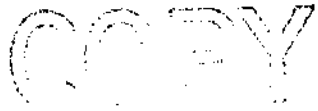

INTERVIEW OF:

RICK LEGVOLD

TAKEN NOVEMBER 6, 1997 AT 9:15 A.M.



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INTERVIEW OF RICK LEGVOLD, taken pursuant to agreement of and between parties at, Koch Industries, Inc., P.O. Box 64596, St. Paul, Minnesota, at approximately 9:15 a.m. on Thursday, November 6, 1997 before Milo Ballingrud, 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 ESPEL, Attorney at Law

SUSAN K. WIENS, Attorney at Law

I N D E X

BY MR. BERGER:

Q. Just a little introduction we've been doing for all the interviews, Rick. As you know, the Minnesota Pollution Control Agency is conducting a civil investigation that is focusing on Koch Refining operations and on a number of pollution slash environmental related issues that arose from our April '97 inspection here.

We are seeking your cooperation in obtaining some information through an interview today. We would like you to know that you are not obligated to answer these questions, this is totally voluntary on your part. Information we obtain in this investigation may be used in administrative, civil or criminal enforcement action against Koch Refining Company. This is not an investigation of any individuals at Koch. If we choose one of these actions in the future it doesn't preclude us from choosing another. Any questions about that?

A. No.

Q. Rick, we have a number of things we want to talk to you about, and I'm going to start off

this morning. The first area I want to touch on briefly --

BY MS. HAYES:

Q. Let me stop you for just a second. Can you state for us your -- give us your history of employment here and give us a general idea of what your responsibilities have been in different positions, if they've been different? If you could go back for us and give us a sketch of that, that would be real helpful.

A. My entire career at Koch?

Q. Yes, if you would do that.

A. I started with the refinery in April of 1981. I worked in the process units as an operator for approximately six years. I went into shift supervision after six years, so I left the OCAW and became a salaried employee at that time.

Q. Was that in '87?

A. I believe that's correct, November of '87. I was a shift supervisor, relief shift supervisor, and a shift superintendent over the next five years or so. In September of '92 I was promoted to a unit supervisor in our

clean fuels area for our 25 unit. We were starting up our now sulfur plants, hydrogen recovery unit, naphtha hydro treater. We also had cooling towers, insulators, but I was in the unit supervisor position at that time.

I think in June of '95 I was asked to transfer from that unit supervisor position to the utilities unit supervisor position. The utilities position included the boiler house area and the waste water treatment plant. I was there until April of '97 when I was asked to take a position in developing our safety culture, leading a team effort there, and I continue there until today.

MS. HAYES: Thank you very much.

BY MR. BERGER:

Q. Rick, the first issue I want to talk about this morning has to do with -- it's a specific issue in regards to the coker ponds. Back in February of this year there was a situation where sour water from tank number one was -- well, it was taken from the tank and it was brought first down to the Eighth Street sump where it was released there, and then there was a problem at the Eighth Street sump and

that sour water was then trucked over to the coker pond. Do you recall that incident in February of this year?

A. I recall some of that, yes.

Q. Could you explain that situation, why that happened? Well, first explain what sour water is in that tank and what tank one is all about, what did you store, you know, what is sour water.

A. The incident that I recall, tank one is a crude tank, and our incoming crude that we process is stored in the seven crude tanks that we have. Tank one is one of those tanks. Part of the waste water operator's responsibility is also controlling the slop production and containing the slop that the refinery produces. It's an oil product that we recycle into the refinery. If for some reason we were to get out of control in our production and we could not process it back into the refinery using our normal routing we would move it back up into the crude tank and then it would be reprocessed just like incoming crude oil. If this is the correct incident, we had transferred some slop back up

to crude tank number one. In addition to crude oil the slop also contains water, and it appears that when we were transferring that slop we transferred some of the water that was also in the slop storage tank in the waste water area up to the crude tank. So you've got a very large tank with crude oil in it, the slop and then a layer of water in it. The tank is not insulated, so there's a real concern with freezing that tank and possibly rupturing lines or whatever. You don't want to have a freeze problem there. So when water is discovered there they de-water the tank.

There's not containment that connects that tank all the way to the waste water treatment plan. What I mean is there's not a pipe you can pump it in and get it to waste water treatment, so we have to carry it by truck. So when they de-water the tank they bring a truck in there and hook it up to the tank and let the water run into the truck. That's called de-watering the crude tank. Normally that water is put into what we call the Eighth Street sump area. Are you familiar with that?

Q. Right, uh-huh.
A. That was started -- my recollection of what I heard happened during that incident was that water was starting to move the normal path from tank one to Eighth Street sump and was being unloaded at Eighth Street sump. The problem was Eighth Street sump didn't have a pump in it. We were not able -- there's a lift pump at Eighth Street sump that lifts whatever is in there and pushes it toward the water plant for treatment. Well, the operator, the contractor that was hauling the water did not know or understand that that sump was not working, and he continued to put water in there, put this de-watered material from tank one in there beyond what the capacity of the sump was.

When that was noticed we stopped it and we needed to contain the water and get it out. So we isolated one of the coker ponds, I believe it would be the northeast pond. We isolated that pond and put that de-watered material in there until we could process it.
Q. Besides the water, what is in that de-watered material, the sour water, do you know?

A. I think it could be a bunch of things. You would have to do an analysis.
Q. You're not aware specifically what contaminants are in that?
A. Well, you're concerned with ammonias and phenols. There's a lot of concern, but you've got to look at each specific one to know what you've got.
Q. So the idea then was to put it in the coker pond and eventually it would be pumped back up to water treatment?
A. Right, for processing.
BY MS. HAYES:
Q. This goes to being here in April when I asked you about that. How often do you need to de-water a tank like that Rick?
A. Well, under normal -- I don't know that. The pumping department takes care of that, and I don't know what their frequency is. I think they check them on a periodic basis, and I don't know if that's weekly, monthly or whatever. But on this particular incident we knew we had transferred a bunch of water in there and we knew we had a problem, that's why we were aggressively pursuing it. This was

more than just normal de-watering. The incoming crude also contains water in it, and they have to de-water those tanks intermittently anyway, but because we put a bunch of extra water in there in that transfer --

Q. Why did you put that sour water in there again?

A. It was a mistake. When they pump down oil you've got oil floating on water, and we start transferring the oil because we had inventory problems and containment problems down at waste water. If you pump down too much you start getting into the water, so they depleted all the oil and were actually pumping water, the water layer.

Q. Who have you talked to about the normal procedure on maintenance of those tanks? Who would be the person or the department?

A. It would be products handling, pumping department.

MS. HAYES: Okay. Thanks.

BY MR. BERGER:

Q. Schlomka does that work, is that correct?

A. They were involved in this incident. I think

they do the majority in the plant, I wouldn't say they do a hundred percent of it.

Q. When is it pumped out of the tank? Is this water layer at the top or in the middle or bottom, do you know specifically?

A. I know if you pour oil and water together the water floats on it. I've never been to the tank to witness what's happening when it's been de-watered.

Q. The question is how do you know you're getting water all the time? Are you aware of that process, the mechanics of that?

A. I don't know how Schlomka does that. I could suppose, but that would be supposing I guess.

MR. BERGER: That's all on this issue. Do you have any questions?

MR. KRIENS: No.

BY MR. BERGER:

Q. Can you tell me, Rick, and I'll get the memo, but on a memo there's the term back washing to the coker ponds, and do you know what that means?

A. Back washing to the coker ponds? It's not ringing a bell right now, no.

Q. This is a memo from Heather Faragher, and you

are on here (indicating). It's dated March 13, 1997 and it's one that we've discussed before, it's 1746. The subject is nitrification and current operating parameters, and it talks about the situation and other current issues that were reviewed. Number one is hydraulic loadings are high right now due to poor water removal and back washing to the coker pond. Back washing should be over by March 24, and then in parenthesis question mark. And pond removal should be done by the end of March if all goes well.

A. (Views document) I don't know what that's talking about. The back washing to the coker pond, I don't know of any -- I can certainly understand what's being implied there, but I don't know how we would accomplish that.

Q. What's being implied?

A. It sounds like somebody is washing something back into the coker pond. I cannot think of any way we would do that.

MS. HAYES: Because of your pumping and piping?

THE WITNESS: Well, we would have

pumped it out of there. You've been down there, there's the creek that flows into it, that open trench. I mean, it's a pond and stuff runs into it, but we would not be -- there's no way or reason. If I'm recalling back in March we were fighting high inventory problems, and if we had a way to shut off water going in there we would have been pursuing that. If we were consciously putting something backwards into there I'm sure that would have been an issue. I don't know what Heather meant on this one.

BY MR. BERGER:

Q. Okay. That's fine.

A. But I do know that when inventories are concerned we start working backwards to see what the contributors would be putting water into the coker pond. What that is implying is it sounds like something going in there in an effort to clean something up. That's what I hear.

Q. In another interview we did talk about maybe this had to do with back washing the pump to clean them of coker fines, could that be it?

A. If that was it that would be a five minute

process. I mean, you have a small -- I don't know if it's a 12 or 16 inch pipe, but the suction of the pump could be plugged up and you would not be getting water in in order for the pump to pump it up to the plant. If it was plugged with fines you may back wash, but it would be less than five minutes to clean that debris out of there and then restart it. So that would not be a significant concern the way that's written.

Q. All right. Another area I want to touch on is the lower lagoon, and are you familiar with that area?

A. You're talking about an area north and east of the control room, kind of a low area?

Q. Right. We are aware that on a number of occasions hydro testing, water from the hydro testing of tanks, went to that lagoon. Are you aware of that?

A. I don't know the route. I suppose it's possible. I couldn't walk out and show you how that happened today.

Q. I have a memo from Heather again, and this is called water weekly update and it's dated Thursday, March 14, 1996. It's document

number 1854. It's just a -- actually this is from Heather, she took this off her computer. The memo is from you. You have a number of items, I think there's like over a hundred here, of projects that are going on and who is working on them and what the update is. In number 75 it's in regard to the lower lagoon, and it states FCC sewer to lower lagoon. The next sentence is is it permitted? And then note from Heather, working with the MPCA to reclassify this as storm H2O basin, work in progress, no water should be going into the basin, especially processed water, on purpose (indicating). What is the FCC sewer?

A. The FCC had a storm sewer that would collect storm water and runoff. Let me go backwards a little more and I'll try and clarify where the water weekly came from.

Shortly after I came down there I continued to get suggestions from operators and things that they said, that this has been brought up before, what's happening with it. Well, I didn't have any way of knowing what had happened before I got down there, so I start composing this list to try and keep

clear records of what's going on and what questions are being worked on. Someone came in and said that there's a sewer from the FCC that dumps into the lower lagoon, that was a statement that was made. Whether that's true or not I have no way of knowing. As I started asking questions to find out where are we, has this been looked at, I wanted someone to find out what the real routing of that pipe was and is it okay. So that's the question on there, is it permitted. Then a note from Heather, that's directly from Heather, my understanding was that it's a storm sewer -- I don't know how to explain it. The FCC built a second gas plant called the 18-2 unit. My understanding is that's what they did with the storm water from that area, it was routed via a pipe toward the lower lagoon and dumped in down there. My understanding is it's storm water only. You're familiar with how we segregate storm water from oily water in the unit?

Q. I'm getting familiar, yes.

A. We have raised cups to catch off the pump a dedicated sewer that will make sure anything that comes off of a possible oil contamination

will feed into the water treatment plant. Main runoff water, just rain water, is collected in a different system and that does not necessarily go through waste water treatment. My understanding was that this was something that was dumping from this newly constructed unit to clean rain water to get to the lower lagoon.

Q. Is that currently your understanding?

A. That's currently my understanding.

Q. Do you know what the FCC stands for?

A. Food catalytic cracker.

Q. That's a unit, an area that --

A. That's a process unit. Specifically this is coming from the 18-2 unit, the gas plant area. There was an expansion, and that's how that got routed that way.

BY MR. KRIENS:

Q. So currently it is routed through a sewer to the lower lagoon are you saying, or it's routed to the clean water sewer?

A. It goes to the lower lagoon is all. Well, I someone would have to actually run the pipe out, and it's underground.

Q. We saw three pipes coming out there, and would

it be one of those do you think?

A. I could only guess. We continually would pump out of that lagoon. We had issues, operators were concerned about wildlife, we had ducks nesting in there, and some of the operators were concerned if we pump it all the way out it will dry and kill them. We continually pumped and there seemed to be water that was coming in, and my guess was it was coming from that storm sewer. That's the only thing I could put a finger on that I knew was feeding it.

BY MR. BERGER:

Q. Are you aware or were you aware that the lower lagoon is being investigated by the Minnesota Pollution Control Agency and by Koch in the solid waste unit, that there's contamination underneath that lagoon?

A. I heard as a result this (indicating), I had heard some of those things were being looked at. It was our intent to not let anything get in there and to try and maintain the levels below. We would have liked to have dried it out if we could, but with the pumps we had we were able to keep up and that's about it.

Q. Anytime it rained water collected in that FCC area, clean water?
A. It also collects in that big open pit there, too, the pond itself.
Q. Everything drained there?
A. Sure. My understanding was the only other thing that would drain into there was the 18-2, which is part of the FCC.
Q. Okay. What is your knowledge of hydrostatic testing water being released to the lower lagoon? I have a log here of -- waste water treatment plant log of August 23 and 24 of '95. It states about halfway down drain tank four to south lagoon via hose. I believe that's the same lagoon.
A. Well, tank four is way up on the south end.
Q. Maybe it is a different lagoon?
A. Well, that would be one long hose.
Q. All right. I just saw the word south there. Tell me about that one.
A. I have no knowledge of that.
Q. Okay. Then in general --
A. Well, you're making me remember things. There is some piping up in the tank farm on the north end of the refinery that somehow works

its way to get water toward Eighth Street pump. Sometimes hydro water could be put in that way. I've never done it. The products handling department would take care of whatever those mechanics were. They would give us a courtesy call to tell us that extra water was coming our way, and I might receive that phone call. So that would tell me they were dumping a tank or somehow were getting an increase, it would increase our hydraulic loading on the plant. It would be a courtesy call when they were dumping something. I know what system exists out there, but I could not take you out and show you.

Q. You're talking about tank four?

A. Maybe. I don't know that for sure.

Q. Okay.

A. But there is a collection system so they don't have to run hoses or truck everything out there.

Q. What is your knowledge of releases of hydrostatic testing water to the first lagoon we were talking about on the north side, the lower lagoon?

A. I don't know of any.

Q. You don't know that that procedure was done?
A. No. I'm trying to think how it might be possible, but I don't know of an instance where we would directly pipe hydro water to the lower lagoon. We would be opposed to that. As waste water operators, we would not allow that to happen out there.
MR. BERGER: If you guys have questions about the lower lagoon, go ahead.
MR. KRIENS: Go ahead and finish up.
BY MR. BERGER:
Q. I guess I really don't have anything more on that. It was an issue that has been discussed a number of times, there are some memos from Heather regarding the lower lagoon and the requirements about pumping flow rates and amount of time a pump is operating and the volumes of water that may remain in the lagoon. You are correct when you say this was something that was that -- an effort was made to try and minimize that, because Heather does state in the memo do not deliberately add waste water, storm water flows to the lower lagoon.
A. Right. And that was consistent the whole time

that I'm aware of. We had some big rainfalls that tended to want to fill that, and the issue I recall on it is there's electrical feeders to the pumping station down there, and first of all we did a big project so we could maintain the pump. The access out to the pump was not very good and that was written up, it was one of the items on the water weekly, to make that where it was safe and people could access work on the pump without walking on the rickety boards and what not. We put in a nice dock going out there.

The electrical service to the pump was at a level (indicating), and as we started losing the battle with heavy rainfalls, as that level came up it became an issue to not let the water levels get above that electrical switch. I think we brought Schlomka down there a couple times and had him pumping in addition to the pump that was in place, he would bring a portable pump down to maintain there.

Q. It would be pumped from the lower lagoon to where?

A. Up toward B5.

Q. Toward B5 or to B5?

A. Well, I don't know that.

MR. KRIENS: I remember reading a document or information given to us, and I think it can go over to the equalization basins I believe. The pipeline is limited in capacity, so I think additionally --

THE WITNESS: That's probably the normal routing. I'm not positive on that. I'm fairly sure when Schlomka would do it we would pump it up into B5 because it was temporary hosing and pump.

BY MR. KRIENS:

Q. You mentioned the FCC unit, and was it unit 18, the new FCC unit?

A. 18-2.

Q. When was that installed? Was it relatively new?

A. I would be guessing. I would say early '90s, the late '80s or early '90s.

Q. All right.

BY MR. BERGER:

Q. I don't have any further questions regarding the lower lagoon. Let's move on to another issue.

I want to talk about the oily water sewer

system here at Koch and what your knowledge is of releases to that oily water sewer system from the process unit. You've stated you started working at Koch in 1981 on process units. We have documents and logs, and I can get those specifically later on, but first I'd like to talk in general, that indicate that there are materials that possibly may be hazardous waste that were released to the oily water sewer system. Can you tell me what your knowledge is of how that oily water sewer system is used in the process units, what it's for?

A. Well, it's to collect water that can be contaminated with oil and goes to the water plant. It's a collection system that feeds the water plant.

Q. Where does that water come from?

A. From all of the process units in the refinery.

Q. It comes from the actual units?

A. What I'm talking about there are locations of the units. It's not connected to the processing. There is always a break in it.

Q. Okay. Are you aware of materials like naphtha being disposed from the oily water sewer

system from units?

A. That could happen.

Q. Under what circumstances would that happen?

A. If an operator was opening a valve to drain water out of a system and maybe drained too much water to get the naphtha.

Q. Would there be any situations where it would be --

A. Well, that's not true either. Most of the water that's contained like that goes into the sour water system which is collected in the plant and runs through the sour water strippers.

MR. KRIENS: Normally it would go that way, the lower fraction would drain off you're talking about?

THE WITNESS: Yes. It would go to the sour water strippers.

BY MR. KRIENS:

Q. When they say medium and heavy fractions, there's a certain fraction in that column, I guess, that is medium density and then a heavier density, still lighter than water though, and would that be -- it seems to us that would be an unusual part of the product

to go into the sewer system.

A. Yes.

Q. And yet in that log it does state medium to heavy naphtha coming down the sewer. Are there situations, upset situations or something when that can occur?

A. I suppose. What would happen, the best thing I can think of that would happen under those circumstances, usually you have to buck some kind of pressure to get into the sour water system. I mean, it's not a free drain. So if you don't have pressure to get into the sour water strippers, if you're sitting there with an exchanger that has product and water in it and you're taking it out of service, you don't have pressure to push it into the sour water system. Something like that may be drained or washed to the oily water sewer, I could see where that would happen.

BY MR. BERGER:

Q. I have a memo -- not a memo, a waste water treatment plant log, from February 26, 27 of 1997. It states on the bottom of the log poly called, said they would be dumping 200 to 300 gallons each time of medium to heavy

naphtha down the sewer at two different times today (indicating). Can you elaborate on what that, what that's about? Do you have any knowledge of what's going on there?

A. I'm not sure. I have worked in the poly unit. I don't know what this incident would be. Maybe a washing that's going on, but I don't know what it is.

BY MS. HAYES:

Q. Under the scenario that you described where it could possibly happen, Rick, a minute ago before he read the log -- well, what did you say again? Would you go back and explain that again? I'm getting confused between what --

A. You could have an exchanger you're taking out of service that is contaminated and you don't have any pressure on it and you couldn't get it into the sour water system. You may dump it to the sewer then.

Q. In that kind of a case that would be something that --

A. In my mind that would trigger a single dump, not multiple.

Q. Would you have notice of something like that, the person that's doing it, would they have

time to be thinking of that and call?
A. In most cases the waste water treatment plant would get a call that something unusual is going on and here's what to watch for.
Q. So is that an emergency kind of scenario would you describe that as?
A. Emergency is a pretty big word out here. When we think of emergencies we are usually thinking of --
Q. Things like fire?
A. Equipment or personnel risk, something going on, possibly fire.
Q. But you're saying the kind of thing that you just mentioned would be the sort of thing you would at least stop and have a chance to make a call probably, right?
A. Probably.
BY MR. BERGER:
Q. Along the same line, I have a memo here -- not a memo, a waste water treatment plant log, excuse me, from June 7, 1994. I think this is the first time we've talked about this, and there's no document number. The memo states on the third line down under comments, the log states poly washing sand filter.

A. There you go.
Q. Caustic naphtha and then there's an arrow to OWS.
A. Oily water sewer, sure.
Q. Can you tell me what that means?
A. It's a piece of process equipment that fouls. Again, when you take it out of service to wash it you wash it through the oily water sewer.
Q. What is washed out of it?
A. Solids, whatever is fouling the sand. It's a sand filter to collect contaminants that's in the process. When it gets so impacted with the solids you can't flow through it anymore and you take it off line and back wash it to lift the solids out.
Q. Back wash it with water?
A. Uh-huh (nodding).
Q. And the naphtha, is that in there, too?
A. Part of that treatment, you have water, caustic and naphtha, that's what happened prior to this vessel. And then this vessel filters out any solid contaminants that are in there. So those are all the things that could be in there.
Q. But basically it's sand though, it's solids,

is that correct?

A. That's what it is in the vessel and the purpose of the vessel, to filter, and it uses sand as the filter medium. The process stream it's going through contains water, caustic and naphtha. So you take it out of service so it's isolated from the process and then you would back wash it to the sewer.

Q. And you're saying there still could be small amounts of naphtha and caustics still in that vessel?

A. Yes. Then a majority of what you would see would be water you're using for the wash.

Q. And an attempt would be made to drain that unit to get all of that out of there first, correct?

A. Yes, however they would do it. I don't recall how that happens.

Q. Okay. Is there a connection, do you think, between these two then?

A. There could be. I don't know why you would do it multiple times though. Now, there are several sand filters, I think two or three. I'm remembering 15 years ago now. They may have had something that came through and

plugged them all up and they needed to clean them all, and over the day they would do them one at a time, something like that. I don't know that particular incident.

BY MR. KRIENS:

Q. Is seemed different to me because this looks like a normal back wash of a sand filter, and you happen to have those streams going in there. I would think it's a relatively common back wash that's done periodically.

A. And there's a tendency on the waste water operators to look at the worst thing that could happen to them. If someone called and said they were going to dump 200 to 5,000 gallons of water, it may show up in the log as we may have up to 5,000 gallons of water. You prepare for the worst case scenario, and that's usually what gets indicated.

Q. The one where they talk about the 200 to 300 gallons several times a day I think is unusual it seems because it identifies it as medium to heavy naphtha down the sewer. It's somewhat different than a sand filter or a caustic back wash and so on.

A. The terminology gets different. The sand filters are actually on full range crack gasoline, and that's a product that comes off the FCC. The heavy and medium naphthas are products that come off the crude units which go on to further processing and don't go through a sand filter. But FRC, the full range crack gasoline that does go through it, if you look at it and look at the properties of it, it looks a lot like heavy to medium naphtha. So an operator calling down to waste water may not make the differentiation that it's full range crack naphtha versus heavy, medium naphtha. Heavy medium is a more generic term that describes the product. More people are familiar with it because it's used throughout the plant, it comes out very early into the process. Full range crack is a product made at the tail end of FCC and not as many people see it and it's not a term people are as familiar with, but that's what goes through the sand filters.

I don't know of anything in the poly unit that has a true heavy medium naphtha streams going through it. That's why it's confusing.

MS. HAYES: Except that the person who called works with that stuff all the time.

THE WITNESS: The person that called works with it, yes, knowing that waste water treatment operators don't. Most of the process unit operators have some concept of what we're doing down in waste water as far as skimming oil from water, and heavy to medium naphtha would be the same property as full range crack as far as skimming off water.

MR. KRIENS: Do you know who the operators are, T.B. and K.N.

THE WITNESS: T.B. I would guess is Tom Bailey, and probably Kevin Nayru.

BY MR. BERGER:

Q. Another specific instance of a release to the oily water sewer system that I'm concerned about has to do with this log dated 8/22/94. It states hazmat people will be dumping about 20 to 30 gallons slowly of xylene, and then in parenthesis paint thinner, down at Eighth Street sump. With all the dilution we shouldn't even see it. This is one we've talked about a number of times (indicating). Any comment on that? Does that surprise you?

Are you aware of things like that happening?
A. No. That surprises me. Of course this is several years ago and before I was down there. I don't know what xylene -- I mean, if they call it a paint thinner, I'm not aware of that one, any times anything like this would have happened. It was before I was down there. I don't recall any of that incident.
Q. So it's correct to say to your knowledge this isn't a general practice?
A. No, definitely not.
Q. Okay. I have several logs here regarding sending high pH liquid water from the alky unit. Just for my knowledge, would you tell me what that's about.

MS. WIENS: Say the date again.

THE WITNESS: This is February 27 and 28 of '97. Night shift on the 27th of February of '97, another one from November 3 of '96, another one from March 12 of '97. I'm not as familiar with the alky unit operation. The alky unit does use acid and caustic, and I do know they have a neutralization pit up there and that they neutralize acids and caustics. They do the neutralization in the

pit, test for pH and then bleed that water into the oily water sewer. They call the operators to let them know we have a pit full and we're dumping it, it's high pH. That's basically what I know about it.

BY MR. BERGER:

Q. Do you know the generation source, how that material is generated?

A. I'm not real familiar with that.

Q. All right. I have the same memo we talked about earlier this morning, the water weekly update of March 14, 1996. Another entry that you made is number 88, and it reads suggestions to dump barrels of flake caustic into system. That is an attempt to avoid disposal costs. What are concerns? Then there is a 10/4 with your name.

A. I believe we had a couple drums of caustic that was in a dry flake form, and the question was being asked can we put this in the system for pH adjustment rather than dispose of it as hazardous waste. I don't recall what we did with it though, I don't recall the disposition of it, if we decided to put it into the system or not. I don't remember that.

Q. So somebody made that suggestion to you?
A. Right. I was supposed to follow up on it.
Q. You were concerned, and that's why you wrote is it an attempt to avoid disposal cost?
A. Well, we had acid and caustic down to the system to process the control system, and it seems this is another form of the same thing we're adding. Why spend disposal cost if we can use it? That's why the question was being asked.
Q. Do you know how that situation came out?
A. I do not know.
Q. Do you know who followed up on this?
A. I do not.
Q. Your name is behind that, so what --
A. That should have been my responsibility. It was in my lap is how I left it.
Q. And you don't recall the --
A. I don't recall what he did with it.
Q. Can you find out what happened?
A. I don't know. I can try.
Q. We would appreciate that. If it was used let us know how it was used.
A. What was the date on that?
Q. The memo is March 14 of '96, number 88. If it

was shipped off as hazardous waste we would like to see the manifest for that.

A. Sure. That was in barrels?

Q. Yes. The last area I want to touch on this morning is in regards to the API separator. Are you familiar with that unit and how it works in general?

A. Yes, I am.

Q. We have looked at a couple of memos here regarding a situation with concern over the walls of the API separator, that the walls of the separator may have cracked and have been leaking. Are you aware of a problem like that with the API separator?

A. We found some cracking and we repaired some cracks on it.

Q. When did that take place?

A. I don't recall a specific date. I think we could maybe go back in our -- I don't know the date.

BY MS. HAYES:

Q. When you say we, who is that?

A. We is Koch.

Q. Is there a department or a capacity you worked in, you and a team?

A. No. This was within the last couple years when I was the unit supervisor down there. I don't recall why we had exposed some of the wall, but when we exposed some of the wall below grade at API we noticed some cracking. I believe it was Brian Guarneros, but I'm not sure, worked with an outside contractor that said they had something they guaranteed would plug it and hold. The only reason I remember is it seems to me there was a guarantee that if it didn't hold we wouldn't have to pay for whatever the goop was they were plugging cracks with. I don't recall what that company was.

Q. Was there excavating around there at the time you found the problem?

A. We would have been excavating, but I don't recall what triggered us to be digging in there right now. We did do some digging, and for some reason the wall was exposed and we noticed cracks and decided to do something about it.

Q. Ordinarily you would probably excavate if you saw some signs of problems?

A. Yeah, if we saw a problem. This was below the

sight line and we were doing some excavating in the area and saw it.

BY MR. BERGER:

Q. I have a memo, I guess you could call it, and I believe this was written by Todd Aalto. It's dated 9/2/95. It has a diagram of the API separator, and he's noting the problems with the separator and leaks. He points out several areas of the separator where there's possibly leaks or small leaks. Have you seen that document before (indicating)? It's number 5486.

A. I may have seen it. I'm not recalling it right now. Oh, these leaks are talking about the cone skimmers leaking into the sump.

Q. Explain that as much as you can. We would appreciate that.

A. I don't know if I can do it verbally or not. The cone skimmers look like a funnel if you look at them at the top. They fit inside a sleeve and the operators raise and lower that funnel to drain the oil that's accumulated on top of the water into this sump. They will adjust that, there's a handle that raises and lowers the funnel into the sleeve, and that

sleeve is below the water level and there's rubber seals around it, otherwise you would have water leaking into there all the time because the water level is always carried above where this mechanical contraption or device fits together. What Todd is pointing out here is that those seals are shot because we're getting a constant flow of water into the sump. Which is a bad thing. This water is fed into the sour water system and then we end up -- well, I shouldn't say that. I think I misstated that, but you can get additional water into the sour water system if you overload that sump. We needed to fix that.

The same thing here (indicating). There's an additional valve, and once we discovered this was leaking into the sump all the time, until we could get at those seals to replace them we closed the T handle to isolate this part of the API from the sump. When you talked about leaks before, the excavation we had was in this area up here, we had done some excavating and we saw some cracks in the wall that looked like oil was leaking out and that's what we attempted to patch. This is a

different issue, this was a mechanical problem.

Q. Internal mechanical problem inside?

A. Yes.

Q. All right. I have a memo of June 9, 1996, and we discussed this one before, it's number 1958. The subject is API walls and it's from Eric Askeland to Heather Faragher. It's talking about remediation and problems with the API walls. It says from an environmental protection standpoint we need to stop the problem. Basically Koch needs to repair the walls in such a manner that we don't expect the problems to continue.

Further down it states have we gotten to the point where we can determine the extent of seepage? It is of significant quantity -- is it of significant quantity that we should notify the MPCA? We will ultimately want to notify them, however, our recent digging in area leads me to believe that any contamination from the API walls would be very extensive.

A. (Views document) I don't recall this. We had a lot of concerns as we discovered the cracks

in the API walls.

Q. What you talked about, the cracks that you discovered, is that what is being discussed here, do you know that?

A. I don't know that, but I would imagine that's what it is.

Q. And you mention that the situation has been corrected as far as you know?

A. Right. We were happy with the results we got from this -- I want to say it was Belzona, but I'm not sure who the contractor was that came in with the magic goop that would stick. It did take several attempts to do it, but we were happy when they completed it and filled it back in.

Q. Do you know when that occurred, when that work was done, the repair?

A. I don't know. I would guess it was probably that time frame.

Q. Do you know who was responsible at Koch here to oversee that project?

A. I believe it was Brian Guarneros, the engineer we had. I may be wrong about that.

MR. KRIENS: Eric wrote that memo, and would he have been involved with the

repairs?

THE WITNESS: He may have been involved with Brian, I don't know that. It would make sense to me.

BY MR. BERGER:

Q. There was a situation that occurred June, July of '96 where Koch discovered a leak in a valve, bypass valve, I believe it would be just south of the API separator, and you guys correct me if I'm wrong here. Are you aware of that incident, where there was a major leak discovered in a valve? I don't know how big.

A. I know it was heavily suspected, but I don't know how it would have been discovered. It's all underground piping.

Q. A memo of 4/10/96 I have here, a log of 4/10/96, mentioned crane fell into sinkhole southeast of API. Sixteen yards to fill hole.

A. I recall that.

MS. WIENS: It's number 303.

BY MR. BERGER:

Q. The information we have is sinkholes developed right above or near this area where this valve was leaking underground, and eventually a crane, as it states here, was sitting there

and one of its legs fell into a sinkhole that had developed.

A. Basically that's --

MS. WIENS: Do you understand the crane fell in the sink hole or everything else that he said?

THE WITNESS: I understand we had a crane that was going to lift a piece up and one of its wheels went through into a void. He put his legs out. He was positioning to make a lift and all of a sudden he was stuck, couldn't move. He got out of the crane and there was other hole under one of his wheel. He immediately put his legs out on the crane to stablize himself, and then we found this hole under there, a sinkhole, a void, and started looking into it. I don't see a very clear connection between this leaking valve. My recollection is what would make us think that the valve was leaking off API.

The API is your raw oil and water coming into the separator. The bypass line we used to control whenever there's a large rainfall and we're getting more water than we could hydraulically process through API, we

would bypass some of the API so we don't overflow API, and I believe we report those on bypass logs. That's a common occurrence, to bypass it for containment purposes, to keep water in API so you don't overflow it during high hydraulic loading.

BY MR. KRIENS:

Q. When you say bypass you mean bypass through the equalization tanks.

A. Bypassing the API only, right.

Q. When a sinkhole develops is that consistent with the pipe, the bypass pipeline leak that was discovered then? In other words --

A. Yes. When we started digging that's when we found the piping that was damaged.

Q. So to me it doesn't make sense that the crane caused the pipe damage, rather that the pipe might have been cracked or was leaking out, caused the erosion and then the sinkhole developed and the crane was there and dropped its wheel into the hole. That makes more sense, and does that make sense to you?

A. I wouldn't think the crane is what caused the pipe damage. I hope I didn't say that.

Q. You didn't, I'm just trying to clarify.

A. No, I wouldn't think so either. I believe it was actually concrete piping or whatever that is, I don't know if piping is the right word for it, duct way maybe, that had failed and that's what carried the sand away.

BY MR. BERGER:

Q. Are you aware of other sinkholes developing in that area and being filled in by Koch?

A. Operators told me it happened in the past.

Q. How often were you told about that or did you hear that?

A. I was told that it happened multiple times in the past. I'll admit to you how I hear that. Part of an operator -- the way things tend to get done is you start crying wolf, and when you cry wolf enough times then action gets taken. There's a tendency to maybe say, geez, it's happened every month for the past 12 months. That's probably not reality, but it may have happened a couple times. I had heard enough about that so that I was concerned, especially when we found that sinkhole, that we ought to be pursuing down that line to see if there's something else going on downstream.

Q. Do you know where that --

A. We dug up further down where the other areas with sinkholes were.
Q. When you first started -- when you first discovered the sinkholes?
A. Right. We found an additional piece of piping that was not leaking, but it had been damaged, and so we replaced that.
Q. Were there sinkholes developing in this area where the crane fell in?
A. Right.
Q. Earlier?
A. I had heard there had been sinkholes and sinks filled.
Q. Just filled in?
A. Right.
Q. But you're saying where this work happened, where the work was done was further down the line and not in this area?
A. It was in the area where the sinkhole was. That's where the cement like had fallen apart. After we replaced that section we continued downstream, down the normal path, and looked for additional problems. We did find another piece of pipe that had been collapsed. It was not leaking, but had been collapsed, and so we

went ahead and replaced that piece of piping. That one looked like a crane had run over the second one, or something. It was its normal width and then a big divot in it. From my point of view operating the water plant, a big divot was going to reduce the amount of water we could put through there. It's like pinching a garden hose. I wanted that out of there and so we replaced that.

MR. BERGER: Any other questions with that?

BY MS. HAYES:

Q. Yes. Do you know if there was any soil excavated or any --

A. There had to be, but I don't know the disposition of it. I do recall that Heather was concerned about testing it.

Q. You don't know how that ever ended up?

A. No. That kind of went into our hazmat group and I wasn't responsible for that group.

BY MR. BERGER:

Q. But it's your belief or knowledge when these sinkholes first started to develop, when they first started to develop and the investigation started, that you started to dig up the pipe

or around the pipe in areas to try and find out what was going on?

A. I had heard that we had sinkholes. You know, we've got -- operators make the rounds in pickup trucks, and from time to time there will be a low spot and then it's mud and they have to drive through the mud or they may have to get out in the mud. They will say that there's a sinkhole going over here or something. In those cases it's probably just a low spot and we put gravel in there. At that point we don't do any kind of investigation. And we did do that, we did put gravel around and try to make it where they had better access to do the things they needed to do on the normal rounds.

But when all of a sudden you have a drain finding a void that took 16 yards of fill into, you know something is going on there, and we would pursue that aggressively.

Q. When they first started happening you're saying it wasn't to a degree where it raised a flag saying there's a problem?

A. I wasn't aware of any. They had come to me several times saying we needed fill here and

there and we would do normal fills. I view that more as road maintenance. They also would tell me we've had sinkholes over here before, so you've had a sinkhole there, and my response would be to keep an eye on it. That was the same area that the crane went through, so when the crane goes through, that triggers a big investigation and we went on from there then. The operators said that the area had a problem before and they told me it had been a repetitive problem, but at that time I think I had been there six or eight months and we didn't have a hole, nothing to trigger a major investigation in my mind at that point.

MR. BERGER: That's all I have.

BY MS. HAYES:

Q. Rick, do you need a break?

A. No, I'm fine.

Q. I'm Mary Hayes, I work in the division of water quality, and I would like to talk to you about a couple of issues. I guess based on your experience with the waste water treatment plant and you being supervisor there I would like to talk to you generally about some of the items I wanted to talk to the operators

about. And I guess the first is oily water into the non-oily water sewer, that problem that we discovered when we were out there in April. I'm talking about near tank 500 where you have the bubbling up and going into the clean water sewer. I guess if there's other areas you are aware where that is happening I guess I would be interested in hearing about that. Are you aware of others?

A. That's the main one I know of.

Q. Do you know of any others at all?

A. No.

Q. There was some discussion in one of these about tank 502, do you know anything about that? I was wondering if maybe they meant 500. It's a memo from Joe Butzer and Jay Schellberg.

A. 502 I believe is treatment.

Q. Okay, that's fine. And I guess beyond your experience in waste water, have you been in a position to do rounds around the plant prior to that?

A. Right.

Q. So I guess I would just like to know what your knowledge of that is, how far that goes back,

the tank 500 problem.

A. I couldn't give you dates. I understood the problem a lot clearer when I went to the waste water plant trying to control the coker pond levels and that kind of thing, that all plays in to what's happening there. I can't recall specifically someone coming and saying anything or me tripping across the problem and I made that tie in earlier years.

Q. How often in earlier years were you dealing with it?

A. As a unit supervisor in waste water?

Q. Uh-huh.

A. Whenever we had coker pond high inventory concerns that becomes a concern because that was a limiter on how much water we can bring up from the coker ponds.

Q. How often were you dealing with that?

A. I don't know. It's hard to say.

Q. It's variable?

A. That's a good way to say it I guess. When it's a problem it's a big problem and you focus a lot of attention. If it's not a problem you have other problems.

Q. So were there times when you might deal with

it daily and then it be a month? I mean, I'm just trying to get kind of an understanding. And then you might go for a while, a period of time and not have any issues with it?

A. Yeah. Again, I would go back and look at coker pond reports, and when we have high inventory problems there's a greater risk.

Q. That could go on for days, though, couldn't it?

A. Right.

Q. And as a supervisor how were you dealing with discovering that problem other than -- I mean, you knew that you had high levels in the coker pond, and was there any other thing that you did in your regular routine?

A. No. That was the operator, that's part of what they should be doing.

Q. Okay. What was their charge about that then? What were they supposed to do?

A. My understanding was whenever they would make a move on flow rates coming up to the coker ponds, on their way back up the hill they would look and see if that was impacting that tank 500 area to see if they were trying to send too much up. The other factors that came

into that are coker operators.

Q. So you were just referring to the waste water operators when you said that, not the coker operators?

A. Yeah. That was not my concern. But they also impacted on the situation by what they were putting into that sewer area. They're the ones that are on the scene there on a more regular basis than the waste water operator. The waste water operator would go down and perhaps increase the flow rate if he was in an inventory concern down at the coker pond. Generally on the way back up to the waste water plant they would check the tank 500 area and make sure that the sewer was containing whatever they increased. Either they would do it themselves or they would call coker operators and ask them to check it.

Now, the coker operators were also contributors because they have water that pumps into that area that they control, and they're not out driving around in the truck all over the plant, they're on foot in the area. They may alert us if something in their process changed.

Q. So you didn't do it on any kind of interval, you would do it kind of immediately after the pumps would be turned up?

A. I think the operators would drive by as part of their rounds and check it whenever they were in the area, but they would make a special point if they adjusted the flow rate.

Q. Was there ever a suggestion made that there might be an alarm installed there for that issue?

A. There might have been. I'm not aware of a suggestion. Even if there was a suggestion I don't know what we would do, I don't know what kind of alarm you would put on it.

Q. In terms of that issue, going over to the -- that it would go from the oily water to the non-oily water, and there's subsequent problems with oil being observed on B5. I have logs where there would be issues with manholes overflowing on, for example, the 20th of March of '97. The number on this is 1153. There would be, on March 24 of '97, again, it would be overflowing by tank 500, and that's 1152. Then in some of these sequences there would be a note there would be a sheen on B5,

and then there would be discussions later about B5 overflowing. Did you make that connection? Did you ever consider what the implications were about that and where your responsibilities came in there, Rick?

A. I never made a strong connection between the tank 500 overflowing and oil sheen on B5. I would have been sensitive, I think, to that, too, because it would have been difficult -- I have a hard time understanding how that would happen. The water we're pumping from the coker pond does not take suction from the surface, it comes off the bottom of the pond. You have a big holding area there, and if you have free oil it's going to want to collect on the surface and be a sheen on the coker pond. You're pumping water up from the coker ponds, and if you're pumping at a rate that it overflows and it overflowed into the clean water, the operators respond, whenever they know that's happening, to divert the clean water into the plant. Granted, there might be a little bit of water that flrows through there, but I don't see why that water should be real rich in oil.

MR. KRIENS: Is there oil that goes into the oily water sewer in that area from other process areas?

THE WITNESS: Mostly the coker. Again, the pump suctions are going to be below the surface.

BY MS. HAYES:

Q. We do have logs, like on May 3 and 4, '96, and there's no number on this one -- oh, I think it's 716, it's faint though. And then on May 4 and 5, '96, number 363. It's noted oily water on the storm water basin. That's coming from someplace.

A. Right. I don't know that I would make the -- in my list of priorities the first thing I would look for wouldn't have been the coker pond.

Q. Where would you look?

A. Try and back into the boiler house and see if there was some kind of leak there that got into it, a rich oil stream, maybe fuel oil, lube oil of some sort or something like that. It just wouldn't be the first place I would look.

Q. Who is the author of that log (indicating)?

A. Mark Stevens was inside and Todd Aalto was outside.

Q. I was going to ask him about that when we talk to him, about what pond that was from. Okay.

I guess we're thinking there's a possibility there could be a connection between that overflow, and I understand you're saying that when they find it they divert it back to the process, but I think the issue could be that sometimes there could be a fair amount of time that could go by prior to them finding it. When we've talked about this before, in fact I think we talked about it with you when we were out here, somebody mentioned that the rounds could be as far apart as every four hours. It was regarding that issue that we talked about that.

A. I would think the operator rounds with waste water treatment plant operators could be as far as four hours. I believe the coker operators would be more like two hours.

Q. Okay. On this same issue, this is a memo that we've discussed before, and the number is 2977, from Butzer and Schellberg, and there's a suggestion here about getting skimmers and

boom for the north pond so that the operators can react quickly, the operators would be the best for a quick reaction on that. Do you know what this is about? It appears to me like you're having a problem on that north pond, can you speak to that?

A. The north pond we did have a problem one time.

Q. Just once?

A. Well, that I'm aware of while I was down there. And Heather was around at that time. We did have -- we did get some oil down there, and it looked like gas oil. We responded to that.

BY MR. KRIENS:

Q. When you mention the gas, is that from those units? I remember reading a memorandum about that one incident somewhere, I think it was from the 16E5.

A. I don't recall.

Q. It looks like there's a connection there from those units, the clean water sewer.

A. 16E5 is a cooler box that has a bunch of pipes in it, and you fill it with well water and you transfer the heat from the process to the well water, and then the well water would go down

the clean water sewer. If the pipes were to rupture then you would get contamination. That was the thought process, that it may have been what happened there. I don't recall if they ever found a leak in the tubes, I don't remember that.

Q. I think there's the suck 1282 or -- just two of them.

A. Yeah. They call them the 12 unit cool box and the 16 unit cool box. Oil showed up down there, and for part of the investigation into what happened there I was asked if the operators could do a better job of responding, and the intent, you know, as it flows into the north pond, on the very north end of it there is a trough, and we did put a boom or a bar across there to try and hold anything that would come in rather than let it get out on the big pond. If we were to get something in there it's an easier clean up if we can catch it in there. We did do that. It was just a precautionary measure because we did have the one incident.

Q. One incident of what?

A. Where we had this gas oil down there. I don't

recall the date.

Q. Do you remember what the year was?

A. I think it was pretty quick after I got down there, so probably late '95, early '96. I'm guessing.

Q. Okay. But in terms of -- how about, Rick, what's you're awareness of overflowing B5, how many times were you aware of that happening?

A. When we were having containment issues it started being discovered, and I want to say it was early in the spring of this year. I was surprised because it hadn't been a problem before. I wasn't aware that this was happening, if it was, and I was surprised when I first heard about it. We were in it for some containment issues trying to hold water back from going to the river, so that was understandable, but I wasn't -- I thought we had been maintaining better control than that. I was very surprised to find we were actually overflowing these ponds. I had not had that on my list of worries, it kind of showed up out of the blue.

Q. All right. I have a memo, and was this originally from Heather? Is that how that

works, it was from Heather and you sent it on, forwarded it on?

A. To operators, that looks right.

MS. WIENS: Read the date.

THE WITNESS: It's a memo that I forwarded on May 13, 1996 to the operators that was originally to me from Heather. This was spills to the west storm pond. The document number is 2665.

BY MS. HAYES:

Q. Do you remember that event, Rick?

A. I don't recall this specific incident.

Q. Where was it contained, can you tell?

A. I'm not sure. The way it's written it would make me believe it was contained in the west storm pond.

Q. It was spilled from where?

A. The coker pond. This would have been a transfer over to that sump. We had done that several times to get us out of that tank 500 problem, we had transferred water and used the pumping capacity and lines in the west storm pond to get coker pond water back up to the plant for treatment. In order to do that they would isolate the area that those pumps took

suction from the west storm pond and then pumped that, used that as the containment area. We used one of Schlomka's pumps to pump it into the containment area and we used the pumps located at the west storm pond to pump it up to the waste water plant. What happened is if you don't have the balance right with what Schlomka is putting in and what we're taking out, you could overflow that containment area and overflow it into the west storm pond.

Q. When you say containment, you mean the sump there?

A. Right. Exactly, the pump sumps.

Q. Do you recall that same kind of thing happening in April, the weekend before we came out? Do you remember when we talked about that in your office, Rick?

A. I don't recall the conversation, but it probably did.

BY MR. KRIENS:

Q. We had done an inspection because we had an allegation that this occurred in the past, and apparently it had. Then we looked at it and the environmental department was not

particularly forthcoming about it when we were there that day. Then that evening we actually learned it had occurred a couple days prior to our inspection. Then we bought it up. I think at the time we did bring it up when we were down there with you, and I'm not questioning your voracity or anything on this issue, but I think you mentioned yes, it had occurred and that you dealt with it in whatever fashion you normally do.

A. I think that is restated on the thing I just read from Heather. Once it goes over there, once we contaminate coker pond water in the west storm pond we commit ourselves to running the west storm pond through the waste water plant, not into B5.

Q. So you actually pump it all the way down to a dry level?

A. Right, until we lose suction on the pumps. Once it's that far down in the fall we try and go in and clean the area out so the pumps will work good for next spring.

BY MS. HAYES:

Q. Did you have any meetings about that event before us coming out there, Rick, about the

event at the west storm pond, that overflow?
A. Any meetings?
Q. Yeah. Did you talk about it before us coming out?
A. When we knew that we overflowed it we make a commitment then until we pump that down it has to go through the plant. We would have that kind of discussion. Is that what you're talking about?
Q. Well, did you discuss how you were going to discuss it with us?
A. I don't recall that.

MS. HAYES: That's all I have.

BY MR. KRIENS:
Q. When she mentioned that, you would be discussing it internally with the operators how to handle it?
A. Right.
Q. To take care of it, is that what you mean?
A. Just like Heather's note said, at that point we're committed to run the west storm pond. I wouldn't want any operators bypassing the plant and putting it directly into B5 at that point.

BY MS. HAYES:

Q. So can we assume that from the time that happened on the weekend until we were there midweek -- I mean, I know you don't know this for sure, but based on your normal protocol would you have pumped that pond, dried that pond out from the weekend before and then when we came the pond was already back up to a regular operating level?

A. I would say that would be pretty unlikely. I don't recall what the pond levels were.

Q. You were the regular operator when we came out there. I mean it looked like it was pretty full to me. I would assume that was pretty regular because it's a storm pond, right?

A. Right. Do you recall the time of year?

Q. It was April.

A. I would think there was a lot of water in there in April. I would be very surprised if we pumped that down and refilled it that quickly.

MS. HAYES: Thank you.

BY MR. KRIENS:

Q. You mentioned you pumped that dry at some point in the year?

A. We tried to pump it dry in the fall because

the pumps, we like to remove them for the winter so we don't freeze and damage them.

Q. Do you take any sludges or materials, junk off the bottom of the pond?

A. It goes to hazmat. I don't know how they take care of it.

Q. So hazmat handles that part of it?

A. Well, I shouldn't say that. It goes to our maintenance department and they make the call whether it's hazmat or if they bulldoze it out or whatever. I don't know the answer to that.

Q. So the maintenance department or others would take care of the disposal of any solids in there?

A. Right.

Q. Rick, are you aware of the use of the hydrant system to flush the waste water via the storm ponds, north and south storm ponds, to land areas, spraying those on land?

A. I recall discussions about the matter. There would seem to be a divergence of opinion on that.

Q. What types of discussions?

A. It seems to me Ruth and Heather had some differences of opinion over whether that was a

good method to control water or not.

Q. We talked to Ruth Estes about that and she mentioned that, that they did have a meeting. Were you involved or aware of any meetings to discuss that issue?

A. No. The shift supervisors help the operators and vise-versa around the clock, and Ruth was in a shift supervisor role. Ruth also had experience in the waste water treatment plant, she had worked down there as an operator, and perhaps her background gave her some additional credibility in the matter, maybe just in her opinion or maybe in other's opinions. Ruth liked to be involved with what was going on at the waste water plant because she had a lot of knowledge in that area. I don't know where I was going with that, but Ruth -- and then Heather was in an engineering role, and when they have a difference of opinion it could be a pretty impressive clash of opinions.

Q. I get that impression. My understanding is the shift supervisors, or shifties, take care of problems of that nature, and correct me if I'm wrong, on weekends?

A. Well, yeah, and night shift, too. There is always a shift supervisor here in the refinery on shift, and the operators for the most part carry on a normal day-to-day business of what's going on. If there's something unusual happening they will get the shift supervisor involved. They may be asked for guidance, they may just be using them as a sounding board, they may be asking them what should I do. It's a pretty wide gamut that happens there.

Q. Do you know who would have been in the position or who did make decisions to discharge that water?

A. I do not. A shift supervisor could make that decision, and if I, in a shift supervisor role, went to an operator and asked them to do something and it was not putting someone -- if the environment, safety or equipment concerns were not issues, you would expect the operator to do what the shift supervisor asks. That's the ranking guy, he or she is.

Q. You mentioned earlier in the spring of this year, 1997, that there was an inventory problem in the ponds. Could you explain the

nature of that inventory problem?

A. I think we were -- we had a series of problems. They tend to run together in my mind. We had a lot of issues in the operation of the plant due to a lot of oil and the centrifuging was being a problem through December and January. It seems to me we had a phenol concern that hit us in that time frame also. And then we also had ammonia, we were very worried about ammonia for a period of time.

Q. How long of a period of time are we talking about with the ammonia?

A. The way the permit was constructed you get monthly averages. Those are what I recall being crowded and very concerned about how we were going to turn those around.

Q. You mean stay in compliance?

A. Get those numbers down where we're not going to crowd what our limits are.

Q. Okay.

A. Part of our strategy to do that would be containing water and bleeding it off over a longer period of time, as long as we had capacity.

Q. When you talk about containing water, that's the practice of stacking, backing up water to B5?
A. Right. Raising levels on B5, south fire pond.
Q. Okay. It's been discussed before, and people have said the reason for those discharges on the land via the hydrants were because of this inventory problem, and my review of our documents we received show the waste water plant did stack or back up water quite often it appears.
A. You bet. The operators monitor S7 real religiously, and that tells them what the plant performance is. When they start crowding any limit parameters on B7 they begin to stack water until we understand what's going on and how bad it's going to impact us.
Q. Would this have been done in February, too, stacking water or backing it up?
A. Yeah. Is that when we got into the ammonia issue?
Q. Well, the ammonia issue looks like it began in about mid 1996, when the ammonia level started to increase. I noticed in February it was the highest of this whole period up to May or so

when the problem appears to have been resolved with the sour water stripper changes. In February it had the highest flows, so in February was this stacking also a practice?

A. Sure.

Q. So is the motive operation then to stack it up and subsequently to bleed it off into the polishing ponds, which is where that would go, at a certain rate which would not exceed the limits then?

A. Right.

Q. In February there's three days in a row, the 25, 26, and 27, in the safety logs that show water was discharged from hydrants, about a million gallons, a little over a million gallons total was sprayed on land. February happens to have been a month where the limit was right at the -- the ammonia discharge loading was right at the monthly average permit limit. As you mentioned, this forced a lot of backing up and stacking during that month, and my question is do you know about those hydrant releases, discharges, and if so what would have been the purpose of those?

A. I don't know about them. It could have been a

shift supervisor's response to help the inventory problem. I'm guessing.

Q. And the inventory would have been a result of the stacking, backing up water?

A. Yes.

Q. And typically that would have been -- should have been -- would that water normally have been required to go back through the system to the polishing ponds?

A. I don't understand.

Q. I guess I'm asking is the normal procedure if that water was stacked, and I guess we kind of established that, normally you would want to go through the polishing ponds and discharge that?

A. Right, discharge water. It seems to me I recall conversation regarding how much water should be flushed when we flush water.

Q. Could you explain that?

A. When that was being discussed I believe there were samples taken of the water that was being discharged to make sure that we weren't violating anything that was being discharge to the ground.

Q. That would have been after a reportable

quantity was --

A. Right. It was looking for reportable quantities. I recall that conversation. I don't know if that had to do with this specific time or not.

Q. I understand. Do you know anything about a hydrant release in November? This would have been November 3 and 4 of 1996.

A. I don't know. I don't know what we're talking about at that point. I can't pull that out of thin air.

Q. Let me put it in perspective with some operator logs at that time. There was a memo from Heather Faragher October 24 which notifies a lot of people that a Bioassay is going to occur November 4. Samples would be collected at this time period following, and starting with November 2, it was some special analytical test sent to the lab for the S7, and the flow was cut from S7 to less than three units. Let me stop for a minute. What does one unit mean on flow?

A. I don't know how it translates, but there's a strip chart that the operators use, and that's how they monitor what the flow rates are. I

don't know what the conversion factor is. You get some operators that go ahead and do the conversion and tell you how many millions of gallons of water it is, others may just give you that unit number.

Q. Do you have any idea approximately what it means?

A. I don't, not off the top of my head.

Q. Anyway, this memo talks about cutting flow to less than three units November 2. Then on November 3 there's additional testing, special testing, shows ammonia out of the S7 at 110 milligrams per liter or part per million. Then a copy of Heather's letter they state -- meaning this memorandum concerning the Bioassay is dropped off to the shifties. Then another discussion November 3, memo from Dave Gardner concerning the special results and limiting the flow to the river to two units. I presume when they're talking about limiting the flow the only thing they can do is back it up to B5?

A. (Nods head.)

Q. Then November 3 an operating log states safety to open three hydrants of west tank farm on

ground to help get rid of water. This occurred from 1900 hours, or 7:00 p.m, on November 3 to 7:00 a.m. on November 4. Then there is a safety log on November 4 which states water is flowing in west tank farm west side of I Street. So that's where I'm coming from here.

A. Does it say where they were flowing it to? It sounds to me like they would have been flowing it to the west storm pond.

Q. It says in west tank farm. A previous operating log states three hydrants in west tank farm on ground. We've asked others, and including Ruth, which verifies it was -- I believe Ruth anyway, stated that it was done on the ground.

A. Okay. I don't know that part of it.

Q. We have some other information that's confidential at this point that we have obtained and learned that it was discharged on the ground that night. Do you know anything about that?

A. I would have read it in the log. My thought would have been it would have been going to the pond. However, if I was going to do some

more thorough research on it I would like to see what the pond levels were on that west storm pond.

Q. As I mentioned, we have independent confirmation that it did go onto the land.

A. It could well be.

MS. WIENS: It's hard for him to comment on your independent information.

MR. KRIENS: Yeah. I'm not asking for that, I'm just responding to --

THE WITNESS: If I would have read that, a note in our log saying water was being flowed to the west tank farm I would have made the -- my conclusion would have been we would have been flowing it into the storm pond.

BY MR. KRIENS:

Q. I understand that because I've seen it in the logs, it says west tank farm lagoon, west tank farm pond, and some of those on ground to west tank farm, which is different than the pond or lagoon. I know there's a terminology difference in usage between staff there.

A. I agree.

Q. To finish with that, do you know anything about that particular issue?

A. It doesn't ring a bell to me.
Q. Okay. Thank you.
MS. HAYES: I have a follow-up while you're looking. What are the dates on the March events -- or the February?
MR. KRIENS: The 25th, 26th and 27th.
BY MS. HAYES:
Q. I guess this goes back to -- now I'm talking about March and I guess I was thinking this was February, but you have an overflow from B5 in March of '97, and this goes back to the discussion that we were talking about before.
I don't have a number on this, but the date on this log is March 25, '97. The log states safety said B5 running over north end. Increased flow to river to nine units. Why would you be operating where you're overflowing your pond before -- I mean, why the reaction to that? Why not have your units cross to the polishing ponds so that -- it just feels like this is sort of a reaction to your pond overflow and you're made aware you are having some problems with B5 overflowing.
A. Right.

Q. Why not be having those flows to the polishing pond so that this wouldn't happen? Why not this in a reverse order I guess is what I'm trying to say.

MS. WIENS: Is this something you know about?

BY MS. HAYES:

Q. I guess it goes back to him saying that he knows the B5 was overflowing in the spring, and it goes to the idea that we're talking about stacking water and the idea of how many units, you know, how many units can you be putting across to the polishing pond. I'm just wondering why -- what's the problem that you don't have enough freeboard in the north pond that you're going over? Why not just be putting more across the street to the polishing pond?

A. It gets back to what we have talked about before, if there's concern about what's going to the river we would stack water.

Q. Okay.

A. And you understand that S7 is how that's adjusted to pond? You're running -- your plant, what's coming through the plant hits S7

before the pond, and you're -- if you're pumping at a higher capacity than what the plant is producing you're going to remove water from B5. So when you know that B5 is overflowing you need to take more water out of there. That's why you increase that flow rate.

BY MR. KRIENS:

Q. Do you know what the maximum flow rate from S7 is?

A. I do not. I know I should, but I don't.

Q. Apparently it's at least nine units, whatever that is?

A. Right.

Q. Do you know, Rick, of any meeting held between anybody at Koch concerning an alternative to the situation where the ammonia limit was in jeopardy of being exceeded, and apparently it was the daily maximum limit, and they decided to discharge to land instead of to the river?

A. I don't recall a meeting for that purpose. Brian and Heather and I met many times concerning our ammonia issue when we were having monthly concerns. We were searching for other options. I don't recall a meeting

that was constructed exactly as you describe there.

Q. You're talking about Brian Roos?

A. Right. We would also have the operators involved in those meetings.

BY MS. HAYES:

Q. You said you were discussing other options. What do you mean?

A. Is there something we're missing in this. We've got all these ponds full of water that's higher than desired ammonia content, what can we do about it. The last thing -- we would do anything we could to avoid putting water that was above the limits in ammonia into the river.

Q. What was your understanding of the consequences of exceeding the limits?

A. Not acceptable.

Q. Not acceptable why?

A. Because it's a limit we're -- I mean, it's an operator parameter that we would not violate.

Q. Are you aware that could flag a violation and penalties could be --

A. Yeah, but to me the real issue is that's the limit and you don't go over the limit.

BY MR. BERGER:

Q. A question about the boiler house. And this goes back to the situation with the overflow of the oily water sewer to the non-oily water sewer. We have gotten information through interviews that one way for this to have been detected was in the boiler house, that there was an actual odor or smell that became apparent in the boiler house.

A. I recall that.

Q. Correct me if I'm wrong or explain this to me, but the non-oily water sewer flows through or there's an open part of the non-oily water sewer in the boiler house and that the fumes could be smelled from the water? Could you explain that?

A. My recollection is that discussion came up as a result of the investigation for all the oil accumulated on B5, that incident, whatever those dates were. We had oil out on B5, the gas oil. The boiler house operator said when we have oil in that sewer what happens is the boiler house, the water they're putting into the clean water sewer is a warmer temperature, so if there were any hydrocarbons in the water

they would volatize. And it was being suggested that perhaps we could put some type of part per million hydrocarbon detector in that sewer and let that at least trigger somebody to look at it. That was discussed, I recall that discussion.

Q. Okay.

A. To my recollection where it ended we could not find that type of device that would be reliable in that service. That's where it ended.

Q. We've been told that the boiler house operators would then call when they had the smell start, they would then call the appropriate people, environmental or whoever?

A. When I was down there there was some cross training going on between the two units, so we were trying to melt this barrier between boiler house and waste water plant so they knew to scratch each other's back on that.

Q. Can you talk to the timing involved there?

A. Not really, not off the top of my head. I don't know if that was on that water weekly list or not.

Q. It's too specific to the operation of the

boiler house and you don't have the knowledge there?

A. Again, I think it's -- again, trying to make the time, I think it was back to when we -- a result of the investigation into that gas oil incident on B5. That would be the only clue I would have as to the timing of the discussion.

Q. Well, we have it more than that. It was the general situation of this overflow, that's one way it was detected.

A. I'm not aware of it that way. My understanding was in order to pick up hydrocarbons you need a pretty rich hydrocarbon source, and I wouldn't see the coker pond water as having that high of a hydrocarbon source. To me that doesn't seem as good of a suggestion as if you're dumping gas oil down the stream. It seems to me that's what triggered the discussions.

Q. Well, you have to remember, you know, from what we're hearing is the coker ponds were kind of used as the sewer for Koch Refining, everything went into the coker ponds. The Eighth Street sump would overflow, a lot of dry weather flows went into the coker ponds,

and that's one of our concerns. You said that earlier, that you wouldn't think the coker ponds would be a source of oily water, and I don't agree with that at all because of how the coker ponds -- it's been documented to us a number of times how the coker ponds were used to collect a lot of oil and dry weather flows over the years.

A. When you say used, you're implying to me that was a planned step that someone made to put water there.

Q. Yes.

A. I would disagree with that very strongly.

Q. Sour water, wasn't that a plan?

A. That was. That was the best option we had at the time. But that's the only time I'm aware of that we trucked water to that point, otherwise it was an overflow that would have been the result of a mechanical failure.

Q. Well, again, I don't agree with that.

MS. WIENS: You can go ahead and ask him questions, but you disagreeing may be best saved for another day. Why don't you just ask him questions and we can talk later about disagreeing.

THE WITNESS: Like I said, right now that's the only time I'm aware we trucked water specifically to the coker pond. Other times, yeah. When Eighth Street overflows that would end up in the coker pond, Seventh Street would overflow, but that would be because the sump isn't working right. It isn't someone goes down there and overflows it to overflow it. You have other information I don't know about, but I -- if I was still the supervisor there and I had an operator doing that I would be wanting to have a real serious discussion with the operator and find out what is he thinking about, what is he doing.

MR. BERGER: That's all

(Whereupon, the interview concluded at 11:25 a.m.)

* * *

STATE OF MINNESOTA)
) Ss:
COUNTY OF HENNEPIN)

BE IT KNOWN, that I, MILO BALLINGRUD, Court Reporter, a Notary Public in and for the County of Hennepin, State of Minnesota, certify that the foregoing is a true record of the interview of RICK LEGVOLD, and reduced to writing in accordance with my stenographic notes made at said time and place.

I further certify that I am not a relative or employee or attorney or counsel of any of the parties or a relative or employee of such attorney or counsel;

That I am not financially interested in the action and have no contract with the parties, attorneys, or persons with an interest in the action that affects or has a substantial tendency to affect my impartiality;

IN WITNESS WHEREOF, I have hereunto set my hand on this 11th day of November, 1997.

MILO BALLINGRUD,
Notary Public, Hennepin County, Minnesota
My Commission Expires January 31, 2000.