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EG & G
QUARTERLY ENVIRONMENTAL RESTORATION MEETING
AND
PUBLIC HEARING ON OPERABLE UNIT 16

Denver Marriott West
Denver West Boulevard
Lakewood, Colorado

December 8, 1993

I N D E X

1
2 APPEARANCES.
3 Panel:
4 Robert Birk
5 Dennis Schubbe
6 Greg Davis
7 Jeff Swanson
8 Rob Henneke
9 Audience Speakers.
10 Joe Schieffelin
11 Ronald Harlan
12 Ken Korkia
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1 PROCEEDINGS

2 MR. BIRK. Okay This part of the meeting on OU-
3 16 sells two functions. We are now seeing the proposed
4 plan, what we plan to do with OU-16, having completed our
5 IAG requirements, and we're administratively closing it out

6 It's also a public hearing because the IAG has
7 been wrapped into our RCRA Part B permit, and so we'll be
8 changing--as we close this out, we'll be changing the IAG,
9 and, therefore, we'll ultimately change the conditions of
10 our permit. And that will be explained in a little more
11 detail later.

12 THE COURT REPORTER: Mr. Birk, could you keep your
13 voice up? I'm picking up the piano next door.

14 MR. BIRK: Yes, ma'am.

15 THE COURT REPORTER: Thank you

16 MR. BIRK: Okay What is OU-16? Ou-16 was a
17 collection of seven individual hazardous substance sites
18 that really had nothing in common, other than when the
19 people that negotiated the IAG thought that the probability
20 of there being risks from these sites were very low, and
21 hence, low priority sites, OU-16, why would they be low is
22 because perhaps they were cleaned up at the time They had
23 been diluted over time. The pathway that Bonnie described
24 before to get from a source had been broken.

25 And Bonnie showed you a--let me ask this. Is

1 there anyone in the room now that wasn't here for the
2 presentation in OU-3 where Bonnie went through the risk--the
3 risk with the picture and the various modes to move a
4 contaminant to the receptor?

5 Okay. So she had a nicer picture, and she covered
6 this very eloquently, and, you know, there's no sense
7 rehashing it. But basically, you need a source, and you
8 have to go through that chain to get to a receptor

9 And I wish we had two overheads, but the five
10 IHSSs that--well, let me--let me back up here again

11 The IAG required that we--because there was
12 perceived to be very little risk, the IAG required that we
13 produce a final--a draft and a final no further action
14 justification document. The framers expected no action, and
15 we produced a document basically confirming that no action
16 would be taken to close out the sites, and we published a
17 proposed plan detailing the history of the sites and the
18 risk associated with them

19 Now, originally, there were seven sites, and I'll
20 point them out: A site up here, which was a nickel carbonyl
21 disposal site. Let's see, 185, which was a solvent spill
22 There was an antifreeze discharge in 192 over here
23 (indicating). There was a steam condensate leak in 193 over
24 here (indicating). There was another steam condensate leak
25 in 194 over here (indicating); a nickel carbonyl site in

1 195.

2 There were two other sites. There was a water
3 treatment plant backwash pond site that was located over
4 here (indicating), and we--and then there was a scrap metal
5 site, a buried old scrap metal site that was located over
6 here (indicating).

7 Those last two, the pond backwash water and this
8 metal disposal site, have been removed from OU-16 and are
9 being investigated in OU-5 and 13 respectively

10 So the no further action document and the proposed
11 plan addresses the remaining five sites. The other two we
12 felt needed further action. We couldn't close them out
13 because for one reason or another, we couldn't say that this
14 chain had been broken.

15 Just to put them up there for you again, those are
16 the five IHSSs or the five sites that we kept and addressed
17 in the proposed plan and no further action document, and
18 these are the two that required further action, and we moved
19 to other operable units.

20 MR. SCHIEFFELIN: Bob can I make one statement?
21 The no further action--

22 THE COURT REPORTER: You're going to have to come
23 to the microphone and state your name and spell it for me,
24 please.

25 MR. SCHIEFFELIN: My name is Joe Schieffelin. I

1 work for the Colorado Department of Health. The last name
2 is spelled S-C-H-I-E-F-F-E-L-I-N

3 The no further action justification that Bob's
4 talking about was required by the agencies to justify no
5 action. All seven sites in Operable Unit 16 were evaluated,
6 and it's that document and the support work that was done to
7 prepare that document that determined that the two sites,
8 the backwash pond and the scrap metal site, needed further
9 action, and, therefore, they were removed from Operable Unit
10 16.

11 MR. BIRK: Did I not say that? Okay What Joe
12 said is correct.

13 Really, that's it in a nutshell of what we've got
14 going on here. We're proposing no action because these--the
15 pathway to the receptor has been broken for these sites, and
16 we're going through the administrative close-out procedure
17 of these particular sites

18 And the documents have been out, both the proposed
19 plan and the no further action justification document and
20 the draft have been out, and we're here to take comments or
21 any questions you have on it

22 And we have some technical people here, too, that
23 can answer specific questions.

24 MR. HARLAN: I'm Ronald Harlan, H-A-R-L-A-N.

25 I guess just for curiosity, if it can be

1 summarized quickly, how was the exposure pathway broken for
2 each of the five sites?

3 MR. BIRK. Okay

4 MR. SCHUBBE: If this microphone is working--it
5 sounds like it is.

6 My name is Dennis Schubbe. I am EG & G's
7 representative, the OU manager for Operable Unit 16

8 To answer your question, Harlan, basically for
9 IHSS 185, it was a solvent spill that occurred back in
10 November of 1986, and approximately four gallons of solvent
11 was spilled onto a paved area on a loading dock .

12 They used a commercial absorbent to absorb the
13 solvent, basically some oil dry type material, and then they
14 drummed that up and dealt with it appropriately as a waste

15 They felt that because of the action that was
16 taken at that time and because of any volatilization that
17 would have occurred, that there would no longer be a source
18 there now So, therefore, no source being located that that
19 chain was broken.

20 Now, again, then on--in IS-192, that was the
21 antifreeze spill. There was approximately 155 gallons of
22 antifreeze that was emptied down a drain line and went out
23 via a pipeline to one of the ponds I think it was Pond
24 B-1.

25 In the no further action justification document,

1 there are several models that were run on the degradation of
2 the glycol--that's a constituent of the antifreeze--and they
3 showed that about in a week that that would degrade

4 And that happened--I don't have the date exactly
5 when that happened.

6 Okay. Again, the steam condensate leak on 193,
7 IS-193, there was, let's see, a means that a concentration
8 of .135 milligrams per liter, and that was below the
9 permissible exposure limit for that particular constituent,
10 and it leaked onto a paved area, and they felt that because
11 of rainfall and everything and because of the low
12 concentration, that that wasn't a contaminant source that
13 would be a risk.

14 Also, then, in IHSS 194, that's another steam
15 condensate leak, and there was some--the condensate, the
16 leak had a concentration of about a thousand pico-curies per
17 liter of tritium.

18 Okay. The extreme standard for tritium is about
19 20,000 pico-curies per liter So there they felt that there
20 wasn't a source there that was viable either. So that
21 pathway was cut at the source.

22 The nickel carbonyl disposal was an area where
23 they had cylinders of nickel carbonyl, and they would
24 ventilate those cylinders using small arms, small weapons,
25 and basically allow that gas to escape. They had these

1 cylinders put into a dry well.

2 In the nickel carbonyl itself, as was explained
3 with plutonium, after that gas was emitted, one of the
4 products was nickel oxide, a metal that would have a high
5 affinity, again, for the clay soils, and that the transport
6 mechanism out of there would be very low, basically in a
7 very low amount of nickel oxide, probably less than what you
8 have in your pocket of your pants from nickels

9 So, therefore, that source also, and the pathway
10 especially with the clay materials, wouldn't allow it to
11 spread.

12 That's basically the five we're looking at.

13 MR. BIRK: Do you want to talk about the ones,
14 too, that were transferred to the other operable units?

15 MR. SCHUBBE: Well, the two that were transferred,
16 basically the water treatment plant backwash ponds, there
17 were some sledges possibly or sediment in those ponds that
18 was never excavated. So, therefore, if that is still there,
19 then it has to be investigated. There's a potential source
20 there.

21 In addition, in the scrap metal sites, the metal
22 may still be there, and, therefore, if the source is there,
23 we don't know without further investigation if there is a
24 potential for a risk.

25 MR. HARLAN: This is Harlan again.

1 What metals were there that are of concern?

2 MR. SCHUBBE: Basically, they were scrap metals
3 from original building of the plant, the actual construction
4 debris is what it was. And there was some wood debris and
5 other things, I believe, buried just north of that area,
6 too.

7 But it was construction materials, primarily

8 MR. HARLAN. So what needs investigating--you
9 don't know what was put there, so you--

10 MR. SCHUBBE: That's right We didn't need to
11 investigate it.

12 MR. HARLAN: Some day you'll get around to finding
13 out what's there?

14 MR. SCHUBBE: Actually, in both of these IHSSs,
15 there's already been investigative work done In OU-13,
16 they have done radiological surveys over the scrap metal
17 area, and also, they have put bore holes into the area where
18 the ponds were for the water treatment plant backwash ponds

19 So these have already--investigations are already
20 ongoing in these areas.

21 MR. BIRK: The one--the water treatment backwash
22 pond thing happened to be located under a landfill that's
23 also being investigated in OU-5 But to administratively
24 handle this, it was better to move it to OU-5 and get on
25 with getting these sites taken care of.

1 MR. HARLAN: And this is a public comment, right?

2 MR. BIRK: Yes, sir

3 MR. HARLAN: Okay. From what technical background
4 I have, I don't see any problems with that I was
5 interested in nickel carbonyls, but they have no longer--and
6 they decompose rather quickly, and I don't see any problems
7 So I would support no further action, speaking as a citizen,
8 rather than as a plant employee, which I am

9 MR. BIRK: Thank you

10 MR. KORKIA: I'm Ken Korkia, and the last name is
11 spelled K-O-R-K-I-A. I'm the technical assistant for the
12 Rocky Flats Cleanup Commission.

13 I just have a couple questions right now The
14 first of them is kind of a conceptual question dealing with
15 the statement in the paper that we got that says that in
16 order to have a--that the four parts of the exposure pathway
17 must be complete.

18 And so I was wondering if--does that mean that
19 under current situations they have to be complete, or does
20 this take in hypothetical future uses that could lead to a
21 population that may some day be exposed?

22 And specifically, I have a thought in mind that if
23 you have an underground or groundwater contamination, and
24 you know that there's definite levels of contamination, but
25 you know that no one is currently using that source of

1 groundwater, would that be a case, then, where you wouldn't
2 have to clean up that source groundwater? Not the same as
3 goes on at Rocky Flats; this is a hypothetical question

4 MR. BIRK: We definitely have to look at it now,
5 and I believe the way the law is written, is--as any future
6 potential risk. If there's a potential risk, it needs to be
7 looked at.

8 MR. KORKIA: And then my second question has to
9 deal with the tritium that was in the steam condensate, and
10 if you could provide me with a little bit of information on
11 how that tritium--what's the source of the tritium in that
12 steam condensate?

13 MR. DAVIS: We don't know.

14 MR. SCHUBBE: No

15 MR. BIRK: Unknown. It's--it's below what
16 naturally occurs in streams by, you know, one to twenty. So
17 I don't know if that could ever be identified.

18 MR. KORKIA: So, but is this higher than normal?
19 I'm assuming this is the steam condensate that you use for
20 building heating purposes and--

21 MR. BIRK: Correct

22 MR. KORKIA: For those reasons And so are--is
23 this just naturally occurring in all the steam that's at
24 Rocky Flats that you would find the tritium?

25 MR. BIRK: It sounds--the values sound like it's

1 what naturally occurs in water

2 MR. KORKIA: Because my concern is, then, that
3 every place--I'm sure you've had other steam leaks over the
4 past with all the miles of pipe that you must have out
5 there, and so that was this only one example that was pulled
6 up, or why are other areas where there were leaks aren't
7 being considered for this same contamination?

8 MR. BIRK. Let's go back to the beginning In my
9 mind, the way this happened, you know, the way OU-16 came to
10 be, in a normal Super Fund site, or most Super Fund sites,
11 you go through what they call a preliminary assessment, site
12 investigation.

13 And you go through records, you interview people
14 and go through that process, and somebody says, back in
15 1952, I know we buried--you know, we kicked off 32 drums and
16 buried them over here. And you interview somebody else, and
17 he says, yeah, there were 24 drums, and we buried them over
18 there.

19 And, you know, you have to go through this process
20 and decide whether, you know, there were two incidents, or
21 they're talking about the same incident

22 And you go through this--this process and sites
23 are scored, and then you determine whether you get on the
24 Super Fund list or not.

25 But since Rocky Flats in its entirety, as I

1 understand it, was put on the Super Fund list, this process
2 --you know, the scoring, I don't believe, was done for sites
3 like this, and this is--this is a result of that process
4 where people said--you know, went through records and said,
5 yeah, there was a steam condensate leak. It concerned
6 somebody. They took a sample. There was an etholyn glycol
7 leak They flushed it with water, that type of thing And
8 there were records that these things happened, and that's
9 how they appeared and became sites that we're addressing in
10 OU-16.

11 I suspect that if there were other leaks, which
12 there probably were--if you have one, you probably have
13 more--that, you know, there were no records. You know, you
14 couldn't identify something that you would say would be a
15 site that would need investigation. Either nothing showed
16 up in the records or the interviews.

17 MR. KORKIA: And to follow up on that, if a steam
18 leak were to occur today, would it be standard procedure to
19 do a radionuclide specific testing on that to see if there
20 was tritium, plutonium, uranium in the steam?

21 MR. BIRK: Well, I'd have to defer to our waste
22 people on that. I could not answer that

23 MR. KORKIA: Okay Well, I hope there's a little
24 more information in the full document about tritium.

25 MR. BIRK: But since that's--since that's taken in

1 here, you know, as a comment and question, you know, part of
2 the process that the EPA and the State will explain is that
3 these questions will be addressed

4 MR. KORKIA: Okay. And just as a closing comment,
5 I guess that I know this is our first operable unit where
6 we've really gotten this far down where there actually have
7 been decisions made, and I guess it's wishful on my part,
8 but I hope that all the documents will be as easy to read
9 and to comprehend, and that the decisions will be as easy to
10 make But I seriously doubt that will be the case, but we
11 can only hope.

12 MR. BIRK: By the way, this document was a
13 collaborative effort of the EPA, CDH and the State. It's
14 our document with our name, but we had a lot of help in
15 preparing it.

16 MR. KORKIA: I commend the authors of this,
17 especially the inclusion of the glossary and just the
18 explanation of everything was easy to comprehend Thanks

19 MR. BIRK: Let's move on to the EPA, and they'll
20 describe the proposed plan process and where we go from
21 here. So I'll just--

22 MR. HARLAN: Just permission--I just question
23 whether a thousand pico-curies per liter, did you say, is a
24 natural background. There is tritium produced in nature,
25 but this sounds a little high.

1 MR. BIRK: Let me--

2 MR. HARLAN That's roughly 2,200 disintegrations
3 permitted per liter, and I'm kind of surprised at that

4 MR. DAVIS: My name is Greg Davis, D-A-V-I-S

5 My understanding of information presented in the
6 background geochemical characterization report is that the
7 background concentration for tritium in groundwater in
8 general at Rocky Flats is approximately 500 parts per
9 million or milligrams per liter

10 Five hundred parts per--or excuse me, 500 parts
11 per million, 500 milligrams per liter is background in
12 groundwater at Rocky Flats. That information is continually
13 updated annually with information collected of the
14 background report.

15 MR. HARLAN: Well, I think milligrams of tritium
16 would be many curies.

17 MR. DAVIS: Or, excuse me

18 MR. HARLAN: So five pico-curies per liter?

19 MR. DAVIS: Five hundred micrograms per liter is
20 the unit micrograms per liter. Five hundred micrograms per
21 liter is the correct value, I believe

22 MR. HARLAN. Okay Of tritium in groundwater?

23 MR. DAVIS: Off the top of my head, I think that
24 that's the information in the background report, but as Bob
25 mentioned, we can get that information for you to answer

1 your question.

2 MR. HARLAN. Well, I would just--I'm kind of
3 following up to Ken's. I kind of wonder how it got to that
4 high concentration.

5 MR. BIRK: My recollection from--

6 MR. HARLAN: In steam now--I don't know exactly
7 how steam counts work. But let's say that water was being
8 recirculated for many years Tritium--well, water
9 containing tritium is a little heavier than the average
10 water molecule, and maybe over 20 years it would
11 concentrate. I don't know

12 Of course, over 20 years, more than half of it
13 should decay, too, so--

14 MR. BIRK: Right. I was going to say my
15 recollection of the specific data in the report, which is--
16 we produced, I believe that was--wasn't there a range of 500
17 to 1,000?

18 MR. DAVIS. Could be.

19 MR. HARLAN: Thank you.

20 MR. BIRK: Any other questions?

21 MR. HENNEKE: I'm Rob Henneke with EPA. Arturo
22 Duran had a wisdom tooth extracted yesterday, and he's got a
23 really fat face right now, I think, so he didn't want to
24 show up.

25 We are in the middle of the proposed plan process.

1 So really, this is the heart of the process, the public
2 information meeting for you folks.

3 Another part of it is the public comment period,
4 which started on November 8th, and it runs until January
5 7th. That comment period can be extended by a written
6 request to do so for whatever reason you may have We ask
7 that you submit that request by January 3rd

8 I understand we may have gotten--yeah, we--
9 apparently, we did receive a request, so the comment period
10 will be extended. The extension notification will be
11 published in the papers also.

12 What is next is that after we receive the
13 comments, those comments will be responded to. Every
14 comment that is made will be responded to That will be put
15 into a responsiveness summary, what we call it. That will
16 be incorporated into the record of decision, which is a
17 legal document finalizing the Agency's decision with OU-16

18 If there are any changes to the proposed plan that
19 go into the record of decision, either they will be--if
20 they're minor changes, they'll be explained in the ROD as to
21 why these changes are being made. If they're major changes,
22 a new proposed plan will be issued There will be a new
23 public comment period and an opportunity for another public
24 meeting, if necessary.

25 I put this up here. These--send your comments to

1 DOE on the proposed plan, the permanent modification, to
2 Jeffrey Swanson at CDH.

3 Again, the comment period, November 8th to January
4 7th, and it looks like it will be extended

5 The proposed plan and the no further action
6 justification document, they're all available, and this
7 information are in repositories You're welcome to go there
8 if you want to look at the no further action justification
9 document

10 Copies of the proposed plan are here I encourage
11 you to read that, which summarizes what is being presented
12 tonight.

13 Do you have any questions?

14 (No response.)

15 MR. HENNEKE: Okay

16 MR. SWANSON: My name is Jeff Swanson. I'm with
17 the State Health Department

18 First, I'd like to thank everyone for attending
19 and sticking this out. It's been a long evening

20 I'd also like to invite you to comment. This is
21 the time when you are most involved in the process. This is
22 where we take your comments, your concerns, and we address
23 them. Everyone who stands up here and makes a comment,
24 gives us a question, those are going to be addressed when we
25 make our final decision

1 So I invite you to read the proposed plan If you
2 have questions, read the supporting comment--or supporting
3 documents. If you have more questions, give us a call,
4 submit your comments to these places

5 What I'd like to do right now is go very quickly
6 through the State's process There's an overlap here
7 between CERCLA Super Fund and the RCRA or the Hazardous
8 Waste Control Act, and that's the environmental cleanup
9 part.

10 The Super Fund process is the proposed plan record
11 of decision in that. Under RCRA, or in Colorado under, the
12 Colorado Hazardous Waste Act, we go through what's called
13 the corrective action process.

14 In that process, everything is administered under
15 Rocky Flats' hazardous waste permit. The permit for Rocky
16 Flats is very broad. It's very detailed It has several
17 parts. I'm not going to go through all of the parts. What
18 I want you to realize or recognize from this is that one
19 part of the Rocky Flats is corrective action requirements.
20 Those corrective action requirements are what we're dealing
21 with today.

22 The way the State has blended corrective action
23 into Rocky Flats is through the inter-agency agreement. All
24 corrective action at Rocky Flats is addressed through that
25 agreement. The statement of work from the agreement is

1 incorporated by reference in whole into Rocky Flats' permit,
2 so that any cleanup that is done at Rocky Flats under
3 corrective action has to be incorporated back into that
4 permit.

5 That's what we're doing today We're issuing a
6 draft modification to that permit We go through the public
7 comment process. We get your input We take your input, we
8 make a corrective action decision, and incorporate that
9 corrective action decision into the final permit
10 modification.

11 That's a little different from Super Fund Super
12 Fund does the proposed plan and record of decision. Under
13 the IAG, we move both of them concurrently, so that
14 hopefully, when we get to the end, we have a single concise
15 decision that's consistent between the two groups

16 That's all I have to say right now. I think I'd
17 like to--do you want it to flow back, or should I just--

18 MR. BIRK: Well, I guess the agenda here says, you
19 know, if there are any more public comments or questions
20 that--

21 MR. SWANSON: So at this time, anyone who would
22 like the opportunity to give us a public comment, we invite
23 you to step forward to the microphone. State your name,
24 spell your last name, and give us any comments

25 (No response.)

1 MR. BIRK: If there are no further comments, I
2 guess we will wrap it up Again, thank you for coming
3 (Whereupon, at 9 40 p.m., the public hearing was
4 concluded.)
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REPORTER'S CERTIFICATE

I, SHERRY BECKER, do hereby certify that I was present at and recorded the proceedings in the foregoing matter; that I thereafter reduced my recorded tapes to typewritten form, comprising the foregoing transcript, further, that the foregoing transcript is a full and accurate record of the proceedings in this matter on the date set forth.

Dated in Denver, Colorado, this 13th day of December, 1993.
