
INTERVIEW OF:

BRIAN ROOS

TAKEN NOVEMBER 17, 1997 AT 9:30 A.M.

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Interview of BRIAN ROOS, taken pursuant to agreement of and between parties at, Koch Industries, Inc., P.O. Box 64596, St. Paul, Minnesota, at approximately 9:30 a.m. on Monday, November 17, 1997 before Kimberly Hormann, Notary Public, County of Hennepin, State of Minnesota.

APPEARANCES:

Present from the Minnesota Pollution Control Agency:

DON L. KRIENS, P.E.

MARY L. HAYES

GREGORY BERGER

Present from Koch Industries:

JAMES K. VOYLES, Attorney at Law

Present from the law firm Green Espel:

LARRY D. ESPEL, Attorney at Law

SUSAN K. WIENS, Attorney at Law

I N D E X

EXAMINATIONS:

By Mr. Kriens: page 15, 40, 48, 50, 52, 67, 73,
75, 79, 80, 82, 83, 85, 88

By Ms. Hayes: page 4, 14, 16, 18

By Mr. Berger: page 23, 25, 29, 30, 31, 33, 36, 38

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CURRENT POSITION: page 5

1 MR. BERGER: Brian, I just have an
2 introductory piece that I have to read to you.
3 As you are aware, the Minnesota Pollution Control
4 Agency is conducting a civil investigation that is
5 focusing on Koch Refinery operations on a number of
6 pollution, environmental-related issues from our
7 April of '97 inspection here. We are seeking your
8 cooperation in obtaining some information about
9 these environmental issues, and we want you to know
10 at this time that you do not have to answer these
11 questions if you don't want to. This is totally
12 voluntary on your part. The information we obtain
13 in this investigation may be used in an
14 administrative, civil or criminal enforcement action
15 against Koch Refinery company. This investigation
16 is not against any individuals at this time. And if
17 we choose a criminal, civil or an administrative
18 enforcement action, it doesn't preclude us from
19 choosing another one. I just want you to be aware
20 of that. Do you have any questions?

21 THE INTERVIEWEE: No.

22 EXAMINATION BY MS. HAYES:

23 Q. Brian, would you just state for us your name, your
24 position, and tell us about your responsibilities
25 since you've started working for Koch?

1 A. My name is Brian Keith Roos. I've been with Koch
2 since February of 1990. I came to Koch from the
3 University of Minnesota with a mechanical
4 engineering degree. I started with Koch in the
5 project engineering group working on different
6 capital and turnaround maintenance-type projects.
7 From there, moved on to the clean fuels project as a
8 support engineer and worked there for about nine
9 months.

10 This is probably getting us into early '93,
11 somewhere in that time frame, where I moved into the
12 maintenance group, worked as a maintenance
13 supervisor, maintenance engineer, reliability
14 engineer, turnaround coordinator, planner, kind of
15 every kind of job you could do in maintenance and
16 worked in that group through January of 1995. At
17 which time, I moved into the FCC operating complex
18 as a mechanical assistant profit center leader and
19 worked there until October of '95. At which time, I
20 became the profit center leader or process owner of
21 the refinery utilities systems and worked in that
22 role until just recently, part of our 4100
23 reorganization.

24 I now am managing the refinery services
25 group, which are the non-core businesses, such as

1 accounting, IT, payroll, benefits, purchasing,
2 alliance management, facilities, public relations.
3 So, kind of a quick recap or more than you wanted to
4 know?

5 Q. No, actually that's real helpful. Can you explain
6 to me, just for my benefit, what a process owner
7 is, what that means? The term is interesting.

8 A. Process owner or profit center leader, they are two
9 terms that have been used kind of interchangeably.
10 Process owner is a more recent term. That would be
11 an area operations manager, really has kind of
12 ultimate responsibility for that part of the
13 operation of the refinery. In my case, it would
14 be the utilities, which is the utility area, which
15 is the wastewater treatment plant, the boiler house,
16 the RO water wells. Then the systems like cooling
17 water, steam, condensate, nitrogen, plant air,
18 sewers, the utility systems that go through the
19 plant.

20 Q. Great. Thank you for the information. The areas
21 that I'm interested in knowing about, I'm going to
22 ask you just a couple of pretty general questions
23 about some general areas that would pertain to you
24 and those responsibilities as the process owner.
25 And, I guess what I'm interested in hearing from

1 you, Brian, is what your awareness has been about
2 overflows from the coker ponds and also the B5
3 overflows. Can you tell me what your recollection
4 about those has been?
5 A. Of overflows?
6 Q. Overflows.
7 A. Water going --
8 Q. -- reaching the dikes of the coker pond and then, to
9 my knowledge, it's been overflows that go over to
10 the north side that we discovered when we were out
11 here in the B5, right. Can you tell me what you
12 experienced around that, those two issues, when you
13 were especially in that capacity?
14 A. Well, the coker ponds, and I'm sure you guys are
15 aware, the three ponds down -- I don't need to go
16 into those details.
17 Q. No.
18 A. But the problems we've had with overflows have been
19 tied into large rainstorm events where the volume of
20 water flowing down there is greater than the, than
21 the volume storage capacity that's available, along
22 with the rate of pumping that we can pump away from
23 those ponds. I don't have any specific dates. I
24 mean, I know that we've had a couple of overflows.
25 We've taken steps to contain the overflow using

1 materials such as petroleum coke dikes to keep the
2 water from flowing say, into the railroad, the
3 railroad ditch on the west side of the coker pond.
4 Q. Were you around when that happened when it
5 overflowed? I think there was a big one in '96; do
6 you recall that one, Brian?
7 A. Yep.
8 Q. Do you recall the cleanup that resulted from that?
9 I mean, would you be involved in making decisions
10 about how to do that in that capacity that you were
11 in?
12 A. Not the operational details, but from the
13 accountability to make sure that we take care of
14 those issues right away.
15 Q. And do you recall what you did to mitigate that
16 problem back then?
17 A. I don't recall specifically on that event other
18 than, you know, first of all, we need to pump the
19 water back down, get the water back into the pond.
20 Get -- you know, if the pumps are not performing up
21 to capacity, we'd get those repaired. Get the water
22 back in and if there's any cleanup that's required,
23 we complete that using the appropriate group. You
24 know, if it's, if there would be an oil sheen, we'd
25 need to use the appropriate individuals that are

- 1 trained hazmat. I don't remember specifically.
- 2 Q. In this case, as I recall from the logs, it seems
- 3 like you went and cleaned out the weeds on that one,
- 4 but I don't know if there was any soil cleanup?
- 5 A. I don't remember the details around it.
- 6 Q. On the issue of the coker ponds, you mentioned that
- 7 there were a couple of variables, one is rainfall,
- 8 and the other is how much water you can pump away
- 9 from the coker pond.
- 10 A. And the storage volume of the ponds themselves.
- 11 Q. Right. And so that leads me to the next area, which
- 12 is the oily-water sewer into the non-oily water and
- 13 the issue of how much water is being pumped from the
- 14 coker ponds that seems to overload the oily water
- 15 especially near tank 500. Then there has been an
- 16 overflow that we discovered when we were out here
- 17 that goes from the oily water and it goes across the
- 18 land to the non-oily water sewer. Were you aware of
- 19 that prior to your taking the position in January of
- 20 '95 as the process owner, Brian?
- 21 A. Was I aware of that prior?
- 22 Q. Were you aware of the problem?
- 23 A. No, no.
- 24 Q. But you did become aware, I assume, once you --
- 25 A. -- yes.

- 1 Q. Okay. And so what was -- so you were in charge of
2 the wastewater treatment plant?
- 3 A. Correct.
- 4 Q. So what did you do when you came in as a result of
5 this problem; I mean, becoming aware of the problem
6 of the overflow, what kind of steps?
- 7 A. The overflow?
- 8 Q. Yeah, the overflow from the oily water to the
9 non-oily water, it become pretty chronic. In fact,
10 we have in the logs, it goes back as far as our logs
11 go back that there's discussions from operators of
12 the problem, and I'm just wondering.
- 13 A. There's a couple of things -- I mean, there's a
14 number of things that we've done to remediate that
15 problem or eliminate that problem. We've got three
16 flows that enter that oily-water sewer box: you've
17 got the water coming up from the coker ponds that's
18 pumped up from the coker ponds; you have the large
19 water storage pit in the cokers -- I think it's P20,
20 maybe it's P30, I don't remember the exact pit. I
21 could point it out on a drawing. When that pit
22 fills up, that overflows into this oily-water sewer
23 manhole. You've also got tank 500 -- I think it's
24 500. That tank overflow also goes into that.
- 25 Q. Can I stop you for just a second?

- 1 A. Sure.
- 2 Q. Pit 20 or pit 30 that fills and overflows into --
- 3 A. P20.
- 4 Q. P20 or P30, where does that overflow?
- 5 A. That overflows into the oily-water sewer.
- 6 Q. Do you know where?
- 7 A. Yeah. It's right into that sewer box. That's why
- 8 I'm talking about all three of these flows overflow
- 9 into this one oily-water sewer box, which is located
- 10 just on the west side of tank 500 between the tank
- 11 and the pit.
- 12 Q. This happens right near tank 500?
- 13 A. Yeah, they all come into that point. Now, I believe
- 14 where the problem was, is if we were trying to pump
- 15 maximum rate from the coker ponds, the tank 500 was
- 16 full waiting for a coker drum cycle and there was
- 17 still water going into tank 500 there; therefore,
- 18 there was still overflow and the P20 pit was
- 19 overflowing. All three of those flows into that
- 20 one manhole in combination with some liming of the
- 21 oily-water sewer main, would back that system up to
- 22 where it would overflow.
- 23 Q. What about the cooling tower contribution?
- 24 A. That's the water that goes into tank 500 that then
- 25 overflows. So that's the cooling water

1 contribution. So you've got three flows going into
2 a manhole, an oily-water sewer manhole. Then the
3 problem we were having was the line restrictions
4 from that manhole going to the wastewater treatment
5 plant, so large flow rate and some constricted flows
6 and it was backing up and would then overflow.

7 Q. So what was your solution to it -- I mean, prior to
8 your doing a permanent fix, you know, being in
9 charge of that area, what was your proposal about
10 that?

11 A. We had some operational procedures in place that
12 limited the amount of water that we could flow from
13 the coker pond, and it needed to be timed with coker
14 drum cycles to make sure that we didn't have all
15 three of those flows concurrently going into that
16 sewer. That was kind of what was in place when I
17 started, if I remember properly.

18 MR. KRIENS: We have a number of those
19 incidents that we have reported just on the
20 operating logs. I don't know, was there 50 or
21 something?

22 MS. HAYES: Probably about 50.

23 MR. KRIENS: And we noticed a memo from
24 Joe Butzer and J. Schellberg, I think it was January
25 or February 13, January 13, '96 outlining the

1 problem and in detail, and describing what you
2 mentioned that it was continuous, a continuous
3 issue. And they requested that something be done
4 about it.

5 Do you know why it took so long? I mean, we
6 got to it this spring, I guess, or summer, when we
7 got out there in April and discovered the problem,
8 became aware of it, asked Koch to begin looking at
9 resolutions. Do you know why it took from at least
10 January of '96 through this summer to fix it since
11 it was a continuous issue?

12 MS. WIENS: Have you seen this memo
13 before?

14 THE INTERVIEWEE: I don't know. I don't
15 recall this specific memo. I mean, I remember --

16 MS. WIENS: Do you know who it went to?
17 It doesn't say.

18 MR. KRIENS: There's another one
19 somewhere that I know that describes the issue and
20 it was sent throughout. We'll have to find that.

21 MS. HAYES: Well, I guess, even without
22 the memo, we know that it's in the wastewater
23 treatment logs since '94. I mean, I can start
24 pulling these out, but you've probably seen a lot of
25 those. I guess the thing that is in question here

1 is, what was the problem with the remediation of it?
2 I mean, it's hard for us to understand that because
3 now it appears that there was probably a fairly
4 simple fix to it. And the reason I'm asking you
5 this question is because you were somebody who would
6 have been at least partially accountable, it seems
7 to me, during that time that you were here.

8 A. So the specific --

9 Q. The specific question is, what was the problem,
10 because for example, this memo, I think we thought
11 this was probably from about September of '96 or
12 '95, I'm not sure.

13 MR. KRIENS: No. January or February of
14 '96, but there's another one that corresponds to
15 this. We'll find it.

16 EXAMINATION BY MS. HAYES:

17 Q. Anyway, in this memo there is discussion about the
18 possible solutions. In the logs, it's pretty
19 obvious that some areas, at least it looks like the
20 tone is the operators are really frustrated because
21 it's happening again, we've got this overflow. Like
22 when we were here in April, asked about it, and we
23 kind of got the, I don't know, the shoulder shrug
24 about what was the problem, that it was even, in
25 fact, going into the clean water sewer. And we're

1 just wondering what the issue was, because there was
2 even a suggestion made in January of '96 about how
3 to fix it. And there were other, there's all kinds
4 of incident logs here and that kind of stuff. So
5 I'm just wondering, Brian, if you can tell me what
6 the problem was; what was the impediment to getting
7 this taken care of? What I'm trying to get to here
8 is system reliability and kind of some
9 accountability, I guess.

10 A. I think that the approach we took was that we had a
11 restriction somewhere downstream of this oily-water
12 sewer box, and that we needed to go in and get rid
13 of that restriction. So Industrial Service does our
14 hydroblasting, line cleaning. We would ask them to
15 come in, and they would hydroblast and clean the
16 line and get chunks of scale cleaned out and then
17 the system would work well. Other times we might
18 find a two-by-four that had somehow gotten in there
19 or maybe like a white suit, something that had
20 washed into the sewer and plugged, caused a
21 restriction in the line. So there's a number of
22 different reasons. I don't think there was an
23 impediment to why we didn't fix it. We cleaned the
24 sewer out and it would work fine and then --

25 EXAMINATION BY MR. KRIENS:

1 Q. It doesn't look like that was the whole solution,
2 obviously.

3 A. At that time, you know, it wasn't.

4 Q. You did that, as I understand, this summer or has it
5 been cleaned this year?

6 A. It's been cleaned this year.

7 Q. Then it was necessary to divert flows from the
8 cooling water system out of there. And then, I
9 think the other thing was to divert the coker pond
10 flow to some extent, too, to take care of the
11 problem. So the sewer cleaning was obviously, it
12 appears to us, not the only issue or problem that
13 caused that.

14 EXAMINATION BY MS. HAYES:

15 Q. To give you an example of what we're looking at in
16 the logs that brings this question up, there's a log
17 dated January 13 of '94 and the initials on the log
18 are RG, DN and KK.

19 A. What were the initials?

20 Q. RG, DN and KK. The part of the log states, note the
21 problem with water coming out of the ground and
22 running into the Nows at the coker is not -- and
23 it's bold -- it's solved, it's doing it again. It
24 goes so far back, is it just -- I guess it does sort
25 of baffle us that it goes that far back. And, you

1 know, and it's so chronic. There's pages of logs
2 here. And so it just feels to us like when we are
3 interviewing somebody in your capacity, it's
4 important to just ask these questions.

5 A. Sure.

6 Q. And I think that it sounds like there's been some --
7 well, you have some responsibility. You know,
8 someone else has some responsibility in another
9 area. And I don't know if it's a matter of that not
10 coming together in a way that it was communicated
11 appropriately. When you look at like this memo, you
12 know, I wonder what happens to something like this
13 when suggestions are actually being made. And
14 there's not -- doesn't look like it's followed
15 through on, but I don't know. And when we
16 interviewed Joe Butzer about this memo, he even
17 said, can you see my frustration in the way this is
18 written? So anyway, I'll just leave it there,
19 because I just -- I was -- I'm just trying to find
20 answers to what -- it's still a little confusing to
21 me.

22 A. There was also a weir installed in B5 where the
23 non-oily water sewer comes into B5, at that time, to
24 ensure that any flow that got into the non-oily
25 water sewer, not necessarily from this, but that we

1 had some sort of a way to catch light materials
2 before they got onto B5, so that was something else
3 that was done.

4 MR. KRIENS: That weir is on the north
5 end?

6 THE INTERVIEWEE: North end of B5.

7 MR. KRIENS: Then you put booms here,
8 that weir allows overflow into the pond itself then?

9 THE INTERVIEWEE: It's an under overflow
10 process. So it would, it's like an API separator.

11 MR. KRIENS: Was there a problem before
12 that of oil getting in there and collecting?

13 THE INTERVIEWEE: Not that I'm aware
14 of, no.

15 EXAMINATION BY MS. HAYES:

16 Q. When did you put the weir in, about? I mean, I
17 don't expect you to --

18 A. I would say it was probably in late '96. I don't
19 have a real hard deadline date on that.

20 Q. And kind of a segue to that is this issue where
21 you're being, you're getting memos from Heather
22 Paragher on the January 16, '96, 16E5 leak that
23 resulted in oil to the non-oily water sewer and then
24 oil into the B5.

25 A. Okay.

- 1 Q. The document numbers are 61 and 2978 and the dates
2 are January 21 and January 16, '96.
- 3 A. '96. Okay.
- 4 Q. Can you tell me about that event, and tell me what
5 happened and how it is that the oil got to the B5 as
6 a result of that, because I don't totally
7 understand. This map shows 16E5.
- 8 A. So how does the oil from 16E5 get into B5?
- 9 Q. Yeah, could you tell me about this incident and what
10 happened here?
- 11 A. Well, you know, I'm going to have to look back and
12 read a couple of things.
- 13 Q. That's fine.
- 14 A. So we had a tube split in 16E5 which --
- 15 Q. -- it's an old crude?
- 16 A. Must be a water slop exchanger, which would, yeah --
17 I'm not that familiar with the details around the
18 exchanger. But obviously, it looks like what
19 happened here -- I don't know the specifics around
20 this -- but if we got oil into the non-oily water
21 sewer, that's not going to go to the API. It's
22 going to go directly down to the north side of B5
23 into that inlet weir. And before that weir is,
24 before the under overflow weir was in place, that's
25 going to flow directly down to B5.

- 1 Q. This would have been B4 probably?
- 2 A. This is before that, yep, yep. This is definitely
3 before we had the weir in place, the fixed weir.
- 4 Q. So are there opportunities all along the system for
5 the oily to go to the non-oily? That can happen in
6 overflows in many areas, it appears, from the stuff
7 I've been reading.
- 8 A. I think any time you have something split open and
9 have oil go to a non-oily, that that potential
10 exists in the refinery. They aren't things that are
11 normally lined up. They aren't direct lineups in
12 that case from the refinery. But in the event
13 something splits or opens up and leaks oil into a
14 water stream where it would be going into the
15 non-oily water sewer, it happened here.
- 16 Q. Okay. So would this incident have been something
17 that precipitated you putting the weir in; is that
18 what you're saying?
- 19 A. Yep, yep.
- 20 Q. Is that actually the one?
- 21 A. I believe so, yes.
- 22 MS. HAYES: Thank you. I think that's
23 all I have. Do you have any questions?
- 24 MR. KRIENS: I have got a quick one on
25 this. Do Butzer and Schellberg, did they report to

1 you at that time or did they report to some other
2 area?

3 THE INTERVIEWEE: No, they were, you
4 know, if this was that time frame, they were in
5 shift supervisor roles, and shift supervisors
6 reported to different process owners, these two
7 didn't report to me.

8 MS. HAYES: Do you know who they would
9 have reported to, Brian?

10 THE INTERVIEWEE: Maybe a Mark -- well,
11 it would have been one of the other process owners
12 at that time. It would have been -- I can give you
13 a whole list of them. The date on, this is 1-1-97.
14 If this was back earlier, I would anticipate it was
15 probably Mark Wolfe or Angus Connell.

16 MR. KRIENS: I asked Steve David to give
17 us the chart that represented this time frame. I
18 don't know if it is necessarily.

19 THE INTERVIEWEE: This is probably
20 close, but Mark Wolfe was a process owner at that
21 time. Larry Byers was relatively new. But they
22 would have reported to one of the other process
23 owners, and I don't know the specific ones.

24 MR. BERGER: Brian, when this happened,
25 this overflow of the oily-water sewer to the

1 non-oily water sewer, how was it detected? When did
2 you know it was occurring? Were there inspections
3 made on a routine basis? How was it found?

4 THE INTERVIEWEE: The way that these
5 would be found is the operator rounds, either within
6 the coker, which would be checking their pond or
7 their pits, they would notice the overflow. I mean,
8 that's on their rounds or the utility operators on
9 their rounds around the B5 pond area. They would
10 notice oil on the pond or on the inlet if that was
11 occurring.

12 MS. HAYES: How common was it that they
13 found oil on B5?

14 THE INTERVIEWEE: Not very common at
15 all.

16 MR. BERGER: What about the boiler
17 house, we've been told that you can smell oil in the
18 boiler house when it -- when there was oil on the
19 NOWS; are you aware of that?

20 THE INTERVIEWEE: No.

21 MS. HAYES: That is how this one was
22 discovered, I believe, the 16E --

23 THE INTERVIEWEE: They could smell oil?

24 MS. HAYES: I believe so.

25 THE INTERVIEWEE: Because that sewer

1 goes relatively close by the boiler house. But that
2 would make sense if that was something that smelled.

3 MS. HAYES: This one is oil crude unit
4 operators noticed a smell from the sewers. But I
5 guess, that's not the boiler house, is it?

6 THE INTERVIEWEE: No, no.

7 EXAMINATION BY MR. BERGER:

8 Q. I have a memo here of February 29, 1996. It's No.
9 188. It's to you, Brian, and Rick Legvold, Tom
10 Bailey and Sue -- I don't know how to say her last
11 name -- but it talks --

12 A. Siebenaler.

13 Q. Okay. The subject is gas oil leak incident
14 investigation follow-up plans. And, I believe,
15 we're talking about this situation of the leak at
16 16E5. But No. 7 states, Rick will explore the
17 possibility of placing a sensor in the boiler house
18 area. It would be used for the early detection of
19 oil in the NOWS. Typically, the boiler house
20 personnel can smell oil when it gets in the NOWS.

21 A. Okay.

22 Q. Do you remember reading that memo?

23 A. I remember seeing the memo. We talked about
24 communication. Yeah, I remember the memo,
25 yep.

1 Q. I guess my question here is getting at the timing of
2 this. After this happened, when this oil started to
3 go from the OWS to the NOWS, how was it detected,
4 and how soon did you -- was something done about it?
5 And if it's being detected in the boiler house, how
6 much went down to B5 before something was done? Can
7 you answer that or do you --

8 A. I mean, we didn't have a formal detection system in
9 place in the non-oily water sewer.

10 MS. HAYES: What about the sensor idea
11 that was discussed?

12 THE INTERVIEWEE: I think it's a
13 reasonable approach. I would prefer to take an
14 approach where we eliminated the oil from going into
15 the sewer in the first place. I'd rather be more
16 proactive than reactive. I'm not sure if Rick
17 followed up and completed that action item or not.
18 I'd like to ask Rick.

19 MR. BERGER: What was done then? Was
20 switching from the NOWS to the OWS, is that your
21 typical way of handling the situation then?

22 THE INTERVIEWEE: Switching from the
23 NOWS --

24 MR. BERGER: NOWS, switch the --

25 THE INTERVIEWEE: In the event of

1 anything that, yeah -- procedurally we called down
2 to the utility operator to convert the non-oily
3 sewer into the front end of the API to make sure
4 that that went through the wastewater treatment
5 plant system.

6 MR. BERGER: Anymore on that?

7 MS. HAYES: Huh-uh. Don, do you have
8 anything else?

9 MR. BERGER: I can talk about some more
10 issues about the oily-water sewer.

11 MS. HAYES: I'm done. I guess, I have
12 one general question, but if you don't cover it --

13 EXAMINATION BY MR. BERGER:

14 Q. Could you tell me what your understanding is of the
15 purpose of the oily-water sewer system at Koch
16 Refinery?

17 A. The oily-water sewer system?

18 Q. Why is it there? What's its purpose? What is it
19 designed for?

20 A. We have segregated sewer systems. The oily-water
21 sewer system is there to capture streams that either
22 have oil in them or come into contact with process.
23 And it's there to collect the streams that need to
24 go through the wastewater treatment plant for
25 treating. Prior to that, water either goes to the

- 1 river or goes into our fire water system. It's a
2 collection system for the wastewater treatment
3 plant.
- 4 Q. Of processed wastewater?
- 5 A. Of any wastewater stream that needs to be treated
6 before it goes to the river.
- 7 Q. Would you say it's just wastewater? That's the
8 purpose of it, it's just for oily wastewater?
- 9 A. There are other areas that go into the oily-water
10 sewer system. There are parts of our old plant, of
11 the older part of the plant, just by design, those
12 going into the oily-water sewer system to capture
13 some water runoff. But it's also for pump drains,
14 for seals. If there's -- in the event of a leak, it
15 would capture that oil. Our crude desalter water
16 goes to the wastewater treatment plant, that used to
17 use the sewer systems, that's now directly piped
18 there. Our stripped sour water system uses the
19 sewer. There's a number of different streams that
20 go to the oily-water sewer system in the plant.
- 21 Q. Are you aware of materials like product material,
22 like light naptha, naptha, methanol, straight oil
23 going into the oily-water sewer system?
- 24 A. Straight oil?
- 25 Q. Just oil dumped from a unit?

- 1 A. No.
- 2 Q. I'm going to show you just a number of logs here
3 that generally are about the same thing. And I'll
4 show you two or three or four here. Then we can
5 talk about them later. This is a log of 2-21-96.
6 It's No. 163. It states, Poly unit sending down
7 some light naptha, exact amount unknown. Second log
8 of 2-26-97, No. 1169. It states, Poly called, said
9 they would be dumping 2 to 300 gallons each time of
10 medium to heavy naptha down the sewer at a few
11 different times today.
- 12 A. Okay.
- 13 Q. The third log, this is from 8-22-94. This is one
14 we've talked about before. There's no number on
15 it. Hazmat will dump about 20 to 30 gallons slowly
16 of xylene paint thinner down at the 8th Street sump.
17 With all the dilutions, we shouldn't even see it.
18 This is a log of June 7, '94. There's no number.
19 It states, Poly washing sand filter -- caustic
20 naptha to oily-water sewer. I guess my question
21 is, does that surprise you that those types of
22 materials are released to the oily-water sewer
23 system; did you have knowledge of those things
24 occurring?
- 25 A. I know I don't have knowledge of those two.

1 MS. WIENS: Which two?

2 THE INTERVIEWEE: Those were the 1994.

3 MR. BERGER: The situation where the 20
4 to 30 gallons of xylene and the washing of sand
5 filter, caustic naptha to the oily-water sewer.

6 THE INTERVIEWEE: These two, I don't
7 have specific knowledge of them. This is something
8 that today we wouldn't allow this to happen. We
9 won't allow streams, oil streams to go to the
10 oily-water sewer. This is not a normal operation, I
11 know that.

12 MS. HAYES: What happened to make the
13 change? You said, now we wouldn't. Didn't you say
14 that, Brian? You kind of made it sound like you
15 made a break from old procedures?

16 THE INTERVIEWEE: I don't know if we
17 made a break, it's not --

18 MS. HAYES: I'm not trying to say -- I'm
19 just trying to understand.

20 THE INTERVIEWEE: I won't -- the
21 oily-water sewer system isn't a place to dump
22 straight hydrocarbon. We have operational procedure
23 ways to deal with these types of things. They are
24 probably shutdowns where they'd need to or where the
25 procedure was to drain a vessel to the sewer before

1 we would clean it out and go inside it and inspect
2 it. I don't know the Poly area, so I don't know
3 the details around them. But I think that was
4 procedurally the way a lot of those shutdowns were
5 done, utilizing the oily-water sewer.

6 EXAMINATION BY MR. BERGER:

7 Q. And just from what you said, it's something that
8 isn't done now and that -- are you, I guess -- let
9 me ask, is this something that you feel was improper
10 to do?

11 A. No. I mean, we've got an oil collection system and
12 the API separator. And at that time, that was the
13 acceptable procedure for dealing with that.

14 Q. Isn't the API just there to skim off heavy oil from
15 the water before it goes to the wastewater plant;
16 isn't that the purpose of the API?

17 A. It's there to separate the oil and to separate the
18 heavy solids and that's, we're saying, the same
19 thing.

20 Q. Well, not, no or not -- when you talk about naptha,
21 I think that's something that's more on the lighter
22 end.

23 A. That's something that wouldn't be acceptable today,
24 based on learnings. We don't want that stuff going
25 down the sewer, it's not safe.

1 Q. How about high caustics and low PH material, are you
2 aware of that being released to the oily-water
3 sewers?

4 A. Caustics, low PH -- I'm aware of acids and high PH,
5 but I'm not aware of caustics and low PH except in
6 efforts to correct the PH.

7 Q. When I say caustics, I mean high PH, 13, 14 PH;
8 acids, I mean, like two PH?

9 A. Oh, you mixed --

10 Q. Did I?

11 A. I think so. I think you said caustics and high PH?
12 Caustics are low PH.

13 Q. No, it's the other way, caustics --

14 A. Caustics are high PH, acids are low.

15 Q. Well, never mind.

16 MR. ESPEL: I think we weren't clear
17 what we were talking about. You might want to start
18 over or something.

19 EXAMINATION BY MR. BERGER:

20 Q. Let me just show you a number of different logs.

21 A. Sorry about that.

22 Q. Fine. This is the same one I mentioned before,
23 6-7-94. It states, Alky unit sending 14 PH slowly.

24 MS. ESPEL: Just one point here with the
25 date, I think that Brian might not be familiar with

1 that simply because of the date.

2 THE INTERVIEWEE: I know I'm not
3 familiar with --

4 EXAMINATION BY MR. BERGER:

5 Q. I don't know if the date is all that familiar. I
6 guess what I'm getting at is just your general
7 knowledge of these types of releases to the
8 oily-water sewer system, are you aware of them, and
9 what's your opinion of these things? Let me show
10 you another one. This one is 2-27-97. There's no
11 number. And it states, 1500 gallons caustic to
12 oily-water sewer from Alky unit very slow.

13 A. I'm aware of these. I'm not sure I understand the
14 question.

15 Q. Just tell me what it's about. Do you know what's
16 happening here, why it's being released? Is it a
17 cleanout of a vessel, maintenance step?

18 A. In the Alky unit, there's an acid neutralization
19 pit. And once again, I don't know the details of
20 the Alky, specific, unit. But they have a high use
21 of sulfuric acid in that process. And they use the
22 oily-water sewer system sometimes to -- like I said,
23 I don't know the specific details, but I know that
24 there's acid that gets sent or caustic. I'm saying
25 as they're neutralizing the acid, that we get

1 sometimes caustic released to the sewer because our
2 PH going into the API will go up.

3 Q. Isn't that the purpose of a neutralization pit to
4 take this acid or caustic and get it down to a PH of
5 six or seven before it is released?

6 A. I believe so, yep, yep. If there's, there may be
7 another place in that process that does that that
8 I'm not aware of. But we do have a higher PH stream
9 that comes to us down the main east, west pipe rack
10 that combines with a number of other flows,
11 including the flow from tank 500, before they all go
12 to the wastewater treatment. That was one of the
13 items that was in the root cause of why our sewer
14 was starting to plug up. Because there's hardness
15 in one stream, there's high PH in the other stream,
16 and hardness and high PH, you know, hardness plates
17 out, calcium will plate out on the insides of the
18 pipes. That's what was causing our more rapid
19 plugging of some of our sewer mains there. So, yes,
20 I know that the PH stream was there.

21 MS. HAYES: I guess the question that I
22 have, maybe this even clarifies it a little bit.
23 Does the Alky unit serve to get you PH control; is
24 that what is sometimes done is that you're taking
25 caustic or acid for, to help you with PH control in

1 wastewater?

2 THE INTERVIEWEE: Inside the Alky unit,
3 if they were, procedurally, they may have if they
4 have caustic and they need to neutralize it, that's
5 what the neutralization pits are for.

6 MS. HAYES: It doesn't work the other
7 way, though, where you're taking other caustic or
8 acid from some area to help you with PH control,
9 that kind of thing?

10 THE INTERVIEWEE: No. That wouldn't, I
11 mean, I know there's nothing there on a routine or a
12 normal operation. Now, if the sewer was found to
13 have a real high PH, we have measures at the
14 wastewater treatment plant to adjust the PH to make
15 it fit within the needs of the basins.

16 EXAMINATION BY MR. BERGER:

17 Q. Right. The release of such low PH and high PH,
18 acids and caustics, does that give you any concern
19 of what that's doing to the sewer system?

20 A. Yes, yes.

21 Q. In a sense, eating away or corroding the actual
22 pipes?

23 A. Yes.

24 Q. Have you had any discussions or talked to anybody or
25 heard anything about the condition of the system

1 from these releases?

2 A. We have talked very recently about our sewer system.
3 And from an overall standpoint, the opportunities
4 we've got with the oily-water sewer system, I mean,
5 long term, we've had specific projects in the past
6 where we have found problems during an inspection.
7 You know, pull up the sewer, inspect it, and
8 sometimes we find a good sewer and other times we
9 find a sewer without, you know, without a section of
10 the bottom, we would replace that. Sure. I don't
11 have specific --

12 Q. So, in general, there is a concern here at Koch
13 about --

14 A. -- absolutely --

15 Q. -- the condition of the sewer system. And it is
16 being looked at at this time?

17 A. Yes.

18 Q. Or a condition and then it's a project that's
19 ongoing?

20 A. We've been looking at the sewer systems for quite a
21 while. I mean, we've always looked at them.

22 MS. HAYES: When we interviewed Todd
23 Aalto, he mentioned a meeting that took place in a
24 group that he was in. It sounds like it was a
25 special work group that was assigned to, I can't

1 remember what he called it. Maybe you know of the
2 name of it. And he was in a meeting and that topic
3 came up. And Mary Lee, who was an environmental
4 engineer, was involved in that meeting. Were you at
5 that meeting, Brian?

6 THE INTERVIEWEE: Mary Lee?

7 MS. HAYES: You don't know a Mary Lee.

8 MR. ESPEL: Don, are you going to have a
9 lot of questions? Let's go off the record.

10 (WHEREUPON, a discussion off the record
11 was held.)

12 MS. HAYES: Brian, the question was, did
13 you have any knowledge of the meeting that took
14 place? Todd Aalto mentioned it when we interviewed
15 him and it was with Mary Lee. And I had the
16 impression it was a special assignment group
17 doing -- sort of looking at special issues around
18 the refinery. You don't know anything about that?

19 THE INTERVIEWEE: No.

20 MR. KRIENS: It would have been this
21 past summer, discussing the sewer.

22 MS. HAYES: And you didn't hear anything
23 about it either?

24 THE INTERVIEWEE: (Shakes head,
25 negatively.)

1 MS. HAYES: Yeah, because it was related
2 to the issue of the deteriorating sewer. It sounds
3 like there was some questionable stuff around that.
4 But I don't know anything about it. I don't want to
5 say anything else about it. I wanted to ask you if
6 you know.

7 EXAMINATION BY MR. BERGER:

8 Q. Okay. Back to just a follow-up here. One more
9 question, or one or two more questions on disposal
10 to the oily-water sewer system. We've talked about
11 naptha and some xylene here, and we've talked about
12 acids and caustics. I mentioned earlier about oil.
13 And I have a log here, Brian, it's from 4-7-96.
14 It's No. 294. I just have a list of a log, I don't
15 have the actual log with me. And it just stated on
16 the log, Poly putting some No. 1 F.O. to OWS for
17 approximately 30 minutes. I assume No. 1 F.O. is
18 fuel oil?

19 A. Okay.

20 Q. Any reaction to that, is that something that you
21 know about that happens? I know you don't know if
22 it's an upset situation here or if it's an emergency
23 or anything and it could be. But am I correct if I
24 just say, in general, that this shouldn't be
25 happening, to your knowledge?

1 A. I don't know those progress units very well. I
2 mean, talking about the Alky or the Poly, I don't
3 know that process. I really can't answer
4 that.

5 Q. Okay. We can leave it at that. I have another log
6 here. This is one that I just saw the other day
7 when going through some wastewater treatment plant
8 logs. It's dated 4-21-96. It's No. 330. And the
9 second sentence is of interest to us. It starts
10 out, it just has the word caustic then there's a
11 dash and then it says, tank 304. And then there's
12 an arrow meaning to, to B5 Poly dumping 500 GPM to
13 NOWS. Do you have any idea what that's about? Do
14 you know what tank 304 is?

15 A. No.

16 MS. WIENS: Is this something you wrote
17 or saw before?

18 THE INTERVIEWEE: No.

19 MR. BERGER: No, his name is not on it.
20 Again I just wonder if you ever -- it just appears
21 to me when I read that, that's a direct discharge
22 from tank 304 to B5 through the NOWS. Is that the
23 way it appears to you? Is that the way it reads to
24 you?

25 THE INTERVIEWEE: I don't know that, I

1 don't know anything about tank 304.

2 MR. KRIENS: How about the Poly on that,
3 the second part of that, Poly dumping 500 GPM to
4 N-O-W-S, NOWS?

5 THE INTERVIEWEE: We've talked about
6 the Poly, I don't have process knowledge of the
7 Poly. I couldn't even tell you where the Poly
8 exactly is in the refinery.

9 MR. BERGER: I guess in my mind those
10 two are connected. You start out with a dumping of
11 a tank here, then it's stating Poly done with tank
12 dumped.

13 THE INTERVIEWEE: Okay.

14 MR. BERGER: That's my opinion. Okay.
15 I guess that's all I have for the oily-water sewer.

16 If you want to stay on that topic -- are you
17 guys done with that?

18 MS. HAYES: I think we're done with
19 that.

20 MR. KRIENS: Sure, I think so.

21 EXAMINATION BY MR. BERGER:

22 Q. I'll just bring up a couple of things really
23 quickly. Are you aware of mercury spills at the
24 boiler house over the last several years, couple
25 incidents?

1 A. Yes.

2 Q. Could you tell me what you know about that?

3 A. I only know that there's some old instrumentation in
4 the boiler house that utilizes mercury in the
5 internal parts of it. I don't recall any specific
6 spills. Procedurally, we have mercury spill kits
7 available to help people deal with that, so that's
8 all I know about it.

9 Q. Okay. Are you familiar with the term, backwashing
10 to the coker ponds, ever heard that used?

11 A. Backwashing to the coker pond? No.

12 Q. I have a memo from Heather Paragher and you are
13 copied on it. And it's -- the subject is
14 nitrification and other current operating
15 parameters. It's dated March 13, '97. And it just,
16 it mentions a couple of other current issues that
17 are being reviewed. And it says, hydraulic loadings
18 are high right now due to pond water removal and
19 backwashing to the coker ponds. Backwashings should
20 be over by March 24.

21 I am just trying to get some clarification on
22 what that means. We're going to ask Heather when we
23 talk to her.

24 A. I have never heard those words used together.

25 Q. Okay. Are you aware of materials coming in offsite

1 from other Koch facilities here in the Twin Cities
2 delivered here by tanker truck or by truck to this
3 facility and then stored in tanks on site? In
4 general, do you have any knowledge of tankers coming
5 on site with product or wastewater or anything; is
6 that anything that you have knowledge about?

7 A. I'm not involved in that part of the business.

8 Q. Okay. Have you ever heard of the Auto Avenue site?
9 Do you know, does that ring a --

10 A. Auto Avenue, is that our St. Paul office? I don't
11 know. I don't know anything about that.

12 MR. BERGER: That's about it for me.

13 MS. HAYES: That leaves you, Don.

14 EXAMINATION BY MR. KRIENS:

15 Q. Brian, we've met, Don Kriens. I want to ask you
16 first, what is the relationship between your
17 department, which is operations, or was, and the
18 safety department and the environmental department,
19 in terms of decision making regarding the wastewater
20 treatment operations, disposal, treatment of
21 wastewater and that sort of thing?

22 A. I'm not sure I understand the question.

23 Q. Well, okay. My understanding is that you managed at
24 least -- or is this correct, did you manage the
25 wastewater treatment plant operations or did --

1 A. Correct.

2 Q Did they report to you then?

3 A. The environmental group or the safety group did not
4 report to operations.

5 Q. But, I mean, the wastewater operations part?

6 A. The operators did, yep.

7 Q. If a decision is made with respect to that
8 operation, is it made by the wastewater group then
9 regarding --

10 A. It depends on the -- I mean, decision is a broad
11 term. It depends on the specific item, issue, area.

12 Q. Well, I'm going to talk about the flushing, hydrant
13 flushing, the use of the hydrant system, the fire
14 water system for disposal of wastewater onto land
15 areas specifically. I'm not talking about
16 transferring back and forth, although, we'll talk
17 about that to some extent, too.

18 If the decision is made to discharge
19 wastewater via hydrant, which was done on several
20 occasions in '96 through March of '97, who makes
21 that decision that that's carried out?

22 A. That would be a group decision. It would be a
23 combination of environmental, operations, along with
24 safety because they would execute that decision.

25 Q. So would you get together then? If a situation --

- 1 A. -- absolutely --
- 2 Q. -- arose, you would get together and make a decision
3 about that; is that what you're saying?
- 4 A. Yep.
- 5 Q. Let me talk about one in particular. We'll start
6 with the one on January 4, 1997. There was a
7 hydrant release. I think that was through the
8 night, where about 2.8, our understanding is 2.88
9 million gallons were discharged down to the runoff
10 pond lower wetland area, and that was the first time
11 we were advised or informed that those releases had
12 been occurring. Now, in that particular one, was
13 there a meeting held before that one to decide?
- 14 A. No.
- 15 Q. Do you know anything about that one then?
- 16 A. I'm aware of it, yes.
- 17 Q. So what is your understanding of the release on that
18 occasion? Why it was done, or who carried it out,
19 or who made the decision why it was carried out?
- 20 A. I believe that decision was made by Ruth Estes. I
21 believe it happened over a weekend. Ruth is a shift
22 supervisor, and she made the decision to do that.
23 I'm not sure I understand what you're specifically
24 looking for.
- 25 Q. Who did Ruth, who would she have reported to during

- 1 that period of time?
- 2 A. She reported to me.
- 3 Q. Did she report to you during this period of time in
4 '96 and then up through March of '97, April of '97?
- 5 A. Yes, I believe so. She did report to me; I don't
6 know the specific time, the exact date, but she
7 reported to me at that time.
- 8 Q. But on this particular occasion, did she inform you
9 or meet with you to discuss the need to discharge at
10 that time?
- 11 A. Not -- we didn't meet to talk about that specific
12 discharge. We had talked about use of fire water
13 and cleaning out hydrants, mains. Ruth -- in the
14 course of operating, we had a normal operations
15 relationship, we talked about everything.
- 16 Q. Did you have meetings or meetings to discuss, not
17 cleaning out fire water system, because we do
18 understand when that's completed, but to use the
19 fire system, water system hydrants to dispose of
20 wastewater?
- 21 A. Ruth and I talked conceptually about if we were in a
22 certain situation, given different options, what
23 would be our preferred choice at that time.
24 Specifically, if we're at a point where it came down
25 to sending, basically violating our permit to the

- 1 river, you know, knowingly we had water going
2 towards the river, that was going to violate our
3 permit, would we rather land discharge that using
4 our fire water system or violate our permit. And
5 conceptually, we thought the land discharge, it --
6 and we got into a long discussion, acute versus
7 chronic. I grew up on a farm. Ammonia is a
8 fertilizer and that quantity is not harmful. We had
9 a discussion like that, you know.
- 10 Q. Did you make a decision based on those discussions
11 to do that?
- 12 A. No.
- 13 Q. Although it was done on several occasions?
- 14 A. At this time?
- 15 Q. Well, I'm talking about any time. You had discussed
16 the issue concept of disposal on land versus the
17 regular discharge in situations where you may have
18 exceeded the limitation.
- 19 A. There are -- we used, I should say wastewater
20 treatment discharge and their fire water system, and
21 we had the opportunity to flush mains.
- 22 Q. But I'm not talking about that. I'm talking about,
23 specifically about an instance that you just
24 described where it was disposed of and that is what
25 was done?

- 1 A. I believe so, yes.
- 2 Q. Do you know when that was done?
- 3 A. I don't remember the specific dates, but I do
4 remember the process of meetings and discussions
5 that we went through to make that decision, and how
6 we controlled it and ensure that, yep.
- 7 Q. Do you remember the time frame, in general?
- 8 A. Late winter of '97 or '96, '97 winter.
- 9 Q. Was anybody else involved in those meetings besides
10 you and Ruth Estes?
- 11 A. A lot of people were involved in this meeting --
- 12 Q. -- to discuss --
- 13 A. -- safety. What's that?
- 14 Q. To discuss this particular issue. But I'm talking
15 specifically about the use of the hydrant system to
16 dispose wastewater as opposed to the normal
17 discharge that you mentioned.
- 18 A. Yeah, we had an environmental group: The safety
19 group, myself, shift supervisors, we all sat and
20 discussed it.
- 21 Q. Can you name the names of those that you recall?
- 22 A. Well, Heather Faragher, myself, Rick Legvold, Gary
23 Ista. I can't remember anybody else specifically.
- 24 Q. Steve David?
- 25 A. Steve David.

- 1 Q. Ruth Estes, I assume?
- 2 A. Ruth was involved when she was on shift; I mean, she
3 wasn't always with us.
- 4 Q. How about anybody up the management level ahead of
5 you, Jim Jacobson, Tim Rusch, anybody else? That's
6 a question.
- 7 A. I don't remember them being involved in the specific
8 discussions. They were aware of our wastewater
9 treatment plant, the inventory issues at the time.
- 10 Q. Were they aware of the practice then of disposal of
11 the wastewater onto land areas at that time? I'm
12 talking January and before, January of 1997 and
13 before.
- 14 A. I don't know.
- 15 Q. Okay. What was the general problem that caused this
16 to be a practice, basically?
- 17 A. It was a combination of water and ammonia.
18 Specifically, the problem revolved around the
19 performance of our sour water strippers, and our
20 strip sour water having higher than normal levels of
21 ammonia in it.
- 22 Q. Let me jump back up before I forget. When the
23 discussion was, when it was discussed whether you
24 should go onto land or violate the permit, was that
25 wastewater then that was disposed of via land via

- 1 the hydrant system analyzed?
- 2 A. Yes. Was the water analyzed?
- 3 Q. Right.
- 4 A. Yes.
- 5 Q. When was that analyzed?
- 6 A. It was analyzed prior to any water being sprayed
7 onto the ground.
- 8 Q. That is contrary to what previous people have told
9 us. It was analyzed after, I think, January. But
10 prior to that we've been told that it was not
11 analyzed.
- 12 A. I'm talking about prior -- or I'm talking about
13 after.
- 14 Q. Prior to that, was it analyzed?
- 15 A. I don't remember.
- 16 Q. You don't know or you don't remember or what?
- 17 A. I'm getting the time frames confused. What is the
18 specific question?
- 19 Q. Prior to January of 1997, do you know if the water
20 that was discharged via the hydrants was analyzed
21 for any parameter?
- 22 A. For any use?
- 23 Q. No. For a discharge to land areas to dispose of
24 water for that specific purpose?
- 25 MS. WIENS: Through the fire hydrants.

1 THE INTERVIEWEE: I'm not aware of any
2 instances prior to January of '97.

3 EXAMINATION BY MR. KRIENS:

4 Q. In these meetings did you discuss the alternative of
5 disposal via hydrants versus the permitted
6 discharge, was the issue of the fact that you would,
7 that the company would have to pay a penalty for
8 violations of ammonia?

9 A. No.

10 Q. Did that come up?

11 A. No, that never came up. The discussions revolved
12 around violating a permit and sending ammonia to the
13 river versus land application and the environmental
14 pros and cons of either one, which would be our best
15 option.

16 Q. Although it's my understanding that the water was
17 never analyzed prior to January of '94?

18 MS. HAYES: '97.

19 MR. KRIENS: I mean, '97, excuse me,
20 that was discharged on land areas.

21 MS. WIENS: He said he didn't know.

22 THE INTERVIEWEE: Through our fire
23 hydrant system, no, I'm not aware of any intentional
24 land applications.

25 MS. HAYES: Can we check into that,

1 whether there's records of an analysis of wastewater
2 before hydrants were sprayed, like in November of
3 '96; is there some place that you can check on
4 records like that?

5 THE INTERVIEWEE: Well, we analyze --
6 our wastewater that goes to the river gets analyzed
7 every day.

8 MR. KRIENS: This would be from the fire
9 water pond though.

10 THE INTERVIEWEE: It's essentially the
11 same water. But I'm sure, I mean, if there were
12 records that were done, we would have those recorded
13 in PI or LIMS our lab information system.

14 MR. KRIENS: It's not exactly the same
15 water because the oily water goes to the
16 API and through the wastewater treatment plant and
17 out. This water is the, the non-oily water sewer,
18 which is generally cooling water, storm water,
19 relatively clean boiler blowdowns.

20 THE INTERVIEWEE: Right, they came
21 together and go --

22 MR. KRIENS: It should be. Although, it
23 in numerous cases, it had a lot of oily water
24 overflow process sewer water into it because of
25 these tank 500 issues and other overflows. And so

1 our interest there was that because it was composed
2 of process wastewater at numerous occasions, it
3 wouldn't necessarily be characteristic of the clean
4 water sewer that it should or would have been used
5 for. And that, given the fact that overflows north
6 of that pond show significant contaminated soils,
7 obviously, that pond has some contamination at
8 periods of time to cause that soil contamination in
9 the north part of that pond. So there was
10 significant contaminants in there periodically.

11 MS. WIENS: I want you to know these are
12 his conclusions, not that they are something that --

13 THE INTERVIEWEE: Right.

14 EXAMINATION BY MR. KRIENS:

15 Q. Right. Do you want to go back -- I'm sorry to
16 interrupt your sour water strippers issue. Why
17 don't you go ahead with that discussion on the
18 problems that that was causing.

19 A. Well, the high ammonia numbers were, I mean, the
20 plant nitrification process wasn't able to consume
21 all the ammonia going to the water plant from the
22 front end, so we had ammonia in our plant
23 discharge. We have a permitted amount of ammonia
24 that can go to the river, both an acute daily limit
25 and a chronic monthly limit. And we had a challenge

- 1 to ensure that we sent the right amount of water to
2 the river to make sure we didn't violate our permit,
3 and with rain and snow we had a lot of water.
- 4 Q. Okay. What's the difference, there was a hydraulic
5 issue, too, with the rain and snow you're saying, or
6 was it primarily a loading issue?
- 7 A. Well, I think they go together but it was a loading
8 issue. I mean, it's a mass of ammonia.
- 9 Q. Is it easier to handle the system hydraulically in
10 the summer months than it is in the winter or is it
11 vice versa; do you have more storm water flow in the
12 winter or in the summer?
- 13 A. Typically more in the summer than the winter, but it
14 depends on, I mean, that is normal, but it does rain
15 in the winter. We do get snowmelt in the winter.
16 Typically, our biggest storm water flows are during
17 thunderstorms during the summer, big rains.
- 18 Q. I believe this July there was a high or rather
19 infrequent storm event, a few in a row. I don't
20 know if it was the ones in 25, I think it was that
21 frequency or less, which means a high rainfall. Was
22 there a bypass or discharge via the hydrants this
23 summer when those flows occurred, when those storms
24 occurred?
- 25 A. Not that I'm aware of, no.

1 Q. So it was able to go on out the normal discharge?

2 A. Right.

3 Q. When did this storm water stripper problem start in
4 terms of their inefficiency to remove ammonia?

5 A. It was a gradual process over quite a ways back, but
6 I would say in maybe mid 1996, we started seeing
7 problems with them.

8 Q. I think we had met in May where we discussed that, I
9 believe that's what I recall.

10 A. Was that May of '96?

11 Q. Well, we meet at a meeting this past May.

12 MS. HAYES: When you came to our office,
13 Brian.

14 THE INTERVIEWEE: Okay. That meeting.

15 EXAMINATION BY MR. KRIENS:

16 Q. I believe I recall that you mentioned it was about
17 mid 1996?

18 A. I think that's about right.

19 Q. Was there, what were the fixes for the strippers?
20 Just real briefly.

21 A. Yeah, I mean, the fixes to fix the problem that was
22 already, was shutting them down one at a time, going
23 in, pulling the trays out, sandblasting the calcium,
24 the hardness off the trays, pulling the exchangers
25 that provide the heat input to the tower, replacing

1 those bundles because they were limed up. Getting
2 the towers back to like new condition was the short
3 term, and then long term was to get the hardness
4 streams out of the sour water going to them, so when
5 you go through the PH swing in the stripper, you
6 don't have hardness plating out. It was kind of
7 twofold.

8 Q. When was that determined that that was the problem?

9 A. I don't remember the specific date, it was before
10 our meeting in May.

11 Q. Well, was it April or March or --

12 A. It was probably, yeah, I would say it was December,
13 January, maybe February of '97 time frame.

14 Q. Okay. Why did it take, let's say from mid '96
15 through whenever that was this past winter, to
16 resolve that problem?

17 A. The biggest issue is sour water strippers performed
18 poorly for a number of reasons. One is liming, one
19 is oil in the sour water, one is problems with your
20 overhead, which goes to a sulfur plant if your
21 overhead pressure is fluctuating.

22 So there's a number of scenarios that cause
23 poor performance, and you can't just open these
24 things up and look at them. It's a process of
25 scheduling it, shutting it down, opening it up. And

1 it took us a long progression to understand that it
2 was a liming problem that was causing that issue
3 with all of our strippers. They take different feed
4 streams.

5 Q. It looks like it took at least nine months to us,
6 during which time there was very high loads to the
7 wastewater plant. Which theoretically, at least,
8 overloaded the ability of the plant to treat ammonia
9 on a theoretical basis given the design of that
10 plant. I'm just surprised why it took, you know, a
11 company that uses strippers -- you know, in a real
12 prevalent way -- so long to determine that that was
13 a problem.

14 A. Yeah, we didn't have perfect knowledge going into
15 it, and it took awhile to determine that hardness
16 was the problem in all the strippers. Then there
17 was also, where is the hardness coming, locating
18 that, and then solving that problem. It was a very,
19 very structured sequence of events to get where
20 we're at today. But if you look at the performance
21 today, we're there. We only have three of the four
22 on, it's been that way for many, many months.

23 Q. Yeah, it's working fine now.

24 A. I mean, it was pretty methodical, but it took a long
25 time to get it to the different streams that were

- 1 providing a hardness. You can't just shut things
2 down and go in. I mean, you have to do some
3 planning, you have to order bundles.
- 4 Q. Is scaling on a stripper, would that be a fairly
5 common problem reducing efficiency in a stripper on
6 the trays?
- 7 A. It's a common problem but it's not common the rate
8 of scaling that we had.
- 9 Q. When did you find out that you actually had scaling
10 problems there?
- 11 A. You always have some scaling.
- 12 Q. That it was a problem really reducing the
13 efficiency, obviously?
- 14 A. Late, probably late '96 somewhere, like I say, it's
15 hard to go back.
- 16 Q. Is it difficult to analyze streams that are influent
17 to the strippers? I mean, I'm not talking about
18 ordering bundles and shutting units off. Can't you
19 just take a sample out of that stream going in?
- 20 A. Well, you can take a sample of the stream going in,
21 but there's a hundred sources that go into that tank
22 and low levels of hardness are difficult to sample
23 for. It's very -- it's a complicated procedure to
24 take care of that.
- 25 Q. Were there -- my understanding, and correct me if

1 I'm wrong, was that there was a high level of
2 hardness coming from some particular unit?

3 A. There were a couple of different sources of
4 hardness.

5 Q. So when you reduce the hardness out of there, what
6 were those sources? I thought you had taken those
7 off the stripper?

8 A. That's what we ended up doing, is either eliminating
9 that exchanger. If there was a cooling water leak
10 into the process, which would come out as sour
11 water. So in the case where most of your
12 hydrocarbon cooling water exchanger leaks, the oil
13 is higher pressure than the cooling water. So 95
14 percent of those types of leaks, you see oil in your
15 cooling tower and you know immediately you have a
16 problem. You can go out and you find that bundle
17 and isolate that exchanger, and you replace it.

18 Now, when cooling water is higher pressure
19 than oil, water goes into the oil and it comes out
20 with your sour water and you -- I mean, you won't
21 know right away that you've got a leak because you
22 have water, you have steam going into that
23 process. So water is normal, but what you don't see
24 is you don't see the hardness that starts to build.
25 Q. Was there any one particular tank?

- 1 A. Tank 63 or 64, they were the primary source of the
2 hardness.
- 3 Q. So those were taken out of the loop, is that what I
4 understand?
- 5 A. That water was directed straight to the front end of
6 the wastewater treatment plant.
- 7 Q. So are they fairly easy to sample, tank 63?
- 8 A. Very easy to sample.
- 9 Q. Was that the dominant source of hardness? That's
10 what was told to us.
- 11 A. Yeah, I think I told you that.
- 12 Q. Yeah. That's what I'm trying to understand is why
13 those weren't evaluated? Why did it take so long to
14 figure that out when they're fairly easy to sample,
15 and that was the dominate source of hardness?
16 That's what I'm trying to understand.
- 17 A. Well, we didn't realize that that was the only, that
18 that was a hard water stream when we started this
19 process. So first we sampled the hardness in the
20 tanks. So, okay, we have got hard water going into
21 the sour water strippers.
- 22 Then you go out and you look, where's all my
23 water coming from? You go out and sample a hundred
24 streams, and you get your results. And then it
25 became fairly obvious that there were two or three

1 key sources. Then at a point, then you need to sit
2 down and say, do I have other options for this
3 water? It's just not automatic that you just pull
4 the water because you have to have, you know, you
5 have to be very structured in your approach.
6 There's a management of change process that we have
7 to follow here. And you can't just go out and
8 change something.

9 Q. Well, I understand that. I'm just talking about the
10 determination of that being a source. Why it took
11 so long to find out that scaling was the issue, and
12 why it took so long to find that source.

13 A. It took us a certain period of time to figure out
14 what the problem was by the time we got into each of
15 the strippers, then determine where's that calcium
16 coming from and to go out and sample those and get
17 those results back, then to come up with other
18 alternatives for those specific sites. I think it
19 went fairly well. The refinery is a big complicated
20 place. When you're talking about hundreds of
21 streams to get it down to a couple, it took some
22 time.

23 Q. What would be the percent flow that tank 63
24 comprised into the stripper system that it occupied?

25 A. Maybe five percent of the total flow or less, three

1 to five percent. I mean, it was a very small
2 stream.

3 Q. Sounded like it comprised most of the hardness?

4 A. But it was a very small stream in the big picture.

5 Q. So let me understand again. It took awhile to find
6 out that scaling was the issue?

7 A. Right.

8 Q. And wouldn't scaling be an initial, kind of really a
9 primary target on a stripper since that's really the
10 essence --

11 A. Typically your run lengths on sour water strippers
12 are four or five years before you have really any
13 scaling buildup. And that's kind of the traditional
14 life expectancy that we saw of them. So out of the
15 four strippers, we would take one down every year,
16 and we'd go in. And there would be some scaling but
17 it wouldn't be enough, or some marginal cleaning,
18 and we would be done. All of a sudden in mid to
19 late, you know, in that mid to late '96 for some
20 reason that rate of scaling increased
21 substantially. And as we went in, our initial
22 thoughts were it wasn't scaling, that we thought it
23 was oil or we thought it was a problem with our
24 sulfur plant, the overhead pressure going to our
25 sulfur plants because scaling doesn't build up that

- 1 fast.
- 2 Q. Wouldn't it be fairly reasonable, though, in a
- 3 stripper since they're actually fairly simple units?
- 4 A. They're very simple.
- 5 Q. You've got a waste stream going in and you've got,
- 6 in this case I think, a heat source?
- 7 A. Steam.
- 8 Q. Steam. Then you've got plates. And primarily what
- 9 you're doing is you're changing a face change there
- 10 from water in the case of ammonia and solution, and
- 11 you're stripping it out into vapor. So that's going
- 12 to depend primarily on that transfer surface and its
- 13 ability to do that. So wouldn't that be kind of the
- 14 first thing you'd look for?
- 15 A. Well, you've got the heat efficiency of your heat
- 16 exchanger, and you've got fouling. If you get oil
- 17 laying on top of your trays in your sour water
- 18 stripper, that's going to behave just like fouling,
- 19 just not going to allow your bubble caps to allow
- 20 your vapor liquid interface. It's not
- 21 necessarily -- it could be a combination of
- 22 different things.
- 23 Q. In '96, you started observing that, was there
- 24 anything done differently then in '96? Did you look
- 25 back to see if there was operational changes that

1 may have started?

2 A. We looked for operational changes but didn't find
3 anything significant.

4 Q. When did tank 63 start going into there?

5 A. I don't know specifically. I don't know if you have
6 better information than I do.

7 Q. Yeah, well -- was there an increase in that
8 production rate at the refinery that would impact
9 this, too?

10 A. Increase in sour water production?

11 Q. Well, increase, in general, overall oil input to the
12 refinery reproduction?

13 A. It wouldn't have a real direct tie to the amount of
14 sour water that's produced. They're related but not
15 direct.

16 Q. Okay. I think we did discuss that. How about an
17 increase in the slop system into tank 63 since that
18 inputs there?

19 A. Only an increase in water into the slop system would
20 increase to affect the sour water. The slop oil is
21 handled through a separate process.

22 Q. My notes on this state that the tank 63 previously
23 went to the wastewater treatment plant. At some
24 point, it went into the sour water stripper and --

25 A. At some point. I don't know what drove it and why

1 it was changed. There was an option to go to the
2 sour water stripper system so you could take the
3 wastewater treatment plant, the API out of service,
4 and that was one more stream that you could divert
5 away. That's really a maintenance option.

6 Q. I want to ask you about an incident in November '96.
7 In November of '96, you would have been in charge of
8 the wastewater operations?

9 A. Uh-huh.

10 Q. In November, on November 4, there was a hydrant
11 discharge to land through the evening. And I'll
12 just go through some chronologically and ask you
13 about this particular incident.

14 A. November of '96?

15 Q. '96, November 3 and 4. On October 24, Heather
16 Faragher sent a memo to various people, including
17 yourself, notifying that a Bioassay would occur on,
18 begin to occur on November 4; are you familiar with
19 the Bioassay testing?

20 A. No, not -- not in that terminology. I'm not sure
21 what you're talking about.

22 Q. I'm talking about the whole effluent. It would be
23 the testing, toxicity testing on the effluent from
24 the wastewater plant off the polishing plants. It's
25 been done in the past on many occasions.

- 1 A. Oh, there is our -- we call it something else, I
2 think.
- 3 Q. W-E-T, I think you might refer to WET test?
- 4 A. Toxicity testing -- the shrimp or the minnows.
- 5 Q. Right. On October 24, Heather sent a memorandum
6 advising everybody that this toxicity test was going
7 to begin on November 4, which is a Monday. And on
8 November 2 -- there is actually memos prior to that
9 and operating logs which demonstrate that the
10 wastewater plant was having difficulty meeting
11 ammonia and that you had to stack water, back water
12 up and reduce the flow in the polishing ponds, to
13 the polishing ponds, thereby reducing the discharge
14 to the river. And one particular log on November 2,
15 it states that there were specials sent to the lab,
16 which are the special analytical tests done to find
17 out what the levels were in S7, in polishing ponds
18 or whatever with the ammonia.
- 19 A. Okay.
- 20 Q. At that time, the flow was cut from S7 which is, as
21 you know, the discharge to the polishing pond; and
22 hence, to the river, was cut to less than three
23 units backing water into B5, the north storm water
24 pond. Then on November 3, a log states that at 1600
25 hours there were more specials on S7 to the lab.

1 The results were 72 parts per million for TSS. And
2 110 parts per million for ammonia. And also there
3 was a note in this log that, drop off a copy of
4 Heather's letter to the shifties for toxicity
5 sampling and testing starting Monday, November 4.
6 Then a notation, cut flow to the river to 1.7
7 units.

8 And then on November 3, there is a memorandum
9 from Dave Gardner, which gives the special
10 analytical results and then also states, limit flow
11 to the river to two units, which I understand to be
12 about a million to 1.2 million gallons. And, I
13 think the normal discharge is generally around or
14 was around 3.5 million gallons a day, so it's
15 cutting it back significantly.

16 And then he states in this memo, I hope these
17 moves prove sufficient in light of tomorrow's annual
18 toxicity testing. And then on November 3, an
19 operating log states that and quote, safety to open
20 three hydrants on west tank farm on ground to help
21 get rid of water. And this occurred at 7:00,
22 beginning at 7:00 p.m. that evening. Then there's a
23 flushing log that states on -- the safety log that
24 states, flowing water on west tank farm west side of
25 I Street, this was November 4, '96 letter. So I

1 wanted to ask you about this particular incident.
2 Were you aware of this November 3 through 4
3 flushing?

4 A. I don't recall it, no.

5 Q. We met with Ruth Estes previously and talked to her
6 about this specific one. And my understanding is --
7 from another source of information that's
8 confidential -- that Ruth Estes ordered that this
9 discharge be carried out. Ruth, at the meeting we
10 had here in these offices, told us that you, Steve
11 David, Heather Faragher and her meet at sometime
12 during the winter to discuss the alternative of
13 conducting these discharges, as we just talked about
14 earlier. She thought that it, upon further
15 remembering these issues, she believed that it was
16 those discussions that took place regarding this
17 November 3 and 4 discharge, and she told us that at
18 that meeting that it was discussed that the hydrant
19 flushing should occur to dispose of wastewater or
20 could occur and discussed this alternative. Because
21 at that time, the ammonia daily maximum limitation
22 in the NPDES permit was in jeopardy of being
23 exceeded; and do you recall that particular meeting?
24 A. I don't remember the specific meeting, but I do
25 remember talking about all these issues through the

- 1 winter.
- 2 Q. She thought that it was surrounding this particular
3 one, November 3 and 4.
- 4 A. I recall meetings after the January 4 incident, but
5 I don't recall meetings prior to that.
- 6 Q. Were there any meetings held prior to November of
7 '96 that you were involved in?
- 8 A. A lot of meetings on managing our water, how's the
9 plant performing, where there's ammonia coming from
10 daily.
- 11 Q. I'm talking about meetings specifically to address
12 hydrant flushing?
- 13 A. Not that I can recall.
- 14 Q. Our understanding, via another source of
15 information, is that there was at least one other
16 meeting prior to this?
- 17 A. I don't remember it.
- 18 Q. Okay. And you had mentioned earlier, I believe you
19 said that you thought Steve David, Gary Ista, Rick
20 Legvold and Heather were involved with these
21 meetings?
- 22 A. I'm talking about the meetings I remember after
23 January 4. We had a number of operational meetings
24 with managing our ammonia and our water flows to the
25 river through the fall and through the winter. At

1 those meetings, I don't recall talking about the
2 land-use option.

3 Q. At those meetings -- well, first, I guess I need to
4 understand, when I talked to you earlier, you said
5 they were about this land-use option. You debated
6 whether you wanted to violate the permit or dispose
7 of on land?

8 A. Those were meetings with, those were sometime around
9 the January 4 time frame that I can remember.

10 Q. Did you at any time then make a decision or did
11 people make a decision -- I think I might have asked
12 you this already, but make a decision to go onto
13 land versus exceeding the limit?

14 MS. WIENS: When? What time frame?

15 MR. KRIENS: Anytime?

16 THE INTERVIEWEE: After January 4, we
17 did decide to flush hydrants. Like I said, with a
18 specific procedure on sampling B5 water before we
19 started to ensure that the amount of water we flowed
20 was with the levels of ammonia and other things in
21 the water were --

22 EXAMINATION BY MR. KRIENS:

23 Q. That wasn't what I was asking you. What I was
24 asking is, were you in a meeting or did anybody
25 decide to discharge via the hydrant system versus

- 1 through the normal permitted outflow in order to
2 avoid exceeding the ammonia limitation?
- 3 A. Not to avoid the ammonia limitations but to avoid
4 the ponds from overflowing.
- 5 Q. Why were -- okay. My understanding -- why would the
6 ponds be in a condition that they would overflow?
- 7 A. Too much water.
- 8 Q. And why would the water be there?
- 9 A. Why would the water be there? Because that's where
10 we want the water.
- 11 Q. Well, I know. You have the water at a high level,
12 you're saying it's going to overflow. I'm saying,
13 what caused the water to be up at that level?
- 14 A. Well, either there was too much water going to the
15 pond or not enough water leaving the pond, I mean,
16 it --
- 17 Q. Well, how did the water get there then, that's what
18 I'm trying to understand. If the water level was
19 too high in the pond and it was ready to overflow,
20 what made the water get that high?
- 21 A. The balance of water -- I'm not sure I understand
22 the question, Don.
- 23 Q. I don't know how I can make it simpler. If the
24 water was really high in the pond, that it was at
25 the point of overflowing, something put the water

- 1 there --
- 2 A. The wastewater treatment plant.
- 3 Q. And how did it get there? So the wastewater
- 4 treatment plant backed up into the pond?
- 5 A. Correct.
- 6 Q. So is that the source of the water being, making it
- 7 up to those high levels where it's going to
- 8 overflow?
- 9 A. If we're talking about B5, that's one source of
- 10 water, then the non-oily water sewer is the other
- 11 source of water. So it's one of those two
- 12 sources, absolutely.
- 13 Q. Why was the water, though, that high? Was it
- 14 because you stacked water and backed it up into the
- 15 pond? I mean, it's showing on the operating logs --
- 16 A. We constrained the water going across to the
- 17 polishing ponds, yes.
- 18 Q. Was that the reason why it was high in the pond
- 19 then?
- 20 A. Yes.
- 21 Q. So why was it backed up into the fire water pond?
- 22 A. Because we didn't want to send it across the river
- 23 because we had constrained our flow rates going to
- 24 the river.
- 25 Q. Because of what? Was that because the ammonia was

1 too high?

2 A. Because of ammonia concentration in the water and
3 our permit limits.

4 Q. But then you're saying to me that the reason you
5 discharged onto land was because the water was too
6 high and it was in jeopardy of overflowing the pond;
7 is that right?

8 A. I need the question again.

9 Q. Well, you mentioned earlier that you were stacking
10 the water into the pond because the ammonia was too
11 high to go to --

12 A. Right. Are we talking about a pond overflow issue
13 now? That's what contributed to the pond overflow.

14 Q. I asked why the water was discharged via the
15 hydrants. You said because the pond was too high
16 and it was going to overflow. And then I asked why
17 it was so high, and we got to the point where it was
18 high because the water was backed up because the
19 ammonia was high. So then I was just coming around
20 here again and asking you the question, you
21 discharged through the hydrants because the pond was
22 too high; is that right?

23 A. The water in our whole system was high, not just
24 one specific pond.

25 Q. Okay. How did the water in the whole system get

- 1 high?
- 2 A. We kind of talked -- I mean, the more water going
3 into our system than we have going to the river --
- 4 Q. That's what I mean. Is it high because you had
5 constricted the flow discharge out of the wastewater
6 plant?
- 7 A. Partially, yes.
- 8 Q. The S7, it was backed up?
- 9 A. Yes.
- 10 Q. So is that why then, ultimately, you had to
11 discharge water via the hydrants from the B5 or any
12 other pond for, I guess the west storm pond; is that
13 the reason then?
- 14 A. That was one of the driving factors for why we did
15 that, yeah.
- 16 Q. I wanted to point out, too, there are some other
17 ones here. When they state in the safety logs, that
18 safety ordered -- or in the operating logs, that
19 safety ordered to get rid of water by flushing
20 hydrants, and we see it in a few cases, do you know
21 who orders safety to do that?
- 22 A. Orders safety to do that? I don't know if anybody
23 orders safety to do that. I mean, safety has
24 property rights over what to use the fire water
25 system for and managing.

- 1 Q. Would safety just decide to do it?
- 2 A. It would be a discussion with the operations group,
3 environmental, depending on the use.
- 4 Q. I think earlier you mentioned it would be your
5 group, safety and the environmental group deciding
6 how that would be done, apparently.
- 7 A. On the specific issues around land application, yes.
- 8 Q. Specifically on that?
- 9 A. Right.
- 10 Q. So when you see the statement, safety, in this case
11 on the November -- it didn't say, ordered, it said
12 safety to open. But there were a couple other ones
13 there that said, safety ordered to get rid of water.
14 Is it true then that safety doesn't really make that
15 decision, that that's a joint decision?
- 16 A. Depends on the driver again, if safety's intention
17 is to maintain their system, they would make that
18 decision and say we're going to flush our mains.
- 19 Q. I'm not talking about flushing mains.
- 20 A. I know, I'm saying if we were, like I say, after the
21 January 4 incident, sitting down as a group then
22 operations, safety and environmental would make that
23 decision together. If we're looking at land
24 application, that would be the process.
- 25 Q. So the process would be to sit down with the three

- 1 different departments, safety, operations and
2 environmental, see what the issues are, what the
3 alternatives are --
- 4 A. Options, alternatives and --
- 5 Q. Then make a decision?
- 6 A. Yep.
- 7 Q. And so would it be correct then when you see this
8 statement, safety ordered, that would be a decision
9 that comes from consensual --
- 10 MS. WIENS: Do you know what that means
11 when somebody says, safety ordered? Do you have any
12 idea what he's talking about?
- 13 THE INTERVIEWEE: No. Like I said,
14 there's different drivers for why they would want
15 water to be used. I don't know what drove that
16 particular decision.
- 17 EXAMINATION BY MR. KRIENS:
- 18 Q. Okay. Well, that's, I mean, that's what I was
19 trying to understand. I want to go back to -- this
20 is a chart we made. And this represents, the peaks
21 here and the column represents the influent ammonia
22 load to the wastewater plant.
- 23 A. Influent?
- 24 Q. Influent.
- 25 A. Okay.

- 1 Q. And this is based off of data that Barr Engineering
2 provided in this wastewater treatment plant
3 evaluation this past summer.
- 4 A. Okay.
- 5 Q. Our information from that and from a review of
6 operating logs and safety logs and all the
7 information that was provided to us, primarily
8 operating and safety logs. If you see these
9 downward arrows here (indicating), this is when
10 these hydrant discharges occurred that we know of
11 that are reported in the logs anyway, and our
12 understanding is that not all of them necessarily
13 were, but these are the ones that we know of. It
14 started apparently June 18, 19 of '96, and then it
15 has one on the Bioassay one on the 3rd and 4th of
16 '96, which represents the second highest daily
17 ammonia load to --
- 18 A. -- to the water plant.
- 19 Q. -- to the water plant during this whole period of
20 evaluation. And then we have one on June 16 and 17,
21 I'm not -- excuse me, November 16 and 17 of '96 just
22 a week or so following this. And then there's the
23 January 4 of '97. And then in February there are
24 three in a row, the 25th, 26th and 27th of '97. Do
25 you know anything about those discharges? And maybe

1 to put it in perspective for you, this month had
2 the, the February of '97 had the second highest
3 ammonia average influent load during this period.

4 MS. WIENS: Now, these are just
5 calculations. It's not something that we've done or
6 put together. They're just conclusions.

7 THE INTERVIEWEE: Sure, sure.

8 EXAMINATION BY MR. KRIENS:

9 Q. Based on the data that Koch has provided to us, it's
10 just an average of the daily loads.

11 A. Right.

12 Q. So on the 25th, 26th and 27th, there was a hydrant
13 release each day, do you know anything about those?

14 A. Specifically there were some days, I believe after
15 the 4th, I think those were the days that a group of
16 people got together, the group we've talk about, and
17 said how much water can we flow. You know, where
18 are we at for inventory? What are our options? How
19 much water can we flow? What's the process for
20 going through that? I think those were the days
21 that I remember talking through that with that
22 group.

23 Q. Would that have been the days that you talked about
24 an alternative of going on land versus exceeding the
25 permit via the discharge?

- 1 A. Prior to those, yes.
- 2 Q. Was a decision made then on, to discharge on these
3 days instead of exceeding the permit limit? And I
4 mentioned that because during February, you were
5 right at the permit limit, the monthly average was.
- 6 A. What we were doing there was, we were constraining
7 the amount of water that was going to the river, the
8 ponds were getting high as a result, and we were
9 looking for options for the water.
- 10 Q. I know. But did you discuss this alternative to
11 discharge on those days versus going to the river
12 and exceeding the permit level?
- 13 A. Didn't I just say that?
- 14 Q. Not really. You said the water levels were high.
15 But I'm talking about specifically exceeding the
16 limit here.
- 17 A. No. 1, that was constraining, we weren't going to
18 exceed the limit going to the river. We weren't
19 going to intentionally exceed the limit going to the
20 river, and so what were we going to do with the
21 water?
- 22 Q. So -- go ahead.
- 23 A. I just --
- 24 Q. Well, then, are you telling me that you had made the
25 decision you weren't going to exceed the limit and

1 the alternative was then to discharge via the
2 hydrants?

3 A. The discussion was slightly different than that. It
4 was that we want to ensure that we don't exceed our
5 permit; therefore, we need to ensure that we --
6 because we're not at the end of the month, we're
7 getting close. But we need to constrain the flow of
8 water to make sure that we could stay within our
9 limits; therefore, what are our other options to
10 ensure that we have got inventory should we need a
11 swing? Because we weren't confident at that point
12 yet that we had the ammonia problem solved with the
13 sour water strippers. So it wasn't that we knew we
14 were going to violate, but that we wanted to
15 maintain a buffer. We were tracking these numbers,
16 these averages very closely at this time and through
17 this whole period, to know where we were.

18 Q. Right.

19 A. So it was more on ensuring we had an inventory
20 should we have another shot of ammonia from the sour
21 water stripper system that the water plant couldn't
22 handle. We needed buffer space to contain that
23 water. The water we had wasn't that bad. But we
24 needed to have volume space to ensure we had buffer
25 should we have a plant problem.

- 1 Q. So is it a coincidence then this was done in the
2 last three days of the month; is that what you're
3 telling me? You're saying you needed a buffer
4 space, but I'm not following that, buffer space in
5 terms of inventory?
- 6 A. Water volume, water storage space. We wanted to
7 ensure that we had space such that if we had a large
8 exceedance coming from the sour water strippers,
9 that we had somewhere to put that water so we could
10 either retreat it or bleed it off within our permit
11 limits.
- 12 Q. Why wouldn't you just normally put that into the
13 wastewater plant where it would typically go?
- 14 A. That's where it would normally go, but the
15 wastewater treatment plant, the nitrification
16 process wasn't handling that much ammonia at that
17 time.
- 18 Q. So in order then to meet -- is this correct, in
19 order to meet the limit, given the possibility of
20 another high ammonia load, it looks like there was a
21 lot of them that month, they chose to discharge
22 their water in the hydrants?
- 23 A. We, not they, we. I mean, I was involved. In order
24 to ensure we had volume, to ensure we didn't exceed
25 our limit, our monthly average, we discharged water

1 to make sure that space was available should we have
2 a significant upset where the water would be worse
3 than what it was in the ponds. We knew what we had
4 in the ponds. We knew what quantity it was. We
5 knew how much water we could get rid of. At this
6 point, the plant problems weren't all solved. And
7 we were working very hard on both. Trust me, it
8 wasn't a real, real fun time.

9 Q. Okay. Do you know anything about the March 26, I
10 believe, hydrant flush at the south flares?

11 A. Other than I think it fits right in with the same
12 discussion, I don't remember anything different
13 about that one.

14 Q. Do you know of any other ones aside from these that
15 are noted here that have occurred?

16 A. No.

17 Q. Okay.

18 MR. ESPEL: Have you had a chance to ask
19 Rick whether he could share a copy of this with us?

20 MR. KRIENS: I haven't yet.

21 MS. HAYES: We'll need to make a note to
22 do that.

23 MR. KRIENS: Can we just take a short
24 break?

25 (WHEREUPON, a brief recess was taken, after

1 which the following proceedings transpired.)

2 EXAMINATION BY MR. KRIENS:

3 Q. Brian, when you mentioned the February meeting
4 internally among the departments to discuss what to
5 do about these high ammonia, whether -- I'm
6 presuming then that it was decided to go on land
7 because, indeed, it did occur three days in a row in
8 February. Were you aware of the fact that Heather
9 reported this January 4 hydrant release or discharge
10 of wastewater where about 2.88 million gallons,
11 reported that to the MPCA?

12 A. Yes.

13 Q. And she informed others that it would be reported?

14 A. Absolutely. We talked about any communication with
15 the MPCA, any reportables, any near misses every
16 day.

17 Q. Did she report -- and she reported that to me, by
18 the way, in the fall, first to our spills group. I
19 think the duty officers, our spills unit, contacted
20 me. Then I called Heather and talked to her about
21 it. Did she tell you and the other groups that I
22 definitively told her that the MPCA views that as an
23 unpermitted, unapproved discharge at the time? I
24 think it's in the log, too.

25 A. I'm not sure she used those exact words. She may

1 have said that at this time the MPCA does not agree
2 with that, or something along those lines or you
3 know, it's their interpretation. It wasn't stated
4 like you stated it.

5 Q. Here's what was stated in a letter to us on February
6 7. I'll read from a paragraph towards the end of
7 that letter. At the request of Kevin Faust,
8 F-A-U-S-T, who works at the MPCA in our spills
9 respond area. I spoke with Don Kriens on January 8.
10 I explained to Don the details of the January 4
11 event. Don acknowledged that the MPCA understood
12 that treated wastewater was being used in the fire
13 water system. He stated that in the future, Koch
14 should notify and seek approval from the MPCA before
15 putting this water onto the ground. He said that
16 the MPCA would consider the season, the refinery's
17 containment capacity, the volume of water, and the
18 ability for any contaminants to impact ground water
19 and where the water would be discharged.

20 MS. WIENS: That's a letter from Heather
21 to you?

22 MR. KRIENS: To Mary Hayes, February 7.

23 THE INTERVIEWEE: That sounds a lot
24 similar to the message that Heather gave the
25 refinery.

1 EXAMINATIONS BY MR. KRIENS:

2 Q. Were you involved in meetings after that where the
3 MPCA's position on this issue was discussed?

4 A. I wasn't involved in meetings talking about the
5 MPCA's position, no, not that specifically covered
6 that topic.

7 Q. I want to follow -- I want to look at a memorandum
8 here of February 18, '97 from yourself to Heather
9 Faragher and Steve David, copy to Jim Jacobson. It
10 talks about, the first sentence you state is, this
11 is in reference to the water policy, where they had
12 implemented a water policy. You can only discharge
13 to it or, I believe, it was about 200,000 gallons,
14 after that it needed sampling or I'm not --

15 A. So this is the final or --

16 Q. Apparently this is the policy that was enacted.
17 Your memorandum states, I wish we could have
18 discussed this prior to sending it out. I believe
19 there is more red tape here than necessary. And you
20 go on and it states, for routine use of the fire
21 water for cleaning and flushing, we should not be
22 required to go through this procedure. I assume
23 you're talking about the testing procedure, the
24 analytical procedure to test the water before it's
25 discharged?

1 A. Yeah, I mean, what you need to have, we need to have
2 this document, that's what I'm referring to.

3 Q. We have probably got part of that. It's a different
4 date, but it's the same one. That's the fire water
5 policy.

6 MS. WIENS: This might not be the same
7 one, it changed over time.

8 MR. KRIENS: It changed every other
9 week, I think.

10 THE INTERVIEWEE: It did change a lot.

11 MR. KRIENS: So what was your
12 understanding of the policy then, the initial
13 policy?

14 MS. WIENS: What was the initial policy?

15 THE INTERVIEWEE: The initial policy was
16 that it was basically no use of the fire water
17 system where it would touch the ground. The first
18 thing that Heather sent out was very much a, you
19 know, sorry you can't use your fire water system
20 anymore. And I very strongly objected to the fact
21 that we were going to use our fire water system in
22 the future and --

23 EXAMINATION BY MR. KRIENS:

24 Q. To discharge wastewater?

25 A. To fight fires and to do whatever we have to do with

1 our fire water system.

2 Q. I don't recall a policy stating that at all. The
3 fire water policy that we received had to do with
4 discharge of wastewater underground and not fighting
5 fires or flushing hydrants. I mean, that was an
6 activity that did not pertain to that.

7 A. But the first policy came out talking about the use
8 of fire hydrants for whatever reasons. I mean,
9 we're going to need to sample and do this or do
10 that. And, you know, in the event of an emergency,
11 use it, but we're going to go back and sample. I
12 just felt it was very constraining.

13 Q. In this memo that you write, you're talking about
14 250,000 gallons. This was, I think it's in
15 reference to the February 4 --

16 A. It's important to make sure that this document lines
17 up with this memo. There are many reiterations of
18 this.

19 Q. We may have to get that then.

20 MS. HAYES: I don't think we can be sure
21 that what we have is the one.

22 MR. KRIENS: Well, anymore.

23 MS. WIENS: Was this your suggestion of
24 250,000 or was that in response to something else?

25 THE INTERVIEWEE: I think this was a

1 suggestion of mine. This isn't -- this is a
2 suggestion based on what I'm reading here.

3 EXAMINATION BY MR. KRIENS:

4 Q. A suggestion for what?

5 A. A modification to this.

6 Q. To the policy?

7 A. Right.

8 Q. Why would you suggest that?

9 A. Because of red tape that I didn't think was
10 necessary. We used a fire water system for
11 spraying, cleaning, washing, flushing, you name it.
12 That system is used for a lot. Even for ammonia
13 levels that we're talking about there, none of those
14 uses are going to constitute a significant amount of
15 ammonia whatsoever. I just -- we're going to know
16 when we have serious ammonia issues. And at other
17 times, it seemed like a lot of red tape for normal
18 routine use.

19 Q. To analyze before you sprayed the ground, is that
20 what you mean?

21 A. In every single application, yeah.

22 Q. What does it mean here, this sentence I've
23 underlined it: Anytime we hit 50 parts per million
24 ammonia, we start looking at the ponds to manage our
25 system.

- 1 A. As we start hitting 50 PPM ammonia in our discharge
2 water, which is not this, but it's water going out
3 of the back end of wastewater, we start looking at
4 pond levels to understand where we're at.
- 5 Q. What does it mean to use the ponds to manage? It
6 says, to start looking at the ponds to manage or
7 assist them.
- 8 A. We use the ponds as buffer and inventory. I'm not
9 sure what you're trying to get.
- 10 Q. That's what I was trying to understand. Does it
11 mean you back up into the ponds when you hit 50?
- 12 A. What I'm talking about here is if we hit 50 PPM
13 coming out of the wastewater treatment plant, then
14 procedurally we should do something like this policy
15 to make sure that we don't put water on the ground
16 that has got a lot of ammonia in it. This has
17 nothing to do with what we normally do. What I'm
18 talking about here is, you have to read the whole
19 thing to --
- 20 Q. I did, that's --
- 21 A. Heather's policy was sample every single time
22 there's a routine use of the fire water system. And
23 I felt that from 99 percent of the uses for fire
24 water, the volume is so small, and we know what the
25 quantity of ammonia and other things is coming out,

1 because we are meeting permit limits going to the
2 river. And that it's crazy to sample it every
3 single time, the tests are expensive, the process
4 takes a long time. It just was such a dramatic
5 shift from how we've used the fire water system in
6 the past that I felt that we shouldn't change a
7 thing unless we either knew there was something
8 different at the water plant or it was going to be a
9 big event and have safety manage the big events.
10 These are suggestions for amendments to this
11 document.

12 Q. You're thinking that would be the February 14 fire
13 water policy, is that what you're talking about?

14 A. This is February 18, this is dated.

15 Q. I know, but her memorandum was February 14, is that
16 the one you're talking would have been that policy
17 you're referring to then?

18 A. I'd be referring to the one that's attached here,
19 yeah.

20 Q. So February?

21 A. Yep.

22 Q. I don't know that we, we have several fire water
23 policies.

24 MS. HAYES: We may not have that one
25 pulled. We might have it some place, but we might

1 not have it with us.

2 THE INTERVIEWEE: These are two
3 suggestions, requests for possible revisions, it
4 says it right above them.

5 EXAMINATION BY MR. KRIENS:

6 Q. And your statement then is, does that mean anytime
7 you go above 50, you wanted to use that as a cutoff
8 point; is that what you're saying?

9 A. 50 parts per million ammonia in the wastewater
10 discharge or a very large usage. And, you know,
11 then we needed to determine what types of usage
12 constitutes this much volume. And we'll know this
13 because we sample our S7, and if that gets to 50,
14 then we should start thinking about doing something
15 different, but other than that, I really didn't see
16 the need to sample every single time we wanted to
17 turn the fire hydrant on.

18 Q. Okay. Do you know on the November 4 Bioassay, the
19 whole effluent toxicity test that was scheduled, do
20 you know why it was deferred for approximately a
21 week to November 10 or 11 of '96, why it was
22 delayed?

23 A. I don't recall, no.

24 Q. Are the wastewater operators -- or are you involved
25 with obtaining samples for those tests?

1 A. Wastewater treatment plant operators are and Heather
2 Faragher is involved. I'm not directly involved in
3 that at all.

4 MR. KRIENS: Okay. That's all I have.
5 (WHEREUPON, the interview concluded at
6 approximately 12:20 p.m.)

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1 STATE OF MINNESOTA

CERTIFICATE

2 COUNTY OF HENNEPIN

3

4

I, KIMBERLY J. HORMANN, hereby certify that I reported the interview of BRIAN ROOS on the 17th day of November, 1997, in St. Paul, Minnesota.

5

6

That I was then and there a Notary Public in and for the County of Hennepin, State of Minnesota;

7

8

That the foregoing transcript of 89 pages is a true and correct transcript of my stenographic notes in said matter, transcribed under my direction and control;

9

10

That the cost of the original has been charged to the party who noticed the deposition, and that all parties who ordered copies have been charged at the same rate for such copies;

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13

That I am not related to nor an employee of any of the attorneys or parties hereto, nor a relative or employee of any attorney or counsel employed by the parties hereto, nor financially interested in the outcome of the action and have no contract with the parties, attorneys or persons with an interest in the action that affect or has a substantial tendency to affect my impartiality;

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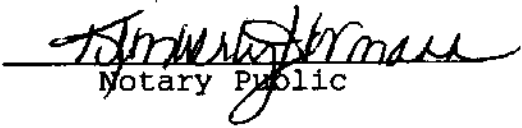
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WITNESS MY HAND AND SEAL this 1st day of December, 1997.

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Notary Public

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