

SUPERIOR COURT OF NEW JERSEY  
 CHANCERY DIVISION - MORRIS CO.  
 Docket No. C-3939-84

DIAMOND SHAMROCK CHEMICALS :  
 COMPANY, :

Plaintiff, :

-vs- :

Transcript of  
 Proceedings

THE AETNA CASUALTY & SURETY :  
 COMPANY, et al, :

Defendants. :

MORNING SESSION

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Place: Morris County Courthouse  
 Morristown, New Jersey

Date: October 17, 1988

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Diary		MH
In Charge	11/23	fl

BEFORE: HONORABLE REGINALD STANTON, A.

TRANSCRIPT ORDERED BY: Stephen D. Cuyler

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-and-

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I N D E X T O W I T N E S S E S

<u>WITNESSES</u>	<u>DIRECT</u>	<u>CROSS</u>	<u>REDIRECT</u>	<u>RECROSS</u>
Arthur Scureman	6	53		
John Burton	58			

I N D E X T O E X H I B I T S

<u>EXHIBITS</u>	<u>DESCRIPTION</u>	<u>FOR ID.</u>	<u>IN EVID.</u>

1 THE COURT: I'm sorry for the delay  
2 in getting on the Bench. The telephone motion  
3 took a lot longer than I feared it would. But  
4 we're ready now.

5 What witness do we have?

6 MR. CALOGERO: Your Honor, at this time I  
7 would like to call Mr. Arthur Scureman to the  
8 stand.

9 THE COURT: Mr. Scureman.

10

11

12 A R T H U R S C U R E M A N, called as a witness on  
13 behalf of the Defendants, being duly sworn, testifies  
14 as follows:

15 DIRECT EXAMINATION BY MR. CALOGERO:

16 THE COURT: Whenever you're ready, Mr.  
17 Calogero.

18 MR. CALOGERO: Thank you, your Honor.

19 Q Good morning, Mr. Scureman.

20 A Good morning.

21 Q I'm going to ask you to keep your voice up  
22 so everyone in the room and the courtroom can hear you.  
23 Okay?

24 A Okay.

25 Q Could you please tell us where you

Scureman - direct

1 presently reside?

2 A 32 Comley Place, Bloomfield, New Jersey.

3 Q Are you presently employed, Mr. Scureman?

4 A Yes. At Hoffman-LaRoache in Nutley, New Jersey.

5 Q Now, was there a time, Mr. Scureman, when  
6 you were employed by a company known as Kolker Chemical  
7 Company?

8 A Yes.

9 Q And do you know approximately what year  
10 you were employed by Kolker?

11 A It was in '51, early part of '51.

12 Q And did there come a time, Mr. Scureman,  
13 when you became employed by Diamond Alkali?

14 A Diamond Alkali bought over Kolker Chemical.

15 Q Were you employed at the time that Diamond  
16 Alkali took over Kolker Chemical?

17 A What? What was I doing?

18 Q What were you doing -- Could you give me  
19 the address of the company?

20 A Lister Avenue.

21 Q Is that 80 Lister Avenue?

22 A 80 Lister Avenue.

23 Q Could you tell me when you first started  
24 working for Kolker Chemical Company what job did you  
25 have?

Scureman - direct

1 A I worked in the blending room on the third  
2 shift. I started filling five gallon cans of Amine, a  
3 weed killer.

4 Q When you referred to the blending room was  
5 there a particular building where that was located?

6 A If you came in the driveway it was where the  
7 trucks backed up in the platform. It had a big garage  
8 door.

9 Q Was anything else produced in that  
10 building besides the Amines which you just referred to?

11 A In the back was called the ester room where they  
12 mixed 2,4-D and the esterfied in there, and they made  
13 Duramene which is an Amine they got from fatty acids.

14 Q Now, when you were, or when Diamond Alkali  
15 took over Kolker Chemical did your job position remain  
16 the same?

17 A No. I, when I started there, I was hired for a  
18 Hi-Lo driver, but they didn't have the Hi-Lo yet, so  
19 they put me on a a third shift filling five gallon cans  
20 until the Hi-Lo came in.

21 Q And when the Hi-Lo came in did you then  
22 become employed as a forklift operator?

23 A Yes.

24 Q And did you remain in the position of a  
25 forklift operator during your entire time at Diamond



Scureman - direct

1 Alkali at 80 Lister Avenue?

2 A Well, you were a forklift driver, and if there  
3 was no work on the forklift you went inside the  
4 production building and did work there.

5 Q How long were you employed at 80 Lister  
6 Avenue for Diamond Alkali?

7 A Until 1969.

8 Q Were you there, Mr. Scureman, when the  
9 plant closed in 1969?

10 A Yes.

11 Q And what other types of jobs would you do  
12 during your course of employment at Diamond Alkali from  
13 1951 to 1969 besides being a forklift driver?

14 A Well, if there was nothing to do on the  
15 forklift, they took you inside, filled one gallon cans,  
16 five gallon cans. If there was no work there, you'd go  
17 over in the 2,4-D building and fill 2,4,5-T and 2,4-D  
18 in bags.

19 Q During the course of your employment at  
20 Diamond Alkali as a forklift driver, and also in these  
21 other positions, did you have an opportunity to visit  
22 every portion of the premises that was at 80 Lister  
23 Avenue?

24 A Yes. I got around the whole plant because I  
25 delivered all the raw materials to every part of the

Scureman - direct

1 big building and the 2,4-D building and the ester room.

2 Q Now, you've just referred to something as  
3 the big building. Could you tell me what was produced  
4 in the big building?

5 A Well, when I first started there, they made  
6 cable compound in there and they made miticide and they  
7 made DDT, and they had autoclaves in the back where  
8 they used to make, used to mix caustic and something  
9 else, and I don't know what they made in that room. I  
10 didn't like to go in that room because it was so bad.

11 Q Was this an area where TCP was made?

12 A Yeah. That's -- yeah.

13 Q And when you say that you didn't want to  
14 go back there, could you explain why you didn't want to  
15 go into that area?

16 A Well, because there was so much vapors in that  
17 room and I used to just deliver the skids of caustic up  
18 to that room and they used to roll them in. They had  
19 two autoclaves in there.

20 Q Now, during the time when you would  
21 deliver caustic, and into this area where TCP was made,  
22 did you have opportunity to ever observe leaks in that  
23 area?

24 A Oh, yeah, there was a lot of leaks all over the  
25 place.

Scureman - direct

1 Q Could you tell me what in particular you  
2 would observe leaking?

3 A Well, there was acid leaks in there. They had,  
4 there was sulfuric in there and other stuff leaking. I  
5 didn't know actually what it was in there leaking, but  
6 that's why I didn't want to go in there.

7 Q Now, you've referred to a building, a big  
8 building, and you referred to a building where 2,4-D  
9 and 2,4,5-T was made. Were there any pipes which  
10 connected these two buildings?

11 A Well, you had the big building here and you had  
12 an aisleway where they had a tank outside where they  
13 used to make sulfate was like a filter stuff. They  
14 used to pump that into the ester room and in the  
15 aisleway was all pipes in the aisleway coming from the  
16 big building to the ester room.

17 Q And how much space was between the big  
18 building and the 2,4-D building?

19 A I'll say about the size of that desk and about  
20 half of this.

21 MR. CALOGERO: Indicating, for the record,  
22 your Honor, perhaps seven feet.

23 THE COURT: Very well.

24 Q And would these pipes --

25 THE COURT: Well, the size of what desk?

Scureman - direct

1 THE WITNESS: That desk and about half of  
2 this.

3 THE COURT: Okay. I would say that desk  
4 is about six, that table is about six feet long,  
5 and another half would be nine.

6 MR. CALOGERO: For the record, then, nine  
7 feet?

8 THE COURT: Roughly.

9 A I used to stack a 48 inch pallet there. You had  
10 to be careful going along them because they had a  
11 sulfuric tank and a sulfite tank there.

12 Q These pipes that you've just described  
13 were they overhead that you would be able to walk  
14 underneath them?

15 A Well, they were about ten foot over your head or  
16 maybe a little higher.

17 Q Did you ever observe these pipes leak.

18 A Oh, yeah, there was a lot of leaks. They had an  
19 ejector system right at the end of the building there.

20 Q When you say an ejector system, could you  
21 describe what you mean by that?

22 A That's how you make vacuum. A water ejector  
23 system would vacuum and steam.

24 Q When these pipes leaked where did the  
25 leakage go to?

Scureman - direct

1 A Ran on the sewer, ran on the ground into the  
2 river. There was a trench right there that went right  
3 to the river.

4 Q Now, could you tell me what were the  
5 material made of that constituted the ground between  
6 these two buildings?

7 A Was, some of it was blacktop, when you came in  
8 one area it was stone, 'cause we always got stuck with  
9 the Hi-Lo and we put diamond plates down. Then you'd  
10 get in by the ester room, it was concrete because the  
11 river was always caving in and they put concrete there  
12 so we wouldn't get stuck with the Hi-Lo.

13 Q Now, was this area of the ground between  
14 the two buildings where these pipes ran, was this area  
15 pitched in any direction?

16 A It was pitched towards the river.

17 Q And you've described a trench that was in  
18 that area between these two buildings.

19 A Yeah, it was right alongside the ester room.

20 Q Could you describe what this trench looked  
21 like?

22 A It was an open trench that had a grating on top.

23 Q Could you tell us approximately how deep  
24 this trench was?

25 A About like this. It wasn't too deep.

Scureman - direct

1 MR. CALOGERO: Indicating for the record,  
2 your Honor, about a foot?

3 THE COURT: Yes.

4 Q Now, were there ever times, Mr. Scureman,  
5 when the pipes that were between these two buildings  
6 would freeze?

7 A Oh, yeah. I worked --

8 Q And when those pipes would freeze, could  
9 you tell me what you or anyone else at the plant had to  
10 do?

11 A Well, they had caustic there. We used to have  
12 to break the lines and break the flanges and steam the  
13 caustic lines out.

14 Q Could you tell us just briefly how you  
15 would steam the caustic out of these lines?

16 A Well, when you steam a line at a chemical plant,  
17 you got to use a steam hose and it's got to come back  
18 because if you don't have it come back condensate forms  
19 and it rolls out. It's got to roll back at you.

20 Q When you would do this process would it be  
21 necessary to take these pipes off of the, that area  
22 which you've described as running between the  
23 buildings?

24 A I never took them down, but we just broke the  
25 unions or the flanges to steam them out. That's all.

Scureman - direct

1 That was a real cold area in the wintertime.

2 Q Could you tell me when you would do this  
3 process of steaming these pipes where would the  
4 material go to?

5 A On the ground and in the river.

6 Q And was this something that would be done  
7 in the winter months on a frequent basis?

8 A Well, in the winter, that's when you had most of  
9 the problems with all of the lines on the outside.

10 Q Now, were there other areas of the plant  
11 which needed to have steaming put through pipes?

12 A Oh, yeah.

13 Q Now, could you tell me, though, what those  
14 other areas were?

15 A Well, they had, alongside the river they had  
16 what they call the 2,4,5-T unit, was along the river  
17 next to Sergeant Chemical. If they had problems, we  
18 would go there. They had phenol in the lines and we  
19 used to steam them out.

20 Q When you steamed out phenol from these  
21 lines, was it by the same process which you described  
22 before?

23 A What do you mean?

24 Q Would you do the same thing to steam out  
25 the phenol?

Scureman - direct

1 A Yes, yeah, you got to. You know, phenol freezes  
2 even in the summer if you don't have it heated up and  
3 traced.

4 Q And when you would steam out the phenol  
5 from these lines, where would that material go?

6 A On the ground.

7 Q Now, could you describe the ground that  
8 fronted the river of that plant?

9 A Well, from the ester room over to that unit  
10 there, the river was, the concrete was very bad. I got  
11 stuck many a times, you know, the concrete.

12 Q When you say, Mr. Scureman, that the  
13 concrete was bad and you got stuck many times, would  
14 you explain what you mean by that?

15 A The concrete was ate away from the acid being on  
16 it. And I would put diamond plates and go on the  
17 diamond plates to get back there. We used to go back  
18 there to pick drums up.

19 Q When you say you would put diamond plates  
20 to go back there, are you referring to walking or are  
21 you referring to using the Hi-Lo?

22 A Using the Hi-Lo. I got stuck many times. I  
23 thought I was going in the river.

24 Q And can you tell me when you would go back  
25 there to do this process of steaming out the phenol,



Scureman - direct

1 were there any other areas where they were steaming out  
2 which then would go on to the ground and into the  
3 river?

4 A You mean in the back by the river front?

5 Q Yes. Did you have to steam any other  
6 pipes out back there?

7 A No, just in that one area. For some reason they  
8 always froze.

9 Q Now, what about inside the building, was  
10 there a process where you would have to steam out lines  
11 that were inside the building?

12 A I never, in the 2,4-D building, I never steamed  
13 any lines out.

14 Q What about in the other building?

15 A In the other building?

16 Q Yes.

17 A In the big building?

18 Q Yes.

19 A Yeah, many times.

20 Q Could you tell me what type of lines you  
21 would have to steam out there?

22 A Well, we had caustic in the lines and they used  
23 to get plugged. And there was, I forget now, that  
24 phenol we used to have a lot of times.

25 Q And when you would steam out lines inside

Scureman - direct

1 the building, where would that material go after you  
2 steamed it out?

3 A On the floor.

4 Q And where would it go then?

5 A It went in the sewer.

6 Q Now, during your employment by Diamond,  
7 and particularly your employment as a forklift  
8 operator, was it necessary for you to bring into the  
9 plant raw materials that the plant would then use?

10 A Yeah, I brought all the raw materials in.

11 Q Could you tell me what types of raw  
12 materials you would have to bring into the plant as a  
13 forklift operator?

14 A I brought flake caustic that was made by Diamond  
15 from DuPont. I brought in -- no. We used to bring,  
16 they used to come in heavy gauge drums. I forget the  
17 name of the stuff, very dangerous. You couldn't get no  
18 water in it.

19 And tetrachlorobenzene we used to get, we used  
20 to get from Hooker in fiber drums. And we used to  
21 store it in drums that we used to get from Hooker that  
22 they used to use in the 2,4-D building.

23 Q Now, were there ever, do you recall when  
24 you used to bring these raw materials in, any  
25 complaints by nearby, other manufacturing facilities

Scureman - direct

1 that had complaints about your operations when you were  
2 bringing these chemicals into the plant?

3 A The stuff that I brought in in drums and  
4 everything?

5 Q Yes.

6 THE COURT: Just a moment. Mr. Cox?

7 MR. COX: Your Honor, there has been a  
8 fair amount of leading so far, and I've let some  
9 of it go on. But this seems to me to go  
10 beyond --

11 THE COURT: I think the question has to be  
12 focused on and addressed. I think it's not  
13 leading. I don't think it's suggestive of the  
14 answer. I'll allow it.

15 MR. COX: Also I think it calls for  
16 hearsay, and I would suggest on the basis of his  
17 deposition that perhaps --

18 THE COURT: We don't know about his  
19 deposition because I haven't seen it. But  
20 asking if a complaint has been made does not  
21 necessarily involve hearsay, if the complaint  
22 is made directly to the person.

23 So I think what we'll ask you is if  
24 anybody complained to you about your operations,  
25 not complaints that you know indirectly, heard

Scureman - direct

1 of through other people. Did anybody complain  
2 to you?

3 THE WITNESS: The one complaint, the drums  
4 we used to get from Hooker, we used to have to  
5 break them open, I mean, break them on the  
6 ground with papers laying because the stuff was  
7 so hard. That's the only complaint we had. If  
8 you broke the drum, the stuff would come out and  
9 you would start burning your face. The other  
10 stuff --

11 THE COURT: You had a complaint in the  
12 sense you were worrying about it? I think Mr.  
13 Calogero's question to you was: Did any of the  
14 neighbors complain to you about the chemicals  
15 you were handling?

16 THE WITNESS: No, not the ones I was  
17 using.

18 THE COURT: Did any neighbors come to you  
19 and say: You fellows aren't doing this right,  
20 you ought to be cleaning the pipes in a  
21 different way or handling the material in a  
22 different way?

23 THE WITNESS: The fellow, when we used to  
24 steam the lines by the railroad tracks, when we  
25 used to get caustic in, the guy next door from

Scureman - direct

1           Sergeant Chemical, he was always complaining  
2           about it.

3           THE COURT: Did he talk to you?

4           THE WITNESS: Yeah. I was standing there  
5           a lot of time. He says: This ain't right.

6           THE COURT: Did he say anything more than  
7           that?

8           THE WITNESS: No. He would go see, you  
9           know, my boss or the plant manager. He was next  
10          door. That was Sergeant Chemical.

11          THE COURT: Go ahead.

12          Q        And, Mr. Scureman, he would complain about  
13          the process that you've just described of cleaning out  
14          the caustic?

15          MR. COX: Objection, your Honor. I mean,  
16          are we repeating what he just said?

17          MR. CALOGERO: I'm trying to focus.

18          MR. COX: Is he repeating what -- the  
19          objection was made by somebody else.  
20          It's hearsay.

21          THE COURT: I think the thing is did he  
22          complain? All right. Go ahead. Restate the  
23          question, please.

24          Q        Mr. Scureman, what was it that he  
25          complained about?

Scureman - direct

1           A           About the stuff. He had the same railroad  
2 tracks next to us, and we used to clean everything  
3 there and steam the lines. And the stuff was always on  
4 the railroad tracks. And he was always yelling about  
5 his men walking in the stuff because he used to get box  
6 cars and stuff in there. And he was always complaining  
7 that the tracks always had the stuff on it.

8           Q           Now, did he complain on more than one  
9 occasion or on a number of occasions?

10          A           He always complained because we were always  
11 cleaning railroad cars out there for the 2,4-D.

12          Q           Are you familiar with the Sherwin-Williams  
13 plant that used to be next to the 80 Lister Avenue  
14 plant?

15          A           Oh, yeah. It's on the west side of the plant.

16          Q           Now, did you have anything to do with, or  
17 did you ever hear directly complaints from people at  
18 Sherwin-Williams about the plant operations?

19          A           The only complaint that I know of was that we  
20 overflowed DDT solution, high solvent, and it ran down  
21 the track. And they came up complaining that the stuff  
22 was running in on their property.

23          Q           Did they complain to you?

24          A           The guy came up and he yelled about it. And  
25 then I, you know, I told him to go inside. I had told

Scureman - direct

1 him what happened; the tanker overflowed.

2 Q And did you see him go inside?

3 A He went in the building. I don't know who he  
4 saw.

5 Q Now, you've described, or you've testified  
6 on a number of occasions to the big building. Did  
7 there come a point in time when there was an explosion  
8 and that building was destroyed?

9 A Yeah. It was in 1960.

10 Q Were you at work that day of the  
11 explosion?

12 A No. I was home. It happened on a Saturday. I  
13 was home. I was off that day.

14 Q And did there come a point in time when  
15 you went to the building or you went to the plant after  
16 the explosion?

17 A I heard on the news about the explosion. And I  
18 got in my car and went down and I went inside the  
19 plant, you know, in the grounds. We couldn't go in the  
20 building because the fire department and arson squad  
21 was all there.

22 Q What did you observe about the condition  
23 of the building when you arrived there?

24 A All the big doors were blown out and all the  
25 windows were blown out of building, and the roof had

Scureman - direct

1 came down inside the building.

2 Q Did you observe any debris in the Passaic  
3 River at that time?

4 A Not at that time. They wouldn't let nobody go  
5 back by the river.

6 Q Did there come a time when you were  
7 allowed to go back to the river?

8 A Well, what they did, they told us all to go home  
9 and they contacted us to come back to work. I was one  
10 of the first ones to come back because I drove the  
11 Hi-Lo.

12 And there was part of the building that had  
13 split on, was on the north corner, northwest corner was  
14 laying in the river.

15 Q Now, did there come a time when a new  
16 building was built at Diamond following that explosion?

17 A Yeah. They, we moved all the equipment out and  
18 moved it over into Sergeant. They had an agreement  
19 with Sergeant Chemical. We moved all the tanks and  
20 everything out and all the pumps, and we built a ramp  
21 across the railroad tracks and moved it over. They had  
22 rented a big Hi-Lo to pick up thousand gallon kettles,  
23 and I drove that and the other Hi-Lo driver drove the  
24 smaller Hi-Lo.

25 Q Now, did there come a point in time when a



Scureman - direct

1 new building was put up on the premises?

2 A Yeah. They ripped the old one down because it  
3 was condemned, and they built a new one out by the  
4 river front.

5 Q Are you familiar with the autoclaves that  
6 were put in after the 1960 explosion?

7 A Yeah. They put two of them in with walls around  
8 them with no top on.

9 Q Now, are you familiar with the rupture  
10 disks that used to be attached to those autoclaves?

11 A Yeah.

12 Q Now, did you ever observe any material  
13 ever come out of those rupture disks that were  
14 connected to the autoclaves?

15 A Well, one night I had the job of plowing snow.  
16 They gave me the job to get extra overtime, and I was  
17 plowing snow, and the police department and the fire  
18 department came in.

19 And there was a big black streak all over the  
20 snow and all over Sherwin-Williams' building. And it  
21 went all the way out to, I think it's Chapel Street  
22 there or Albert Avenue. And it was all over the whole  
23 place.

24 Q Did you observe anything on the -- what  
25 could you observe about the Sherwin-Williams' plant at

Scureman - direct

1 that time?

2 A The stuff was running, the paint and everything  
3 was running off the cars, the paint was running off the  
4 cars.

5 Q Paint was running off Sherwin-Williams'  
6 building?

7 A Yeah, the front of the building had this black  
8 stuff all over it.

9 Q What about the cars?

10 A The cars, the cars, there was a caddy there.  
11 The paint was running off the car.

12 Q Now, did you have an opportunity to ever  
13 inspect those rupture disks?

14 A No.

15 Q Did you ever change any rupture disks on  
16 autoclaves?

17 A No. It wasn't my job. I didn't know nothing  
18 about them.

19 Q Did you know where those rupture disks  
20 went to from the autoclave?

21 A Before the explosion or after the explosion?

22 Q After the explosion.

23 A After the explosion? Must have went to the  
24 atmosphere because the stuff blew towards me by the  
25 building there.

Scureman - direct

1           Q       Now, you referred to some damage that was  
2 done to cars on this night when it was snowing. Were  
3 there any other times when damage was done to cars as a  
4 result of something that came out of the Diamond  
5 facility?

6           A       Well, I had my car painted twice that a rupture  
7 disk went, and they painted my car and they painted  
8 quite a few other cars.

9           Q       When you say that they painted your cars,  
10 who are you referring to, Mr. Scureman?

11          A       Well, Diamond, I guess, had the insurance  
12 company pay it, paint them.

13          Q       Where was your car parked at the time you  
14 had this damage?

15          A       It was inside next to Tri-Plex. It was a big  
16 building, Tri-Plex Oil. And in between Tri-Plex Oil  
17 and the dye outfit, there was a parking lot there. You  
18 drove on the stone and parked your car in there.

19          Q       And could you describe what happened to  
20 your car?

21          A       I went out to go home and here there were spots  
22 all over my car and everybody's cars.

23          Q       How many other cars did you observe with  
24 this condition?

25          A       It was quite a few. I didn't know, you know,

Scureman - direct

1 the amount.

2 Q Were they all in this parking lot?

3 A Yeah.

4 Q Now, was there a parking lot that was used  
5 by Diamond employees?

6 A Yeah.

7 Q Did you notice any damage to cars outside  
8 of that parking lot?

9 A No.

10 Q Now, did there come a point in time, Mr.  
11 Scureman, when you had chloracne?

12 A Yeah, I had gotten it in 19, in the '60s.

13 Q And were you treated for your chloracne?

14 A Yeah, by Dr. Bleiberg and Dr. Brockin.

15 Q Now, did Dr. Bleiberg, did you go to visit  
16 Dr. Bleiberg in his office?

17 A I went up there in Irvington to him, and then  
18 they brought the two doctors and the nurse down to the  
19 plant.

20 Q And did you, were you treated by did Dr.  
21 Bleiberg while he was at the plant?

22 A Yeah.

23 Q And how often would Dr. Bleiberg come to  
24 the plant?

25 A He'd come on a Thursday, one o'clock.

Scureman - direct

1 Q And you said that he would bring a nurse  
2 with him?

3 A Yeah, his nurse. I forget her name.

4 Q Did the nurse always come with Dr.  
5 Bleiberg?

6 A She only came for awhile. And then she got  
7 scared because of what she saw what the fellows looked  
8 like.

9 MR. COX: Objection.

10 Q And she didn't come after that?

11 A No, she refused to come.

12 Q Now, were there other people being treated  
13 by Dr. Bleiberg?

14 A Almost everybody in the whole plant.

15 Q Were there office workers that were being  
16 treated by Dr. Bleiberg?

17 A I don't know about the office workers.

18 Q Were there any lab people being treated by  
19 Dr. Bleiberg?

20 A Yeah, there was a fellow in the lab. He had it  
21 all over his face.

22 Q Well, could you describe what this  
23 condition looked like?

24 A Well, you would, it would start under your eyes  
25 and come in your earlobes. Your earlobes would puff up

Scureman - direct

1 and then your face would be all blackheads. And that's  
2 what he used to take out of your face. And if you  
3 don't get them out, a cyst forms.

4 Q When Dr. Bleiberg would come to the plant  
5 on Thursdays, with or without his nurse, what treatment  
6 did he give to you and the other workers?

7 A Well, he used to give me a shot and he would  
8 squeeze out with an instrument the blackheads on your  
9 face.

10 Q Now, Mr. Scureman, did you ever have an  
11 opportunity in your employment at Diamond to observe  
12 operators that worked in the 2,4-D and 2,4,5-T area of  
13 the plant?

14 A Yeah, because I used to go in there and bag  
15 2,4-D. And I used to pick up material that they used  
16 to put in drums, and 2,4,5-T.

17 Q Could you tell me what the procedure was  
18 as to how the operators worked in that area of the  
19 plant?

20 A What do you mean, what they did?

21 Q What they did? Could you describe what  
22 they used to do?

23 A Well, they had, in the center of the building  
24 they had a big string filter that was open. And from  
25 there they used to take it, and they had a mix tank.

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1 And along the wall they had vessels along, first they  
2 had over here a centrifuge. And then they had one,  
3 two, I think three kettles.

4 And then on the other end they had another --  
5 that was the 2,4-D. They had a centrifuge there, and  
6 up in the back, which they called nutches, were open  
7 kettles. And they used to shovel the stuff out of the  
8 nutches. And I don't know where they put it from  
9 there. But they mixed the batches there.

10 From there, they pumped it into the ester room  
11 or they dried it and made, you know, it went into bags,  
12 went into drums too.

13 Q Now, during this process, did you ever  
14 have occasion to observe material leaking or spilling  
15 out of these equipment?

16 A Oh, yeah, it was all over the floor. The pumps  
17 all leaked and the autoclaves -- I mean, the  
18 centrifuges, they stuck like a son of a B. You had to  
19 get away from them when they were running. They were  
20 open centrifuges.

21 Q Could you tell me how this material was  
22 picked up from the floor?

23 A Well, they would shovel it up or sweep it up.  
24 They had what they called dollies. They had dollies  
25 that sit under the centrifuge. And if the operator

Scureman - direct

1 didn't watch when he was filling the dolly, it would  
2 overflow on the floor. They use to shovel it up.

3 Q Do you recall a individual who used to  
4 work at the plant named Bill Mackin?

5 A Yeah, I seen him get killed.

6 Q What was his position in the plant?

7 A He was an operator. He worked in the 2,4-D and  
8 the 2,4,5-T unit.

9 Q Now, could you tell me what happened to  
10 Mr. Mackin?

11 A Well, he, every morning he came in for years,  
12 did the same thing. Under the bottom of the kettle,  
13 when you have that dychlorophenol, you have to  
14 pre-steam the line so nothing, that it's open when you  
15 start pumping. And you have to steam up into the  
16 kettle, make sure the discharge valve is open.

17 And what happened, he's under the kettle, turned  
18 the steam on, the manhole cover on top of the kettle  
19 was open and he was, and when he turned the steam on,  
20 he bumped all the stuff out and it came down all on the  
21 sides of the kettle.

22 When I saw him in there, couldn't get him out,  
23 the fumes were so bad that he was sucking them all in  
24 his mouth. And when they got him out, he was covered  
25 with it.



Scureman - direct

1           Q       Now, what type of material was this that  
2 came out of that kettle?

3           A       It was 2,4-D or 2,4 -- dychlorophenol or  
4 whatever they made in the batch there.

5           THE COURT: What came out on him, a  
6 liquid?

7           THE WITNESS: Yeah, a liquid.

8           THE COURT: What did it do, burn him?

9           THE WITNESS: Well, you get so much of  
10 that on your body, you're done. It absorbs in  
11 your body.

12          THE COURT: Did he die in front of people,  
13 or did they get him to the hospital?

14          THE WITNESS: He was dying as we were  
15 walking him across the yard because nobody knew  
16 what to do for him. And we walked him across,  
17 and we got him in the shower.

18          And as soon as we got him in the shower,  
19 the stuff caked on his body. It was caking on  
20 his body. And his body couldn't breathe. And  
21 they right away got him to St. James Hospital,  
22 and St. James hospital has a book there. You  
23 got to wash the body off when you get there with  
24 alcohol. Nobody did it.

25          THE COURT: You mean nobody at the plant

Scureman - direct

1 did because you didn't know --

2 THE WITNESS: We didn't know what to do  
3 for him.

4 THE COURT: But he got liquid material on  
5 him, then it formed a cake?

6 THE WITNESS: You get that on you, like,  
7 dychlorophenol, get it on you, forms, like, a  
8 cake on your body.

9 THE COURT: It was dychlorophenol that got  
10 on him?

11 THE WITNESS: Yeah.

12 THE COURT: Go ahead.

13 THE WITNESS: And he got the hot vapors.  
14 You know, it was unbelievable. The hot vapors  
15 was running over the side of the kettle from  
16 putting hot steam up through the bottom of the  
17 kettle. It bumped over.

18 Q Now, Mr. Scureman, in your position as a  
19 forklift operator, did you ever have to package any  
20 drums with any material?

21 A Yeah. We packaged all the drums that went to  
22 Vietnam.

23 Q Are you referring to the Agent Orange  
24 material?

25 A Yeah. We packaged them outside. They had us

Scureman - direct

1 package them outside. We used to lay pallets down and  
2 we'd package it all outside.

3 Q Where would this material, where were  
4 these materials with Agent Orange, how it would be  
5 shipped out of the plant after it was packaged?

6 A Well, they were in army drums, and they had an  
7 orange band around them. And we used to load it in  
8 there, and then we used to load them on the trailers.

9 Q And could you describe or tell us in what  
10 area of the plant these trailers were that you would  
11 put the Agent Orange on?

12 A Well, we would -- Duralac Chemical, I used to  
13 put a trailer and I used to put a trailer by the  
14 maintenance shop, anywhere that we could load them at  
15 night.

16 Q Now, were there any leaks and spills  
17 during this process of loading the drums and then  
18 loading them on to the trailers?

19 A Well, if you didn't watch -- you know, you had a  
20 scale. If you didn't watch, if the scale stuck you,  
21 would get more in, you'd have to take it out.

22 Q How would you take it out?

23 A Well, we had a drum rack and we would put them  
24 on a drum rack and go into a pail.

25 Q What would happen to that material then?

Scureman - direct

1 A That material, we would take it and take it back  
2 inside, and they would suck it back into the tank.

3 Q Now, Mr. Scureman, have you ever heard of  
4 a term that was used at the plant call the scrubber  
5 turret acid?

6 A Yes.

7 Q Could you tell us what that meant?

8 A Well, they had a scrubber where you put caustic  
9 in, a caustic neutralized agent. If you didn't have  
10 the right amount of caustic going in, it would be on  
11 the acid side.

12 They had a scrubber on the roof, a homemade  
13 scrubber, made out of diamond plate. And you would  
14 feed it, you know, spray caustic in and neutralize any  
15 acid vapors in there because they, I had to shovel it  
16 out in the summer. I shoveled it out many times in the  
17 summer. I was on the roof.

18 Q When you say it was a homemade scrubber,  
19 what do you mean by that?

20 A Well, they made, they took diamond plate and  
21 they welded the diamond plate together. It was a big  
22 scrubber on top of the 2,4-D building.

23 Q Did you ever see any material come out of  
24 that scrubber?

25 A The scrubber, they used to have to change the

Scureman - direct

1 diamond plate every once in awhile because it used to  
2 fall apart. I didn't actually see it going in the  
3 atmosphere, but I had, going in the summer in there,  
4 they had a manhole cover on the side. I had to go in  
5 there once and shovel it out. And I had gotten chest  
6 pains in there and they sent me up the hospital.

7 Q What was the material that you were  
8 shoveling out of that homemade scrubber?

9 A Well, it was either vapors from the 2,4-D  
10 building or the 2,4,5-T. It was, like, crystals in the  
11 bottom.

12 Q Now, Mr. Scureman, while you were employed  
13 at the plant, did you ever observe the company's guard  
14 inspecting at the Passaic River?

15 A Yeah.

16 Q And could you tell me were there any  
17 instructions to Diamond employees on what to do when  
18 the company's guard would come in with inspectors?

19 A Well, what they used to -- I only saw them once  
20 with a boat. But a lot of times they would come right  
21 into the plant, into the main road with the jeep.

22 And we had orders, if we saw the jeep, come  
23 hurry up, run into the 2,4-D building. Everybody make  
24 sure nothing was going to the sewer that wasn't suppose  
25 to go to the sewer, because we are were always in the

Scureman - direct

1 yard.

2 They told us: If you see the jeep coming, you  
3 know, company's guard jeep, they would pull right into  
4 the yard, try and go right down to the river front and  
5 see what you were draining. They would take a sample.

6 Q Now, did you ever see them in a boat on  
7 the river?

8 A I saw them once that I had come early in the  
9 morning in to put some stuff away in the river, and the  
10 company's guard was there. And they were blocking the  
11 holes on all the sewer pipes.

12 Q You just said that you came in early one  
13 morning to put some stuff into the river?

14 A Yes.

15 Q Could you tell me what it was that you  
16 were putting into the river that morning?

17 A Well, they had, at the far end where I used to  
18 put the diamond plates, they had drums there with  
19 stuff. And I used to come in early, work overtime to  
20 drop it in the river because they didn't want the  
21 barges and everything going up and down see us dropping  
22 anything into the river.

23 THE COURT: Who told you to do that?

24 THE WITNESS: The foreman.

25 THE COURT: How often did you do that?

Scureman - direct

1 THE WITNESS: Whenever they collected  
2 stuff there that they couldn't get rid of.

3 THE COURT: How often was that? Once a  
4 year, once a month?

5 THE WITNESS: Geez, I couldn't give you  
6 the time on that. If they ever had a batch that  
7 got fouled up, you know, if they made a bad  
8 batch or somebody made a mistake, they had to  
9 get rid of it, they didn't want anybody to know.  
10 So they used to dump it.

11 THE COURT: Now, who told you -- what were  
12 you told to do when the jeeps came?

13 THE WITNESS: Told us: If you see the  
14 company's guard come in, to try and stop them so  
15 they don't go to the river front. And run in  
16 the building and the ester room and 2,4-D  
17 building and tell them to stop dropping all  
18 their stuff to the sewer, close off the valves.

19 THE COURT: Go ahead, please.

20 Q This material, Mr. Scureman, that you said  
21 was in drums, what type of drums were these?

22 A Well, some of the drums had Heresite liner.  
23 They were black drums with Heresite liner. What would  
24 happen, if they sat too long the Heresite liner would  
25 peel, and the drums would start falling apart.

Scureman - direct

1 Q And these were drums that were on the  
2 river front?

3 A Yeah. They had them stacked on the river front.

4 Q Now, when you dumped this material into  
5 the river, per the instructions of your supervisors,  
6 did they give you any instructions as to whether or not  
7 to dump the contents in or just to dump the whole drum  
8 in?

9 A No, just, I used to take and lay the drum down.  
10 And you could put the forks of the Hi-Lo together, and  
11 that's to pick it up. And I used to put a valve on it  
12 before I laid it down, and I used to let it go into the  
13 river.

14 THE COURT: You let the contents go into  
15 the river?

16 THE WITNESS: Yeah.

17 THE COURT: You didn't throw the drum in?

18 THE WITNESS: No, I never threw any drums  
19 in. I got rid of the drums by a garbage man.

20 Q Who was the garbage man?

21 A His name was Toscano.

22 Q Now, what time in the morning would you  
23 come in to do this dumping?

24 A Before -- you know, it was dark.

25 Q Was that your normal shift that you would



Scureman - direct

1 come in?

2 A No, no. I started at seven o'clock.

3 Q Would someone tell you to come in early  
4 that morning?

5 A Oh, yeah. The foreman, Johnny Wolf, would tell  
6 me: Come in and get rid of the drums that's in the  
7 back.

8 Q At any point in time when you would come  
9 in early to dump this material, how many drums of  
10 material are we talking about?

11 A Well, if they had three or four drums or, you  
12 know, if a batch fouled up, I don't know how much was  
13 in a batch, you know. They would put it in the drums,  
14 and I think the kettles were about, maybe, five  
15 hundred, thousand gallon kettles. But they would put  
16 it in the drums and we would get rid of it.

17 Q Now, did you ever notice -- strike that.  
18 Are you familiar with the DDT portion of the  
19 plant?

20 A Yeah. That was in the big building on the west  
21 side of the building.

22 Q During your time at the plant did you ever  
23 see any solid DDT in the Passaic River?

24 A When the tide used to go down there was like an  
25 island in the river.

Scureman - direct

1 Q And did you ever have an occasion to work  
2 to take that island out of the river?

3 A Yeah, they used to put a rope around you,  
4 because I couldn't swim. I was scared to go in there.  
5 I'd put a rope around and go down in there and watch  
6 the tide and chop the DDT with an ice chopper and put  
7 it in drums.

8 Q Now, you've mentioned a garbage man who  
9 used to come to the plant named Toscano. Besides the  
10 drums that he would take, would he actually take any  
11 material out of the plant?

12 A Well, there was a lot of stuff left from the  
13 explosion that we had stored was 2,4,5,6 that they used  
14 to send to Whippany Paper Company. Them drums were  
15 falling apart. We had dichlorophenol in drums that  
16 had, you know, the drums were falling apart, the tops.

17 So after the explosion, Ray Guidi, the plant  
18 manager, told me to get rid of all of that stuff and  
19 give it to Toscano. And I would put the two pallets on  
20 his truck and put sand around so it wouldn't run on the  
21 street.

22 Q Where would you put the sand, Mr.  
23 Scureman?

24 A I'd put the two pallets. I wouldn't roll the  
25 drums off because it was too dangerous because they all

Scureman - direct

1 had holes in. And the tops were all being ate away.  
2 And I used to put the sand alongside the pallets so it  
3 wouldn't run on the street. But it would run anyway  
4 because when he'd go over the railroad tracks and go  
5 down out on the street, he would be back in a half hour  
6 and I'd give him more.

7 Q And Mr. Guidi told you to get rid of the  
8 drums with Mr. Toscano?

9 A After the explosion, we had a whole area with  
10 all these drums in and the stuff was running all over  
11 the ground. We had a dog there once and it burnt the  
12 paws on the dog. And he says: Get rid of it. It was  
13 all opposite the new maintenance shop.

14 Q Tell you to get rid of the dogs or the  
15 drums?

16 A No, get rid of the drums because it was running  
17 down on the tracks. There was tracks there and it was  
18 running down on the tracks. There was railroad tracks  
19 against the coloring outfit there, and the stuff was  
20 running down on the tracks. We kept putting sand there  
21 so it wouldn't run, so he says to get rid of it.

22 Q Now, these tracks, you said it was next to  
23 the coloring outfit. What company was that?

24 A The coloring outfit?

25 Q Right.

Scureman - direct

1 A I don't know the name of the coloring outfit.

2 Q Was this on the same side of the plant as  
3 Sherwin-Williams or on the other side?

4 A If you were going south, the coloring outfit was  
5 on the south end, Sherwin-Williams was on the west  
6 side. There was the railroad tracks right here where  
7 we used to get stuff from Hooker in, TCB from Hooker,  
8 used to come in molten hot on the railroad tracks.

9 Q When that material would come in from  
10 Hooker, was it necessary to keep that material hot  
11 until it was actually put into the plant facility?

12 A Oh, yeah. When that came in, and if they were  
13 going to pump it, they would have to, they had what  
14 they called jacketed lines, the lines with jackets on.  
15 And they would keep, you had to keep the line hot. You  
16 can't let it get cold or the stuff will stop dead right  
17 in the line.

18 Q Were there ever times, Mr. Scureman, when  
19 that material, because it wasn't kept hot, would get  
20 stuck in the lines?

21 A Oh, it happened many a time.

22 Q When that material would get stuck in the  
23 lines, what would happen? What would you or some other  
24 plant employee have to do?

25 A Well, the maintenance guys would have to take

Scureman - direct

1 and disconnect the lines and put a new line in because,  
2 to steam it out. It's solid in the line.

3 Q And what would happen to the material that  
4 had solidified in the line?

5 A They threw the lines away because they, you  
6 steamed it, you got burnt. It was TCB from Hooker.  
7 They had the top of the railroad car open, and it used  
8 to snow out of the railroad car. And they used to put  
9 a tarp or something to keep it down from going all over  
10 the place because you have to vent it when it's under  
11 heat.

12 Q What would happen to you if you came in  
13 contact with that material?

14 A You'd be burnt.

15 Q Now, were there ever times when that  
16 material escaped this tarp that was over it?

17 A It was all over, it was on top, on the railroad  
18 car, and we used to have to go there and shovel it up  
19 from the ground. When it would come down, so much  
20 would be on the ground. We used to shovel it up and  
21 take it into the new building where the autoclaves was.  
22 They had a storage tank, and we used to take it up on  
23 the third floor and dump it in the tank.

24 Q Did you ever observe this material going  
25 outside of the plant onto neighboring plants?

Scureman - direct

1 A I don't understand. What do you mean?

2 Q This TCP material which you just  
3 described.

4 MR. COX: Objection, your Honor. I don't  
5 believe it has been described as TCP material.

6 MR. CALOGERO: I meant TC -- I meant TCB.

7 THE COURT: Okay. Why don't you go back,  
8 restate the question.

9 Q This material, Mr. Scureman, what type of  
10 material was it?

11 A TCB. We used to get it in fiber drums before  
12 the explosion. After the explosion they brought it in  
13 molten hot.

14 Q This is TCB, B as in boy?

15 A Yeah. It came from Hooker.

16 Q Did you ever observe that material going  
17 onto other plant properties?

18 A Well, like I told you, they had heat on the  
19 railroad car. Right? And you got to open the manhole  
20 cover because you're heating up the car. And what it  
21 did, it used to flake out like snowing, went on the  
22 ground.

23 Q Did you ever observe that going on to the  
24 property of Sherwin-Williams?

25 A Well, I couldn't tell you if it went on the wall

Scureman - direct

1 on the other side, but it was all over the ground by  
2 the wall by Sherwin-Williams. I didn't climb up on the  
3 wall to look over the, you know, on the wall.

4 Q Now, are you familiar, Mr. Scureman, with  
5 the area of the plant where 2,4-D and 2,4,5-T acids  
6 would be made?

7 A Yeah. I used to work in there filling drums and  
8 bags.

9 Q Now, did the plant have equipment just for  
10 2,4,5-D -- 2,4,5-T material?

11 A Yeah. They had the south end. Like I told you,  
12 along the wall was 2,4-D, they had a centrifuge and  
13 they had two make-up tanks. On the other side was one  
14 make-up tank and a centrifuge for the 2,4,5-T. You  
15 couldn't mix it together.

16 Q Were there ever times when equipment for  
17 2,4-D was used to make 2,4,5-T?

18 A I don't know.

19 Q Now, did there come a point in time when  
20 there was some changes made in the building where this  
21 equipment was?

22 A Yeah. They had a stall, what they call -- it  
23 was under pressure. It was all glass. It was 2,4-D.  
24 That's the only thing. The glass was all there and  
25 they used to run -- the engineers were there. I went

Scureman - direct

1 in there when they were first starting it up, and they  
2 had plugged lines and everything. We had to unplug the  
3 lines. What they did with it from there, I don't know.

4 Q Were there any changes made to the roof in  
5 that building?

6 A Yeah. They, the ventilation was bad because you  
7 couldn't breathe in there. There was always fumes and  
8 it was always so hot in the building they had raised up  
9 the roof.

10 Q Do you recall when that was?

11 A I couldn't give you the exact year.

12 Q Were there any other changes made at the  
13 time that the roof was raised?

14 A Well, every summer they would shut everything  
15 down and they would fix the floor, fix the sewers,  
16 because after a year's running, the sewers used to fall  
17 apart. And the tanks, they used to change all of the  
18 lines and the pumps. That was a regular, like a  
19 regular shutdown in the summer, in August.

20 Q Why would they change the floors every  
21 year?

22 A Because of the acid running on the floor ate up  
23 the concrete, dissolved the concrete.

24 Q Now, Mr. Scureman, are you familiar with  
25 the catch basin that used to be on the property?



Scureman - direct

1 A Yeah. They had it outside the boiler room. The  
2 boiler room was here. 2,4-D building was over here.  
3 They had a catch basin right here, and they had steps  
4 in it. And they used to catch all the stuff that was  
5 going out to the city acid sewer.

6 Q Now, just for point of reference, are you  
7 familiar with the stack that used to be on the plant?

8 A Yeah.

9 Q Where was this catch basin in reference to  
10 that stack?

11 A About 15 feet south of the stack.

12 Q Now, were there ever a time when you would  
13 clean out the catch basin?

14 A Well, yeah. The other Hi-Lo driver and I used  
15 to shovel it out and put it in drums. We used to put  
16 hip boots on.

17 Q Did you ever have occasion to note that  
18 material would come out of that catch basin, such as  
19 flooding, or any liquids that would flow out of that  
20 catch basin?

21 A What do you mean, overflow out of the catch  
22 basin?

23 Q Right. Did you ever see anything overflow  
24 out of that catch basin?

25 A No, I would never see it overflow. It would be

Scureman - direct

1 filled up to the top. What would happen, it would  
2 overflow into the other sewer in, what they called it  
3 was mother liquor.

4 If the mother liquor, if they didn't shovel the  
5 pit out, the mother liquor would rise, and acid water  
6 that was going out to the acid sewer wouldn't drop, you  
7 know, so they'd have to shut it down and shovel out the  
8 pit.

9 Q Now, where was this material coming from  
10 that was going into this catch basin?

11 A Coming from the 2,4-D building.

12 Q Now, you've referred to the word sewer and  
13 you've also referred to trenches. Do you mean two  
14 different things when you say those words, or do you  
15 mean it the same way?

16 A The sewer from the building, right, from the  
17 centrifuges, right, that stuff would come out, come  
18 into the catch tank. From the catch tank, the heavies  
19 would sink to the bottom and the water would overflow  
20 into the acid sewer. It was an acid brick sewer that  
21 they installed.

22 Q Now, did you ever observe any trenches  
23 going to the river?

24 A What do you mean, after they put the catch tank  
25 in or before?

Scureman - direct

1 Q Well, at any point in time.

2 A Before they put that catch tank in, everything  
3 used to go to the sewer -- I mean, go to the river.

4 Q Now, were there still trenches that were  
5 going to the river during the entire period of time  
6 that you were at the plant?

7 A After they put that? I don't remember because I  
8 wasn't out on the river front that much after they put  
9 that thing in.

10 THE COURT: When did they put the catch  
11 basin in?

12 THE WITNESS: I don't know the exact year.

13 THE COURT: Can you estimate it?

14 THE WITNESS: I know it was in February.  
15 It was a cold month when they were putting it  
16 in.

17 THE COURT: Was it early '60s, late '60s,  
18 late '50s?

19 THE WITNESS: Late '50s or '60s, I'm not  
20 sure, because the company's guard shut us down,  
21 and they had to put it in.

22 MR. CALOGERO: May I proceed, your Honor?

23 THE COURT: Yes.

24 Q Mr. Scureman, are you familiar with the  
25 warehouse that used to be on the plant premises?

Scureman - direct

1 A The new warehouse?

2 Q Yes.

3 A That's where I worked, in there. I stored  
4 material.

5 Q What type of operations went on in the  
6 warehouse besides any storage of materials?

7 A Well, in that warehouse, we had, what happened,  
8 they were bagging the 2,4-D and the 2,4,5-T, and the  
9 scale was off. And we had to do, I forget the amount,  
10 but it took us a long while. We had to reweigh every  
11 bag of 2,4-D in that warehouse.

12 Q Were there any operations going on in that  
13 plant in the warehouse in regard to mixing materials?

14 A No. The only thing that we did was opened up  
15 all the 2,4-D bags and weighed them off and put the  
16 right weight in the bags. They only stored in there  
17 full drums of finished material. There was nothing  
18 else.

19 MR. CALOGERO: I have no further  
20 questions, your Honor.

21 THE COURT: Any further questions from the  
22 defense side? Mr. Cox, are you going to be  
23 doing the questions?

24 MR. COX: Yes.

25 THE COURT: Fine.

Scureman - direct

1 CROSS-EXAMINATION BY MR. COX:

2 Q Good morning, Mr. Scureman. My name is  
3 Marshall Cox. I represent Diamond Shamrock in this  
4 litigation.

5 A Good morning.

6 Q Sir, you talked about dumping drums of  
7 material into the river. When did this happen?

8 A What do you mean, what year?

9 Q Yes, sir.

10 A Was before the explosion and after the  
11 explosion.

12 Q And what was in those drums?

13 A Stuff of the batches 2,4-D or the liquid.

14 Q Came out of the 2,4-D building?

15 A The 2,4-D or 2,4,5-T. They had dichlorophenol  
16 tanks there that they used to store and mix in the  
17 corner of the building there on that north end,  
18 northeast corner. They had a place there.

19 Q Did anybody else do this but you?

20 A Nick Centanni and myself did it, because we used  
21 to take the drums, lay them down and you would have it  
22 on the two forks with a valve and you'd let it go. I  
23 don't know if operators did it or not, but I know they  
24 used to have us do it.

25 Q Who told you to do this?

Scureman - cross

1 A Johnny Wolf.

2 Q Johnny Wolf is dead, isn't he?

3 A I guess so. He ain't around.

4 Q Did he tell you why you were dumping it in  
5 the river?

6 A No. He just told us get rid of the drums.

7 Q Why didn't you put it in the sewer?

8 A Pardon?

9 Q Why didn't you put it in the acid sewer?

10 A We didn't have the acid sewer.

11 Q So this was before the acid sewer was put  
12 in?

13 A Yeah.

14 Q Now, the materials, the drums that you  
15 sent off with the scavenger -- Mr. Toscano was his  
16 name?

17 A Yeah, he was the garbage man. He took all the  
18 garbage and the pipe and everything away.

19 Q Now, those drums, what did he do? Did he  
20 empty those and bring them back?

21 A No. He dumped the drums and all. He used to be  
22 back in a half hour.

23 Q And why did he dump the drums?

24 MR. CALOGERO: Objection, your Honor.

25 Q Was the material -- I'll withdraw the

Scureman - cross

1 question.

2 THE COURT: Okay. It's being changed.

3 Q The material that he was dumping, it was  
4 solid, wasn't it?

5 A Unt-uh. If it was in the summer, the stuff  
6 would start oozing out of the drums. If it was in the  
7 winter, the stuff would be solid because if it sat in  
8 the sun, it started to loosen up. And in the winter it  
9 was solid in the drums.

10 Q And what was this stuff?

11 A Like I told you, they made 2,4,6 for Whippany  
12 Paper Company. If Whippany Paper ordered the stuff, we  
13 would put it in the drums. And if they didn't come for  
14 the drums, they were Heresite liner, you would have to  
15 get rid of the drums because the Heresite liner would  
16 peel off. And the drum would start getting hot in  
17 there and bulge and pick the center of the top of the  
18 drum up, would bulge and start eating the drum.

19 Q And 2,4,6 was dichlorophenol product?

20 A It was made, it was chlorinated in the new  
21 building there. After the explosion, we had it stored  
22 by the new locker room.

23 Q But it wasn't a T product. It was not a T  
24 product, it was a D product. Is that right?

25 A D, D.

Scureman - cross

1 Q Now, what else did you, what other drums  
2 did you load to send out with Mr. Toscano?

3 A Well, the drums that they gave us out of that  
4 building and any other drums, it was fiber drums we had  
5 stuff in. I don't know what was in them. But the  
6 stuff that was in the steel drums was dangerous because  
7 you used to have to use rubber gloves, and they'd tell  
8 you: Don't get it on you.

9 Q But that was the dichlorophenol?

10 A Yeah, that came out of that building there.

11 Q Now, the pipes that would freeze up, they  
12 were caustic pipes largely?

13 A There was a lot of caustic pipes, and what was  
14 being pumped from the autoclaves in that unit in the  
15 center, in the back would go through there. If the  
16 tracers or anything were off, the lines would freeze  
17 up. You would have to steam them out.

18 Q And did you steam them out?

19 A Yeah, I used to get up, Nick used to raise me up  
20 with a pallet up on the top, and we'd break the line  
21 and steam them out with the Hi-Lo.

22 Q And what was that material when you did  
23 that when you were up there?

24 A The stuff coming from the autoclaves which was  
25 what was made in the autoclaves.



Scureman - cross

1 Q What time of year was this?

2 A In the winter. You never had much problem in  
3 the summer. It was mostly in the cold weather.

4 Q And this was in the old building?

5 A Yeah, this was the old building.

6 Q Did that happen with the new building?

7 A In the new building, they put all the lines on,  
8 on the racks and it was made different. It was ran a  
9 different way.

10 Q The sewers that were running to the river,  
11 they were closed off and then the acid sewer was  
12 connected to the plant. Is that correct?

13 A Yeah, they shut down the building and they hired  
14 outside contractors. And they worked around the clock,  
15 and they put an acid brick sewer in. Everything was  
16 acid brick.

17 Q Then process waters didn't go to the --

18 A I didn't see anything after that. Most of it  
19 all went to that catch tank where they used to catch  
20 everything.

21 Q That's after the sewer went in?

22 A Yeah.

23 Q You're suing Diamond Shamrock too, aren't  
24 you, Mr. Scureman?

25 A Sure.

Scureman - cross

1 Q You're a plaintiff in a lawsuit against  
2 Diamond Shamrock?

3 A Yes, I have chloracne and I have trouble with my  
4 legs.

5 MR. COX: No more questions, your Honor.

6 THE COURT: Anything further on the  
7 defense side? Nothing.

8 MR. CALOGERO: No, your Honor.

9 THE COURT: You may step down, then, Mr.  
10 Scureman. Who is the next witness that you  
11 have?

12 MR. MOSER: Mr. Burton, your Honor.

13 THE COURT: Mr. Burton? Would you come on  
14 up, please.

15

16

17

18 J O H N B U R T O N, called as a witness on behalf of  
19 the Defendants, being duly sworn, testifies as follows:

20 DIRECT EXAMINATION BY MR. MOSER:

21 THE COURT: Mr. Burton, you're sitting  
22 there in a way the sun is hitting you in the  
23 face. You can change the position of your desk  
24 or the chair or both.

25 THE WITNESS: Your Honor, I have a little

Burton - direct

1           impairment. I have trouble hearing you.

2           THE COURT: Oh. You're sitting in the  
3           sunlight there. But the chair you're sitting in  
4           can be moved around to avoid the sun. You can  
5           move the desk too. So don't get bothered by the  
6           sun. Just make yourself comfortable.

7           Go ahead, please, Mr. Moser.

8           Q       Good morning, Mr. Burton. Could you tell  
9           us where you now reside? Where do you now live?

10          A       In Washington, New Jersey.

11          Q       What is your current employment?

12          A       Retired.

13          Q       Can you tell us what your educational  
14          background is since you got out of you high school?

15          A       I had a Bachelor of Science degree in chemical  
16          engineering in 1936.

17          Q       From what University?

18          A       At that time it was Rhode Island State College.  
19          Now it's the University of Rhode Island.

20          Q       Would you tell us what your employment has  
21          been since you left college?

22          A       You mean each one step by step?

23          Q       Yes.

24          A       First U. S. Rubber Company in Naugatuck,  
25          Connecticut, the Charles Pfizer Company in Brooklyn.

Burton - direct

1 Q Let me stop you. What did you do at U. S.  
2 Rubber?

3 A I had a variety of jobs. I was sort of in  
4 standby for an opening in chemical engineering. It had  
5 to do with testing fabrics and testing the rubber  
6 compounding.

7 Q What did you do at Charles Pfizer?

8 A First I worked in the laboratory testing the  
9 finished products. Then I worked in the plant in  
10 chemical control in the citric acid department as  
11 controlling the, making tests to control the chemical  
12 operations.

13 Q Where was the Pfizer plant located?

14 A In Brooklyn.

15 Q How long did you work there?

16 A About a year and a quarter.

17 Q What was your next employment?

18 A In Hayden Chemical.

19 Q Where was that located?

20 A Garfield, New Jersey.

21 Q What were your responsibilities there?

22 A First, I worked several months in their research  
23 laboratory. Then I had charge of a production  
24 department, and at times I did various engineering  
25 projects in addition to my normal production

Burton - direct

1 responsibility.

2 Q All right. How long were you at Hayden  
3 Chemical?

4 A I'd say maybe three years. I'm not certain of  
5 that.

6 Q Were you always in the same plant while  
7 you were at Hayden Chemical?

8 A Yes, except the next, I worked for Cherokee  
9 Ordinance Works, which was, in effect, operated by  
10 Hayden Chemical for the Ordinance Department during  
11 World War II.

12 Q What did you do there?

13 A I was production manager.

14 Q All right.

15 A I designed the process equipment and supervised  
16 its installation, and then supervised the production  
17 during the period I was there.

18 Q What was being produced?

19 A Hexamethylamine.

20 Q What did you do after you left Hayden  
21 Chemical?

22 A Well, after I left Cherokee Ordinance Works, I  
23 went to work for a Hayden plant in Princeton. I'm not  
24 sure. I think this operated under Hayden's name. I'm  
25 not sure what official name it had. This was for

Burton - direct

1 manufacturing penicillin and I was assistant plant  
2 manager there, and somewhere between six months and a  
3 year, I don't remember the exact time.

4 Q All right. What was your next employment  
5 after that?

6 A Robenhaus Company in Bristol, Pennsylvania.

7 Q What did you do there?

8 A I was assistant supervisor of one of the  
9 production departments.

10 Q What was being produced?

11 A This department I had produced so many things, I  
12 couldn't begin to remember the name of them.

13 Q Fair enough. How long were you there?

14 A Two or three months.

15 Q And where did you go next?

16 A J. T. Baker Chemical in Phillipsburg, New  
17 Jersey.

18 Q What was your job at J. T. Baker?

19 A I was chief engineer of the organic division,  
20 and then at some point I was also put in charge of the  
21 production operations in the organic division.

22 Q What was J. T. Baker producing?

23 A Well, I think you mean what was produced in my  
24 division.

25 Q All right.

Burton - direct

1 A Because the inorganic division, which I had no  
2 connection with, produced a variety of chemicals.

3 Q What was produced in your division?

4 A We produced DDT, 2,4-D, benzene hexachloride,  
5 grouton and some other more or less complex  
6 pharmaceuticals whose names I can't offhand remember.  
7 But I was mainly concerned with the chemicals I just  
8 mentioned.

9 Q Did your job include supervising DDT  
10 production?

11 A Yes. Well, indirectly. I had a foreman  
12 directly supervising it.

13 Q All right. Did J. T. Baker make 2,4-D  
14 during the entire time you worked there?

15 A No. While I was there we developed the process,  
16 the laboratory put in a pilot plant unit and then put  
17 in a full scale production unit.

18 Q Were you involved in that development  
19 process?

20 A Yes.

21 Q What was your job? What role did you play  
22 in that process?

23 A Well, actually, I came into it when it was in  
24 the, going from the pilot plant stage to the full scale  
25 plant. I designed the full scale plant and supervised

Burton - direct

1 its installation and supervised the production in it.

2 Q Now, I take it there came -- did there  
3 come a time when J. T. Baker produced 2,4-D?

4 A Yes.

5 Q And for how long did J. T. Baker do so?

6 A Well, what we produced and what we called the  
7 pilot plant was actually production since it was sold.  
8 The total time, I'd say from one to two years.

9 Q All right. Did --

10 A Maybe less than that.

11 Q Did 2,4-D production cease while you were  
12 at J. T. Baker?

13 A Yes.

14 Q And --

15 THE COURT: What were your years of  
16 employment at, what were your years of  
17 employment at J. T. Baker?

18 THE WITNESS: I left there about the first  
19 of 1949, and I was there three or four years.  
20 So it would be around 1945 to 1949, but I'm not  
21 precise on those days.

22 THE COURT: This J. T. Baker plant is the  
23 plant right on the Delaware River, is it not?

24 THE WITNESS: Yes. It's in Phillipsburg.

25 THE COURT: And it's on the river, is it



Burton - direct

1 not?

2 THE WITNESS: Well, we had access to the  
3 river. I'm not quite sure if we owned the  
4 property between the plant and the river or not.  
5 I don't remember that. But I remember our  
6 effluent went to the river and we had access  
7 back and forth between the river, so I guess we  
8 owned the property in between.

9 THE COURT: Go ahead. I note I happen to  
10 be familiar with the plant because Warren County  
11 used to be in this judicial district, and we had  
12 a very bad strike there some years back, I was  
13 involved in the case and I had to go up there to  
14 see it. Go ahead, please.

15 Q At some point during that period of time  
16 you were at J. T. Baker did 2,4-D production cease?

17 A Yes.

18 Q And what was your understanding about why  
19 production ceased?

20 A Well, I knew very precisely because I remember  
21 it very clearly. We were, the chlorophenol effluent --  
22 Well, just to be clear, maybe I have to add something.  
23 We purchased chlorophenols for the 2,4-D process and  
24 purchased them in a fairly high degree of purity. So  
25 the amount of chlorophenol effluent we had was much

Burton - direct

1 less than normal in a 2,4-D plant. But nevertheless,  
2 we had some chlorophenols in the effluent and also we  
3 had a recycling step in the process. But still we had  
4 some chlorophenols in our effluent.

5 And I remember meeting with a representative of  
6 the New Jersey, I presume the Health Department or  
7 something associated with that, and trying to get a  
8 tolerance for how much chlorophenols would be allowed  
9 to go into the river, and he said it was absolutely  
10 zero. And we couldn't operate with a zero tolerance so  
11 we shut the plant down.

12 THE COURT: Let me just point out for the  
13 benefit of the rest of you, the Delaware River  
14 at Phillipsburg is a very different river from  
15 the Passaic River at Newark. At that point it's  
16 essentially a lovely, rural stream and has,  
17 indeed today, a very substantial recreational  
18 and fishing use.

19 So I would not be surprised that the  
20 public authorities would take a much sterner  
21 view of what could be done to the Delaware River  
22 at Phillipsburg as compared to what might be  
23 done to the Passaic River in Newark in the, even  
24 in the 1940s. Go ahead, please.

25 Q After you left J. T. Baker, what was your

Burton - direct

1 next employment?

2 A Crown Chemical Company in Ridgefield, New  
3 Jersey.

4 Q All right. And what did you do there?

5 A They were producing die intermediates.

6 Q How long were you at Crown Chemical?

7 A Oh, I'd guess about six months.

8 Q And after that where did you work?

9 A I can't remember the precise name of the  
10 company, but it had something in the line of organic  
11 chemicals, but I don't remember the precise name in  
12 Sayerville, New Jersey.

13 Q Was it Wilson?

14 A Oh, yes, Wilson Organic.

15 Q What was your job at Wilson Organic?

16 A Production manager.

17 Q What did Wilson Organic produce?

18 A Die intermediates.

19 Q All right. After you left Wilson, where  
20 did you go to work?

21 A Kolker Chemical Company -- Kolker Chemical  
22 Works, I think it was called.

23 Q Where was Kolker Chemical Works located?

24 A 80 Lister Avenue, Newark.

25 THE COURT: When did you start there?

Burton - direct

1 THE WITNESS: September, 1949.

2 Q And what was your job at Kolker?

3 A Well, when I went there, I went there as chief  
4 engineer, and then at some point, supervision of the  
5 laboratory was added to that, and then at some point  
6 management of production was added to that.

7 So actually during the Kolker period, I ended up  
8 as plant manager and chief engineer and laboratory  
9 supervisor, which was really total plant manager's job.

10 Q What was being produced at Kolker when you  
11 started?

12 A We produced DDT, 2,4-D, and I say 2,4-D, I mean  
13 2,4-D in the form of various esters and formulations of  
14 it. Another small product we called cable compounds.  
15 I think that's all.

16 Q Were you producing 2,4,5-T?

17 A No.

18 Q Were you producing TCP?

19 A No.

20 Q Did there come a time when Kolker began  
21 producing TCP?

22 A Yes.

23 Q What was your role in the process by which  
24 Kolker came to produce TCP?

25 A Well, when I came there, they had one chemist

Burton - direct

1 who was doing laboratory experimental work with a small  
2 autoclave on the product of trichlorophenol and I  
3 supervised his work, and when it was completed so that  
4 we had enough data for a plant design, I designed the  
5 plant, installed or supervised the installation of  
6 equipment and the start up of the unit for making TCP.

7 Q And where was the TCP unit located?

8 A You know, I'm not sure now at this point in the  
9 direction of describing which is north and south. But  
10 facing the river, it would be on the right-hand side in  
11 the corner next to the river, inside the main building.

12 Q Now, did there come a time when Diamond  
13 acquired the Kolker plant?

14 A Yes.

15 Q And what was your role after Diamond's  
16 acquisition?

17 A I was plant manager.

18 Q What were your duties as plant manager  
19 after Diamond's acquisition?

20 A Well, supervising everything that went on at the  
21 plant, although the office supervision was sort of  
22 divided. Nominally, they reported to me, but also the  
23 office managers to some degree reported directly to  
24 Cleveland.

25 Q To whom did you report?

Burton - direct

1 A I reported to, I'm not sure his title, what his  
2 title was, but it was in technical the production  
3 supervisor for the chlorinated products division.

4 Q Where was his office?

5 A In Cleveland.

6 Q Who was the highest ranking person at the  
7 Lister Avenue plant?

8 A Myself.

9 Q Did anyone at the plant have greater  
10 authority or responsibility than you with respect to  
11 any matters?

12 A No.

13 THE COURT: When did you become the plant  
14 manager?

15 THE WITNESS: I don't remember the  
16 specific time, but sometime during the Kolker  
17 supervision, I sort of moved progressively  
18 upward. But I remember when Diamond came in  
19 that they, Diamond's supervisor, Mr. Guisinger  
20 said: Well, you were plant manager for Kolker,  
21 but I don't know if you're qualified for us. So  
22 that's why I remember that particular incident.

23 THE COURT: Go ahead, please, Mr. Moser.

24 Q And were you plant manager -- question  
25 withdrawn.

Burton - direct

1           For what period of time were you the plant  
2 manager under Diamond at the Newark site?

3           A       From some date when Diamond bought the plant,  
4 which I believe was September 1951 according to my  
5 notes, until February 20, 1960.

6           Q       All right. Who, in your judgment, would  
7 be more knowledgeable than you about the operations of  
8 the plant over the period from 1951 to 1960?

9           A       Well, in the total aspect of it, no one,  
10 although, for example, Mr. Scureman told some details  
11 that reminded me of things that I had forgotten. So  
12 for particular details, other people would know more  
13 than myself.

14          Q       Now, just so we can finish up what your  
15 employment background has been, after you left Diamond  
16 in 1960, can you tell us what your employment was?

17          A       Well, immediately after I left Diamond, I joined  
18 Kolker -- no, went under the name Doremus Chemical  
19 Company. Two names. One was Doremus Chemical. I  
20 think it was an associated name. In effect, they were  
21 one company on Doremus Avenue in Newark owned by Lee  
22 Kolker.

23          Q       And for how long did you work there?

24          A       About nine months.

25          Q       And thereafter what was your employment?

Burton - direct

1 A I worked as a free-lance consulting engineer  
2 from then until I retired.

3 Q And when, what date do you use as the date  
4 on which you retired?

5 A There's no specific date because I sort of wound  
6 down by degrees.

7 Q All right.

8 A More or less 1978, but not precisely.

9 Q All right. So from from 1961 to 1978, you  
10 engaged in this consulting work. Could you just give  
11 us a few examples of the types of consulting work you  
12 did over that period of time?

13 A Well, I did, actually, a wide variety. I set  
14 out to be a consultant on small chemical plant  
15 management, which I thought I had expertise in, but I  
16 found I couldn't sell that and, well, for example,  
17 Montross Chemical was also on Lister Avenue.

18 I worked on and off for them on a variety of  
19 jobs which included when they had, wanted to install  
20 the equipment for a new process, I supervised the  
21 purchase and installation of equipment.

22 Another case, they wanted to do pilot plant work  
23 on a projected new process and I designed and installed  
24 and supervised the pilot plant operation.

25 Another case, they lost their plant manager and



Burton - direct

1 I pinch hit as plant manager for six months or so until  
2 they located a new one. They had some engineering  
3 projects for other companies and I carried those out  
4 for them. They put in an installation for making a new  
5 chemical that was new to them. It didn't work out  
6 successfully and I went in to solve the problem and get  
7 it corrected and running properly.

8 On my own -- Well, other than those types of  
9 things, the only other type of thing I did mainly was  
10 designing some chemical plant, for example, designed  
11 the, or furnished the process design for a 2,4-D plant  
12 in Mexico.

13 Q All right.

14 A I think that covers all the types of things I  
15 did.

16 Q Could you just identify for us some of the  
17 companies for whom you consulted over that period of  
18 time?

19 A Well, in New Jersey there was Essex Chemical,  
20 Mobile Chemical, Missouri Chemical, Chase Chemical, in  
21 New York; there was W. R. Grace, Syracuse University  
22 Research Corporation, the Pennsylvania Leobenon  
23 Chemical; in Missouri, Thompson-Hayward. Tell me when  
24 to stop.

25 Q Go ahead.

Burton - direct

1           A           Thompson Chemical in Missouri, Sanford Chemical  
2           in Texas, Thompson, Sterns, Roger in Denver;  
3           Interprovincial Coroperatives in Canada, Polaquimia  
4           Mexico, Inquiport in Venezuela, Sharoft Limited in  
5           India, there was a company in Turkey whose name I can't  
6           remember, and a company in Brazil whose name I can't  
7           remember.

8                     There were probably others. That's all I can  
9           think of offhand.

10                    THE COURT: Mr. Moser, we'll stop at this  
11           point. We'll take a break for ten minutes.

12                    (A recess is taken.)

13                    THE COURT: Mr. Burton remains on the  
14           stand under oath. You may continue, Mr. Moser.

15                    MR. MOSER: Thank you, your Honor.

16                    Q           Mr. Burton, directing your attention now  
17           to the time you were at the Diamond plant from 1951 to  
18           1960, what was your understanding at that time about  
19           what discharges, if any, were permissible to the river?

20                    A           Well, I knew that at the beginning, I don't know  
21           as I knew the precise rule, but I knew that, generally  
22           speaking, any substantial quantity of acids or any  
23           substantial quantity of any chemicals was not  
24           permitted.

25                    Q           And why were you concerned about that?

Burton - direct

1 Why did you make it your business to know that?

2 A Because we were putting in substantial  
3 quantities of acids and various organic chemicals.

4 Q Do you have an estimate as you sit here  
5 today of the number of chemicals that Diamond was  
6 discharging to the river in 1951?

7 A You mean at the point when Diamond bought the  
8 plant?

9 Q Let's take the next year or two. Can you  
10 estimate for us what kinds of, how many chemicals were  
11 being discharged?

12 A Well, from the 2,4-D unit, there would be  
13 various chlorophenols, relatively small quantities of  
14 2,4-D acid, larger quantities of 2,4,5 -- I'm sorry,  
15 2,6-D-acid. It was the same as 2,4 acid but 6 in place  
16 of the 4, a by-product. Caustic soda, sulfuric acid,  
17 muriatic acid, DDT.

18 THE COURT: Did you say DDT?

19 THE WITNESS: DDT.

20 A Probably relatively small quantities of  
21 monochlorobenzene and probable, but I'm not certain of  
22 this, larger quantities of I'm not sure of the proper  
23 chemical name. I call it monochloricbenzene sulfonic  
24 acid. Shortened monochloricbenzene.

25 In terms of quantity, those would be the --

Burton - direct

1 Well, about that time, I don't know precisely when we  
2 began to produce miticide which would give a sulfuric  
3 acid as a fairly substantial by-product.

4 Q Now, are all of those products you've just  
5 identified products that were being discharged to the  
6 river in the period 1951 and going forward?

7 MR. SPIVAK: Objection.

8 THE COURT: What's the objection?

9 MR. SPIVAK: Because the question was in  
10 the next year or two, when he first asked in  
11 1951.

12 MR. MOSER: Question withdrawn.

13 THE COURT: Why don't you restate it.

14 Q You've just described for us some  
15 chemicals that were being discharged from the plant in  
16 the year or two following 1951. Is that correct?

17 A Yes.

18 Q Now, which of those chemicals were not  
19 continuing to be discharged between, let's say, 1952 to  
20 1956?

21 MR. SPIVAK: The same objection. The  
22 difference, slightly different. The question  
23 was to the river. Now the question is:  
24 Continued to be discharged.

25 THE COURT: I think he means to the river.

Burton - direct

1 MR. MOSER: I accept that correction.

2 THE COURT: You indicated what went into  
3 the river the first couple of years. After the  
4 first two years what chemicals were discharged  
5 into the river, if any, during the time you were  
6 the plant manager?

7 THE WITNESS: Well, the same ones as I  
8 just mentioned. I'm sorry, we're going to 1956  
9 now?

10 Q Let's go to 1956.

11 A Well, I'm sorry. I forgot even in the first  
12 list, I forgot TCP. So there would be, if I can go  
13 back and add to that first list.

14 Q Yes.

15 A TCP and associated chlorophenols, not  
16 specifically the 2,4,5, but related chlorophenols that  
17 is related trichlorophenols. And probably very small  
18 quantities of 2,4,5-T acid. And I think I included  
19 sulfuric acid in the first list.

20 Q Just so the record is clear, from 1951 to  
21 1956 did you drop any of the chemicals off that list,  
22 that is, were there chemicals that were ones being  
23 discharged that before 1956 ceased to be discharged?

24 A No.

25 Q Now, perhaps you could tell us -- question

Burton - direct

1 withdrawn.

2 You indicated earlier that you understood is  
3 such discharges to the river to be illegal. If you  
4 knew that, why did you do it?

5 A We had no choice. We wanted to keep the plant  
6 operating, plus the fact in terms of let's say the  
7 common practice of the day, particularly in relation to  
8 the Passaic River, the only violation that concerned me  
9 from other than a legal point of view was the  
10 chlorophenols.

11 Q Why did that concern you?

12 A Because chlorophenols themselves are toxic and  
13 as we normally discharge them into the river -- Well,  
14 actually we changed. When I came there, we were  
15 discharging most of the chlorophenols into the river as  
16 liquid chlorophenols which would solidify in the river,  
17 actually congeal in the river immediately outside the  
18 plant.

19 Sometime in I think 1953, we changed the process  
20 so what we discharged after that was a solution of the  
21 sodium salt of phenols which would be water soluble,  
22 therefore, it would be disbursed throughout the Newark  
23 bay area. And even though in greatly diluted forms it  
24 would be fairly innocuous, I was always a little  
25 concerned about what might -- people are getting

Burton - direct

1 exposed to it in some form, although at that time there  
2 was no swimming in that whole area.

3 Q At the time did there exist the  
4 technological ability to avoid discharging  
5 chlorophenols to the river?

6 A Well, there existed the technological ability to  
7 destroy substantially all of the by-product  
8 chlorophenols. But when you say eliminate, meaning one  
9 hundred percent as we had to do in the case of the  
10 Delaware River, I would say no.

11 Q Did you use the technology that existed?  
12 Question withdrawn.

13 Did you use the technical technology you just  
14 described to reduce the amount of chlorophenol  
15 discharges?

16 A No.

17 Q Now, did your superiors in Cleveland know  
18 that the plant was engaged in these illegal discharges?

19 MR. SPIVAK: Objection, your Honor, as  
20 phrased.

21 THE COURT: Well, did you, was it your  
22 perception that the discharges that you were  
23 making to the river from 1951 until 1956 were  
24 illegal?

25 THE WITNESS: I knew they were illegal.

Burton - direct

1           THE COURT: You knew they were illegal.  
2           Did you communicate that to your superiors in  
3           Cleveland?

4           THE WITNESS: I don't remember  
5           specifically, but if you -- if I could sort of  
6           put this in context of the situation.

7           THE COURT: Yes.

8           THE WITNESS: My superior in Cleveland  
9           changed from time to time, but was usually a  
10          chemical engineer. The manager of the  
11          chlorinated products division, that is, his  
12          superior, was to my knowledge always a chemical  
13          engineer. And without knowing the details of  
14          what was going on at Newark, they couldn't have  
15          avoided not knowing the fact that all our waste  
16          chemicals went to the river.

17          THE COURT: Why do you say that?

18          THE WITNESS: Well, just the elementary  
19          knowledge of the process, there had to be a lot  
20          of bi-products of this, and also there was a lot  
21          of, as I said, I don't remember any specific  
22          discussion, but from time to time there were  
23          discussions of the products of not being able to  
24          sell our muriatic acid, for example. Obviously,  
25          what we didn't sell had to go to the river.



Burton - direct

1 Everyone --

2 THE COURT: Let me just stop you there.  
3 You say, "obviously, it had to go to the river."  
4 Why couldn't it have been disposed of in some  
5 other way other than going to the river, a toxic  
6 waste dump?

7 THE WITNESS: It's a logical question  
8 from you. A logical question to an engineer  
9 familiar with muriatic acid would know the only  
10 way you could dispose of it then would be to  
11 purchase special tank trucks or tank cars which  
12 would have to be glass lined, hauled off that  
13 way.

14 The question then would be: Where would  
15 you haul it to? You can't put it in drums  
16 because it's too corrosive. Well, I'm sorry. I  
17 take it back. You could, it could be  
18 neutralized. It couldn't be disposed of as such  
19 but the practical way to dispose of it would be  
20 to neutralize it with caustic soda.

21 THE COURT: And then, after you  
22 neutralized it with caustic soda what safe way  
23 would you dispose of it?

24 THE WITNESS: Then you would end up with  
25 salt, common table salt.

Burton - direct

1 THE COURT: How do you know that the  
2 people in Cleveland didn't think you were doing  
3 that?

4 THE WITNESS: Well, for one thing they  
5 were familiar with our -- See, every month, one  
6 thing that Cleveland was good on was cost  
7 control. And our main cost was raw materials.

8 Every month we reported how much of each  
9 raw material was used in each product on a net  
10 inventory basis. And these were always a  
11 subject of discussion. Well, between me and my  
12 boss. And then we had quarterly meetings where  
13 the top management, that is, the president of  
14 the company and vice-president and other  
15 officials, the director of engineering and so  
16 on, went to each plant and the plant manager,  
17 then all the plant managers would make reports  
18 and these kind of things.

19 As I said, I can't remember the specifics,  
20 but just a common subject of discussion. And  
21 our production reports would show, for example,  
22 that our 2,4-D efficiency converting phenol to  
23 2,4-D acid would be on the order of 60 to 70  
24 percent. And any chemical engineer knows well  
25 there's another 30 percent. Where did it go?

Burton - direct

1 THE COURT: Why would he -- What would  
2 there be in the reports that would lead him to  
3 conclude it wasn't being disposed of other than  
4 to the river?

5 THE WITNESS: Well, because, for example,  
6 one of the key costs in this plant, one of our  
7 key products was 2,4-D acid. The chief cost  
8 item in making 2,4-D acid was phenol and the  
9 figure for consumption of phenol to 2,4-D was,  
10 just happened to be the first number on the cost  
11 sheet for 2,4-D.

12 THE COURT: Are you telling me that just  
13 by looking at the cost they would have had to  
14 figure you were dumping?

15 THE WITNESS: I'm sorry, the first column  
16 was pounds of phenol used per pound of 2,4-D.  
17 Then after that was, further along the sheet was  
18 costed out. The first was pounds of phenol per  
19 pounds of 2,4-D and that number is self-evident  
20 to a chemical engineer as showing there was a  
21 big loss.

22 THE COURT: Well, it would be self-evident  
23 that there was a big loss, but why would it be  
24 self-evident that there wasn't some recovery of  
25 the waste and proper disposal of it?

Burton - direct

1 THE WITNESS: Well, from the magnitude of  
2 the production, it would be I think pretty  
3 obvious we weren't going to be carrying it off  
4 in drums as we did minor refuse. And for the  
5 nature of chlorophenols there's just no place to  
6 put it.

7 THE COURT: Go ahead.

8 MR. SPIVAK: Your Honor, I would submit  
9 that your original question to the witness has  
10 not been answered, which was: How did they know  
11 it was illegal?

12 THE COURT: Well, that may be. You're  
13 certainly welcome to explore that.

14 MR. CUYLER: I submit that everybody is  
15 charged with knowledge of the law.

16 THE COURT: Well, not necessarily so in  
17 some technical regulations.

18 THE WITNESS: May I add a point on that?

19 THE COURT: Yes.

20 THE WITNESS: The only specific time I  
21 remember was someone from Diamond headquarters,  
22 I don't remember his name or his specific title,  
23 but he had, Diamond had pollution problems with  
24 various plants. There were six plants in our  
25 division. He had some rule in the general

Burton - direct

1                   problem of pollution. He came down, looked at  
2                   the Passaic River.

3                   I remember standing on the riverbank with  
4                   him and we were discussing muriatic acid. He  
5                   said: You don't have to worry about it. The  
6                   volume of flow in this river is such that it  
7                   will be dissipated and it won't be noticed.

8                   So at least to that extent, someone from  
9                   headquarters -- Well, I guess that didn't  
10                  necessarily involve a violation of law. But at  
11                  least specifically knew that there was a problem  
12                  with muriatic.

13                  THE COURT: Go ahead, please, Mr. Moser.

14                  Q            You mentioned that during this period of  
15                  time Diamond had problems with other plants. What  
16                  other plants were you aware of that Diamond had  
17                  pollution problems in?

18                  A            The only one I remember, my impression is they  
19                  had several, but the only one I remember very  
20                  specifically was the Greens Bayou plant where they were  
21                  making DDT.

22                  Q            What was the problem there?

23                  MR. SPIVAK: Objection, your Honor. This  
24                  calls for hearsay.

25                  THE COURT: We don't need to get into

Burton - direct

1 that. It does call for hearsay.

2 MR. CUYLER: It goes to the state of mind  
3 Diamond Shamrock. If this man knew about it it  
4 had to be known by others within the company.  
5 And we will be putting in articles later on the  
6 specific problem at Greens Bayou which  
7 paralleled exactly the problems that they had at  
8 Newark. And the problem is they did something  
9 at Greens Bayou while they didn't do anything at  
10 Newark.

11 MR. SPIVAK: It's still hearsay no matter  
12 how you slice it.

13 THE COURT: Well, it may not be.  
14 How did you know anything about what was going  
15 on at the Greens Bayou plant?

16 THE WITNESS: I remember it being  
17 discussed at one of these quarterly meetings I  
18 mentioned before because the plant manager  
19 often would bring up problems and the Greens  
20 Bayou plant had an interesting description of  
21 his problem with monochlorobenzene and the  
22 effluent, and it was also sort of a standing  
23 joke about how many times he was threatened to  
24 be put in jail.

25 THE COURT: He discussed the problems in

Burton - direct

1           your presence, the manager of the Greens Bayou  
2           plant?

3                   THE WITNESS: I'm sorry?

4                   THE COURT: Did the manager of the Greens  
5           Bayou plant discuss his problems in your  
6           presence?

7                   THE WITNESS: Yes.

8                   THE COURT: Go ahead, please.

9           Q        What was the problem that he discussed?

10   A       Well, the Greens Bayou plant, unlike the Newark  
11   plant, was in effect built in the country, at the time  
12   was built with nothing but prairie around it. But the  
13   liquid effluent from that went to the Houston ship  
14   channel which was, I don't know, a mile or I think more  
15   away. And had to go through an open ditch. And the  
16   only chemical plant that fed into that ditch was the  
17   Greens Bayou DDT plant.

18                   And at some point, and this would be I think in  
19   the last part of the '50s, they became, they began very  
20   strict checking on the, what was going into the Houston  
21   ship channel.

22                   And the reason I remember it, his description  
23   was that the inspector would put gold fish in this  
24   ditch that led from the Greens Bayou plant to the ship  
25   channel. If the gold fish died that was self -- that

Burton - direct

1 solved the case as far as his position.

2 They did take several steps to reduce the  
3 effluent by neutralizing the muriatic acid, actually  
4 sulfuric acid, not muriatic was this effluent. To  
5 eliminate traces of monochloribenzene for practical  
6 purposes was impossible.

7 Q By the way, did people from Cleveland ever  
8 visit the plant during the time you were plant manager?

9 A My supervisor probably visited on an average of  
10 maybe every two months. Other people at times, one  
11 point in the late 1950s, the question came up about our  
12 2,4-D efficiency, if we couldn't improve the process to  
13 reduce the cost and several -- Well, I say several. I  
14 guess it was only two engineers from Cleveland spent a  
15 couple of months here studying the process.

16 As I say, once -- Well, it wouldn't be once a  
17 year in our case. Well, I think it seemed to me it  
18 worked out about once a year the general managers of  
19 the company came on one of these quarterly visits,  
20 although maybe it wasn't actually once a year.

21 Q When your supervisor visited the plant did  
22 you make any effort to disguise where the plant's  
23 effluents went?

24 A No. We always had -- Well, at these quarterly  
25 meetings we always had a campaign beforehand to make



Burton - direct

1 sure that things were washed and painted to look well.  
2 But I can't remember anything we ever did in connection  
3 with the effluent itself.

4 Q Did you ever try to hide from him the fact  
5 that the effluent went to the river?

6 A No.

7 Q When those engineers were there for a  
8 couple of months did you make any effort to hide from  
9 them?

10 A I'm sorry?

11 Q You said there were some engineers that  
12 came in for a couple of months who were studying a  
13 particular process. While they were there did you make  
14 any effort to hide from them where the effluents went?

15 THE COURT: You're shaking your head.

16 Q You have to answer so the reporter can  
17 take it down.

18 A Oh, no.

19 Q When the general manager visited did you  
20 make any effort to hide from him where the effluents  
21 went?

22 A No.

23 Q Directing your attention to the period in  
24 the 1950s when you were at the plant, am I correct that  
25 there was, there were at least two buildings, one

Burton - direct

1 referred to as the main building and one referred to as  
2 the 2,4-D building?

3 A Right.

4 Q Directing your attention to the main  
5 building, can you describe for us what the drainage and  
6 discharge system was from the main building?

7 A Before or after the sewer connection?

8 Q Let's go 1951 to 1956.

9 A Well, I don't remember the details of the  
10 piping, except I remember running down the, at one  
11 point we redid the floor and I remember putting in,  
12 pitching the floor toward the center of the building so  
13 that running lengthways of the building at right angles  
14 to the river was a drainage trench to which basically  
15 everything in the 2,4-D building went. And that in  
16 turn fed from a pipeline into the river. There may  
17 have been some other draining lines directly into the  
18 river although I don't remember any of them.

19 Q Let me direct your attention to the main  
20 building. What was the drainage system in the main  
21 building?

22 A In the end of the main building nearest to the  
23 river, again, at some time we resurfaced the floors and  
24 put in some of these small open drainage trenches  
25 covered with grating for safety so that we could wash

Burton - direct

1 the floors into these, and these, in turn, led to a  
2 pipe which led to the river. I believe, as I remember,  
3 most, I know we had several pipes projecting out from  
4 the river bulkhead and I believe most of the individual  
5 sources of effluent each had its individual pipe that  
6 was connected to it that led to the river.

7 Q What was made in the main building?

8 A What was made in there?

9 Q Yeah, what were the products, processes  
10 that went on in the main building?

11 A Trichlorophenol, chloral, DDT, miticide,  
12 monochloroacetic acid, what we called compound 923. I  
13 can give you its chemical name if you want. Benzenes  
14 and some of these were added during the latter part.  
15 Benzene sulfinyl chloride. Benzene sulfonamide, and  
16 smaller quantities of some compounds related to benzene  
17 sulfinyl chloride that I don't remember the specifics  
18 on but they're relatively small in quantity. I  
19 mentioned DDT, didn't I?

20 Q Yes, you did.

21 A And hexachlorobenzene. That's all I can think  
22 of offhand.

23 Q Could you give us a brief description of  
24 the TCP process?

25 A Well, the heart of it was an autoclave, an

Burton - direct

1 agitated jacketed vessel. To this we charged  
2 tetrachlorobenzene, methanol and caustic soda and  
3 heated it with agitation for a number of hours. Then  
4 cooled it, distilled off the unreacted methanol,  
5 condensed it and saved it for recycling.

6 Q That's the methanol?

7 A That's the methanol. Well, actually, we had two  
8 totally different processes. From this point on up to  
9 this point they were the same. In 1954 or thereabouts,  
10 we changed the process from there on.

11 Q Let's describe the one that existed from  
12 '51 to '54 from this point forward.

13 A Right. And in that process after we distilled  
14 off the methanol, we diluted the batch with water,  
15 transferred it to another tank where we further diluted  
16 it with water, added sulfuric acid, which caused the  
17 trichlorophenol itself to precipitate as a solid  
18 material. We filtered that trichlorophenol, put it in  
19 containers as a solid material and transported it over  
20 to the 2,4-D building. The filtrate from the  
21 filtration which discarded.

22 Q When you say the filtrate was discarded,  
23 where did it go?

24 A To the river.

25 Q And what was your understanding at the

Burton - direct

1 time about the legality of that discharge?

2 A I'm sorry?

3 Q What was your understanding at that time  
4 about the legality of that discharge to the river? Was  
5 it legal or illegal?

6 A If I could explain there a bit. When the  
7 Kolkers left, I knew that gross pollution was illegal.  
8 And at some point, and I don't know exactly when, but  
9 probably not too long after, we began to have  
10 inspections by the Passaic Valley Sewage Commission and  
11 I understood from him that the regulations were quite  
12 strict on almost any pollution.

13 So that at some point probably in the 1954 or  
14 thereabouts, I would have known that the amount of  
15 chlorophenols and the effluent from the trichlorophenol  
16 unit was illegal.

17 Q Now, during this process, the TCP process  
18 that you just described, what happened to any product  
19 which spilled or leaked onto the floor?

20 A Well, it would be washed into these small  
21 ditches I described and washed, ultimately, to the  
22 river.

23 Q Now, you indicated to us that in 1954 the  
24 process changed somewhat. Can you describe for us what  
25 the change was to the process?

Burton - direct

1           A           Under the new process, the finished batch after  
2           distilling off the methanol was transferred to what we  
3           called the steam stripper and further diluted with  
4           water further and steam blown through it either by  
5           direct injection plus heating with a steam coil so that  
6           the unreacted anisole was distilled over.

7                        The anisole was, came over as a mixture of  
8           anisole and water. The water layer was discarded to  
9           the river. The anisole was saved for recycling to  
10          future batches. The product in this case was the  
11          sodium salt, was a water solution of the sodium salt of  
12          trichlorophenol which we transferred by pumping to the  
13          2,4-D building.

14                    Q           You said that the water was discarded to  
15          the river. Mechanically, how did the water get to the  
16          river?

17                    A           Well, in this case the collection vessel, with a  
18          separation made, was about 15 feet above the, was  
19          located actually the end of the building nearest the  
20          river and about 15 feet high so it was simply a  
21          pipeline drop from there to the river.

22                    Q           What was your understanding about the  
23          legality of that discharge?

24                    A           By that time I would be quite sure that I  
25          understood that was a volume big enough to be illegal.

Burton - direct

1 Q Now --

2 A I'm not certain about that as I think about it  
3 because as far as we knew in this material in this  
4 water layer, I might be concerned, concerning the  
5 volume and the amount of material in it, I might have  
6 thought that would have passed. Although later I found  
7 out that it wouldn't.

8 Q Were there, was finished TCP stored in any  
9 tanks? Finished TCP, how was it kept?

10 A That would be a step up from the steam stripper.  
11 We had I think a 20 thousand gallon steel tank where we  
12 stored the sodium trichlorophenol solution.

13 Q Where were those tanks located?

14 A That tank was in the main building.

15 Q And was it, was the tank ever cleaned?

16 A I know it was cleaned. I don't remember how  
17 often, but it was a particularly messy job cleaning it.  
18 So that sticks in my mind.

19 Q How was it cleaned?

20 A Well, it would be pumped as empty as possible.  
21 Then it would be given a water wash, and then finally  
22 had to take off the manhole cover and go in and  
23 physically shovel out the contents.

24 Q And where would you put the contents you  
25 shoveled out?

Burton - direct

1 A In the river. The contents, incidentally, were  
2 primarily sodium chloride, table salt.

3 Q What would you do after you got the  
4 contents out of the tank?

5 A Flush it out, close it up and start using it  
6 again.

7 Q And where would the water that left the  
8 tanks go? Where did the water go when you washed out  
9 the tank?

10 A To the river.

11 Q During this TCP process that you've  
12 described from 1954, where you made the change to steam  
13 stripper, where would products that spilled or leaked  
14 during that process end up?

15 A The river. Well, during the part of the  
16 process, it was in the main building.

17 Q Yes. All right. Now, during -- I'm  
18 sorry.

19 A Well, because there was some recovery parts of  
20 that which are actually a leak. But really part of the  
21 2,4,5-T operation, they were in the other building.

22 Q I'm going to bring you to that building in  
23 a moment. During the entire period now -- question  
24 withdrawn.

25 You indicated that the process was changed in



Burton - direct

1 1954 to have this steam stripping done. From 1954 to  
2 1960 was there any change to the process?

3 A Not in, not the process as I described it. We  
4 changed things like temperatures and specific details  
5 but not in the general process as I described it.

6 Q Were there any changes in the amount of  
7 the equipment from 1951 to 1960?

8 A Well, the first autoclave was put in in 1951 and  
9 two or three years later we added a second autoclave of  
10 larger capacity. And when we changed to the steam  
11 stripping process, of course, that meant an equipment  
12 change.

13 Oh, in 1959, yes, we made not really a process  
14 change but a change in handling of materials. Up to  
15 that time we were purchasing tetrachlorobenzene in  
16 fiber containers. In 19', I think, I'm quite sure it  
17 was sometime in 1959, or possibly in '58, we began  
18 purchasing tetrachlorobenzene in tank cars. And when  
19 we first -- and the reason we did it was because it was  
20 a big cost saving.

21 When we first purchased it, we would take the  
22 tetrachlorobenzene from the tank car and we happened to  
23 have a flaker on hand in the miticide unit and would  
24 pump it to this flaker and convert it to flake  
25 tetrachlorobenzene which, in turn, would charge to the

Burton - direct

1 autoclave as before. Later we put in a storage tank in  
2 the trichlorophenol unit equipped to keep  
3 tetrachlorobenzene in its molten state.

4 In that case we discharged the tank car direct  
5 from the tank car to this storage tank in the  
6 trichlorophenol unit, pumped it to the autoclave as  
7 molten tetrachlorobenzene.

8 Q Now, with the exception of the changes  
9 you've mentioned, were there any other changes to the  
10 process during the period 1951 to 1960 in the main  
11 building?

12 A No.

13 Q All right. Now, if I could, I'd like now  
14 to direct your attention to what I think you referred  
15 to as the 2,4-D building. And just to put it in  
16 context, is that the building -- question withdrawn.

17 Did you describe the drainage system of the  
18 2,4-D building earlier this morning?

19 A That's what I did before.

20 Q Okay. Just wanted to make sure the record  
21 was clear, and you and I were communicating.

22 MR. SPIVAK: Up to 1956, your Honor.

23 THE COURT: Yes.

24 MR. MOSER: We're going to go beyond that.

25 THE COURT: There's been a stop at 1956.

Burton - direct

1 MR. MOSER: Right.

2 THE WITNESS: Could I add one point to  
3 that?

4 Q Sure.

5 A The ester building was, in terms of the way the  
6 floors was pitched was distinct from -- we called one  
7 the ester unit and the other one the 2,4-D building,  
8 although they were all part of the same big building.  
9 Basically, the floor ditch pitched toward the main  
10 building. Outside the ester building was a drainage  
11 trench which ran right angles to the river and ran  
12 directly to the river.

13 MR. SPIVAK: Your Honor, I think it would  
14 be useful, although I know you like the witness  
15 to give complete answers, not to feel  
16 artificially restrained, if we waited for a  
17 question prior to the time we had an answer.

18 THE COURT: I think Mr. Burton has been  
19 trying to do that in general. Go ahead, please.

20 Q Could you describe for us briefly the  
21 2,4-D process?

22 A Well, the first step in it was making  
23 dichlorophenol, which was made by reacting chlorine  
24 with phenol, a by-product of HCL gas which was absorbed  
25 in water as muriatic acid.

Burton - direct

1           Again, sometime in the early '50s, we changed  
2           that process at the time Diamond bought the plant, the  
3           finished dichlorophenol chlorination batch was  
4           distilled to separate out the 2,4 dichlorophenol which  
5           was a particular, what you might call type of  
6           chlorophenol we wanted for 2,4-D.

7           And the other phenols were still bottoms, were  
8           discarded as still bottoms.

9           Sometime about I think 1953, we changed that  
10          process to where we took the finished chlorination  
11          batch from the dichlorophenol unit and used it directly  
12          in 2,4-D without this intermediate distillation  
13          purification step.

14          Q        What was, what were the discharges, if  
15          any, from the 2,4-D process?

16          A        Well, this was just a first step in the 2,4-D  
17          process.

18          Q        Go ahead.

19          A        The dichlorophenol was reacted with  
20          monochloroacetic acid and caustic soda in one of the  
21          2,4-D reaction vessels. This resulted in a thick mush  
22          of the sodium salt of 2,4-D acid. That was diluted and  
23          filtered. The filtrate was discarded. The solids from  
24          the filter were put in a tank, mixed with water and  
25          acidified with sulfuric acid which again gave a thick

Burton - direct

1 mush of 2,4-D acid suspended in water. That material  
2 was filtered on a centrifuge. The filtrate discarded  
3 and the wet solid 2,4-D acid put in carts and charged  
4 from there to a tank for use in making esters or  
5 Amines.

6 Q Where was the filtrate discarded?

7 A Well, it went to the river. I don't remember  
8 the way, whether we had a separate line for it or  
9 whether it went into this central trench.

10 Q All right. During this process, what  
11 happened to any product which spilled or leaked on the  
12 floor?

13 A It would be washed into the central trench and  
14 ultimately end up in the river.

15 Q Now, in the 2,4-D building did you also  
16 make 2,4,5-T?

17 A Yes.

18 Q Could you give us a brief description of  
19 the 2,4,5-T process?

20 A Well, it was essentially the same. Reacted  
21 trichlorophenol, caustic soda and monochloroacetic  
22 acid in the 2,4,5-T vessel, diluted it, filtered it as  
23 I described before, although a different style of  
24 equipment. The solids were acidified to form 2,4,5-T  
25 acid which again was centrifuged, the filtrate

Burton - direct

1 discarded an the solids put in carts for use.

2 The difference in the process in this case, the  
3 filtrate from the filtration of the sodium salt of  
4 2,4,5-T was saved and acidified in a tank located just  
5 outside the 2,4-D building which gave a layer of liquid  
6 trichlorophenol which was recycled to future batches.  
7 And the water layer from that was discarded.

8 Q All right. What happened to any product  
9 that spilled or leaked on the floor in the 2,4,5-T  
10 process?

11 A It would be the same as the 2,4-D. Hosed down  
12 to the central sewer and from there would go to the  
13 river.

14 Q Now, you indicated that in the -- question  
15 withdrawn.

16 In the process by which you created the  
17 dichlorophenol, I think you indicated that you  
18 transferred the dichlorophenol to a still and you  
19 distilled the 2,4-D from the other chlorophenols. Do  
20 you recall that?

21 A Yes.

22 Q What did you do with the other  
23 chlorophenols?

24 A They were discharged to the river.

25 Q In this process, I think you also

Burton - direct

1 indicated that you created a product called muriatic  
2 acid.

3 A Yes.

4 Q What did you do with the muriatic acid?

5 A We sold most of it. That which we couldn't sell  
6 we discharged to the river.

7 Q Now, in this same building, in a different  
8 area, there occurred the ester process. Correct?

9 A Yes.

10 Q Could you give us a brief description of  
11 the ester process?

12 A Well, we changed the details for various esters  
13 at various times during this whole ten years. But  
14 basically, the ester process consisted of reacting  
15 either 2,4-D acid or 2,4,5-T acid with an alcohol which  
16 would be one of a number of varieties.

17 That product in the reaction vessel, we then had  
18 an ester of 2,4-D or 2,4,5-T which contained some  
19 unreacted 2,4-D or 2,4,5-T acid and also small amounts  
20 of impurities as dichlorophenol or trichlorophenol.

21 Not always, but normally that ester was then  
22 washed with caustic soda to remove the impurities, that  
23 is, the dichlorophenol or 2,4-D acid, and those washed  
24 waters were discarded. The washed ester was then dried  
25 in a dryer vessel and the water obtained from drying

Burton - direct

1 discarded and the ester at that point was filtered and  
2 was ready for sale directly or for other use in  
3 formulations.

4 Q You indicated on two different occasions  
5 on describing that process that the water was  
6 discarded. Where was the water discarded?

7 A To the river.

8 Q Now, -- And what happened to any material  
9 that spilled or leaked during this process?

10 A That would be washed into this trench I  
11 mentioned that was just outside the ester building and  
12 run from there to the river.

13 Q Now, did there come a time when the 2,4-D  
14 building had a hookup to the sewer?

15 A Yes. I don't have the specific date, but  
16 offhand I think it was about 1956.

17 Q What prompted the 1956 sewer hookup?

18 A Well, we had frequent inspections by an  
19 inspector for the Passaic Valley Sewerage Commission,  
20 and one day in 1956, he went into the plant unannounced  
21 and saw a leak of alcohol where the packing on a pump  
22 was dripping and that drip was going to this small  
23 trench just outside the ester building, and from there  
24 obviously running into the river.

25 And he pointed out that any tiny violation of



Burton - direct

1 any form was a violation of the law, and I believe we  
2 got some official notice at that point to, in effect,  
3 cease and desist.

4 Q You indicated that this inspector came on  
5 a regular basis. How is it that you avoided a citation  
6 prior to 1956, if you did?

7 MR. SPIVAK: Objection to form.

8 THE COURT: I'll allow the question. Go  
9 ahead and answer the question, please.

10 A Well, normally, the procedure for any visitor to  
11 the plant, which was standard in chemical plants, was  
12 to check in with the receptionist. So he would check  
13 in with the receptionist. The receptionist would, in  
14 turn, contact someone to escort him through the plant.

15 But we used this time lag, and ultimately ended  
16 up with a system, we had an inter-plant communication  
17 system. So the receptionist, who would recognize the  
18 inspector as such, would then sound I think it was  
19 three buzzes on this inter-plant communication system  
20 which would alert the foreman and the operators that an  
21 inspector was on hand.

22 So they would take prompt steps to see that  
23 anything being, going into the river at that moment was  
24 stopped.

25 So with that time delay, by the time someone

Burton - direct

1 came and escorted him through the plant, he would find  
2 nothing, except for, as I say, the one time when we got  
3 caught because we thought that was so inconsequential  
4 that it didn't matter.

5 Q Let me direct your attention to what's  
6 been marked for identification as defendants' exhibit  
7 731. Can you, Mr. Burton, can you identify exhibit 731  
8 as a letter you wrote on or about July 22, 1956? Is  
9 this a letter you wrote, exhibit 731?

10 A I don't remember the specific letter, but I  
11 remember, in general, trying to do something about  
12 these unannounced visits, which is -- unauthorized  
13 trips into the plant, which is what this refers to.

14 MR. SPIVAK: Your Honor, I have a basic  
15 problem with this. We have a procedure which  
16 has been described to your Honor several times  
17 where the, both sides were to advise the other  
18 regarding documents that they were going to use  
19 on direct prior to the, within 36 hours prior to  
20 the commencement of direct examination.

21 And I did receive a list from Mr. Cuyler  
22 on Friday.

23 Now, that, it was understood in that  
24 agreement that if it was thought in the exercise  
25 of professional judgment that there would be an

Burton - direct

1 additional document or two, that would not be a  
2 problem, and perhaps this document falls under  
3 that exception.

4 MR. CUYLER: It's on the list. The last  
5 entry on the list I sent you was exhibits to  
6 report of Environmental Technology, Inc., which  
7 is your expert witness or one of your expert  
8 witnesses, and that is a document from that  
9 report.

10 MR. SPIVAK: That is not one of our expert  
11 witnesses, but it is the materials received from  
12 Mr. Leubetkin, and with that understanding,  
13 then, I have no problem and I will accept the  
14 representation.

15 THE COURT: Very well. Thank you. Go  
16 ahead, Mr. Moser.

17 Q Mr. Burton, can you recognize the  
18 signature at the bottom as appearing to be your  
19 signature?

20 A Yes.

21 Q All right. And does this letter address  
22 the circumstance you were describing of having the  
23 inspector stop at the receptionist before inspecting  
24 the plant?

25 A I didn't hear your full question.

Burton - direct

1 Q Does this letter relate to the subject you  
2 had just been discussing, namely --

3 A Yes.

4 Q -- insuring that the inspector reported  
5 to a receptionist?

6 A Yes.

7 Q Now, what was the purpose of this alarm  
8 system?

9 A So that the -- also so that all discharges to  
10 the river could be stopped by the time the inspector  
11 got back to the riverbank.

12 Q Did you make any effort to hide this  
13 system from your superiors at Diamond?

14 MR. SPIVAK: Objection. It lacks  
15 foundation, your Honor. It would assume that  
16 there was someone from Diamond on the property  
17 at the time that the so-called alarm system was  
18 utilized.

19 THE COURT: Yes, I think the first  
20 question is whether anybody higher up than he  
21 at Diamond knew about it.

22 Q Did anyone higher up than you at Diamond  
23 know about the system?

24 A The alarm system?

25 Q The alarm system, yes.

Burton - direct

1 A I don't remember.

2 Q Did you make any effort to hide the system  
3 from them?

4 MR. SPIVAK: The same objection.

5 THE COURT: Well, I'll allow that  
6 question. Answer that question, if you can,  
7 please.

8 A I would, knowing the circumstances of how things  
9 were myself, my superiors and the problem, I would be  
10 certain we made no effort to hide it from them.

11 Q Now, in the event -- question withdrawn.  
12 Is there any doubt in your mind, sir, whether or  
13 not such a system existed?

14 A Again, I'm sorry, I didn't hear you.

15 Q Is there any doubt in your mind that there  
16 was such a warning system at this plant?

17 A No.

18 Q Now, in 1956, when the sewer hookup  
19 occurred, to what building or buildings was the sewer  
20 hooked up?

21 A To the 2,4 -- we've been calling it the 2,4-D  
22 building, including all its components.

23 Q Now, after the sewer was hooked up to the  
24 2,4-D building, did all discharges from that building  
25 go to the sewer?

Burton - direct

1 A All discharges went to that sewer except we had  
2 an emergency connection where that could be blocked and  
3 the effluent go to the river. But this was for  
4 emergencies.

5 Q How did you go about blocking those  
6 discharges? How mechanically, what did you have to do  
7 if you wanted to do it?

8 A I don't remember except I remember it was at the  
9 central point where one line went to the river and the  
10 other line went to the industrial sewer. But I don't  
11 remember the specific mechanics of how we did it.

12 Q What about discharges from the ester unit,  
13 after the sewer hookup in 1956, where did discharges  
14 from the ester unit go?

15 MR. SPIVAK: Objection. It's already been  
16 answered. He said the 2,4-D building and all of  
17 its components.

18 THE COURT: I think it's implicit, but  
19 counsel is entitled to make it explicit. Would  
20 you answer the question, please.

21 A Well, I should have mentioned, because even  
22 though they ended up in the same central pit, the line  
23 from the ester building to this pit was a separate line  
24 from the line from the 2,4-D acid building.

25 Q After the sewer hookup, were there any

Burton - direct

1 trenches that ran in the river from the 2,4-D building?

2 A Again, I didn't get the question.

3 Q After the sewer hookup in 1956 were there  
4 any trenches that ran from the 2,4-D building to the  
5 river?

6 A Any what that ran?

7 Q Trenches or pipelines.

8 MR. SPIVAK: The same objection.

9 THE COURT: I'll allow the question.

10 MR. SPIVAK: It also gets to be leading  
11 after a point, your Honor.

12 A Am I back? Should I answer the question?

13 THE COURT: Yes, would you answer the  
14 question, please.

15 A Yes, there were the same trench that where they  
16 found alcohol dripping into that went to the river,  
17 that same trench stayed in existence except the end of  
18 it that came from the ester building was blocked and  
19 went toward the industrial sewer.

20 Strictly speaking, part of that trench still  
21 stayed in existence and there may have been a similar  
22 one over in the, some other part which were basically  
23 for washing down the floor.

24 THE COURT: Let's stop at this point. I  
25 want to receive some indictments from the Grand

Burton - direct

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Jury.

You can just get up and leave, if you  
like. We'll break for lunch and we'll resume at  
1:30.

(The Court recesses for lunch.)

(The afternoon session is recorded by  
Deborah Nutting, C.S.R.)

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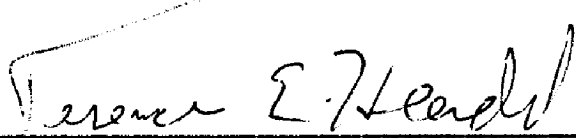


Burton - direct

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C E R T I F I C A T E

I, TERENCE E. HEADD, Certified Shorthand Reporter of the State of New Jersey, certify the foregoing transcript to be a true and accurate record of the proceedings as taken stenographically by me on the date and place heretofore mentioned.

  
TERENCE E. HEADD, C.S.R.  
Certificate No. 575

Dated: October 17, 1988