

KRUMMRICH SECTION

(Ask Q.1 only for first time KRUMMRICH SECTION administered):

1. How many different times have you worked at the Krummrich Plant? _____

2. In what year did you start working at the Krummrich Plant
(the first time/the second time...)?

19 _____

Don't know/Can't recall . . 98

3. In what year did you leave the Krummrich Plant (the first time/the second time. . .)?

19 _____

*Still working at
Krummrich 97*

Don't know/Can't recall . . 98

(Read if R employed more than once at Krummrich--Q.1)

4. Please keep in mind that the following questions pertain only to the (first/second...) time
you worked at the Krummrich Plant, from 19____ to 19____.

<i>IF RESPONDENT NOT EMPLOYED PRIOR TO 1938, SKIP TO P.6, Q.14.</i>
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5. Prior to 1938, did you ever work with chlorophenols at the Krummrich Plant? Before 1938, chlorophenols were produced in Dept. 226 and Dept. 237.

Yes 1
 No (*Skip to p.6, Q.14*) 2
 Don't know/Can't recall (*Skip to p.6, Q.14*) . . . 8

6. In what year did you start working in either of those departments?

19 _____

Don't know/Can't recall . . 98

7. In what year prior to 1938 did you stop working in either of those departments?

19 _____

Don't know/Can't recall . . 98

8. How many total months or years did you work in either of those departments?

_____ months

_____ years

Don't know/Can't recall . . 98

9. While in either of those departments, did you work in. . . (*Repeat for each item on list.*)

	<u>Yes</u>	<u>No</u>	<u>DK</u>
a. production?	1*	2	8
b. maintenance?	1	2	8
c. the utility workforce?	1	2	8
d. any other capacity? (<i>Specify</i>)	1	2	8

**If production not worked, skip to Q.11a.*

(Hand R Dept. 226/237 [Prior to 1938] Card.)

10a. Please look at this card and tell me which of the following job titles you held while in either of those departments. (Circle all that apply. Then, ask b-c for each job title held.)

	Job Titles Held	b. In what year did you start as (a/an) (title)?			c. How many months or years, in total, did you work as (a/an) (title)?	
Chief operator	05	19	_____	DK 98	_____ mos.	_____ yrs.
Filter helper	07	19	_____	DK 98	_____ mos.	_____ yrs.
Filter operator	08	19	_____	DK 98	_____ mos.	_____ yrs.
Helper	09	19	_____	DK 98	_____ mos.	_____ yrs.
Manufacturing helper	12	19	_____	DK 98	_____ mos.	_____ yrs.
Manufacturing operator	13	19	_____	DK 98	_____ mos.	_____ yrs.
Operator	14	19	_____	DK 98	_____ mos.	_____ yrs.
Swingman	22	19	_____	DK 98	_____ mos.	_____ yrs.
Other (Specify)						
_____	88	19	_____	DK 98	_____ mos.	_____ yrs.

11a. During the time you worked in either of those departments, were work clothes provided?

Yes 1
 No (*Skip to Q.12a*) 2
Don't know/Can't recall (Skip to Q.12a) 8

b. Were you provided with enough work clothes to change them each day?

Yes 1
 No 2
Don't know/Can't recall 8

12a. Were shower facilities available at the plant?

Yes 1
 No (*Skip to Q.13a*) 2
Don't know/Can't recall (Skip to Q.13a) 8

b. Did you usually shower at the end of each shift?

Yes 1
 No 2
Don't know/Can't recall 8

13a. During the time you worked in either of those departments, what personal protective equipment was provided to you?

Gloves	01
Apron	02
Hard hat	03
Goggles	04
Respirators or dust masks	05
Other (<i>Specify</i>) _____ . .	06
None (<i>Skip to Q.14</i>)	97
<i>Don't know/Can't recall (Skip to Q.14)</i>	98

b. How effective do you think this personal protective equipment was in minimizing your exposure to chemicals, dusts, or gases? Would you say it was. . .

Very effective,	4
Fairly effective,	3
Somewhat effective, or	2
Not at all effective?	1
<i>Don't know</i>	8

14. During this term of employment at the Krummrich Plant, did you ever work in Dept. 237, chlorophenols? (If respondent employed prior to 1938): This was the new chlorophenols department created in 1938.

Yes 1
 No (Skip to p.10, Q.23) 2
 Don't know/Can't recall (Skip to p.10, Q.23) . . . 8

15. In what year did you start working in Dept. 237?

19 _____

Don't know/Can't recall . . 98

16. In what year did you stop working in Dept. 237?

19 _____

Don't know/Can't recall . . 98

17. How many total months or years did you work in Dept. 237?

_____ months

_____ years

Don't know/Can't recall . . 98

18. While in Dept. 237, did you work in. . . (Repeat for each item on list.)

	<u>Yes</u>	<u>No</u>	<u>DK</u>
a. production?	1*	2	8
b. maintenance?	1	2	8
c. the utility workforce?	1	2	8
d. any other capacity? (Specify)	1	2	8

*If production not worked, skip to Q.20a.

(Hand R Dept. 237 Card.)

19a. Please look at this card and tell me which of the following job titles you held while in Dept. 237. (Circle all that apply. Then, ask b-c for each job title held.)

	Job Titles Held	b. In what year did you start as (a/an) (title)?			c. How many months or years, in total, did you work as (a/an) (title)?	
Chief operator	05	19	_____	DK 98	_____ mos.	_____ yrs.
Helper (day/shift)	09	19	_____	DK 98	_____ mos.	_____ yrs.
Operator	14	19	_____	DK 98	_____ mos.	_____ yrs.
Relief foreman	19	19	_____	DK 98	_____ mos.	_____ yrs.
Repairman	21	19	_____	DK 98	_____ mos.	_____ yrs.
Other (Specify)						
_____	88	19	_____	DK 98	_____ mos.	_____ yrs.

20a. During the time you worked in Dept. 237, were work clothes provided?

Yes 1

No (*Skip to Q.21a*) 2

Don't know/Can't recall (Skip to Q.21a) 8

b. Were you provided with enough work clothes to change them each day?

Yes 1

No 2

Don't know/Can't recall 8

21a. Were shower facilities available at the plant?

Yes 1

No (*Skip to Q.22a*) 2

Don't know/Can't recall (Skip to Q.22a) 8

b. Did you usually shower at the end of each shift?

Yes 1

No 2

Don't know/Can't recall 8

22a. During the time you worked in Department 237, what personal protective equipment was provided to you?

Gloves	01
Apron	02
Hard hat	03
Goggles	04
Respirators or dust masks	05
Other (<i>Specify</i>) _____ . .	06
None (<i>Skip to Q.23</i>)	97
<i>Don't know/Can't recall (Skip to Q.23)</i>	98

b. How effective do you think this personal protective equipment was in minimizing your exposure to chemicals, dusts, or gases? Would you say it was. . .

Very effective,	4
Fairly effective,	3
Somewhat effective, or	2
Not at all effective?	1
<i>Don't know</i>	8

23. During this term of employment at the Krummrich Plant, did you ever work in Dept. 226, Santobrite? (If respondent employed prior to 1938): This was the new department created in 1938.

Yes 1

No (Skip to p.14, Q.32) 2

Don't know/Can't recall (Skip to p.14, Q.32) . . . 8

24. In what year did you start working in Dept. 226?

19 _____

Don't know/Can't recall . . 98

25. In what year did you stop working in Dept. 226?

19 _____

Don't know/Can't recall . . 98

26. How many total months or years did you work in Dept. 226?

_____ months

_____ years

Don't know/Can't recall . . 98

27. While in Dept. 226, did you work in. . . (Repeat for each item on list.)

	<u>Yes</u>	<u>No</u>	<u>DK</u>
a. production?	1*	2	8
b. maintenance?	1	2	8
c. the utility workforce?	1	2	8
d. any other capacity? (Specify)	1	2	8

*If production not worked, skip to Q.29a.

(Hand R Dept. 226 Card.)

28a. Please look at this card and tell me which of the following job titles you held while in Dept. 226. (Circle all that apply. Then, ask b-c for each job title held.)

	Job Titles Held	b. In what year did you start as (a/an) (title)?				c. How many months or years, in total, did you work as (a/an) (title)?	
Chief operator	05	19	_____	DK	98	_____ mos.	_____ yrs.
Helper (day)	09	19	_____	DK	98	_____ mos.	_____ yrs.
Operator	14	19	_____	DK	98	_____ mos.	_____ yrs.
Relief foreman	19	19	_____	DK	98	_____ mos.	_____ yrs.
Relief operator	20	19	_____	DK	98	_____ mos.	_____ yrs.
Repairman	21	19	_____	DK	98	_____ mos.	_____ yrs.
Other (Specify)							
_____	88	19	_____	DK	98	_____ mos.	_____ yrs.

29a. During the time you worked in Dept. 226, were work clothes provided?

Yes 1
 No (*Skip to Q.30a*) 2
Don't know/Can't recall (Skip to Q.30a) 8

b. Were you provided with enough work clothes to change them each day?

Yes 1
 No 2
Don't know/Can't recall 8

30a. Were shower facilities available at the plant?

Yes 1
 No (*Skip to Q.31a*) 2
Don't know/Can't recall (Skip to Q.31a) 8

b. Did you usually shower at the end of each shift?

Yes 1
 No 2
Don't know/Can't recall 8

31a. During the time you worked in Department 226, what personal protective equipment was provided to you?

Gloves	01
Apron	02
Hard hat	03
Goggles	04
Respirators or dust masks	05
Other (<i>Specify</i>) _____ . .	06
None (<i>Skip to Q.32</i>)	97
<i>Don't know/Can't recall (Skip to Q.32)</i>	98

b. How effective do you think this personal protective equipment was in minimizing your exposure to chemicals, dusts, or gases? Would you say it was. . .

Very effective,	4
Fairly effective,	3
Somewhat effective, or	2
Not at all effective?	1
<i>Don't know</i>	8

32. During this term of employment at the Krummrich Plant, did you ever work in Dept. 236,
Penta or Pentachlorophenol?

Yes 1

No (*Skip to p.18, Q.41*) 2

Don't know/Can't recall (Skip to p.18, Q.41) . . . 8

33. In what year did you start working in Dept. 236?

19 _____

Don't know/Can't recall . . 98

34. In what year did you stop working in Dept. 236?

19 _____

Don't know/Can't recall . . 98

35. How many total months or years did you work in Dept. 236?

_____ months

_____ years

Don't know/Can't recall . . 98

36. While in Dept. 236, did you work in. . . (*Repeat for each item on list.*)

	<u>Yes</u>	<u>No</u>	<u>DK</u>
a. production?	1*	2	8
b. maintenance?	1	2	8
c. the utility workforce?	1	2	8
d. any other capacity? (<i>Specify</i>)	1	2	8

**If production not worked, skip to Q.38a.*

(Hand R Dept. 236 Card.)

37a. Please look at this card and tell me which of the following job titles you held while in Dept. 236. (Circle all that apply. Then, ask b-c for each job title held.)

	Job Titles Held	b. In what year did you start as (a/an) (title)?				c. How many months or years, in total, did you work as (a/an) (title)?	
						mos.	yrs.
A operator	01	19	_____	DK	98	_____	_____
B operator	02	19	_____	DK	98	_____	_____
B operator-oiler	03	19	_____	DK	98	_____	_____
Briquette operator	04	19	_____	DK	98	_____	_____
Chief operator	05	19	_____	DK	98	_____	_____
Helper (shift/day)	09	19	_____	DK	98	_____	_____
Helper-porter	10	19	_____	DK	98	_____	_____
Intermediate operator	11	19	_____	DK	98	_____	_____
Operator	14	19	_____	DK	98	_____	_____
Packer-helper	15	19	_____	DK	98	_____	_____
Pelletizer operator	16	19	_____	DK	98	_____	_____
Porter	17	19	_____	DK	98	_____	_____
Premium operator	18	19	_____	DK	98	_____	_____
Relief foreman	19	19	_____	DK	98	_____	_____
Relief operator	20	19	_____	DK	98	_____	_____
Repairman	21	19	_____	DK	98	_____	_____
Other (Specify) _____	88	19	_____	DK	98	_____	_____

38a. During the time you worked in Dept. 236, were work clothes provided?

Yes 1

No (*Skip to Q.39a*) 2

Don't know/Can't recall (Skip to Q.39a) 8

b. Were you provided with enough work clothes to change them each day?

Yes 1

No 2

Don't know/Can't recall 8

39a. Were shower facilities available at the plant?

Yes 1

No (*Skip to Q.40a*) 2

Don't know/Can't recall (Skip to Q.40a) 8

b. Did you usually shower at the end of each shift?

Yes 1

No 2

Don't know/Can't recall 8

40a. During the time you worked in Department 236, what personal protective equipment was provided to you?

Gloves	01
Apron	02
Hard hat	03
Goggles	04
Respirators or dust masks	05
Other (<i>Specify</i>) _____ . .	06
None (<i>Skip to Q.41</i>)	97
<i>Don't know/Can't recall (Skip to Q.41)</i>	98

b. How effective do you think this personal protective equipment was in minimizing your exposure to chemicals, dusts, or gases? Would you say it was. . .

Very effective,	4
Fairly effective,	3
Somewhat effective, or	2
Not at all effective?	1
<i>Don't know</i>	8

41. During this term of employment at the Krummrich Plant, did you ever work in Dept. B821,
Experimental Penta?

Yes 1

No (*Skip to p.22, Q.50*) 2

Don't know/Can't recall (Skip to p.22, Q.50) . . . 8

42. In what year did you start working in Dept. B821?

19 _____

Don't know/Can't recall . . 98

43. In what year did you stop working in Dept. B821?

19 _____

Don't know/Can't recall . . 98

44. How many total months or years did you work in Dept. B821?

_____ months

_____ years

Don't know/Can't recall . . 98

45. While in Dept. B821, did you work in. . . (*Repeat for each item on list.*)

	<u>Yes</u>	<u>No</u>	<u>DK</u>
a. production?	1*	2	8
b. maintenance?	1	2	8
c. the utility workforce?	1	2	8
d. any other capacity? (<i>Specify</i>)	1	2	8

**If production not worked, skip to Q.47a.*

(Hand R Dept. B821 Card.)

46a. Please look at this card and tell me which of the following job titles you held while in Dept. B821. (Circle all that apply. Then, ask b-c for each job title held.)

	Job Titles Held	b. In what year did you start as (a/an) (title)?			c. How many months or years, in total, did you work as (a/an) (title)?	
A operator	01	19	_____	DK 98	_____mos.	_____yrs.
B operator	02	19	_____	DK 98	_____mos.	_____yrs.
Experimental penta prill B . . .	06	19	_____	DK 98	_____mos.	_____yrs.
Intermediate operator	11	19	_____	DK 98	_____mos.	_____yrs.
Other (Specify)						
_____ . .	88	19	_____	DK 98	_____mos.	_____yrs.

47a. During the time you worked in Dept. B821, were work clothes provided?

Yes 1
 No (*Skip to Q.48a*) 2
Don't know/Can't recall (Skip to Q.48a) 8

b. Were you provided with enough work clothes to change them each day?

Yes 1
 No 2
Don't know/Can't recall 8

48a. Were shower facilities available at the plant?

Yes 1
 No (*Skip to Q.49a*) 2
Don't know/Can't recall (Skip to Q.49a) 8

b. Did you usually shower at the end of each shift?

Yes 1
 No 2
Don't know/Can't recall 8

49a. During the time you worked in Department B821, what personal protective equipment was provided to you?

Gloves	01
Apron	02
Hard hat	03
Goggles	04
Respirators or dust masks	05
Other (<i>Specify</i>) _____ . .	06
None (<i>Skip to Q.50</i>)	97
<i>Don't know/Can't recall (Skip to Q.50)</i>	98

b. How effective do you think this personal protective equipment was in minimizing your exposure to chemicals, dusts, or gases? Would you say it was. . .

Very effective,	4
Fairly effective,	3
Somewhat effective, or	2
Not at all effective?	1
<i>Don't know</i>	8

50. During this term of employment at the Krummrich Plant, did you ever work in Dept. 268,
Agricultural Esters?

Yes 1

No (Skip to p.26, Q.59a) 2

Don't know/Can't recall (Skip to p.26, Q.59a) . . 8

51. In what year did you start working in Dept. 268?

19_____

Don't know/Can't recall . . 98

52. In what year did you stop working in Dept. 268?

19_____

Don't know/Can't recall . . 98

53. How many total months or years did you work in Dept. 268?

_____ months

_____ years

Don't know/Can't recall . . 98

54. While in Dept. 268, did you work in. . . (Repeat for each item on list.)

	<u>Yes</u>	<u>No</u>	<u>DK</u>
a. production?	1*	2	8
b. maintenance?	1	2	8
c. the utility workforce?	1	2	8
d. any other capacity? (Specify)	1	2	8

*If production not worked, skip to Q.56a.

(Hand R Dept. 268 Card.)

55a. Please look at this card and tell me which of the following job titles you held while in Dept. 268. (Circle all that apply. Then, ask b-c for each job title held.)

<u>Job Titles Held</u>	b.	c.	<u>How many months or years, in total, did you work as (a/an) (title)?</u>	
	<u>In what year did you start as (a/an) (title)?</u>			
Intermediate operator 11	19 _____ DK 98		_____ mos.	_____ yrs.
Premium operator 18	19 _____ DK 98		_____ mos.	_____ yrs.
Other (Specify) _____ . . 88	19 _____ DK 98		_____ mos.	_____ yrs.

56a. During the time you worked in Dept. 268, were work clothes provided?

Yes 1
 No (*Skip to Q.57a*) 2
Don't know/Can't recall (Skip to Q.57a) 8

b. Were you provided with enough work clothes to change them each day?

Yes 1
 No 2
Don't know/Can't recall 8

57a. Were shower facilities available at the plant?

Yes 1
 No (*Skip to Q.58a*) 2
Don't know/Can't recall (Skip to Q.58a) 8

b. Did you usually shower at the end of each shift?

Yes 1
 No 2
Don't know/Can't recall 8

58a. During the time you worked in Department 268, what personal protective equipment was provided to you?

Gloves	01
Apron	02
Hard hat	03
Goggles	04
Respirators or dust masks	05
Other (<i>Specify</i>) _____ . .	06
None (<i>Skip to Q.59a</i>)	97
<i>Don't know/Can't recall (Skip to Q.59a)</i>	98

b. How effective do you think this personal protective equipment was in minimizing your exposure to chemicals, dusts, or gases? Would you say it was. . .

Very effective,	4
Fairly effective,	3
Somewhat effective, or	2
Not at all effective?	1
<i>Don't know</i>	8

59a. During this term of employment at the Krummrich Plant, (did you ever work/have you ever worked) in Depts. 218, 224, or 233, Chlorinated Benzenes?

Yes 1
 No (*Skip to Q.60a*) 2
Don't know/Can't recall (Skip to Q.60a) 8

b. In what year did you start working in any of those departments? 19_____
Don't know/Can't recall . . 98

c. In what year did you stop working in any of those departments? 19_____
Still working there 97
Don't know/Can't recall . . 98

d. How many total months or years (did you work/have you worked) in those departments?
 _____ months
 _____ years
Don't know/Can't recall . . 98

e. While in those departments, (did you work/have you worked) in. . . (*Repeat for each item on list.*)

	<u>Yes</u>	<u>No</u>	<u>DK</u>
[1] production?	1	2	8
[2] maintenance?	1	2	8
[3] the utility workforce?	1	2	8
[4] any other capacity? (<i>Specify</i>)	1	2	8

60a. During this term of employment at the Krummrich Plant, did you ever work in Dept. 239,
Santophen?

Yes 1

No (Skip to Q.61a) 2

Don't know/Can't recall (Skip to Q.61a) 8

b. In what year did you start working in Dept. 239?

19_____

Don't know/Can't recall . . 98

c. In what year did you stop working in Dept. 239?

19_____

Don't know/Can't recall . . 98

d. How many total months or years did you work in Dept. 239?

_____ months

_____ years

Don't know/Can't recall . . 98

e. While in Dept. 239, did you work in. . . (Repeat for each item on list.)

	<u>Yes</u>	<u>No</u>	<u>DK</u>
[1] production?	1	2	8
[2] maintenance?	1	2	8
[3] the utility workforce?	1	2	8
[4] any other capacity? (Specify)	1	2	8

61a. During this term of employment at the Krummrich Plant, did you ever work in Dept. 246, PCBs?

Yes 1

No (*Skip to Q.62a*) 2

Don't know/Can't recall (Skip to Q.62a) 8

b. In what year did you start working in Dept. 246?

19 _____

Don't know/Can't recall . . 98

c. In what year did you stop working in Dept. 246?

19 _____

Don't know/Can't recall . . 98

d. How many total months or years did you work in Dept. 246?

_____ months

_____ years

Don't know/Can't recall . . 98

e. While in Dept. 246, did you work in. . . (*Repeat for each item on list.*)

	<u>Yes</u>	<u>No</u>	<u>DK</u>
[1] production?	1	2	8
[2] maintenance?	1	2	8
[3] the utility workforce?	1	2	8
[4] any other capacity? (<i>Specify</i>)	1	2	8

62a. During this term at the Krummrich Plant, did you ever work in Dept. 262, 2,4-D or 2,4-Dichlorophenol?

Yes 1
 No (*Skip to Q.63a*) 2
 Don't know/Can't recall (*Skip to Q.63a*) 8

b. In what year did you start working in Dept. 262?

19 _____

Don't know/Can't recall . . 98

c. In what year did you stop working in Dept. 262?

19 _____

Don't know/Can't recall . . 98

d. How many total months or years did you work in Dept. 262?

_____ months

_____ years

Don't know/Can't recall . . 98

e. While in Dept. 262, did you work in. . . (*Repeat for each item on list.*)

	<u>Yes</u>	<u>No</u>	<u>DK</u>
[1] production?	1	2	8
[2] maintenance?	1	2	8
[3] the utility workforce?	1	2	8
[4] any other capacity? (<i>Specify</i>)	1	2	8

63a. During this term of employment at the Krummrich Plant, (did you ever work/have you ever worked) in Dept. 861, the Laboratory?

Yes 1

No (*Skip to Q.64*) 2

Don't know/Can't recall (Skip to Q.64) 8

b. In what year did you start working in the laboratory?

19 _____

Don't know/Can't recall . . 98

c. In what year did you stop working in the laboratory?

19 _____

Still working there 97

Don't know/Can't recall . . 98

d. How many total months or years (did you work/have you worked) in the laboratory?

_____ months

_____ years

Don't know/Can't recall . . 98

e. While in Dept. 861, (did you work/have you worked) in. . . (*Repeat for each item on list.*)

	<u>Yes</u>	<u>No</u>	<u>DK</u>
[1] production?	1	2	8
[2] maintenance?	1	2	8
[3] the utility workforce?	1	2	8
[4] any other capacity? (<i>Specify</i>)	1	2	8

64. After this job at the Krummrich Plant, did you return to the plant after some time off, or did you go on to work at another place of employment?

Returned to Krummrich after time off
(Go to another KRUMMRICH SECTION) 4

New place of employment (Continue to A) 5

Neither (Go to LAST JOB SHEET) 6

- A. What was the name of your new place of employment?

Record on NON-KRUMMRICH SECTION