

1 A. We were concerned with the engineering at our  
2 facilities for manufacturing chemical agents and  
3 developing those chemical agents into munitions.

4 Q. And you mentioned before there were a  
5 number of facilities, Pine Bluff, Rocky Mountain and  
6 the Newport Ammo Plant. Were there any others that  
7 you were involved with in this period other than  
8 those three?

9 A. During that period for a short time, Fort  
10 Detrick also came under me, I would guess for a  
11 period of no more than a year, some of the  
12 engineering that they were doing.

13 Q. Do you know what that engineering  
14 involved?

15 A. Similarly, developing manufacturing processes  
16 for biological agents and filling them into  
17 munitions.

18 Q. Do you know what biological agents that  
19 Fort Detrick was working on during this period?

20 A. I forget what they were specifically at this  
21 time. As I say, I was only involved for maybe a  
22 six-month period and I just don't recall  
23 specifically what materials they were involved with.

24 Q. Were you involved with a particular  
25 organization at Fort Detrick?

1 A. Yes, there was a Biological Plants and  
2 Processes Branch that came under me for that  
3 six-month period.

4 Q. Do you know who was the head of that  
5 Biological Plants and Process Division?

6 A. A man named Clark Cottrell, C-o-t-t-r-e-l-l.

7 Q. Do you know the names of any of the other  
8 people at Fort Detrick that you would have dealt  
9 with?

10 A. Well, there were engineers within his branch, I  
11 remember a few of them.

12 Q. Who would they be?

13 A. There was a man named Dwight McKinney. I don't  
14 remember any more specific names.

15 Q. Did you have any dealings with Dr.  
16 Minarik, Charles Minarik, at Fort Detrick?

17 A. Yes, but not at that period.

18 Q. How about Robert Darrow?

19 A. Yes. Well, yes, I think it was during that  
20 period, during that period.

21 Q. With Darrow?

22 A. Darrow and with Minarik. Minarik was the head  
23 of Crops Division at Fort Detrick.

24 Q. What were the names --

25 A. Now --

1 Q. I'm sorry.

2 A. I was about to say that we didn't have exactly  
3 the same relationship with them because the  
4 materials that they were concerned with were  
5 manufactured in industry whereas most of the  
6 materials that I was concerned with were  
7 manufactured in government facilities.

8 Q. What were the nature of your dealings  
9 with Dr. Minarik?

10 A. Minarik was the head of Crops Division and my  
11 engineers reviewed their specifications, their  
12 purchase descriptions during that period and then  
13 later we got involved with herbicide Orange.

14 Q. Now, when you say your engineers, did you  
15 personally get involved in it?

16 A. Well, I would sign off on documents of  
17 transmission but my engineers would get into the  
18 details of reviewing some of the specifications, and  
19 there was another group at Edgewood that had  
20 responsibility for publishing those specifications  
21 and we would essentially review them and sign off on  
22 them during that period.

23 Q. Who would actually write those  
24 specifications?

25 A. The people from Fort Detrick would provide

1 input and they'd be physically written by this  
2 specification group with input from all of the  
3 concerned organizations.

4 Q. After they were written, what would  
5 happen to them?

6 A. They would be put together initially in a draft  
7 form and then they would be circulated to what other  
8 organizations may have had an interest in them  
9 including industry; for example, the herbicide  
10 Orange specifications in that period might have been  
11 sent to Monsanto or Dow or companies that  
12 manufactured herbicide Orange for their comments on  
13 the purchase description or specification.

14 MR. GORMAN: Excuse me, Counselor, is  
15 this all during the six-month period that the  
16 witness has mentioned that he did at Detrick?

17 Q. Are we talking about here this six-month  
18 period or so or --

19 A. No, I'm talking about 1962 to 1966 in general.  
20 We were reviewing specifications and purchase  
21 descriptions during that whole period, specifically --

22 Q. From Detrick?

23 A. From Detrick as well, yes, sir.

24 MR. GORMAN: This is where I'm being  
25 misled, you see.

1           Q.       Is this an addition to the six-month  
2 period when part of Detrick actually came under your  
3 command?

4           A.       During that six-month period, their engineering  
5 group out there that came under me, they were  
6 responsible for the design of facilities to make  
7 biological agents. That was one responsibility, but  
8 during that 1962 to 1966 period, any military  
9 specifications or purchase descriptions that went  
10 out were reviewed by our group as well as other  
11 groups within the Army, possibly the Air Force, if  
12 they were interested, and as I mentioned, even  
13 comments from industry, if they were interested.

14           Q.       Now, you've indicated that you would sign  
15 off on these; is that correct?

16           A.       Yes.

17           Q.       In the process of signing off on them,  
18 would you read them and review them yourself  
19 personally?

20           A.       To some degree, yes.

21           Q.       Now, had they been reviewed by others in  
22 your section prior to their arriving at your desk?

23           A.       Yes, right.

24           Q.       Now, you've indicated, just so that we're  
25 clear on this, that this would have been during the

1 previously mentioned?

2 A. None other than reviewing specifications and  
3 purchase descriptions until December of 1966.

4 Q. During that time, you indicated before  
5 that the herbicide materials were being made by  
6 civilian manufacturing companies as against Edgewood  
7 Arsenal; is that correct?

8 A. Yes.

9 Q. Were you familiar with the processes used  
10 by these civilian manufacturers for herbicides?

11 A. Not prior to December of 1966.

12 Q. Were people within your section familiar  
13 with the processes?

14 MR. GORMAN: Objection.

15 A. I'm just speculating, but I don't think so.

16 Q. What was the purpose of the function of  
17 the review that you did on the specifications then?

18 A. It was primarily to take a look at them to see  
19 that they were formatted correctly, possibly as sort  
20 of an independent group within the Army to take  
21 another shot at them to see whether they were  
22 complete, see that some of the other things, lotting,  
23 sampling procedures were standard with what we had  
24 in our other specifications.

25 Q. How about testing procedures?

1 A. Well, I'm a little uncertain there. I would  
2 think -- for example, what we would do, if we were  
3 reviewing a specification, we would get together the  
4 interested parties, somebody from our analytical  
5 group, somebody from the engineering group, somebody  
6 from the specifications group, somebody from the  
7 documents group, somebody from Fort Detrick if it  
8 was one of their items and they would collectively  
9 come up with a position which went into the  
10 development of these documents, and once they  
11 reached the coordinated position, they were then  
12 circulated, as I mentioned before, to industry, to  
13 the Air Force, whoever might be involved with an  
14 item.

15 MR. GORMAN: I move to strike the answer  
16 as not responsive.

17 Don't mind that at all.

18 Q. Do you recall which herbicide  
19 specifications you reviewed during the period of  
20 1962 to 1966?

21 A. Well, I recall because I've seen these  
22 documents within the last couple weeks. They've  
23 been presented to me to review, but the  
24 specification for 2,4-D, the specification for  
25 2,4,5-T, the purchase description for herbicide

1 Orange, so I've looked at those.

2 Q. Do you know if you reviewed any other  
3 specification during this time?

4 A. Clarify, you mean --

5 Q. For herbicides?

6 A. For herbicides. I don't recall, just -- I  
7 would just be speculating.

8 Q. At the time that you reviewed these  
9 herbicide specifications, did you know what the  
10 herbicides were being used for?

11 A. Certainly, yes, certainly.

12 Q. What were they being used for?

13 A. They were being used for anti-crop agents and  
14 defoliation in Southeast Asia.

15 Q. At this time, I ask to see the documents  
16 that this witness advises us on the record that he  
17 refreshed his memory with, just for identification  
18 purposes.

19 MR. GORDON: For the record, I believe  
20 that Mr. --

21 MR. MATTHEWS: They were provided to Mr.  
22 Yannacone.

23 MR. GORMAN: No, no, I'm not talking  
24 about --

25 MR. PIERCE: There may be others, I think