Did you ever see any barrels
2 around there that were welded that you didn't --
3 — I took some people to the --
4 where they stored the radiation what I was told. —
5 — told me to take them there. It was my shift
6 foreman that was also on days. I grabbed a ladder.
7 He said get a ladder, I carried it. Outside the
8 casting department there was a window in a door. We
9 took it to the window, pushed the window open, and a
10 couple guys looked in there at the barrels. I left.
11 I was assuming they was going probably take and get
12 rid of them. They were probably sitting there a
13 while.
14 — : So you never seen them leave
15 or never knew who took them?
16 — : I never seen them.
17 — : Okay. Very good.
18 — : As a matter of fact, he asked
19 me if I wanted to look in there. I said I don't even
20 want to see it. I didn't look. I knew what was in
21 there.
22 — : Did they ever give you a
23 reason why these barrels were being welded shut and
24 not -- did these bands that were being -- that were
25 tightened, tightened on them? I seen lock bands on
1 barrels before.

2 —: Right. It was like the bolt type. I -- if I remember right --

3 —: Oh, so it did have a lock band on it?

4 —: -- it was a band and a bolt.

5 —: And welded, both?

6 —: I think he welded the bolt or something.

7 —: So it was like double sealed --

8 --

9 —: Yeah.

10 —: -- with a lock band and bolts?

11 —: I thought it was supposed --

12 they was supposed to go in two barrels.

13 —: So a smaller barrel went in a larger barrel?

14 —: That's what I thought. I might have been wrong, but I thought that.

15 —: Well, this has been back a few years.
— : Yeah. '89 or '92.

— : Your best --

— : But they -- they actually --

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1  beyond the locking they actually welded the lid on the
2  --
3  — : They welded it I'm sure. Yes, sir.
4  — : -- on the bud (phonetic).

6  Okay.

7  — : I remember seeing it.

8  — : I remember that plain as day.

9  — : And do you know what year

10  this -- do you any idea or about the time frame?

11  — : '92.

12  — : '92 also?

13  — : Yeah. That was when the

14  cleanup.

15  — : That was -- this was during

16  the cleanup, shortly after it or during?
— : It was during.

— : Okay.

— : It was right on at the same time that they were welding the barrels.

— : So these were certain barrels that -- now, you said you alloyed some of these barrels. Now, was these barrels --

— : No. We didn't alloy them.

— : Oh, you didn't melt them?

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— : We melted them. And on magnesium when you melt mag all the dirt or sludge goes to the bottom leaving them dross to float to the top. Well, all the good metal would be on the top, and all the sludge would be in the bottom. You take like a ladle -- ladle or the sludger and you dig it out and you dump the dirt out. It's molten dirt, it's red. You dump it in the barrel.

— : Very good.

— : That's what went in the
11 barrels.

12 COURT REPORTER: Say that again.

13 —: That's what they put in the

14 barrels.

15 —: Now --

16 —: I'm tired. I got up real

17 early this morning --

18 —: Yeah. He came from work.

19 —: -- about 3:30.

20 —: At one time they had ingots

21 stacked in the aisle way right across from the canteen

22 --

23 —: Uh-huh.

24 —: -- close to 7 Press. They

25 were there for months.

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1 —: I remember that.

2 —: They were stacked two stacks

3 high. They were all wrapped in shrink wrap. Now,

4 these were mag ingots that were supposedly is what the
r rumor was was shipped -- or brought from Russia. And
was you in the pot room at the time, or was you in
maintenance when these were out there on the floor?
Because this was sort of around 2000 and 2001.
— : I might have been down on the
aluminum unit then. I remember them ingots.
— : Yeah. They sat there for a
long time. And the reason I'm asking is --
— : Forever.
— : -- because if they was
alloyed in the pot room, they would have had to been
alloyed really, really slow because it took months for
those piles to slowly disappear. And I was wondering
if you ever alloyed any of these in the pot room when
you was in there?
— : No. I remember --
— : They were easy to spot
because they were a dark gray instead of shiny silver
which gives credence to maybe they could have came
from Russia being the salt water and salt air has a
corrosive effect on magnesium. You know that from
working with them --

—: Uh-huh.

—: -- that if you get it wet, it turns really dark gray. And these billets -- or ingots I should say on these stacks were all dark gray.

—: I don't think I -- I messed with them. I remember seeing them there, but I --

—: So you was out of the pot room by then?

—: I think so.

—: Okay. Is there a -- there was a mention of four billets that were stuck in an oven over in the -- over in the rolling mill and they sat there for years and years and years. They were in a small oven. It was a -- actually it looked like a pizza oven, had legs and a big door on the front. And I noticed these billets around the -- right before the radiation cleanup in 2000. They sat for about four months by — (phonetic) office. Now, you being a maintenance man was you ever told to move any
material like this like an oven or a -- anything else?

—: I remember the pizza oven in the rolling mill.

—: That's where it was located at first.

—: But I remember --

—: Did you --

—: -- I put food in it.

—: You remember putting food in it. Okay. But you wasn't the one that was -- that moved it over to --

—: No.

—: -- the paint shop?

—: No.

—: Okay.

—: But I know before we -- they did the cleanup out there me and —

(phonetic), we cleaned every crane in the whole building or Saturdays before they did the cleanup over
in the extrusion, we cleaned casting cranes, extrusion

17 cranes, and rolling mill cranes.

18 — : Did you ever paint equipment

19 or machinery being in maintenance?

20 — : Yeah. I was like the number

21 one painter out there. I painted almost everything in

22 casting and cleaned first. I -- I cleaned 7 Press and

23 painted it. I cleaned the heavy press, cleaned it and

24 painted it. I cleaned 1 Mill and painted it also.

25 — : Can I ask you this. The --

26

27 that green paint --

28 — : Twenty-five bucks a gallon.

29 — : -- is that what you used?

30 — : Yeah. It was not good paint.

31 Yeah. I remember it.

32 — : And what did -- I mean, it's

33 very colorful, but did -- was there anything, other

34 characteristic of it? I mean, I'm trying to ask an

35 open -- I'm not trying to lead you. I just want to
10 know was there anything that anybody mentioned about
11 the paint? I mean, was it -- was it painting to make
12 it look pretty or, you know --
13 —: Well, the rumor was out there
14 --
15 —: -- maintenance kind?
16 —: -- when they're painting
17 they're selling. And --
18 —: Okay.
19 —: -- pretty much what -- kind of
20 what happened.
21 —: Twenty-five dollars a gallon
22 --
23 —: It was very expensive.
24 —: -- would seem to be excessive
25 for just making something look pretty. And but you

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1 was just -- basically a generic paint?
2 —: Oh, shoot. I can't remember.
3 It was an expensive paint, man.
—: But it was expensive?
—: Yeah.
—: You don't by any chance remember whose paint it was, do you?
—: Yeah. I do, but I -- I'll have to think about it. I painted a lot dog-gone-it.
And they brought gallons too instead of five gallons,
you know, or barrels of it.
—: Right. But I'm talking about -- I mean, was it a brand like Sherwin Williams or Benjamin Moore or --
—: Behr? I guess that was a --
—: It wasn't Behr. I don't remember it right offhand. It'll come to me.
—: Okay. Well, I'm -- I'm not trying to put -- I mean, as far as you were aware though it was just paint and you were painting?
—: Yeah. Yellow and green.
—: I understand that. Okay.
—: How did you come across knowing how expensive this was?
—: It had it on it.
—: Oh, it had the price on it?
—: Yeah.
—: Okay. Very good.
—: There on the can, that stuff's high.
—: I didn't know. In case your supervisor told you to go easy on it or something of that nature.
—: They didn't care.
—: They didn't care?
—: No. They didn't care. Just paint it.
—: Okay.
—: We sprayed it.
—: Is there anything else you remember at the pot room that -- that you would seen stand out or -- because you said there was only one warning flag that you knew and those were on slabs.
—: There was no warnings in the
20 pot room about nothing.

21 —: The pot room, the rolling

22 mill?

23 —: Shoot, the pot room blew up

24 how many times, —? Three or four times that we

25 was in there, you know.

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1 —: I was in there a minimum of

2 four.

3 —: I -- I had a question for

4 —. This is just a -- a really big picture

5 question. In the whole time you worked there did

6 anybody say that you were working with thorium?

7 —: There was rumor but no -- no

8 supervision ever said. No.

9 —: Okay.

10 —: No.

11 —: And really the same question

12 about beryllium. Did anybody say — , this is

13 beryllium metal?
Beryllium if I remember right
we alloyed with it. We'd -- we'd toss little chunks
of it in the settling pots of the pots up there,
because I was a metal caster.
— : Okay.
— : Yeah.
— : So that -- that they did talk
about by name?
— : Yeah.
— : Okay. All right. Okay
— : And zorconium (phonetic), I
don't know if that's radioactive or not, but we used

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zorconium.
— : Can you remember any of the
alloy names that you used for the thorium or beryllium
like --
— : No.
— : They've been throwing around
names here today.

—: If you said one, there might be --

—: Well, there are some numbers, you know, like HM, things with H. And then there is another alloy that Dow is actually pretty famous for called lockalloy.

—: I've never --

—: And that was aluminum and beryllium. But yeah. Okay. All right.

—: You worked all over the plant so you was in casting of course. And now the aluminum unit up front -- now, that was almost a separate part of course from casting and from the mag unit. Did you ever hear of anybody alloying any special metals in the casting and the aluminum? Now, we've heard it in -- in the pot room for magnesium, but we haven't heard anybody tell us anything from the aluminum unit.

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—: At the aluminum unit I was a
— Okay.
— So then you had the crew leader, he did the alloying.
— Okay.
— And there was some funny stuff that came in there, but I didn't alloy, you know. I just cast it.
— What do you mean by funny?
— Well, there was -- well, I don't guess it was funny, it was different.
— Okay.
— And there was -- there was some type of can type stuff there, and I don't -- I don't have no idea what it was. You know, I don't know.
— Your job was to do what you were told and that was it?
— Well, I didn't do it.
— I see.
— I was in the hole, you know.
I was a metal caster.
— Now, they had giant spools of
—: Yeah.

—: -- or shiny wire that would feed into the trough --

—: Right.

—: -- right before it entered the mold.

—: Right.

—: So it was never in the rooms or the melting rooms.

—: Right.

—: Do you know what those coils were?

—: I forgot the name of them. I did it every day though.

—: Now, it was a hardener though, wasn't it --

—: Yeah.

—: -- that you used to harden
19 the alloys?

20 —: Yeah. It was probably about a

21 quarter inch around. It was on a spool.

22 —: Excuse me. Let me show you a

23 piece and see if you can identify it.

24 —: It would run in the -- it ran

25 in every -- we ran it in the trough.

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1 COURT REPORTER: You ran it in the --

2 —: Huh?

3 COURT REPORTER: You said you ran it in

4 the what?

5 —: We ran it in the trough for

6 the cast. Yeah. That's -- I would say that's it.

7 —: I removed a piece of it and

8 they made a key chain years ago. Does that look

9 familiar?

10 —: Yeah. That's it.

11 —: Okay. Does that identify it?

12 —: Yeah. That's it.
—: Now, I was told that it was titanium used as a hardener. But of course like you said, you did what you're told. I was told it was titanium, you know, that's used as a hardener, but --

—: I don't think it's titanium.

—: -- I -- you know, that's --

we was told a lot of things there that would seem to be --

—: I'll tell you what, tomorrow I'll remember what that is though believe it or not.

—: Okay. Could it have been another type of hardener like the thorium alloys they used?

—: Actually, it could be anything, you know. I mean, it wasn't labeled. We got big spools of it, and there was no tags on it. So I mean, who knows what it is.

—: Okay. Now, did you ever have --
—: —, let me ask you a question.

—: Okay.

—: What do you think that is?

—: Well, since they said it was like hardener and since I know titanium is a hard alloy, I thought it was the last step in a process of hardening the metal. They had soft aluminum, medium, and then hard aluminum.

—: Okay.

—: And so I figured when they'd run the hard aluminum it may have been a final step to get the alloy they wanted.

—: Uh-huh.

—: And so I assumed it was in there and harmless and just titanium. And because it was so hard, extremely hard -- to bend this took a three pound hammer and several, several minutes to bend this.
—: Uh-huh.

—: Now, when I cut these as everybody else did who worked there they used to use bolt cutters to start it.

—: Uh-huh.

—: And it would take quite a bit of force to cut it with a bolt cutter, almost as a lock.

—: Uh-huh.

—: Now, when I ground these flat this doesn't ground out down flat like aluminum. I mean, you ground, and ground, and ground with a hand grinder--

—: Uh-huh.

—: -- and a long period of time just to get one side flat. So I know it's a very hard alloy.

—: So what do you think it is?

—: I'm -- I was hoping it was titanium, but now I'm not so sure.

—: Okay. But that's your working--
—: Yes.
—: -- assumption?
—: That's my working --

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—: Okay.
—: And I had it in my pocket for 3 years.
—: It feels light for --
—: Yes.
—: It -- it looks heavy, it feels quite light. So --
—: But to scratch it and to grind on it and to cut it will take a lot of effort.
—: Okay.
—: So I can leave this with you.
—: Okay.
—: That's why I asked that. And is there any time they ever used a process like that in the pot room that you know of where they would have a spool?
I’ve never seen that in the pot room ever. They ran that in the aluminum unit every day, every run right there.

—: Really?

—: Yeah. I mean, it could have been different alloys. I don't know. But there were spools of them. You always had that around, and we -- we took --

—: Now, they were set at different speeds, were they not? Sometimes the speed on that feed was faster. The other was --

—: They had different speeds on there. That's right.

—: And -- okay.

—: It was like the water.

—: I remember a dial being on it also.

—: Top speed, yeah.

—: And for slower speeds. Okay.
—: I used to have all my notes and I left them at the plant when they ran us off.
—: I plan on getting all the alloy numbers from — who also worked in the pot room.
—: Uh-huh.
—: And he actually took a sheet home with him one day. So --
—: Uh-huh. Great.
—: -- I'm going to try to get ahold of those and get you a copy.
—: That'd be great.
—: And he actually probably had the beryllium and thorium alloys on the sheet also.
—: That'd be great. Okay.

—: I got a question yet. Is zorconium -- what's zorconium? Is that radioactive?
—: No. It's not.
—: Okay. I didn't think it was.
I was just curious.

—: And my question is lithium.

Is lithium hazardous?

—: I -- you know, I really don't think it is. I mean, it's like any other compound, but lithium is given, you know, to treat human psychotic type of --

—: Uh-huh.

—: Yeah. So I mean, almost every -- I -- I had to write a report one time for the Army Corps of Engineers project, a cleanup project at Mallinckrodt. And they had 11 different heavy metals that they had. I looked up almost all of them. Eight or nine of them were human carcinogens. So I was surprised, nickel and things like that. But I really haven't looked into lithium, so I really can't say. I don't know.

—: Okay.

—: It's not radioactive though.

That's not the problem.

—: Because I believe they may
have had an outside source bring in their own metal
one time that could have been lithium.
—: Uh-huh.
—: And it was ran on the heavy press. Now, the reason I don't want to go in detail because I wasn't there and processed this.
—: Uh-huh.
—: I'd like the person who did and was come in and make his statement.
—: Uh-huh.
—: So I just wanted to mention it.
—: Well, under this -- under this program though we're really talking about and worried about and for compensation worried about radioactive things.
—: Right.
—: Okay.
—: We --
—: Well, for the record there was very few customers that ever sent their own metal
into our factory.
—: Uh-huh.
—: And when they did it was very noticeable. Everybody -- it was --

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—: Uh-huh. Sure.
—: -- very rememberable because it was something that was very rarely done.
—: Uh-huh. Uh-huh.
—: And to have people come in and actually watch the metal be run --
—: Right.
—: -- was even more rare.
—: Right.
—: So it was something that would always trigger a memory in your mind that this was a special deal.
—: Uh-huh.
—: And --
—: Now -- now, did that apply to
lithium? Is that what you're saying?
— : That's what I'm saying.
— : All right.
— : The lithium run down there seemed to special run too --
— : I'm sorry. I see what you mean.
— : -- on the heavy press.
— : I didn't understand that.
— : And it was outside of the scope of all their normal runs.
— : And that's why I said I believe it was a government organization that may have ran this metal.
— : I understand. I just don't know about lithium. I really don't.
— : Did you run any shiny metal one time on the heavy press?
—: Yeah. That was that stuff for the space shuttle.

—: The stuff for the space shuttle?

—: And that was a very controlled atmosphere when that -- I don't know how many people was in there. They wanted everything just perfect before they ran the stuff.

—: Okay. Was -- do you know who the company was?

—: No, I don't. I believe they was from Virginia or West Virginia someplace, something like that.

—: Virginia or West Virginia.

—: They talked about having an explosion up there and having several people killed making this product.

—: Okay. And I think that was in the newspapers, the media?
— : I don't know.

— : Okay. Is there anything else you'd want to add to it that you can remember right offhand?

— : I think that's terrific, Paul. Thank you very much.

— : Oh, you're welcome.

— : We learned a lot. And several of the cleanup operations that you talked about I don't think are on the books or I don't think they were on the books until you put them on there. So that's very helpful. And I wish I could answer some of your questions, but we're just all learning.

— : Well, a lot of the important questions --

— : Right.

— : -- is just about to be answered.

— : Yes. I think -- okay, guys. I think that's it then. Thanks very, very much.

(Whereupon, the affidavit testimony concluded.)
I, — , Court Reporter, do hereby certify that this Dow Affidavit Testimony was transcribed by me to the best of my ability.

I further certify that I am neither attorney nor counsel for nor related nor employed by any of the parties to the action in which this is taken; further, that I am not a relative or employee of any attorney or counsel employed by the parties hereto or financially interested in this action.

IN WITNESS WHEREOF, I have hereunto set my hand and seal this 31st day of August, 2006.

[Court Reporter]