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March 30, 1993

TO: All Counsel
FROM: Ace-Federal Reporters, Inc.
RE: Deposition of Emmett Kelly; February 2, 1993

Please find attached a corrected last page and/or reprinted condensed transcript of the above referenced deposition. The date to reconvene was incorrectly stated.

We apologize for any inconveniences this may have caused.

1 MR. MC CONNELL: Dr. Kelly, I see that I've run
2 over our agreed stopping point by a minute or two, and I
3 think maybe this would be a good time to break for the
4 evening.

5 THE WITNESS: Fine.

6 MR. MC CONNELL: Off the record.

7 VIDEO OPERATOR: The time is approximately 5:02
8 p.m. We're off the record.

9 (Whereupon, at 5:02 p.m., the deposition was
10 adjourned, to reconvene at 10:30 a.m., on Wednesday,
11 February 3, 1993.)

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R. EMMET KELLY

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Depo of: R. EMMET KELLY Monsanto v Aetna February 2, 1993 CR: 54277.0

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CONDENSED TRANSCRIPT AND CONCORDANCE
PREPARED BY:

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(1) IN THE SUPERIOR COURT
 (2) OF THE STATE OF DELAWARE
 (3) IN AND FOR NEW CASTLE COUNTY
 (4) -----x
 (5) MONSANTO COMPANY, :
 (6) Plaintiff, :
 (7) : Civil Action Number
 (8) v. : 88C-JA-118-1-CV
 (9) AETNA CASUALTY & SURETY COMPANY, :
 NON-ARBITRATION
 (10) et al., : CASE
 (11) Defendants. :
 (12) -----x
 (13) DEPOSITION OF R. EMMET KELLY
 (14) Washington, D. C.
 (15) Tuesday, February 2, 1993
 (16) Deposition of R. EMMET KELLY, called for examination
 (17) pursuant to notice of deposition, at the law offices of
 (18) Schwalb, Donnenfeld, Bray and Silbert, 1025 Thomas
 Jefferson
 (19) Street, N.W., Suite 300, at 10:43 a.m. before JULIE BAKER.
 a
 (20) Notary Public within and for the District of Columbia, when
 (21) were present on behalf of the respective parties:
 (22) - continued -

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(1) APPEARANCES:
 JOHN M. BRAY, ESQ.
 (2) JAMES P. KENNEDY, ESQ.
 Schwalb, Donnenfeld, Bray & Silbert
 (3) Suite 300 1025 Thomas Jefferson Street, N.W.
 Washington, D. C.
 (4) On behalf of Plaintiff Monsanto Company.
 DAVID F. SNIVELY, ESQ.
 (5) Monsanto Company Law Department
 800 North Lindbergh Boulevard
 (6) St. Louis, Missouri 63167
 On behalf of Plaintiff Monsanto Company.
 (7) RICHARD L. McCONNELL, JR., ESQ.
 Wiley, Rein & Fielding
 (8) 1776 K Street, N.W. Washington, D. C. 20006
 (9) On behalf of The Travelers Indemnity Company.
 LOIS J. SCHIFFER, ESQ.
 (10) Nussbaum & Wald
 (11) One Thomas Circle, N.W. Washington, D. C. 20005
 (12) On behalf of Certain Underwriters at Lloyd's of London,
 (13) England.
 JOSEPH G. MANTA, ESQ.
 (14) Manta and Welge One Commerce Square
 (15) 2005 Market Street Thirty-Seventh Floor
 (16) Philadelphia, Pennsylvania 10103
 (17) On behalf of Liberty Mutual Insurance Company.
 (18) ALSO PRESENT:
 (19) JOSEPH R. MAGGIO, Video Technician
 (20) ANDREA MORETTI

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(1) C O N T E N T S
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(1) P R O C E E D I N G S
 (2) VIDEO OPERATOR: This is the deposition of R.
 (3) Emmet Kelly in the matter of Monsanto Company, Plaintiff.
 (4) versus Aetna Casualty and Surety Company, et al.,
 (5) Defendants, civil action number 88C-JA-118-1-CV in the
 (6) Superior Court of the state of Delaware in and for New
 (7) Castle County. We are at the offices of Schwalb,
 (8) Donnenfeld, et al., 1025 Thomas Jefferson Street,
 (9) Washington, D.C. The time is approximately 10:43 a.m.
 (10) The date is February 2, 1993. The court reporter is Julie
 (11) Baker with the firm of Ace-Federal Reporters,
 (12) Incorporated, 1120 G street, Northwest, Washington, D.C.
 (13) I am the video operator, Joseph R. Maggio, also with the
 (14) firm of Ace-Federal.
 (15) You may swear the deponent.
 (16) Whereupon,
 (17) R. EMMET KELLY
 (18) was called as a witness and, having first been duly sworn.
 (19) was examined and testified as follows:
 (20) VIDEO OPERATOR: Would counsel identify
 (21) themselves and who they represent.
 (22) MR. MC CONNELL: I'm John Bray, Schwalb.

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(1) Donnenfeld, Bray & Silbert and I represent Monsanto
 (2) Company.
 (3) MR. MANTA: My name is Joe Manta, Manta & Welge
 (4) in Philadelphia. I represent Liberty Mutual.
 (5) MR. MC CONNELL: My name is Dick McConnell. I'm
 (6) with the law firm of Wiley, Rein & Fielding. I'm one of
 (7) the attorneys for The Travelers Indemnity Company. Also
 (8) with me today is Andrea Moretti, one of the paralegals
 (9) from my office.
 (10) MR. SNIVELY: Present also is David F. Snively,
 (11) litigation counsel for Monsanto Company.
 (12) EXAMINATION
 (13) BY MR. BRAY:
 (14) Q Good morning, Dr. Kelly.
 (15) A Good morning, Mr. Bray.
 (16) Q Would you state your full name for the record.
 (17) A R for Robert, Emmet Kelly, MD.
 (18) Q And your address, your home address?
 (19) A 665 South Skinker, St. Louis, Missouri 63105.
 (20) Q And we can call you Dr. Kelly. You're a medical
 (21) doctor, are you not?
 (22) A That is correct.

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(1) Q A physician?
 (2) A Yes.
 (3) Q For a time during your career you were the
 (4) medical director of Monsanto Company; is that correct?
 (5) A That is correct.
 (6) Q Would you describe when you joined Monsanto
 (7) Company.
 (8) A I joined Monsanto in January of '36.
 (9) Q 1936?
 (10) A 1936. I was the physician at the Queeny Plant,
 (11) which was then called Plant A, located at St. Louis. And
 (12) my duties there were that of a plant physician, where I
 (13) took care of occupational conditions, the injuries,
 (14) established a preventive medical program.
 (15) Q So initially you were a physician at a
 (16) particular plant?
 (17) A That is correct.
 (18) Q And did you subsequently become the medical
 (19) director of the entire company?
 (20) A Yes, but that was later. I went into service in
 (21) March of 1942 - when was Pearl Harbor, '41?
 (22) Q '41.

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(1) A '42, and came back from the service in 1946, and
 (2) I became a full-time medical director of the newly

[12] materials, clothing, apparatus or equipment that were used
[13] in those days or recommended by the medical department to
[14] accomplish minimization of worker exposure?

[15] MR. MC CONNELL: Object to form. Jack, may I
[16] have a continuing objection to any leading questions?

[17] MR. BRAY: I'd rather not do that, Dick. I'd
[18] rather hear it and try to deal with it.

[19] MR. MC CONNELL: That's fine. Then I've made my
[20] objection.

[21] THE WITNESS: Could I have the question over?

[22] MR. BRAY: Sure. Let me restate it.

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[1] BY MR. BRAY:

[2] *Q Would you describe the types of equipment or*
[3] *apparatus that were dealt with by the medical department*
[4] *in 1946 relating to worker exposure?*

[5] MR. MANTA: Objection.

[6] THE WITNESS: Yes. It all depends where the
[7] exposure were coming from. If the exposure was going to
[8] be a skin exposure, the person would be protected by
[9] coveralls, by impervious garments, rubber aprons, rubber
[10] booties, gloves. If the exposure were going to be by
[11] inhalation, he would be protected by insuring means of
[12] collecting the fumes or gases so that he wouldn't be
[13] breathing them. That would be either ventilation - spot
[14] ventilation, spot collection of the fumes or vapors at a
[15] particular department or over a pump or over a filling
[16] line or, in some cases, a general workplace, change of
[17] air.

[18] And then there's also other methods. There's
[19] engineering changes. Have a self-emptying centrifuge
[20] instead - c-e-n-t-r-i-f-u-g-e, instead of leaning over and
[21] taking out the centrifuge. There's also engineering
[22] methods of substituting a less hazardous compound than a

Page 15

[1] more serious one. So there are any number of minimizing
[2] the exposure.

[3] BY MR. BRAY:

[4] *Q When you became medical director, would you*
[5] *describe what you did, what you personally did to*
[6] *familiarize yourself with the operations and the exposures*
[7] *at Monsanto plants?*

[8] MR. MC CONNELL: Object to leading.

[9] THE WITNESS: Well, yes, but first I ought to
[10] say that even before I was appointed medical director, I
[11] was functioning in some areas as a medical director. In
[12] other words, if they had a plant outside of St. Louis
[13] where there was a particular hazard or a potential hazard
[14] or a recommendation by somebody that a problem might
[15] exist, I was authorized to go down there and look this
[16] over and make recommendations. So in that sense, I was a
[17] medical director without portfolio, but it wasn't
[18] formalized.

[19] What was the last part of the question?

[20] BY MR. BRAY:

[21] *Q What, if anything, did you do after you became*
[22] *medical director to familiarize yourself.*

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[1] A After I became medical director, there was a
[2] three-prong attack. One was to set up a preventive
[3] program, that's by physically monitoring the workers
[4] from
[5] the standpoint of examinations, physical examinations, to
[6] see whether or not any incipient illnesses to which we're
[7] all subject, diabetes, hypertension, heart disease, that
[8] have no boundaries as far - not related to the chemical
[9] industry, per se. And we'd also check to see whether or
[10] not there were any incipient illnesses that might be
[11] attributed to the workplace.

[12] The other attack was to find out what the
[13] toxicity of the products the man was working with, what
[14] the toxicity of the product was. There wasn't a great
[15] deal of information on the toxicity of products back in
[16] 1946. So we had to find out by those methods I
[17] discussed
[18] earlier, 10 minutes ago.

[17] *Q In terms of the effort to determine whether*
[18] *there were illnesses attributed to the workplace, how did*
[19] *the medical department go about trying to determine*
[20] *whether a particular illness was or was not attributed to*
[21] *the workplace?*

[22] A We used whatever consultants we had. In other

Page 17

[1] words, that's a real tough call to make because the
[2] symptoms and the particular signs that the individual
[3] has

[4] can occur from nonoccupational as well as occupational.
[5] If the person is an alcoholic, he could have a chemical
[6] hepatitis. If he were inhaling a solvent, he could have a
[7] chemical hepatitis also. The end result is the same but
[8] the cause is a lot different. What we did was use
[9] consultants. We used our insurance company a great
[10] deal.

[11] There were methods - there were levels of - safe
[12] levels that were proved by the U.S. government
[13] industrial

[14] hygiene group, I think. And they set out what they
[15] called

[16] maximum allowable concentrations, later on, threshold
[17] limit values, that would, to the best of the scientific
[18] knowledge, would ensure the worker could be working at
[19] that particular level of material in the air, that he
[20] could - so that was documented by taking actual air
[21] analysis. That was a function of an industrial
[22] hygienist.

[1] We engaged an industrial hygienist in 1946, I
[2] believe, and his job is to use equipment to actually
[3] analyze the air in the working station and find out what
[4] the level of material was in the air that the man was

Page 18

[1] breathing every day.

[2] *Q In that time period, 1946, was there equipment*
[3] *for conducting air samples?*

[4] A Not for everything. It was not only the
[5] equipment. It was the people. I think we had the third
[6] industrial hygienist hired. Most of the time the
[7] industrial hygienists were in the armed services and were
[8] in the insurance industries. Liberty Mutual had a very
[9] large industrial hygiene group, and they furnished their
[10] shareholders with that service of industrial hygiene. We
[11] used them fairly extensively.

[12] *Q You mentioned certain process or equipment*
[13] *changes. What, if anything, was the role of the medical*
[14] *department in making recommendations with respect to*
[15] *process changes?*

[16] A Well, for example, if the specifications for a
[17] particular product used benzene in the manufacture of it,
[18] we could suggest to them, why don't you use toluene,
[19] which

[20] is a less toxic material. And I think it was - I
[21] certainly was not an engineer, and we did make major
[22] engineering recommendations, but there was some
[23] obvious

[24] ones about - as I said before, manual cleaning out of a

Page 19

[1] centrifuge versus a self-emptying one. I knew that those
[2] existed, and it was important to minimize the exposure at
[3] that particular spot where we centrifuged some of the
[4] product. Our industrial hygienist made very many
[5] recommendations about general ventilation and spot
[6] ventilation over the areas where there was possibility of
[7] exposure.

[8] *Q When you became medical director, was your work*
[9] *done entirely in St. Louis?*

[10] A No, I went around to all of the plants in the
[11] United States.

[12] *Q And what did you do at the plants?*

[13] A Well, first, I would walk through them and see -
[14] you don't have to be a chemical engineer to know if
[15] there's too much dust flying out of a particular conveyor
[16] or something like that. And I would make such
[17] recommendations, say this is a bad situation, let's

[18] correct it.
 [19] Q When you first became medical director,
 [20] approximately how many plants did Monsanto have in the
 [21] U.S.?
 [22] A 10 to 12, I think, give or take a couple, either

Page 20

[1] way.
 [2] Q You visited all of those?
 [3] A I beg your pardon?
 [4] Q You visited all of those?
 [5] A Yes.
 [6] Q Did you visit any plants outside of the U.S.?
 [7] A Yes, there were a couple in Canada I went to.
 [8] That's early on. I mean, the latter days I went to the
 [9] European plants.
 [10] Q By "latter days," what do you mean?
 [11] A '60s, '70s.
 [12] Q When you became medical director, what, if
 [13] anything, was done to provide direct or on-site medical
 [14] service to a particular plant?
 [15] A Well, we arranged for the operation of a medical
 [16] organization in each plant. It would vary from our big
 [17] dialogue plant, for example, where we had 3000 people.
 [18] We
 [19] had three full-time doctors. When you get down to a
 [20] small
 [21] bottle-blowing plant where you have 30 employees, well
 [22] that's just a doctor on call. So it varied from full-time
 people to doctors on call, but I would say the vast
 majority of them had part-time doctors who visited the

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[1] plant on regular hours. In about six of our plants we had
 [2] at least one full-time doctor.
 [3] Q Was your goal of safety or medical service
 [4] directed solely to the employees who were operating at
 [5] plants?
 [6] MR. MC CONNELL: Objection. Leading.
 [7] THE WITNESS: No, because our goal was to find
 [8] out information about the toxicity of our finished
 [9] material, so that we could recommend to our customers safe
 [10] handling procedures that would prevent any of their
 [11] workers or their customers getting any problems with our
 [12] workers - with our products.
 [13] BY MR. BRAY:
 [14] Q Would you describe what type of communication or
 [15] dealings you had, you, the medical department, had with
 [16] customers with respect to safety.
 [17] A Safety is a little - is used a little different
 [18] in Monsanto than I think you're using it, Mr. Bray.
 [19] Safety referred to physical hazards in our plants,
 [20] explosions, falling off ladders and things like that.
 [21] Whereas health was harmed from the compound itself,
 [22] the
 health aspects of the medical department was responsible

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[1] for the - say that the material was handled safely, it was
 [2] handled without harm. From the health aspect, it was
 [3] not - we didn't - it was not our responsibility to warn
 [4] the customer about the flammability of the product or
 [5] whether it's liable to explode under various
 [6] circumstances.
 [7] Q With respect to the health aspects, then -
 [8] A That's right.
 [9] Q - what dealings did the medical department have
 [10] with customers?
 [11] A It dealt all the way from putting the safe
 [12] handling information on the labels. It dealt with the
 [13] inclusion in all our various technical bulletins, the
 [14] sales bulletins where we discussed the toxicity of the
 [15] product and discussed the safe handling data also.
 [16] Monsanto had a policy that any information concerning
 [17] the
 [18] health aspects of the toxicity of a Monsanto product was
 [19] to be answered by the medical department.
 [20] Now, this doesn't mean if the salesman at our
 [21] Detroit office went into Florida, and the fellow said, how

[21] is this stuff, can you use it all right, and he said,
 [22] sure, gee, we've been using this for 25 years with no

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[1] problem. But if they say, what's the toxicity of this in
 [2] relationship to workers, then he'd say, well, I'll have
 [3] St. Louis get ahold of you. And any telephone calls that
 [4] came in asking about the possibility of any harm due to a
 [5] Monsanto product in our customers and our employees
 [6] and
 [7] their customers, that was referred to the medical
 [8] department.
 [9] Q And why was that?
 [10] A Well, they got the accurate information. We got
 [11] 50,000 people giving information out about the toxicity or
 [12] lack of toxicity of a product. You might get 50,000
 [13] different answers and a good number of them would be
 [14] wrong. But at least with the medical department, we
 [15] were
 [16] the authority on it.
 [17] Q Did the medical department from time to time
 [18] receive inquiries about the health and toxicity of
 [19] products?
 [20] A Lots of times.
 [21] Q And what was the procedure for answering them?
 [22] A Well, it all depends. If it's a telephone call,
 I answered it then. If it was a letter from a salesman
 saying, I was over at Florida two days ago and they
 asked

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[1] me about this. Well, if it sounded like an emergency, I'd
 [2] call the doctor up in Florida; if it weren't, I'd write
 [3] them a letter and send them one of our safety data sheets
 [4] or one of our bulletins that described any possible ill
 [5] effects from too much exposure.
 [6] Q What, if any, role did the medical department
 [7] have with respect to health matters relating to the
 [8] neighbors and surrounding community at Monsanto plants?
 [9] MR. MANTA: Objection. Leading.
 [10] MR. MC CONNELL: Objection.
 [11] THE WITNESS: Well, with the exception of
 [12] inquiries from the neighbors, which were directed first to
 [13] the plant manager at the plant, obviously. Then he would
 [14] call us and we would go back to the neighbors through the
 [15] plant manager.
 [16] We didn't go out examining the neighbors if we
 [17] had cases, for example, of alleged damage to a house from
 [18] fluorine. That usually was handled by the insurance
 [19] section at our carriers. The medical department did not
 [20] go out and check on the status of the cows that might have
 [21] been exposed to fluoride emissions.
 [22] BY MR. BRAY:

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[1] Q When you undertook these duties, that is, when
 [2] you became medical director in what we may call the
 [3] earlier years, 1946 and thereabouts, what was the policy
 [4] or attitude of Monsanto management with respect to health
 [5] and safety?
 [6] MR. MANTA: Objection.
 [7] MR. MC CONNELL: Objection.
 [8] THE WITNESS: With respect to what?
 [9] BY MR. BRAY:
 [10] Q What was the policy and attitude of Monsanto
 [11] management with respect to health and safety?
 [12] MR. MC CONNELL: Objection. Calls for
 [13] speculation. Leading.
 [14] MR. BRAY: Let me ask the question this way.
 [15] BY MR. BRAY:
 [16] Q What was the Monsanto management policy with
 [17] respect to health and safety as communicated to you in any
 [18] instructions given to you as medical director?
 [19] MR. MC CONNELL: Objection. Leading.
 [20] THE WITNESS: It was very positively safety to
 [21] our employees in the manner of health as well as to our
 [22] customers was paramount in the top management of the

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[1] company's point of view.

[2] I've had numerous times. Patrick Queeny who was
 [3] a son of a founder said we're good neighbors. We want to
 [4] be good neighbors and we're going to ensure that we are a
 [5] good neighbor not only to our customers but to the people
 [6] around our plant. He also said safety was extremely
 [7] important to him. And it trickled down through all the
 [8] levels of management, that safety to our workers was
 [9] paramount.

[10] I think he said - well, I know he always put it
 [11] first that whether he put something second, quality of the
 [12] product or something like that or the shareholders, but
 [13] the management - the employees came first.

[14] BY MR. BRAY:

[15] Q How long did Edgar Queeny remain the chief
 [16] executive officer of Monsanto?

[17] A Well, he was the chief executive officer until
 [18] 1970, I think. But no matter what his title was, he was
 [19] the boss.

[20] Q After he retired, what was the attitude or
 [21] policy of Monsanto management with respect to health and
 [22] safety?

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[1] A It was the same. When he retired, that didn't
 [2] mean that he moved out of the office. He may not have
 [3] been CEO, but he was a chairman of the board, and he
 was -

[4] he had a very prominent part in the management of the
 [5] company, I will say that. I think he - I don't know
 when

[6] he finally - I think he finally retired when he died.
 [7] That was just around '74 or '75.

[8] Q He was active in the company until he died?

[9] A Yes.

[10] Q Now, you mentioned that during the course of the
 [11] work of the medical department, certain things were done
 [12] by the insurance carrier. When you joined the company,
 [13] who was Monsanto's insurance carrier?

[14] A Liberty Mutual for - I know they were for, I
 [15] guess, public liability and they were for compensation.
 [16] Metropolitan was the health and accident insurance - not
 [17] occupational health claims and group insurance for death
 [18] and disability benefits.

[19] Q You also mentioned adding an industrial
 [20] hygienist. Would you describe what other personnel you
 [21] added to the medical department as the years went on.

[22] A Well, we added more industrial hygienists. We

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[1] ended up, I think, with four when I left. We added a
 [2] toxicologist probably around the '50s sometime. We had
 [3] four of those when I left. We had a librarian, and we
 [4] added more physicians.

[5] Q More physicians to the central medical
 [6] department?

[7] A That's correct.

[8] Q How many, do you recall?

[9] A One full-time man and several part-time people.

[10] Q I'd like to talk for a moment about the
 [11] industrial hygienists. Who were they, and what were their
 [12] functions?

[13] A Well, they started off with Elmer Wheeler. We
 [14] got him from the Army industrial hygiene laboratory. He
 [15] was the chief of that. He was followed by Jack Garrett
 [16] who was - came to us from the research department at
 Texas

[17] City.

[18] Q When was that?

[19] A I guess '51 or '52, something around that.

[20] Q And at the time that Mr. Garrett came,

[21] Mr. Wheeler was already on board?

[22] A On board for about five years. Then Carl Bohl

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[1] came shortly after that. Then a Bruce Ely came. He came
 [2] around '70. There was another man - I forget his name -
 [3] who came just about that time.

[4] Q What were Mr. Wheeler's responsibilities?

[5] A Well, he started off as purely industrial

[6] hygiene, which means he was responsible for getting air
 [7] analysis and evaluating the possibility of exposures in
 [8] our manufacturing installations.

[9] Later on, he took over administrative function
 [10] when we hired a toxicologist. He handled the budgets -
 he

[11] was not a toxicologist but he was - in those days there
 [12] weren't really training spots for toxicologists, so I
 [13] would say he was a do it yourself toxicologist much like I
 [14] was.

[15] MR. BRAY: Do you want to pause for a moment
 [16] while we get Lois comfortable.

[17] MR. MC CONNELL: Sure.

[18] MR. BRAY: Lois, welcome.

[19] MR. MC CONNELL: Let's go off the record.

[20] VIDEO OPERATOR: We're off the record at

[21] approximately 11:22.

[22] (Discussion off the record.)

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[1] VIDEO OPERATOR: Back on the record at
 [2] approximately 11:24 a.m.

[3] BY MR. BRAY:

[4] Q Dr. Kelly, would you describe briefly what
 [5] Mr. Garrett's duties were, the other industrial
 [6] hygienist.

[7] A Well, he came as an industrial hygienist to
 [8] spell Wheeler. But he had a great deal of work in Texas
 [9] City on the effluent phase of the operation, the waste
 [10] treatment activities in Texas City. He was quite
 [11] knowledgeable about water disposal. So he really took
 [12] over that function for quite some time until we got more
 [13] people involved as far as the individual plants were
 [14] concerned. Jack was our point man, as it were, on water
 [15] disposal.

[16] Q Corporatewide?

[17] A I beg your pardon?

[18] Q Corporatewide?

[19] A Yes.

[20] Q Mr. Wheeler and Mr. Garrett, what, if any, other
 [21] plants did they become familiar with?

[22] A Any of them that had a problem. Wheeler
 handled

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[1] the air aspect of our stacks and Garrett handled the solid
 [2] and water.

[3] Q Solid waste?

[4] A Yes. When I say "handled," I think I should
 [5] explain that he made himself knowledgeable about what
 the

[6] plants were doing. Back in 1952 or '53, the executive
 [7] committee told the medical department that they should
 [8] keep monitor what the plant was doing. That didn't
 mean

[9] that we would go down and police the outflow of the
 Queeny

[10] Plant and see that they were doing all right, but just on
 [11] any new construction or any new remodeling of plant or
 a

[12] new plant entirely, we would look over the blueprints
 and

[13] see what, in our opinion, adequate attention was paid to
 [14] the disposal problem.

[15] Q When you say "disposal problem," what kind of
 [16] disposal?

[17] A Air, water, solids.

[18] Q Waste disposal?

[19] A Waste disposal.

[20] Q And you talk about reviewing blueprints. These
 [21] are blueprints for construction or renovation?

[22] MR. MC CONNELL: Object to leading.

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[1] THE WITNESS: Yes. Maybe not the blueprints
 [2] but -

[3] BY MR. BRAY:

[4] Q Would you describe what the blueprints were.

[5] A It was sort of a flow sheet. It wasn't - it

[6] didn't show the size of piping and everything else, but it
 [7] would show what raw materials came into the plant,
 what we
 [8] did with the raw materials and what we took off to sell
 [9] and what we did with the waste.
 [10] Prior to that time, considerably prior to that
 [11] time, there may be at the end of the flow sheet an arrow
 [12] pointing to sewer. Well, that was not a satisfactory
 [13] method of treating, so before any appropriation could be
 [14] made, the medical department had to report to the
 [15] executive committee that there was adequate handling of
 [16] any wastes. We were really supposed to monitor and refer
 [17] to the executive committee rather than police the
 [18] day-to-day activities of the plants.
 [19] Q And the purpose of your review of the
 [20] blueprints, what precisely was that?
 [21] A It really wasn't blueprints. It was flow
 [22] sheets.

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[1] Q Flow sheet. The purpose of the review of the
 [2] flow sheets by the medical department was what?
 [3] A Was, A, to see that they had given satisfactory
 [4] concern to the problem of waste disposal, to see that in
 [5] our opinion, the engineering controls were such that they
 [6] reflected the state-of-the-art procedures for waste
 [7] disposal.
 [8] Q And that was 1952 or 1953 that started?
 [9] A I think so, yes.
 [10] Q With respect to carrying out that function that
 [11] you've just described, did Mr. Garrett and Mr. Wheeler
 [12] continue to have a division of responsibilities as between
 [13] them?
 [14] A Yes.
 [15] Q And what was that division?
 [16] A You mean the division - Wheeler had air and
 [17] Garrett had water and solids.
 [18] Q And Mr. Garrett had once been at the Texas City
 [19] plant for a period of time; is that correct?
 [20] MR. MC CONNELL: Object to leading.
 [21] THE WITNESS: That's correct.
 [22] BY MR. SARFATTI:

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[1] Q You said?
 [2] A Yes, I think for about two years.
 [3] Q Two years?
 [4] MR. MC CONNELL: Object to leading.
 [5] MR. BRAY: Didn't hear that, Dick. I'm having
 [6] trouble hearing the answer after the objection.
 [7] MR. MC CONNELL: You keep asking the question.
 [8] MR. BRAY: Subject to that objection -
 [9] THE WITNESS: I didn't hear the objection.
 [10] BY MR. BRAY:
 [11] Q What was your answer for how long had he been at
 [12] the Texas City plant?
 [13] A Two years, one or two years, I thought.
 [14] Q With respect to the experience that Monsanto had
 [15] during the period that you were the medical director, did
 [16] Monsanto always have problem-free handling of its
 [17] chemicals, products and materials?
 [18] A Did it always have "problem-free handling" - I
 [19] don't know what you mean by that.
 [20] Q In your experience as the medical director, did
 [21] any problems arise at Monsanto plants with respect to
 [22] these products and materials?

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[1] A During the course of manufacture or during the
 [2] course of shipping or what?
 [3] Q During the course of your entire career.
 [4] A Well, problems related to what, to the workers,
 [5] to the customers?
 [6] Q Well, let's take them one at a time.
 [7] A Sure, we had a couple bad explosions. I mean,
 [8] one was not primarily related to the product. We had a
 [9] French ship loaded with ammonium nitrate that was
 parked

[10] at a public dock, which was right next to our Texas City
 [11] plant, that blew up and killed 500 people, of whom
 about
 [12] 140 or 150 were Monsanto workers who were standing
 out on
 [13] the dock watching the fire.
 [14] Q When did that happen?
 [15] A '46 or '47.
 [16] Q At Texas City?
 [17] A At Texas City.
 [18] Q And right at the plant at Texas City?
 [19] A It was right - right next to it.
 [20] Q What role did you have in dealing with that
 [21] episode, that explosion?
 [22] A Well, I went down there to see that our workers

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[1] were getting adequate care, and they had a whole raft of
 [2] people that came down from St. Louis. Edgar Queeny
 came
 [3] down. Bill Rand, who was the president at that time, he
 [4] was CEO at that time, I think, he came down. The
 [5] insurance section came down. We had people there from
 [6] Liberty Mutual who handled the sort of - the problems
 of
 [7] the workers who were killed and the workers who were
 [8] injured.
 [9] I think before they did any claims work, they
 [10] gave each of the families, advanced them some
 thousands of
 [11] dollars because they didn't have any wage or anything
 [12] else. And all of a sudden, they go to work in the
 [13] morning, and that's the last they see of them. So Liberty
 [14] was responsible for the workmen's compensations
 coverage.
 [15] So they were very close. That was not a problem of our
 [16] plant manufacturing. It was just like if an earthquake
 [17] happened outside the front door. It was an explosion or
 a
 [18] meteorite hit.
 [19] Q It was a ship that exploded nearby, near the
 [20] plant?
 [21] MR. MC CONNELL: Objection. Leading.
 [22] THE WITNESS: 50 feet.

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[1] BY MR. BRAY:
 [2] Q And you said it was a French ship?
 [3] MR. MC CONNELL: Object to leading.
 [4] THE WITNESS: Yes. There were two ships. The
 [5] Grande Camp was the first one; it was loaded with
 ammonium
 [6] nitrate, which was thought of to be just a fertilizer. It
 [7] wasn't ammonium nitrate either, but then they found out it
 [8] was an explosive. In fact, it's used as a lining as an
 [9] explosive as well as a fertilizer.
 [10] And there was a second ship that didn't have as
 [11] much on it, the High Flyer, that blew up about six hours
 [12] later. I don't think the cause of the fire was ever
 [13] ascertained.
 [14] BY MR. BRAY:
 [15] Q Cause of what fire?
 [16] A Either one, the explosion was proceeded by a
 [17] fire. The ship was burning for four or five hours, and
 [18] that's why the fatality rate was so high. Everybody in
 [19] the town and everybody in the plant who wasn't tied to
 a
 [20] particular job was out on the dock watching the fire.
 [21] Q And you saw the plant afterwards?
 [22] A Yes.

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[1] Q What did it do to the plant?
 [2] A Plenty. The plant is like an oil refinery.
 [3] It's got all these fluids at elevated temperatures inside
 [4] the pipes, and volatile material and pieces of burning
 [5] ship came down and broke the pipes. It was almost like
 [6] good-size shrapnel hitting the plant and started
 numerous

[7] fires at the plant that kept burning for about 24 hours
 [8] also. It was quite a disaster.
 [9] Q What did it do to the materials that were being
 [10] used at the plant?
 [11] A They burned. They ignited and there was so
 [12] many holes - so many pipes were broken, they didn't have
 [13] enough valves to shut off all the flows of material.
 [14] Q How soon after the explosion did you go down
 [15] there?
 [16] A I got in between the two of them. I was there
 [17] after the first one. I guess I was there about five
 [18] hours. I was in Oakridge, Tennessee, which wasn't too
 [19] far. They sent a plane down and I went down to Texas
 [20] City
 [21] and while I was going through the plant, I went out to
 [22] plant after the first explosion. They tried to talk me
 out of going and I said, there's nothing in this plant to

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[1] explode now. I just finished saying that when the
 second
 [2] ship blew up. So I'd say about five to six hours after
 [3] the explosion I was there.
 [4] Q You mentioned that many people were injured.
 [5] Did you visit patients?
 [6] A Oh, yes. There were several - oh, we used every
 [7] hospital down there, not only we, but the townsfolk of
 [8] Texas City. There was a large University of Texas at
 [9] Galveston. They had a large hospital. And then there
 [10] was a Catholic hospital. I don't know which name that was,
 [11] and that had just opened a new ward. It didn't really
 [12] have the lighting in, but they had beds anyway. Then
 [13] there was some at an Army hospital. They took them to
 [14] any of 15 - or about 10 different hospitals in and around
 [15] Galveston.
 [16] Q And on your visits to these hospitals, do you
 [17] recall making any determinations about safety at Monsanto?
 [18] MR. MANTA: Objection. Leading.
 [19] MR. MC CONNELL: Objection. Leading.
 [20] MR. BRAY: Let me rephrase that.
 [21] BY MR. BRAY:
 [22] Q Who visited the patients at the hospital?

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[1] A I did with some of our nurses from St. Louis. I
 [2] know that I went around with Edgar Queeny and Bill
 Rand to
 [3] some of the hospitals. He was very solicitous about the
 [4] workers and of course, the hospitals. I think they
 [5] collected \$500,000 from them for a burn ward. And
 [6] St. Mary's Hospital was not quite as - I guess St. Mary's
 [7] was a Catholic hospital. They collected \$50,000, not for
 [8] fees, but just to establish a - I guess, also an emergency
 [9] ward.
 [10] Q You mentioned Bill Rand. Who was Bill Rand?
 [11] A He was the president. I think he was the CEO at
 [12] that time.
 [13] Q After this disaster at Texas City, the
 [14] explosion, what did Monsanto do with respect to repair or
 [15] rebuilding of the plant?
 [16] A Oh, they rebuilt it certainly, but they really
 [17] couldn't add much in the line of safety with the
 exception
 [18] of moving the dock, which wasn't theirs. I mean, this
 was
 [19] an act of God. It was entirely outside our responsibility
 [20] or purview. We couldn't do anything about what they
 [21] parked, what they docked along that pier.
 [22] Q Aside from an event like this, the Texas City

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[1] explosion, during your career as medical director at
 [2] Monsanto, did you have problems with particular products
 [3] at Monsanto?

[4] A Yes. We had a product called
 [5] para-aminobiphenyl, PAB, which was used as an
 antioxidant
 [6] rubber, especially tires. This had been manufactured for
 [7] 30 years. We were the only manufacturer in the United
 [8] States. And I don't know who was manufacturing in
 [9] ex-U.S.A., but there was nothing in the literature that it
 [10] had been manufactured just by us. And it turned out
 that
 [11] this was a bladder carcinogen, and that was a very sad
 [12] situation.
 [13] Q How many years after the manufacture began was
 [14] it determined that this was a bladder carcinogen?
 [15] MR. MANTA: Objection.
 [16] THE WITNESS: 25 or 30.
 [17] BY MR. BRAY:
 [18] Q Where was it manufactured?
 [19] A The raw material was manufactured at Queeny
 [20] Plant, that's the plant in St. Louis. It was then - some
 [21] of it, a small amount was sent over to the East St. Louis
 [22] plant, called the Krummrich plant. And the majority of
 it

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[1] was sent to Nitro, West Virginia where it was made into
 [2] the antioxidant which was sold to the tire manufacturers.
 [3] Q You say antioxidant?
 [4] A Antioxidant.
 [5] Q What is that?
 [6] A It prevents the tire from deteriorating because
 [7] of oxygen.
 [8] Q So this is a material which Monsanto would sell
 [9] in chemical form to another manufacturer?
 [10] A To Firestone, for example, and they would mix it
 [11] in and make a tire out of it.
 [12] Q When was the problem with this product - which
 [13] I'll refer to as PAB, if that's acceptable - when was the
 [14] problem discovered?
 [15] A Well, I think you have to differentiate with
 [16] percent when the suspicion occurred and when were we 100
 percent
 [17] sure that that was the cause of it. I would say that in
 [18] the early '50s, we were suspicious of it because we had a
 [19] couple of confusing cases at Nitro. And it was only after
 [20] we found a case that developed in the urine in this man,
 [21] it was a safety man at Nitro, and he did not have a great
 [22] deal of exposure there. But in checking his work record.

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[1] we found out he had worked in St. Louis in the
 manufacture
 [2] of the first stage of manufacturing the antioxidant.
 [3] So then we developed - we had thought that - we
 [4] started examining the people at the Queeny Plant. The
 [5] examination is a cystoscopic examination which takes a
 [6] little doing to talk to people into getting it done
 [7] because it's painful. And we had the first 20 people we
 [8] examined at Queeny, we didn't find anybody with a
 cancer.
 [9] Q And these 20 people, had they been exposed as
 [10] workers?
 [11] A Oh, yes. We started off with the people working
 [12] in the plant right now. And this was a department
 where
 [13] people worked a long time. There wasn't a big turnover.
 [14] Then we - after the second batch, about the second 20 or
 [15] 30, we found four cases. At first we believed that these
 [16] cases were due to the exposure at an earlier time. There
 [17] was a latent period of cancer, and we thought that in the
 [18] early days, it was pretty crude operations, just before I
 [19] got there. But even in 1936 when I got in there, it was a
 [20] pretty crude operation.
 [21] So then we tried to police the area, clean it up
 [22] and did - developed methods for finding out the
 material

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[1] in the air, developed methods for finding out whether
 [2] material was present on the railings of the steps of the

[3] department. Made quite a number of improvements. So we
 [4] thought, we've got this material - this problem licked.
 [5] We developed reagents that you could spray on the
 [6] equipment and if there was any PAB out there that turned
 [7] red, and we weren't getting any, but we also developed a
 [8] method for analyzing for PAB metabolites in the urine.
 [9] And we were finding that, and we weren't finding any in
 [10] the air. We weren't finding any in the railings. So -
 [11] *Q What conclusion would you draw from that?*
 [12] A Well, it looked like we were doing everything we
 [13] could but the fellows were still getting material into
 [14] them because it showed up in the metabolites.
 [15] *Q By the urine samples?*
 [16] A Yes. Of course, if you ran an air sample, you
 [17] aren't running it 24 hours a day. I mean, the same thing,
 [18] if a person is packing a pump, you put everything on them,
 [19] all the protective material you have, but you still - you
 [20] still get it.
 [21] So we decided we have to get out of this. They
 [22] said that the Europeans were manufacturing a similar

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[1] compound that was proven to be a bladder carcinogen.
 So I
 [2] went over to Germany and went to a couple of their plants,
 [3] and contrary to their statements, they were still getting
 [4] tumors. So I said, we've got to get out of this business
 [5] and so there was no argument from management. They got
 [6] out.
 [7] *Q And what was the significance of this product to*
 [8] *Monsanto at the time?*
 [9] A I think it was their biggest profit maker at
 [10] that time. It was a pretty significant product.
 [11] *Q When Monsanto decided to get out of this*
 [12] *product - I take it, "get out," you mean stop*
 [13] *manufacturing it?*
 [14] A Yes.
 [15] *Q Did other companies make similar or comparable*
 [16] *products?*
 [17] A Yes. Some of them did. I know one very large
 [18] company did, and they had even an air-conditioned plant,
 [19] and they had air-conditioned locker rooms. They had a
 [20] pass-through room where the fellows take off their work
 [21] clothes, take a shower and put on their regular clothes.
 [22] So they thought they had the problem whipped,

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[1] too, but they ended up getting out of the business, year,
 [2] year and a half - I don't know how long afterwards they
 [3] got out of the business also. This was not PAB, it was
 [4] alpha-naphthylamine, which was a beta-naphthylamine, which
 [5] is sort of a kindred product to it.
 [6] *Q What problem did it cause?*
 [7] A Same thing, bladder tumors.
 [8] *Q When you referred to a product like this as a*
 [9] *carcinogen, would you describe briefly what you mean.*
 [10] A Yes. A carcinogen is something that in
 [11] sufficient dose will cause cancer in either an animal or a
 [12] human.
 [13] *Q In a case of PAB, when you talked about having*
 [14] *the problem whipped, I take it, you don't mean that the*
 [15] *PAB no longer was a carcinogen?*
 [16] A No, but the manner in which we used it was such
 [17] that we did not think they were getting sufficient
 [18] exposure to cause cancer. It still had an inherent
 [19] property of causing cancer. You couldn't change that.
 [20] *Q During the course of the suspicion or the*
 [21] *determinations with respect to the carcinogenic property*
 [22] *of PAB, what, if any, disclosure was made by Monsanto to*

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[1] *state officials or other regulators?*
 [2] A Well, first we told all our workers. Second, we
 [3] talked to the state people. We went down to West Virginia
 [4] and we talked to them months or weeks after we made our
 [5] mind up that this is very probably causing cancers. We
 [6] talked to our insurance companies. We talked to Liberty
 [7] Mutual. They came down and analyzed the situation with
 [8] us. We talked to our customers. I went to the medical
 [9] directors of the big three rubber places, Firestone,
 [10] Goodrich and Goodyear and said here's what we're getting.
 [11] We're getting a, bladder tumors in our workers. And I
 [12] know in England the vast majority of bladder cancers were
 [13] caused in the tire industry. You better look and see your
 [14] people and check them out to be sure they're not getting
 [15] cancers. So they did and they found out fortunately, that
 [16] it didn't carry over into the tire manufacturing.
 [17] *Q It did not carry over?*
 [18] A Did not. You know, you're asking me about all
 [19] the problems. After all, we had 55 plants, and we were
 [20] working there for 30 years with sales of several billion.
 [21] So it wasn't all problems. You asked me for the big
 [22] ones.

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[1] MR. BRAY: We'll mark as - you can mark these
 [2] Kelly Exhibit 1 as opposed to just Exhibit 1. That's what
 [3] we've done in other instances of depositions on video
 [4] after there's been an earlier deposition, simply to
 [5] distinguish the nomenclature that the exhibits marked here
 [6] from exhibits on the other one. That -
 [7] MR. MANTA: I think the deposition exhibits are
 [8] marked Kelly 1, Kelly 2, et cetera.
 [9] MR. BRAY: Are they marked Kelly 1 and 2 on the
 [10] discovery deposition?
 [11] MR. MC CONNELL: Why don't we go off the record
 [12] for a minute and check that. Do you got it, Joe?
 [13] MR. MANTA: Yes.
 [14] VIDEO OPERATOR: We're off the record at 11:54.
 [15] (Discussion off the record.)
 [16] (Kelly Exhibit V-1 identified.)
 [17] BY MR. BRAY:
 [18] *Q Dr. Kelly, I've handed you what's been marked as*
 [19] *Exhibit Kelly V-1 and ask you if you've had an opportunity*
 [20] *to take a look at that document.*
 [21] A Yes, I have.
 [22] *Q Are you familiar with that memorandum?*

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[1] A Yes, I am.
 [2] *Q And this refers to a meeting, does it not?*
 [3] A Yes, it does, meeting of August the 3rd.
 [4] *Q 1962?*
 [5] A Is it '62? Yes. Okay.
 [6] *Q I apologize. The copy is hard to read, but I*
 [7] *believe for most of the things that we may refer to, it's*
 [8] *probably legible. This was a meeting between what*
 [9] *organizations?*
 [10] A Monsanto and Liberty Mutual.
 [11] *Q At the time of the PAB matter that you've just*
 [12] *described, who was the insurance company representing*
 [13] *Monsanto on workmen's compensation and general liability*
 [14] *coverage?*
 [15] MR. MC CONNELL: Objection. No foundation.
 [16] THE WITNESS: Liberty Mutual.
 [17] BY MR. BRAY:
 [18] *Q And that's the group that was at this meeting in*
 [19] *1962?*
 [20] A Yes.
 [21] *Q Were they still your insurer in 1962?*
 [22] A Yes.

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[1] *Q Would you describe with respect to the reference*

[2] in the first paragraph with the heading which appears to
 [3] start with the letters "PAB" or "PAB costs." Do you see
 [4] that on the first page, the first paragraph with the
 [5] heading right below the list of those in attendance?

[6] A Yes, sir.

[7] Q It says "PAB costs"?

[8] A Right.

[9] Q At the time that this meeting occurred, what was
 [10] it that Monsanto and Liberty Mutual were doing with
 [11] respect to the PAB matter?

[12] MR. MANTA: Objection. Lack of foundation.

[13] THE WITNESS: At this time in '62?

[14] BY MR. BRAY:

[15] Q '62, yes.

[16] A Well, of course, we were out of the business in

[17] '62. We still had cases occurring. I had talked to

[18] Liberty Mutual about doing an actuarial study so that
 [19] they

[19] could give me some idea of how many cases we're going
 to

[20] have down the line. And they came out with their best

[21] estimate, which I think fortunately was more pessimistic

[22] than actually happened. We were also continuing our

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[1] investigation to discover new cases. We had also by that

[2] time inaugurated the Pap, p-a-p, state, which would, if

[3] not eliminate it, would lengthen the distances - the time

[4] between cystoscopies. The problem - you've got to

[5] really - you put this person on this program, you

examine

[6] him for the rest of his life, and you don't get the tumors

[7] until pretty much later on in his life.

[8] So he's had 15 negative cystoscopies and about

[9] the time he's coming in - you're talking of examining

him

[10] for the 16th or 17th, he's a little reluctant. He says

[11] look, I've been doing fine up to now, why do I keep on

[12] doing this?

[13] Q How did this Pap smear test come about?

[14] A A fellow from England was doing it and he came

[15] over. He was with ICI, I believe, over in England, and

he

[16] came over - I guess I had corresponded with him or

[17] something before, and he said he was doing this in his

[18] workers in clinical medicine, Pap is used a great deal,

[19] obviously, in vaginal and cervical carcinoma.

[20] It's used a great deal in sputum and lung

[21] carcinoma but it never was used much in urinary

carcinoma

[22] because - well, you didn't get much of a - if one in

every

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[1] 2000 men over 60 develop a cancer in the bladder,
 whether

[2] they've never even heard of a chemical institution or not,

[3] just take a routine Pap state on people with no
 symptoms.

[4] it doesn't do you any good. You don't find it, but they

[5] were concentrating the material, and here we had a

group

[6] that we knew were - if anybody was getting cancer,
 these

[7] people were liable to. So we thought it would be a good

[8] idea to run these Pap states.

[9] Well, it did help, but you couldn't be sure.

[10] You'd run two or three negatives. We ran those every

six

[11] months. Pardon me. So instead of checking a fellow

every

[12] year for a cystoscopic, we might just check him every

two

[13] years and save him half the bother. So it wasn't a

[14] definite - it didn't definitely eliminate the need for

[15] cystoscopies, but it certainly prolonged the interval

[16] between them. If the person were really adamant about

not

[17] getting cystoscopies, we did feel a little safer running a
 [18] Pap on them.

[19] Q Who developed the Pap technique?

[20] A Who? I think it was a question of this English
 [21] outfit plus Sloan-Kettering in New York. That was our
 [22] consultant. We went up there to Sloan-Kettering
 Hospital.

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[1] and they developed as far as we were concerned. We
 sent

[2] our technician up there to learn the system and it worked

[3] out real well.

[4] Q It proved to be effective?

[5] A Yes, with those boundaries, that it was

[6] effective - we found some that had not been found on
 the

[7] last cystoscopic. So we were happy about it, but with
 the

[8] provision that you weren't home-free if you just had

[9] negative Paps. You had to have somebody look at the

[10] bladder every once in a while.

[11] So we did them both, but on people who had been

[12] examined- for 20 years and were negative all the time,
 we

[13] were able to rely on Paps fairly strongly to examine these

[14] people every five years or something like that.

[15] Q With respect to Liberty Mutual and its role in

[16] monitoring or studying this PAB problem, how long had

[17] Liberty Mutual at the time of this meeting been involved

[18] in the PAB problem at Monsanto?

[19] MR. MANTA: Objection. Leading.

[20] THE WITNESS: I would say since several weeks

[21] after we were. I mean, we told them as soon as we found

[22] out that we were getting these cases, and they came down

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[1] and looked over our departments with our engineers - with

[2] our industrial hygienists.

[3] I went around to - we didn't go to Nitro because

[4] they didn't insure Nitro, but we went to the Queeny Plant

[5] and the Krummrich plant. Then we -

[6] BY MR. BRAY:

[7] Q What access were they permitted to the plant

[8] areas that were involved in the PAB problem?

[9] MR. MANTA: Objection. Lack of foundation.

[10] THE WITNESS: All of it. They may have gone to

[11] Nitro, i'm not sure, just for their own information, but

[12] they were not covering the Nitro employees. That was a

[13] state fund.

[14] Oh, by the way, you asked me about government

[15] people. We obviously told the Missouri compensation

[16] board, and we went to the department in - I don't know

[17] what they called it, but it was a compensation department

[18] at Nitro. We talked to their Paul Halley, who was their

[19] administrator in charge, and we told him, here's what we

[20] got, here's what we're doing, and that's how we told

[21] them. I don't think we told anybody in the federal

[22] government at that particular time. We wrote the material

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[1] up in journals for the medical profession.

[2] Q Actually published articles describing the
 [3] problem?

[4] A Yes.

[5] Q With respect to the aftermath after Monsanto

[6] decided to stop manufacturing PABs, what became of the

[7] technology for making PABs?

[8] A I think they threw it in the wastebasket. A

[9] couple of people tried to buy it. They wanted to go and

[10] manufacture the material themselves, and we said, heck,
 if

[11] we can't make this safe, nobody else can. We're not
 going

[12] to be a partner before the fact, and we won't sell it to

[13] you.

[14] Q So did Monsanto decline to sell the technology

[15] to these people?

[16] A Yes.

[17] MR. MANTA: Objection.
 [18] MR. MC CONNELL: Object to form.
 [19] BY MR. BRAY:
 [20] Q Since that time - what year was this Monsanto
 [21] stopped manufacturing PABs?
 [22] A '55, I think.

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[1] Q Since that time, has Monsanto ever manufactured
 [2] PABs again?
 [3] A Never.
 [4] Q Do you recall what, if anything, was the
 [5] reaction of the Monsanto customers to Monsanto's decision
 [6] to stop manufacturing PABs?
 [7] A I don't think they were very enthusiastic about
 [8] it. There were substitutes - not Monsanto products that
 [9] were substitutes but they obviously didn't work as well,
 [10] and I guess they used the phenyl beta-naphthylamine for
 [11] while. And I understand in the common market, they
 [12] still
 [13] are manufacturing beta-naphthylamine, which is a
 [14] companion
 [15] product - not a companion, but a neighboring product.
 [16] But it's not allowed into the country they
 [17] sold - there is no bladder carcinogen present in tires or
 [18] in the rubber material in the United States.
 [19] Q During the course of the decisionmaking that
 [20] you've described about investigating PABs and worker
 [21] health and the decision ultimately to stop manufacturing
 [22] it, did you remain in regular consultation with the
 [23] Liberty Mutual representatives about what Monsanto was
 [24] doing and planning to do?

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[1] MR. MC CONNELL: Object to form. Object to
 [2] leading.
 [3] THE WITNESS: Well, I'm sure I did. I'm not too
 [4] familiar with the details. Certainly they knew we were
 [5] getting out of the business. I mean, I don't know if I
 [6] told them or who told them, but they knew we were getting
 [7] out.
 [8] BY MR. BRAY:
 [9] Q Do you recall what, if anything, was Liberty
 [10] Mutual's reaction to the progress that Monsanto was making
 [11] in handling and resolving this problem?
 [12] MR. MC CONNELL: Object to form. Object to
 [13] leading.
 [14] MR. MANTA: Objection.
 [15] THE WITNESS: To the best of my knowledge, they
 [16] were agreeable in what we were doing. They never at any
 [17] time during the whole problem had any suggestions about
 [18] what should be done in the process or the environment or
 [19] the protection of the men. They never had any suggestions
 [20] as to how we should handle the detection and treatment of
 [21] the individual cases. And they seemed to think we were on
 [22] the right track. We had a nasty problem. We were

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[1] handling it the best anyone could.
 [2] BY MR. BRAY:
 [3] Q Referring to the second page of Kelly Exhibit
 [4] V-1, the last paragraph with the heading "loss
 [5] prevention," do you see that paragraph?
 [6] A Yes.
 [7] Q It makes a reference to - it seems to be another
 [8] subject, a detergent ingredient. Do you see that?
 [9] A Yes. That's when they were manufacturing
 [10] detergent for Proctor & Gamble. And there was an
 [11] enzyme
 [12] in the detergent and it gave workers a lot of asthma. I
 [13] don't know if this is that one. This refers to -
 [14] Q With respect to that subject, this paragraph
 [15] says - if I can read the last paragraph, it's a little
 [16] hard to read so if you'll indulge me, I'll read it aloud,
 [17] if you can follow along and see if that's what it appears
 [18] to say.
 [19] The last sentence of that paragraph says "It was
 [20] agreed that this exploratory inquiry would require the

[20] certification and cooperation of Monsanto's legal,
 [21] medical, treasury and research representatives as well as
 [22] representatives of those Liberty Mutual departments who

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[1] have knowledge of the causes and prevention of liability
 [2] losses, including representatives of our research
 [3] center."
 [4] Do you see that?
 [5] A Yes.
 [6] Q And the memo is written by Leslie Lancaster. Do
 [7] you know who he was?
 [8] A Yes. He was the head of the St. Louis office of
 [9] Liberty Mutual.
 [10] Q I take it "our research center" refers to
 [11] Liberty Mutual's research center?
 [12] A That's correct, sir.
 [13] MR. MC CONNELL: Objection to leading.
 [14] MR. MANTA: Objection.
 [15] BY MR. BRAY:
 [16] Q Is that your understanding?
 [17] A Yes.
 [18] MR. MC CONNELL: Object to leading.
 [19] BY MR. BRAY:
 [20] Q Do you know whether Liberty Mutual had a
 [21] research center?
 [22] A Not in St. Louis, but they did in Boston.

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[1] Q What is loss prevention?
 [2] A Just what it says. They want to keep losses
 [3] down for their policyholders and incidentally for
 [4] themselves so they don't pay out money on losses, and I
 [5] think it's the phrase that carriers use very much in
 [6] seeking new business, that they have an active group of
 [7] scientists who are trying to help the policyholder in any
 [8] way they can and by scientific expertise. Liberty had a
 [9] whole group of these people.
 [10] MR. MANTA: Objection. Move to strike.
 [11] Nonresponsive.
 [12] BY MR. BRAY:
 [13] Q What loss prevention services did Liberty Mutual
 [14] provide for Monsanto while you were medical director?
 [15] A Gosh, one time they spent six months at the
 [16] behest of Liberty Mutual and our Mr. Rand, the
 [17] president,
 [18] they sent a couple of their task force out with our safety
 [19] and industrial hygiene people.
 [20] And as I said, they spent - went all the way
 [21] through all our plants. They spent up to five days in
 [22] some of the plants. They ended up with a report of
 [23] about
 [24] that big (indicating) at the end of this six months in

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[1] which they made all sorts of suggestions, both from the
 [2] industrial hygiene and the safety aspect.
 [3] Q What was Monsanto's response to the suggestions
 [4] Liberty Mutual made?
 [5] A Oh, we're happy to have them. I mean, I think
 [6] some we agreed with and some maybe we didn't agree
 [7] with.
 [8] I don't know, I don't know that - I can't differentiate
 [9] them right now which was which, but they were happy
 [10] to
 [11] have them. Here we are, we get a bunch of high grade
 [12] professionals for free.
 [13] Q What was Monsanto's policy with respect to
 [14] permitting access on the part of Liberty Mutual to all
 [15] these plants?
 [16] MR. MANTA: Objection. Lack of foundation.
 [17] THE WITNESS: Well, Wheeler went around with
 [18] them and according to Wheeler, there was no problem at
 [19] all, and I never saw any correspondence that there was any
 [20] problem with Liberty Mutual having access. Certainly,
 [21] this was a previous time when I went around with Chuck
 [22] Williams. We walked in the front door and said hello to
 [23] the plant manager, and he said let me know what you
 [24] want.

[22] We went around like we were all Monsanto employees.

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[1] BY MR. BRAY:
 [2] Q Who was Chuck Williams?
 [3] A He was a PhD who was the head of their - I
 [4] guess he was a top scientist in their loss prevention
 [5] group from the standpoint of industrial hygiene that was
 [6] from the standpoint of getting your hand caught in a
 gear
 [7] or something like that.
 [8] Q And he was somebody you personally dealt with?
 [9] A Yes.
 [10] Q During the course of your dealings with
 [11] Mr. Williams, did he request information from you about
 [12] Monsanto plants or products?
 [13] A Did he what?
 [14] Q Did he request information from you about
 [15] Monsanto plants or products?
 [16] A Oh, sure, but we went into a plant and he was -
 [17] not only me but the plant manager, the manufacturing
 [18] superintendent who I knew vaguely what they were - all
 the
 [19] products they had, but he would get the information
 right
 [20] from the plant manager of the individual plant.
 [21] Q And what was Monsanto's response when
 [22] Mr. Williams would ask for information?

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[1] MR. MANTA: Objection. Lack of foundation.
 [2] THE WITNESS: Here it is. You want this? Here
 [3] it is.
 [4] BY MR. BRAY:
 [5] Q This exhibit, Kelly Exhibit V-1 on page 2, the
 [6] paragraph right above the one relating to loss prevention
 [7] refers to some cases, Connors and Ames Nursery case, onion
 [8] cases, parathion destruction of fish in Alabama.
 [9] Do you see that paragraph?
 [10] A Which paragraph is this?
 [11] MR. MC CONNELL: Object to form.
 [12] BY MR. BRAY:
 [13] Q Do you see that paragraph?
 [14] A Which one is it?
 [15] Q The paragraph right above the last paragraph on
 [16] page 2, the paragraph that has a very difficult to read
 [17] caption.
 [18] A The sentence that starts "All outstanding cases
 [19] in which suits have been filed were reviewed," is that
 [20] it?
 [21] Q Yes.
 [22] A Okay.

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[1] Q And the last sentence of that paragraph states
 [2] and I think I can read it, "It was agreed that the recent
 [3] experience has been adverse and contrary to that of some
 [4] years back, but it was also agreed that Monsanto's
 [5] operations and products have created and will continue to
 [6] create serious loss potential of considerable magnitude."
 [7] Do you see that?
 [8] A Yes.
 [9] Q Was that based on information obtained by
 [10] Liberty Mutual during loss prevention inspections?
 [11] MR. MANTA: Objection. Lack of foundation.
 [12] THE WITNESS: I don't know.
 [13] BY MR. BRAY:
 [14] Q During your dealings with Dr. Williams, Chuck
 [15] Williams, did Dr. Williams appreciate the loss potential
 [16] of Monsanto products and operations?
 [17] MR. MANTA: Objection. Lack of foundation.
 [18] THE WITNESS: I don't know. I mean, he's been
 [19] in that business for around 20 years at that time, and he
 [20] was a scientist, and he was - I think if anybody knew it,
 [21] he would because he had been around there and he was an
 [22] experienced insurance professional. I feel quite sure he

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[1] did, but he never talked to me about saying hey, you got a
 [2] big problem here. I don't recall that.

[3] MR. BRAY: Could we take the opportunity to take
 [4] a lunch break at this point?
 [5] MR. MC CONNELL: That's fine.
 [6] THE WITNESS: It's okay with me.
 [7] MR. BRAY: Come back in roughly an hour.
 [8] MR. MC CONNELL: Sure.
 [9] MS. SCHIFFER: Are we off the record?
 [10] MR. BRAY: We'll probably just be here, so if
 [11] you want to come back and we're assembling earlier, that's
 [12] fine. If you get back and I'm not right here, don't wait
 [13] around, just have somebody buzz me, but we'll be back no
 [14] later than an hour.
 [15] MS. SCHIFFER: Are we off the record?
 [16] VIDEO OPERATOR: Do you want to go off now?
 [17] MR. BRAY: Go off.
 [18] VIDEO OPERATOR: We're off the record at
 [19] 12:24 p.m.
 [20] (Whereupon, at 12:24 p.m., the deposition was
 [21] recessed, to be reconvened at 1:24 p.m. this same day.)
 [22]

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[1] AFTERNOON SESSION (1:34 p.m.)
 [2] Whereupon,
 [3] R. EMMET KELLY
 [4] resumed the stand and, having been previously duly sworn,
 [5] was examined and testified further as follows:
 [6] VIDEO OPERATOR: We're back on the record at
 [7] approximately 1:34 p.m.
 [8] MS. SCHIFFER: I'm Lois Schiffer, counsel for
 [9] certain underwriters of Lloyd's of London.
 [10] EXAMINATION (Continued)
 [11] BY MR. BRAY:
 [12] Q Dr. Kelly, before our break, we spoke briefly
 [13] about inspections of Monsanto plants by representatives of
 [14] Liberty Mutual in connection with something called loss
 [15] prevention. Do you recall that?
 [16] A Yes, I do.
 [17] Q What is an industrial hygiene inspection?
 [18] A An industrial hygiene inspection is - takes one
 [19] of two forms. One is what is called a walkthrough
 [20] inspection in which he attempts to ascertain whether any
 [21] hazardous air conditions occur, either gaseous or
 [22] particulate. He does this by smelling, by seeing the

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[1] presence of dust and watching the operations that a
 [2] worker - the operations he goes through and what
 exposure
 [3] he has.
 [4] The other type is supplemented by air analysis
 [5] itself, actual analysis of the air. He does that by
 [6] various instruments which draw a measured quantity of
 air
 [7] through a solid pickup or filter paper pickup, the dust or
 [8] contaminant in the air. And from there, he makes a
 [9] judgment as to whether or not the hazardous condition
 [10] exists to the worker.
 [11] Q What, if any, role did Liberty Mutual
 [12] representatives play in industrial hygiene inspections at
 [13] Monsanto plants?
 [14] MR. MANTA: Objection.
 [15] THE WITNESS: Quite a bit in the early days.
 [16] They had an industrial hygienist and we didn't have any.
 [17] And later on they would go around with Elmer Wheeler
 when
 [18] we had an industrial hygienist and supplement his work.
 [19] BY MR. BRAY:
 [20] Q Do you know how many various Monsanto plants
 [21] Liberty Mutual participated in industrial hygiene
 [22] inspections of?

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[1] MR. MANTA: Objection. No foundation.
 [2] THE WITNESS: I don't know. I know my own
 [3] knowledge what Williams and I went to at least five. I
 [4] don't know how many he went to with Wheeler. Of course,
 [5] in that big six months Steely went to all we had at that
 [6] time and I don't know whether we had 30, 35 plants.

[7] BY MR. BRAY:
 [8] Q Do you recall what, if any, complaints or
 [9] criticisms or recommendations came from Liberty Mutual
 [10] after such inspections?
 [11] A I don't recall the details at this present time.
 [12] Q Do you recall what their overall level of
 [13] complaint or criticism of Monsanto was?
 [14] A No.
 [15] MR. MANTA: Objection. Speculation.
 [16] THE WITNESS: No. I don't believe he had any
 [17] particular complaints about the character of the
 [18] environment in our various plants.
 [19] BY MR. BRAY:
 [20] Q During the period of time when these inspections
 [21] occurred, which I think you've indicated was in the area
 [22] of the early 1950s -

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[1] MR. MC CONNELL: Objection to form. Object to
 [2] leading.
 [3] MR. MANTA: Objection.
 [4] THE WITNESS: That was the first ones. There
 [5] was others later that there were at several different
 [6] times.
 [7] BY MR. BRAY:
 [8] Q Referring to the period of the early 1950s, what
 [9] was Monsanto's management's policy and attitude with
 [10] respect to environmental safety relating to matters like
 [11] industrial hygiene with respect to its plants?
 [12] MR. MC CONNELL: Object to form. No foundation.
 [13] THE WITNESS: Well, it was we want to operate
 [14] safe plants. We're not going to harm any of our workers.
 [15] We're not going to harm anybody outside the fence by
 [16] discharges of hazardous materials that aren't taken care
 [17] of.
 [18] BY MR. BRAY:
 [19] Q By "outside the fence," what do you mean?
 [20] A The periphery of our plants. In other words, if
 [21] we were spraying acid mists on the automobiles parked
 [22] on the street outside our plant, we were going to stop it.

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[1] We didn't want to do that. The same thing would go for
 [2] any other contaminant that might be released from our
 [3] manufacturing operations that could impinge upon the
 [4] neighborhood.
 [5] Q With respect to environmental matters, what role
 [6] did the medical department play and when did it begin to
 [7] assume duties with respect to what you would call
 [8] environmental matters?
 [9] MR. MC CONNELL: Object to form. Object to
 [10] leading.
 [11] THE WITNESS: You lost me on that second part of
 [12] the question, Mr. Bray.
 [13] BY MR. BRAY:
 [14] Q When did the medical department begin to play a
 [15] role with respect to environmental matters?
 [16] MR. MC CONNELL: Object to form. Object to
 [17] leading.
 [18] MR. MANTA: Objection. It's also unclear.
 [19] MR. BRAY: I'll be glad to rephrase it.
 [20] BY MR. BRAY:
 [21] Q Was there a time when the medical department
 [22] began to play a role with respect to environmental

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[1] matters?
 [2] A Well, I know -
 [3] MR. MANTA: Objection, still unclear.
 [4] MR. MC CONNELL: Object.
 [5] THE WITNESS: I know in 1952 we were given
 [6] authority, responsibility for playing a role. I'm not too
 [7] familiar with our role in the years before 1952. That was
 [8] what, 40 years ago.
 [9] BY MR. BRAY:
 [10] Q At least in 1952 you began?
 [11] MR. MC CONNELL: Object to leading.
 [12] THE WITNESS: Yes, we were doing it then, yes.

[13] BY MR. BRAY:
 [14] Q Other than Mr. Garrett and Mr. Wheeler, were
 [15] other individuals involved in that environmental work?
 [16] A Well, it depends on the time frame. I mean, in
 [17] 1970, Papageorge was the point man for environmental
 [18] work. In the other years, earlier years, plants had their
 [19] own - some had their own industrial hygienist, some of
 [20] their own research people in our fluorine operations. We
 [21] had plant people go out and sample vegetation around the
 [22] plant.

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[1] Q What was the division of functions as between
 [2] the central medical department and the plants with respect
 [3] to environmental matters?
 [4] MR. MC CONNELL: Object to form.
 [5] MR. MANTA: Objection. Still not clear.
 [6] THE WITNESS: The plants were responsible for
 [7] the day-to-day operation of waste disposal, and they were
 [8] also responsible for the documentation of the amount of
 [9] environmental contamination that could result from air
 [10] streams being liberated. This is especially true at our
 [11] plant in Columbia, Tennessee and in Soda Springs, Idaho
 [12] where we had fluoride emissions.
 [13] BY MR. BRAY:
 [14] Q Who was in charge of policy with respect to
 [15] environmental matters?
 [16] A I guess the executive committee - I don't mean
 [17] guess. I think the answer is the executive committee.
 [18] I'm not guessing about it.
 [19] Q Who did the executive committee deal with in
 [20] conveying policy directives?
 [21] A To the vice presidents in charge of the
 [22] individual divisions which had control over the plants.

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[1] Q Was it part of your function to become familiar
 [2] with what those policy directives were?
 [3] A Yes. I knew what they were.
 [4] Q During the period of time - and I'll ask you a
 [5] couple of different periods of time - in the 1950s, what
 [6] policy directives relating to the environment did you have
 [7] occasion to become personally involved in, that is
 [8] personally dealing with?
 [9] A Well, when you say "personally," members of the
 [10] department were more concerned personally than I was.
 [11] Wheeler and Garrett were, although I was familiar with
 [12] it, they reported to me.
 [13] We had the directive from the executive
 [14] committee that I've talked about before, that the medical
 [15] department was held responsible for monitoring the
 [16] treatment of effluents from the plant to be certain that
 [17] they were handled in the state-of-the-art manner and
 [18] although we weren't supposed to police them every day,
 [19] we looked over the flow sheets to be sure that the
 [20] consideration was paid to those particular potential
 [21] problems.
 [22] Q Who did police them every day, if anyone?

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[1] A I beg your pardon?
 [2] Q Who did police them every day, if anyone?
 [3] A Oh, the plants police them themselves.
 [4] Q Were Mr. Wheeler or Mr. Garrett in regular
 [5] contact with plants?
 [6] A Yes.
 [7] MR. MANTA: Objection.
 [8] BY MR. BRAY:
 [9] Q And they reported to you with respect to
 [10] environmental matters that they were dealing with?
 [11] A That's correct.
 [12] Q You in turn reported to the executive committee?
 [13] A That's correct. We had a monthly report we had
 [14] to send to the executive committee. Later that was made
 [15] a quarterly report in which one of the sections was

[16] environmental control.

[17] Q Did you have occasion from time to time in your
[18] work as medical director to attend meetings together with
[19] the representatives of Liberty Mutual Insurance Company at
[20] which environmental matters were discussed?

[21] MR. MANTA: Objection.

[22] THE WITNESS: Yes, I did.

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[1] BY MR. BRAY:

[2] Q Do you remember how often, how regular those
[3] meetings were?

[4] A It wasn't regular. It was certainly irregular,
[5] and I can think of three or four specific times when it
[6] wasn't once a month, once in six months. I think

Wheeler

[7] and Garrett did more of that than I but I know I did on
[8] some occasions.

[9] Q Did they attend the meetings that you attended
[10] with Liberty?

[11] A I can't be 100 percent sure of that. I don't
[12] know.

[13] Q Do you recall Liberty Mutual expressing any
[14] attitudes, approval, disapproval, complaint or criticism,
[15] of Monsanto's policies and dealings with respect to
[16] environmental matters when you were medical director?

[17] MR. MC CONNELL: Object to form.

[18] MR. MANTA: Objection. Foundation.

[19] THE WITNESS: I don't recall any criticisms. My
[20] general impression is that they were approving the manner
[21] in which we operated.

[22] BY MR. BRAY:

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[1] Q During the course of your tenure as medical
[2] director of Monsanto, what, if any, complaints do you
[3] recall hearing from Liberty Mutual regarding access or
[4] lack of access to Monsanto plants?

[5] MR. MANTA: Objection. Leading. No foundation.

[6] THE WITNESS: Well, that's a confusing question
[7] because there were no complaints as far as access is
[8] concerned. If they were let in, there would be no
[9] complaints. And lack of access, I may have seen an
[10] occasional memorandum that there may have been a wait
[11] until they got a clearance or a confidentiality report.

[12] But by and large, I don't recall any problem
[13] with access to any of our plants by Liberty Mutual
[14] people. There certainly were no complaints made to me.

[15] BY MR. BRAY:

[16] Q The subject of waste disposal is involved in
[17] this lawsuit in which this deposition is being taken,
[18] Dr. Kelly, in particular, waste disposal at the Texas City
[19] plant of Monsanto. From the standpoint of the medical
[20] department, who was most directly involved in the matter
[21] of waste disposal at the Texas City plant?

[22] A Garrett.

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[1] Q And for what period of years?

[2] A As long as he was with us. I guess later on in
[3] the - when we get up to around the '70s, the Texas
[4] people,
[5] the Texas division had enough expertise and personnel of
[6] their own that they handled it but I know Garrett was
[7] involved all the way through as long as I was with
[8] Monsanto.

[9] Q Did Mr. Garrett report to you with any
[10] regularity about the waste disposal procedures being
[11] followed at Texas City?

[12] A Yes, he did.

[13] Q Do you know what was done with so-called tars or
[14] still bottoms at the Texas City plant?

[15] A Yes. Some were sold to a recycler where they
[16] were trying to reclaim either catalysts or metals from
[17] it. Some was put in the landfills, either in our own
[18] location or at a location of commercial sites.

[19] Q The handling of these tars and still bottoms,
[20] was it reviewed on a regular basis by the medical
[21] department people?

[21] MR. MC CONNELL: Objection. No foundation.

[22] MR. MANTA: Objection.

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[1] THE WITNESS: I don't believe it was, no, sir.

[2] BY MR. BRAY:

[3] Q Was it reviewed by the plant people?

[4] A Yes.

[5] MR. MC CONNELL: Objection. Foundation.

[6] BY MR. BRAY:

[7] Q To what extent did Mr. Garrett become involved
[8] in any decisions with respect to specific waste disposal
[9] at the Texas City plant?

[10] MR. MC CONNELL: Objection. Foundation.

[11] THE WITNESS: I don't think I could detail that.

[12] Mr. Bray.

[13] BY MR. BRAY:

[14] Q Did you personally have occasion to visit the
[15] waste disposal facilities at the Texas City plant?

[16] A No, I did not.

[17] Q Did Mr. Garrett?

[18] A Yes, he did.

[19] MR. MC CONNELL: Objection. Foundation.

[20] BY MR. BRAY:

[21] Q How about Mr. Wheeler? What, if any, role did
[22] he have with respect to waste disposal at the Texas City

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[1] plant?

[2] A Not a great deal. They didn't have much of an
[3] air pollution problem because they flared most of their
[4] off gases, and Wheeler's specialty, as it were, was air
[5] emissions so Garrett by far had a major role in Texas
[6] City, in waste disposal from the medical point of view.

[7] Q Did the methods of disposal of tars at the Texas
[8] City plant; that is, the landfilling of tars, was that
[9] something that came to your attention when you were head
[10] of the medical department?

[11] A Yes, it was.

[12] Q Was that something approved by the medical
[13] department?

[14] MR. MC CONNELL: Objections. Foundation.

[15] THE WITNESS: Yes, it was.

[16] BY MR. BRAY:

[17] Q What were your reasons?

[18] MR. MC CONNELL: Objection. Foundation.

[19] THE WITNESS: Well, I was told by Wheeler and
[20] Garrett that this was the type of operation that was used
[21] throughout that part of Texas, that the type of clay used
[22] for landfills was such that it did not allow leaching. It

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[1] did not allow filtering through the bottoms because the
[2] clay was more or less impervious. It was a very good
[3] liner at the bottom.

[4] It was a plan that was approved by the state of
[5] Texas and the water control commission or whatever the
[6] term was, people who had authority over licensing or
[7] approving the disposal of wastes. All these people - all
[8] these reasons were such that I considered it an up-to-date
[9] method of disposal.

[10] BY MR. BRAY:

[11] Q With respect to materials being placed in soil,
[12] referring to the area in the 19 - period of time in the
[13] 1950s, do you recall what the prevalent beliefs were with
[14] respect to the ultimate fate of materials that were placed
[15] in soil, clay landfills?

[16] MR. MC CONNELL: Object to form. Object. No
[17] foundation.

[18] MR. MANTA: Also, it calls for speculation.

[19] THE WITNESS: Yes. There's a certain amount of
[20] biologic degradation, and there was a certain amount of
[21] the stuff just stayed there.

[22] BY MR. BRAY:

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[1] Q Stayed where?

[2] A In the landfill, in the form in which it was
[3] dumped in.

[4] Q And what do you mean by biological degradation?

[5] MR. MC CONNELL: Objection. Foundation.
 [6] THE WITNESS: Bacteria chew up of these tars,
 [7] bring them down to a less complex form that bears little
 [8] or no relationship to the material that was already put in
 [9] - that was put in at the start of the landfill.
 [10] BY MR. BRAY:
 [11] Q What does that mean in the case of so-called
 [12] toxic material that's put in the landfill and goes through
 [13] this process?
 [14] MR. MC CONNELL: Objection. No foundation.
 [15] Object to form.
 [16] THE WITNESS: What does it mean?
 [17] BY MR. BRAY:
 [18] Q What does it mean in relation to the toxicity of
 [19] the material that's put into a landfill and thereafter
 [20] undergoes this biodegradation biological degradation?
 [21] A It lessens the toxicity.
 [22] MR. MC CONNELL: Same objections. Same

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[1] objections.
 [2] BY MR. BRAY:
 [3] Q Would you repeat the answer subject to the
 [4] objections?
 [5] A It lessens the toxicity.
 [6] Q And again, referring to the 1950s, what do you
 [7] recall was the belief with respect to the traveling, the
 [8] transport of materials that are put into a pit?
 [9] MR. MC CONNELL: Object to form. No foundation.
 [10] MR. MANTA: Calls for speculation.
 [11] THE WITNESS: You're talking about the transfer
 [12] out of the pit?
 [13] BY MR. BRAY:
 [14] Q Yes.
 [15] A Not the hauling of the stuff and dumping in the
 [16] pit.
 [17] Q Yes.
 [18] A Well, I believe that it didn't leak out, that it
 [19] didn't leach through, that it didn't filter through and it
 [20] was in there for keeps.
 [21] Q Did that belief change in the 1960s?
 [22] MR. MC CONNELL: Objection to form. No

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[1] foundation.
 [2] MR. MANTA: Objection.
 [3] THE WITNESS: Well, I think it changed because
 [4] of the increase in the analytical skill. In other words,
 [5] where we were looking for one part per million, we could
 [6] find up to 1 part per trillion so that there would be
 [7] traces of a material that we might be able to find in the
 [8] '60s and '70s that we did not find in the '50s - '40s and
 [9] '50s because of the improvement in analytical skills.
 [10] BY MR. BRAY:
 [11] Q How about the 1970s, do you recall whether those
 [12] beliefs changed in the 1970s?
 [13] MR. MC CONNELL: Objection to form. No
 [14] foundation. Calls for speculation.
 [15] THE WITNESS: Probably went up to the
 [16] quadrillions or something like that. The analytical
 [17] parameters were just expanding all the time. They were
 [18] finding smaller amounts. They were capable of finding
 [19] smaller amounts as the years went on.
 [20] BY MR. BRAY:
 [21] Q During the time that Monsanto was disposing of
 [22] solid wastes to landfills at Texas City, do you recall

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[1] whether Monsanto's policy approved or disapproved of such
 [2] disposal methods?
 [3] A No. We approved of it. I mean, we went along
 [4] with the state. The state approved of it. The state
 [5] authorized it. They licensed it. We went along with
 [6] them.
 [7] MR. MC CONNELL: Move to strike as
 [8] nonresponsive.
 [9] BY MR. BRAY:
 [10] Q Do you know whether the policy at Monsanto with
 [11] respect to approving disposal in that fashion was

[12] consistent or inconsistent with the prevalent practice
 [13] throughout industry?
 [14] MR. MC CONNELL: Objection. No foundation.
 [15] Object to form.
 [16] MR. MANTA: Calls for speculation.
 [17] THE WITNESS: It was consistent with the
 [18] prevalent practice; in fact, there were probably a
 [19] thousand of such landfills in that same area near Texas
 [20] City where we had our values, same stratum of Beaumont
 [21] clay, and they all did the same thing. That was, as I
 [22] said, the state-of-the-art procedure.

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[1] VIDEO OPERATOR: This is the end of video
 [2] cassette number 1 of the deposition of R. Emmet Kelly.
 [3] We're off the record at approximately 1:58 p.m.
 [4] (Discussion off the record.)
 [5] (Recess.)
 [6] VIDEO OPERATOR: This is the beginning of
 [7] videocassette number 2 of the deposition of R. Emmet
 [8] Kelly. We're back on the record at approximately 2:03
 [9] p.m.
 [10] BY MR. BRAY:
 [11] Q Dr. Kelly, are you familiar with styrene tars?
 [12] A Oh, I know what they are physically. I don't
 [13] know the chemistry involved in the mixtures. It's a
 [14] mixture of various compounds. It varies at times
 [15] according to the way the styrene plant ran.
 [16] Q Did they have such tars as part of the process
 [17] or a result of the process at the Texas City plant?
 [18] A Yes, they did.
 [19] Q Do you know whether these tars were part of the
 [20] waste disposed of at the Texas City plant?
 [21] A Yes, they were.
 [22] Q And do you know how they were disposed of?

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[1] A Well, I think the majority went to a landfill.
 [2] I do not know if some were sent to a reclaimer or recycler
 [3] or not. But the vast majority of the material went to a
 [4] landfill.
 [5] Q What was the conclusion or position of the
 [6] medical department at Monsanto with respect to the
 [7] appropriateness of that method of disposal of styrene
 [8] tars?
 [9] MR. MC CONNELL: Objection. No foundation.
 [10] THE WITNESS: We thought it was an adequate,
 [11] sufficient and state-of-the-art method of disposal.
 [12] BY MR. BRAY:
 [13] Q What can you tell us about the toxicity of
 [14] styrene tars?
 [15] A Not too much. From the acute point of view, it
 [16] was a moderately toxic compound. We didn't have any
 [17] information from the long-term point of view of the
 [18] material, the chronic toxicity. There was not anything in
 [19] the literature about it because, as I said, the styrene
 [20] tars varied composition almost from batch to batch.
 [21] Q When you talk about "from the acute point of
 [22] view," what do you mean, toxicity from the acute point of

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[1] view?
 [2] A Well, what happens if you're loading up one of
 [3] these dumpsters to go into a landfill and you spill it
 [4] over yourself, what harm is liable to occur to you?
 [5] That's the acute toxicity. Chronic is what happens if you
 [6] get a little bit of it on you or breathe it every day for
 [7] six or eight months or a year?
 [8] Q What did happen if you spilled it on you when
 [9] you were loading it into a truck?
 [10] A It was an irritating compound. Conceivably with
 [11] an LD 50 of about 1 or 2 grams per kilo if you've got
 [12] enough on you, you could get sick from it. It could be
 [13] harmful.
 [14] Q And what were the health effects to anyone of
 [15] putting it in a landfill?
 [16] MR. MC CONNELL: Objection. No foundation.
 [17] Calls for speculation.
 [18] THE WITNESS: Nothing if you didn't get a large

[19] amount on you. But that's why you wore the protective
 [20] garments.
 [21] BY MR. BRAY:
 [22] *Q Are you familiar with vinyl chloride monomer*

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[1] tars?
 [2] A Just about the same fashion as I was of the
 [3] styrene tars.
 [4] *Q Were they a residue or a part of the process at*
 [5] *the Texas City plant?*
 [6] A Yes, they were.
 [7] *Q And do you know how they were disposed of?*
 [8] MR. MC CONNELL: Objection. No foundation.
 [9] THE WITNESS: Well, a certain percent went to a
 [10] recycler or reclaimer and again, a large amount went to a
 [11] landfill.
 [12] BY MR. BRAY:
 [13] *Q What was the opinion of the medical department*
 [14] *at Monsanto with respect to the appropriateness of that*
 [15] *method of disposing of vinyl chloride monomer tars?*
 [16] MR. MC CONNELL: Objection. No foundation.
 [17] Object to form.
 [18] THE WITNESS: Our opinion was that it was the
 [19] acknowledged method for disposing of it in a landfill was
 [20] approved - the landfill operation was approved by the
 [21] state of Texas, so we were satisfied that that was an
 [22] adequate method of disposing. It was used by. I'd say

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[1] literally hundreds - dozens of chemical plants along that
 [2] area.
 [3] BY MR. BRAY:
 [4] *Q And what was the acute toxicity of vinyl*
 [5] *chloride monomer tars?*
 [6] A Pretty close to styrene. I think they were six
 [7] of one and half-dozen of the other.
 [8] *Q Were there other materials at the Texas City*
 [9] *plant that were disposed of in the landfill area, to your*
 [10] *knowledge?*
 [11] A Yes. There were cyanide compounds that were
 [12] disposed of. There were - there was acetylene soot
 [13] which was disposed of there. Gosh, there was - I'm sure in
 [14] any chemical operation you have a certain amount. You
 [15] don't recycle everything. You don't use up everything you put
 [16] in the kettle.
 [17] So almost every operation had some material that
 [18] eventually was not used in the plant and was disposed of
 [19] but I think I've given you the major ones right there.
 [20] *Q And with respect to those other compounds, what*
 [21] *was the opinion of the medical department with respect to*
 [22] *the appropriateness of disposing of them in landfills?*

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[1] MR. MC CONNELL: Objection. No foundation.
 [2] Object to form.
 [3] THE WITNESS: I didn't hear the objection.
 [4] MR. MC CONNELL: I objected on the grounds of
 [5] both foundation and form.
 [6] BY MR. BRAY:
 [7] *Q You may answer.*
 [8] A In the opinion of the medical department, that
 [9] was a satisfactory and up-to-date proved method of
 [10] disposing of those other methods.
 [11] *Q What was the toxicity of those other chemicals*
 [12] *in the acute stage and chronic stage?*
 [13] MR. MC CONNELL: Object to form.
 [14] MR. BRAY: Take it one at a time.
 [15] BY MR. BRAY:
 [16] *Q What was the toxicity of those chemicals?*
 [17] MR. MANTA: Mr. Bray - I'm sorry.
 [18] MR. BRAY: Start up again and then pause.
 [19] MR. MANTA: My reason was to avoid that, just to
 [20] be clear, as we had with Wayne, make sure that an
 [21] objection for one is an objection for all so we don't all
 [22] have to chime in.

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[1] MR. BRAY: Oh, sure.
 [2] MR. MC CONNELL: That's in the case management
 [3] order.
 [4] MR. BRAY: That we can always do and if it
 [5] isn't, I certainly subscribe to it.
 [6] BY MR. BRAY:
 [7] *Q What was the toxicity in terms of chronic*
 [8] *exposure of these other chemicals, taking first the -*
 [9] A Oh, I don't think the -
 [10] *Q - the hydrogen cyanide compound?*
 [11] A That really wasn't investigated. I don't think
 [12] anybody was concerned about - not concerned - but
 [13] anybody
 [14] was interested in developing the chronic toxicity of
 [15] cyanide because whatever action the cyanides had was an
 [16] acute one and you were not getting a little bit of it
 [17] every day, you got enough either from the acute point of
 [18] view to cause symptoms or even fatalities.
 [19] Whether or not the cyanide was in a form of
 [20] complex in this landfill that showed all the - it didn't
 [21] show the acute testing - it didn't show the acute toxicity
 [22] that one would - one would expect from plain hydrogen
 cyanide.

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[1] As far as the soot was concerned, there was
 [2] always this considerable talk about the material based on
 [3] analogy to carbon blacket. I think Liberty Mutual helped
 [4] us on that, too. It was the consensus of both our people
 [5] and the Liberty people, and I think the government
 [6] people
 [7] also, that the acetylene soot was not a carcinogen,
 [8] per se, and we felt that the disposal in which we handled
 [9] it was adequate and safe.
 [10] MR. MC CONNELL: I'm going to object to the last
 [11] part of his answer as nonresponsive and move to strike
 [12] it.
 [13] (Kelly Exhibits V-2 and V-3 identified.)
 [14] VIDEO OPERATOR: We're off the record at
 [15] 2:15 p.m.
 [16] (Discussion off the record.)
 [17] VIDEO OPERATOR: We're back on the record at
 [18] approximately 2:17 p.m.
 [19] BY MR. BRAY:
 [20] *Q Dr. Kelly, you referred to some dealings with*
 [21] *Liberty Mutual with respect to the subject of acetylene*
 [22] *soot and I've handed you what's been marked as Kelly*
Exhibit V-2 and ask you if you can identify that document?

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[1] A Yes, I can.
 [2] *Q What is it?*
 [3] A It's a document from Mr. Garrett of our
 [4] department to Mr. Joseph Houghton of Liberty Mutual
 [5] Insurance Company, dated December the 8th, 1958.
 [6] MR. MANTA: Object on the grounds of
 [7] foundation. The document is not addressed to, authored by
 [8] or copied to the witness.
 [9] BY MR. BRAY:
 [10] *Q And what is the subject of this document?*
 [11] A The subject is the characterization of acetylene
 [12] soot to see if any laboratory work needs to be done on it
 [13] to determine if there's any particular soot - any
 [14] particular hazard with the soot.
 [15] *Q Do you recall having discussions with Liberty*
 [16] *Mutual in or around 1958 on the subject of acetylene soot?*
 [17] A Vaguely, Mr. Bray, but I don't remember the
 [18] details at the present time.
 [19] *Q I see the carbonees on this document are a*
 [20] *number of people at the Texas City. They're identified as*
 [21] *Texas City. Do you see that?*
 [22] A Eckert was the plant manager. John Fox was the

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[1] sort of research/industrial hygienist/ safety man.
 [2] Gilmore was the head of the safety department. Seton
 [3] Hunter was head of the research department. I don't
 [4] remember who the last three are, Rotzler, Schatz or

[5] Putnam.
 [6] Q Do you recognize those names as people employed
 [7] at the Texas City plant?
 [8] A Except the last three. I don't know anything
 [9] about them.
 [10] Q Do you have a recollection that there were
 [11] consultations between Liberty Mutual and Monsanto's
 [12] medical department with respect to the acetylene soot?
 [13] A Yes, there were.
 [14] Q Do you remember what the purpose of those
 [15] consultations was?
 [16] A Well, to find out what Monsanto knew about it so
 [17] that we could come to a definite opinion, is this
 [18] hazardous material or not?
 [19] Q Do you recall whether it was a suspected
 [20] carcinogen in or around 1958?
 [21] A By some people it was. I saw a recommendation -
 [22] a memorandum that I remember that somebody from
 Dow or

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[1] Carbide or somebody believed that some of their people
 [2] thought it may be a carcinogen. I never saw any
 [3] evidence
 [4] for it, though.
 [5] Q And I think we have shown you another document
 [6] marked Kelly Exhibit V-3 and ask you if you can identify
 [7] that document.
 [8] A That's a memorandum from M.L. Owens, Jr.,
 [9] whom I
 [10] do not know, at Texas City to R.J. Schatz at Texas City,
 [11] whom I do not know, and a copy was sent to Garrett.
 Also
 [12] talking about Department 18 soot, which I presume is the
 [13] acetylene soot.
 [14] Q There's a reference in this memo to a B.L.
 [15] Williams. Do you know who he was?
 [16] A Yes. He was head of the central research
 [17] department in St. Louis.
 [18] Q And it says he talked with Joe Houghton. Do you
 [19] know who he was?
 [20] A Liberty Mutual. He was one of their scientists.
 [21] Q Do you recall what, if any, conclusions were
 [22] reached as a result of these consultations with Liberty
 Mutual with respect to acetylene soot?
 [23] MR. MANTA: Objection. I think that

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[1] mischaracterizes the document.
 [2] THE WITNESS: Well, I think some of it is pretty
 [3] straightforward. We could ask other acetylene producers
 [4] to determine whether they have satisfied themselves
 [5] concerning the possibility of the material being
 [6] particularly toxic. He also says we could just assume
 [7] that the soot is similar to all the commercial soots.
 [8] They anticipate no problem.
 [9] As I understand it - as I remember it, rather,
 [10] the decision was made that the suspicious of this being
 [11] carcinogenic were never substantiated but due to a - there
 [12] was no reporting of any animal or human carcinogenesis
 [13] after exposure to acetylene soot. And the thinking was
 [14] that this is like lab black soot, which was used in
 [15] millions of pounds throughout the country and not like the
 [16] carbon black, which was people believed may be
 [17] carcinogenic.
 [18] BY MR. BRAY:
 [19] Q Do you recall what, if any, type of exposure was
 [20] suspected as possibly carcinogenic environment for
 [21] acetylene soot?
 [22] A Exposure, I think, was in cleaning out the big

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[1] tall reactors. The soot was left in there, and they had
 [2] to get it out some way, and I don't know if they removed
 [3] it by vacuum or had to manually take out the plates and
 [4] shake the stuff off.
 [5] Q What form of human contact was of concern?
 [6] A Skin and lungs.
 [7] Q As a result of these discussions with Liberty

[8] Mutual, do you know what steps were taken with respect to
 [9] the handling or the exposure of the acetylene soot?
 [10] MR. MANTA: Objection. Mischaracterizes the
 [11] document.
 [12] THE WITNESS: I don't remember.
 [13] BY MR. BRAY:
 [14] Q Do you recall whether acetylene soot continued
 [15] to be present in the materials at the Texas City plant
 [16] after 1958 and 1959?
 [17] A I think it was, but I'm not certain. I think it
 [18] was an integral part of the process.
 [19] Q You mentioned that Jack Garrett was involved in
 [20] this. Do you know whether Jack Garrett performed any
 [21] research with respect to the literature or other type of
 [22] research concerning acetylene soot?

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[1] A I know when he was writing an article on
 [2] chemical carcinogenesis, he did an awful lot of research -
 [3] literature research, not animal research. He did a lot of
 [4] that - I think he mentioned that an article of his is
 [5] acetylene soot, but I know he did, when he was writing
 [6] that article, he spent a lot of time doing research on
 [7] various chemical carcinogens.
 [8] Q Do you recall after these studies in 1958 and
 [9] 1959 whether the medical department at Monsanto adopted
 [10] any different policies with respect to the pit disposal of
 [11] wastes that contained acetylene soot at the Texas City
 [12] plant?
 [13] MR. MC CONNELL: Objection. No foundation.
 [14] MR. BRAY: Let me state it over. I think you
 [15] got in a little early and subject to that objection. I'll
 [16] try to state the same question so you don't have to repeat
 [17] it.
 [18] BY MR. BRAY:
 [19] Q Do you recall whether after these studies in
 [20] 1958 or 1959 whether the medical department at Monsanto
 [21] adopted any different policies with respect to the
 [22] disposal of acetylene soot in landfills at the Texas City

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[1] plant?
 [2] A No, I do not believe we changed any
 [3] recommendations for the disposal of the material.
 [4] Q Dr. Kelly, do you know what PCBs are?
 [5] A Yes.
 [6] Q Did there come a time when Monsanto experienced
 [7] the receipt of information concerning toxicity or hazards
 [8] related to the presence of PCBs in the environment?
 [9] A Yes.
 [10] Q Would you describe what happened.
 [11] A Well, I have to start farther back than that.
 [12] PCBs were a material that was made by the Swann
 Chemical
 [13] Company since the mid-1930s - mid- or early 1930s.
 [14] Monsanto bought the Swann Chemical Company and
 [15] obtained
 [16] the production facilities and the market of PCBs. It was
 [17] originally used as a dielectric in transformers and
 [18] capacitors.
 [19] The Swann Chemical Company had at one time an
 [20] episode of chloracne in their employees before Monsanto
 [21] took over the company. This was traced to an
 [22] off-specification amount of benzene was used in the - to
 make the diphenyl.

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[1] After that was cleared up, Monsanto took it over
 [2] and there was at that time until we stopped
 manufacturing
 [3] the material in '77 - certainly up to '74 that I know of.
 [4] We never had any trouble with our workers. We never
 [5] had
 [6] any trouble with the customers. The material was
 thought
 [7] to be nonbiodegradable. That meant if you got rid of the
 [8] stuff and it leaked into the river, it would lie down at
 [9] the bottom of the river like a lump of coal or a piece of
 [10] gravel.

[10] But then around in 1968 or '69 it was found that
 [11] the material was showing up in the ecosystem, especially
 [12] in Sweden and a person by the name of Swenson,
 [13] S-w-e-n-s-o-n, found it in the environment.
 [14] Well, then later on, a man by the name of
 [15] Riceborough, R-i-c-e-b-o-r-o-u-g-h, in California found it
 [16] in marine animals, birds and fish. Later on it was found
 [17] to be pretty ubiquitous throughout the ecosystem which
 [18] was
 [19] to be expected because we didn't think it was
 [20] biodegradable. But we found out afterwards that it was
 [21] bioaccumulated. In other words, if it went into a body of
 [22] water, the algae would eat it, the protozoa, which is a
 [23] little bigger organism, would eat the algae and they
 [24] would

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[1] increase the concentration of PCBs in the - might be one
 [2] part per million in the algae and it would be in the
 [3] protozoa one part per 100,000. Along comes the shrimp
 [4] and
 [5] eats the protozoa. He concentrates it a little bit more
 [6] and then a mackerel or something eats the shrimp and
 [7] that's more concentrated and finally it's picked up by an
 [8] eagle and the concentration level is very high.
 [9] And we found that it was reported that the
 [10] effect on these birds was such that it disturbed their
 [11] calcium metabolism and they would lay eggs without
 [12] shells
 [13] on them. And when the eagle had sat on the nest,
 [14] obviously, that took care of the eggs without shells.
 [15] So it became quite a problem because here was a
 [16] product that we thought it was sitting down like a lump
 [17] of
 [18] coal at the bottom of a body of water and we found out
 [19] that it's present in the fish and fowl, wild fowl, and it
 [20] was of quite a bit of concern to us. So an awful lot of
 [21] things started happening.
 [22] Q Is this a product that Monsanto invented?
 [23] MR. MC CONNELL: Object to leading.
 [24] THE WITNESS: No. It was a product of GE.
 [25] General Electric invented that had the product as a

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[1] particle or matter. We may have had - I don't think so.
 [2] That happened before I came. I don't know if GE - Swann
 [3] was manufacturing it for GE before Monsanto took over. I
 [4] don't know if Swann had the patents on manufacturing the
 [5] stuff or not but it was GE's patent of the product at
 [6] patent. They had the patent as far as electrical uses
 [7] were concerned.
 [8] BY MR. BRAY:
 [9] Q PCB, is that a product found in nature?
 [10] A No, not unless it's put in there. I mean, there
 [11] are two answers to that. It's found in nature now
 [12] because
 [13] an awful lot has been put in in the last 40 years, but
 [14] it's not a natural product.
 [15] Q And you mentioned that during a period of time
 [16] you never had trouble with workers or customers. What did
 [17] you mean by that?
 [18] A Well, the Swann had this chloracne - Swann
 [19] people had chloracne from this one batch of
 [20] off-specification and when they changed back to their
 [21] original specs, they had no more trouble, so neither
 [22] Monsanto, or neither did General Electric have any
 [23] problem
 [24] with their workers.

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[1] Q Did they monitor their workers medically?
 [2] A I don't know. They looked at them and they
 [3] could tell whether they had chloracne or not.
 [4] Q That's the detectable by sight?
 [5] A Yes.
 [6] Q You mentioned that PCBs were used by Generai
 [7] Electric as a dielectric. What is that?
 [8] A That is a compound that is a coolant for
 [9] electrical apparatus. It does not transmit electricity.

[10] In other words, if you've got a big transformer, you've
 [11] got to dissipate the heat, and you do that by circulating
 [12] PCBs through it. And you can't circulate - you could
 [13] circulate an oil through it that is quite inflammable -
 [14] Q Oil is?
 [15] A Oil is, yes.
 [16] Q How about PCBs?
 [17] A Relatively fire-resistant. So I'll go on with
 [18] my story. When we found out that it was present in the
 [19] environment from getting put in, we decided that we
 [20] didn't
 [21] like this stuff out there harming the falcons and the
 [22] eagles and fish, and we were quite concerned when it got
 [23] into the food chain, especially in game fish.

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[1] So we decided to do our best to cut down the
 [2] amount. We couldn't do anything about what was out
 [3] there
 [4] already, but we first of all, wrote to all our customers
 [5] and asked them to be careful about disposing of the
 [6] stuff. And we decided to stop what would be called
 [7] open
 [8] uses. An open use is different from a closed use, closed
 [9] inside a transformer, inside a pipe. Open is where you
 [10] put in a plasticizer, where you put it in paint, where you
 [11] put it in carbonless carbon paper.
 [12] So we stopped all those uses. And then we
 [13] eventually stopped use of it in closed uses of heat
 [14] transfer. And eventually, then it just retained - it was
 [15] retained in the electrical uses. In fact, the government
 [16] asked us to continue using it because PCBs were used in
 [17] the subways and cars in New York City where a fire
 [18] would
 [19] be pretty disastrous. There was no other fire-resistant
 [20] fluid at that time. It was used in outdoor transformers
 [21] over baseball parks and you couldn't have a transformer
 [22] explode and leaked out burning oil on the people in right
 [23] field, and the government asked us to continue it until a
 [24] substitute product could be found and eventually one
 [25] was
 [26] found.

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[1] It wasn't a Monsanto product, but it was found
 [2] and then when that was found, we said, well, we'll stop
 [3] and get out of it. So we got out in '76 or '77, about a
 [4] year before the government banned it from all uses.
 [5] Q Your description of the termination of the uses,
 [6] you said you stopped manufacturing it for open uses?
 [7] A Selling it.
 [8] Q Selling it for open uses?
 [9] A Open uses, yes.
 [10] Q And that's carbon paper, paint and things of
 [11] that sort?
 [12] A That's correct.
 [13] Q What more specifically do you mean by "closed
 [14] systems," where at that time Monsanto continued to sell
 [15] it?
 [16] A Well, a closed system is where the material does
 [17] not come normally to the outside unless there's a leak in
 [18] a pipe or a weld breaks or something like that. The two
 [19] main areas were heat transfer where you have a closed
 [20] vessel here. You're heating this up. Your pipes go in
 [21] here into flanges or something like that that heats up the
 [22] material you want heated. You didn't want to have this

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[1] big fire out here inside your building so you had the fire
 [2] outside of the building. The heating elements and the
 [3] inside was just hot, PCBs inside pipes.
 [4] A transformer is also a closed system, it's
 [5] sitting out on a pole and unless something happens, gets
 [6] hit by lightning or something, the PCB is inside the tank
 [7] and if there's no exposure, there's no environmental
 [8] contamination. But if it gets hit by lightning and it
 [9] leaks out, you've got contamination, of course.
 [10] Q What were the reasons for continuing to sell it
 [11] in these closed systems while not selling it for the open

[12] uses?

[13] A Well, there were - there's no adequate
[14] substitute for the closed systems. We thought it was
[15] safer. In fact, as I said, the government asked us - the
[16] EPA asked us to continue manufacturing the stuff.

[17] Q During the time Monsanto was initially learning
[18] about the potential problem to the environment from PCBs,
[19] did Monsanto have occasion to consult with its insurance
[20] carrier?

[21] MR. MC CONNELL: Objection. Foundation.

[22] THE WITNESS: Well, yes. They consulted with

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[1] them. Sure, we told them what we were using it for. They
[2] knew what we were using it for and I never saw any
[3] memorandum or I never talked to anybody from Liberty
[4] Mutual who said - Liberty Mutual or Travelers which came
[5] in around that time - don't do this.

[6] BY MR. BRAY:

[7] Q When Monsanto made the decision to stop selling
[8] PCBs for open uses but to continue selling it for these
[9] closed systems, were the insurance companies consulted
[10] about that?

[11] MR. MC CONNELL: Objection. No foundation.

[12] THE WITNESS: I don't know if they were. I
[13] didn't. My impression is, just from sitting around tables
[14] at lunches, that they were told about it. I don't know if
[15] they - you say consulted, did they say should we get out
[16] of it or not. I don't know about that but they certainly
[17] talked to the insurance companies and say we're getting
[18] out.

[19] BY MR. BRAY:

[20] Q Do you recall any claims being asserted against
[21] Monsanto by claimants who allege they were damaged in some
[22] fashion by PCBs manufactured by Monsanto?

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[1] MR. MC CONNELL: Object to form. No
[2] foundation.

[3] THE WITNESS: Not until the last couple of
[4] years. They were none as far as I knew up to 1974.

[5] BY MR. BRAY:

[6] Q Do you recall any discussions with
[7] representatives of Monsanto's insurers about the handling
[8] of those claims?

[9] MR. MC CONNELL: Objection. No foundation.

[10] THE WITNESS: Well, I think I said I didn't have
[11] any until '74 when I resigned. I don't recall any
[12] claims. After 1974 when I was not connected with
[13] Monsanto, I didn't talk to our insurance people, what they
[14] did with the insurance people, the outside carriers.

[15] BY MR. BRAY:

[16] Q With respect to the resolution of so-called PCB
[17] claims, if any, you didn't participate in that?

[18] A That's correct.

[19] Q Do you recall what the reaction of safety or
[20] regulatory officials of government agencies was to
[21] Monsanto's conduct in terminating the sale of PCBs?

[22] MR. MC CONNELL: Object to form.

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[1] THE WITNESS: Yes. They were pretty - they
[2] spoke favorably of it.

[3] (Kelly Exhibit V-4 identified.)

[4] THE WITNESS: Yes, sir, I've read it.

[5] BY MR. BRAY:

[6] Q Dr. Kelly, you mentioned that there came a time
[7] when Travelers became involved with Monsanto. What do you
[8] recall about that?

[9] MR. MC CONNELL: Object to the form.

[10] THE WITNESS: Not too much. Sometime, I think.
[11] in late '70 or early '71 Monsanto changed carriers - I had
[12] nothing to do with that - from Liberty Mutual to
[13] Travelers. We had a third party interjected between
[14] Travelers and Monsanto, that was Marsh & McLennan.
[15] They're presumably the broker - I don't exactly know what
[16] their spot was in this.

[17] But I had meetings with Travelers and Marsh &
[18] McLennan at the time of transfer of carriers was made. I

[19] know that Travelers made loss prevention surveys that were
[20] supposed to get around to all the major plants within the
[21] first six months. I never went on with anybody from
[22] Travelers but I know that Jack Garrett did on some of

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[1] them.

[2] BY MR. BRAY:

[3] Q I've had marked and shown you Kelly Deposition
[4] Exhibit V-4 and ask you if you can identify that letter.

[5] A That's a letter from the vice president of Marsh
[6] & McLennan to Mr. Chapman, our insurance manager at
[7] Monsanto Company, dated March the 1st, '71.

[8] MR. MC CONNELL: I'll object to any use of this
[9] document on lack of foundation, Jack. May I have a
[10] continuing objection on that?

[11] MR. BRAY: Lack of foundation on this document?

[12] MR. MC CONNELL: Yes, sir.

[13] MR. BRAY: Yes.

[14] BY MR. BRAY:

[15] Q And, Dr. Kelly, do you recall having discussions
[16] at the time of the transition from Liberty Mutual to
[17] Travelers about the subject of loss prevention inspections
[18] to be done at Monsanto plants?

[19] A Yes.

[20] Q Do you recall who was to do them?

[21] MR. MC CONNELL: Object to the form. Lack of
[22] foundation.

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[1] THE WITNESS: I think it was a combined team, a
[2] task force from Monsanto and a task force from Travelers.
[3] I don't know if Marsh & McLennan people went along or
[4] not. Garrett - either Garrett or Wheeler would be the
[5] person from Monsanto who went on these visits. I did not
[6] go.

[7] BY MR. BRAY:

[8] Q To whom were reports of such visits to be sent?

[9] A Chapman - the location manager, that would be
[10] the plant manager. Russ Miller, who was corporate
[11] safety,

[12] myself and the loss prevention department of Marsh &
[13] McLennan.

[14] MR. MC CONNELL: Let the record reflect that the
[15] witness has been reading the names from this document,
[16] Kelly V-4.

[17] BY MR. BRAY:

[18] Q Did you receive such reports?

[19] A Yes, I did.

[20] Q Based on the reports you received, did any loss
[21] prevention inspections occur after March 1st, 1971 of
[22] Monsanto plants?

[22] A Yes, they did.

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[1] Q Do you know who participated in them, what
[2] companies, what individuals?

[3] MR. MC CONNELL: Objection. No foundation.

[4] THE WITNESS: What companies?

[5] BY MR. BRAY:

[6] Q What companies or individuals participated in
[7] them?

[8] A I don't know what you mean by "companies."
[9] Travelers and Monsanto and to the best of my

[10] recollection,
[11] Marsh & McLennan, if that's going to be a company, he
[12] was

[13] in there - they were in there. The individuals I don't
[14] remember except that Garrett was in on some of these.

[15] Q Now, you've mentioned in your testimony, a plant
[16] named the Queeny Plant. Is that what used to be Plant A?

[17] A Yes.

[18] MS. SCHIFFER: I'm going to object to testimony
[19] about the Queeny Plant on the basis that this is a
[20] deposition taken with regard to the Trial Group 1 sites,
[21] that is five sites in Texas and Defendants have a right to
[22] examine as to sites other than the Trial Group 1 sites at
[23] a subsequent time. And therefore, examination as to sites
[24] other than the Trial Group 1 sites is beyond the

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[1] appropriate scope of this deposition.
 [2] MR. BRAY: I should say without commenting on
 [3] the predicate for the objection, which I'm not sure we
 [4] agree with the predicate for the objection, but as you
 [5] know, from raising a somewhat similar objection in the
 [6] discovery deposition, that Plaintiff does not agree with
 [7] the position that there is to be subsequent interrogation
 [8] about all other sites by Defendants, that Defendants have
 [9] a right to take subsequent depositions as to all other
 [10] sites, particularly of witnesses being deposed now. I
 [11] think we understand that we're in disagreement on that,
 [12] and I think you disagree and have expressed your
 [13] disagreement with our view.
 [14] MS. SCHIFFER: I do -
 [15] MR. MC CONNELL: Let me simply say we have not
 [16] had adequate discovery on the other sites as a predicate
 [17] for taking depositions regarding the other sites, so we
 [18] stand on our objection.
 [19] MS. SCHIFFER: And let me continue, Mr. Bray. I
 [20] do understand we have a difference of view. I would also
 [21] note that the Queeny Plant is not even in the phase I
 [22] group of sites and while we believe that pursuant to case

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[1] management orders, discovery at this time is limited to
 [2] the Trial Group 1 group of sites for this set of
 [3] witnesses. We note that if any distinction is to be made,
 [4] certainly sites that are beyond the phase I group of sites
 [5] are sites as to which we've had no document - virtually no
 [6] document discovery and would be well beyond the scope of
 [7] any depositions on this document.
 [8] I do understand at least to the phase I sites we
 [9] do have a difference of opinion, and again, so the record
 [10] is clear, it's Defendants' point of view that examination
 [11] is appropriate only as to the Trial Group 1 group, that is
 [12] the five Texas City - the five sites in Texas that are
 [13] part of Trial Group 1 at this time.
 [14] MR. BRAY: And I should probably, just to
 [15] clarify you, your predicate to this objection that this
 [16] exhibit, though it is an inspection of the Queeny Plant,
 [17] that this is used for purposes of discovery with respect
 [18] to the Queeny Plant is not going to prove to be entirely
 [19] accurate. It really relates to other things, perhaps
 [20] certainly to the Queeny Plant because it's mentioned, but
 [21] the particular purpose of this exhibit, I don't want to
 [22] get too elaborate here, but the particular purpose of this

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[1] exhibit is not simply something relating to the Queeny
 [2] Plant.
 [3] MS. SCHIFFER: But my objection stands as to the
 [4] examination.
 [5] MR. BRAY: I understand.
 [6] MS. SCHIFFER: And I would request the same
 [7] right to have a standing objection as to the line of
 [8] questions about this document.
 [9] MR. BRAY: To what, you mean to foundation?
 [10] MS. SCHIFFER: To the use of the -
 [11] MR. MANTA: To the scope -
 [12] MS. SCHIFFER: Let me make my own statement - as
 [13] to the use of - strike that - as to examination based on a
 [14] document which relates to a plant which is not at issue in
 [15] the Trial Group 1.
 [16] MR. BRAY: Because of the Trial Group 1, Trial
 [17] Group 2 and other trial group differentials in discovery.
 [18] MS. SCHIFFER: That is correct.
 [19] MR. BRAY: I think I understand. You may have
 [20] such an objection as may all Defendants.
 [21] MS. SCHIFFER: Thank you.
 [22] MR. MC CONNELL: Jack, may we agree that

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[1] objection is continuing throughout this deposition so we
 [2] don't have to interrupt -
 [3] MR. BRAY: As to this document?
 [4] MR. MC CONNELL: As to the issue about
 [5] questioning on other sites.
 [6] MR. BRAY: No, no. What we're talking about

[7] right now is an objection that's continuing relating to
 [8] the use of this document.
 [9] MR. MC CONNELL: Well, let's break it down.
 [10] then. Are we in agreement that we have a continuing
 [11] objection with respect to this document?
 [12] MR. BRAY: With respect to the -
 [13] MS. SCHIFFER: The examination of it based on
 [14] the fact that it is related to a site beyond the Trial
 [15] Group 1 set of sites.
 [16] MR. BRAY: Meaning the Queeny Plant?
 [17] MS. SCHIFFER: Meaning the Queeny Plant.
 [18] MR. BRAY: Yes.
 [19] MR. MC CONNELL: And that our other objection
 [20] based on the issue of our right to examine this witness
 [21] later on other sites in Trial Group 1 is also in force as
 [22] a continuing objection.

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[1] MR. BRAY: I don't deem that an objection.
 [2] That's simply a disagreement between us that's been
 [3] expressed many times at many depositions and in this one.
 [4] MS. SCHIFFER: And I believe the record is clear
 [5] as to this deposition, that it's Defendants' view that
 [6] this deposition goes to the Trial Group 1 sites and that
 [7] the Defendants have a right to recall the witness as to
 [8] subsequent sites and that we have a disagreement with the
 [9] Plaintiff as to that matter.
 [10] MR. BRAY: Yes, I agree.
 [11] MR. MC CONNELL: While we're talking about this
 [12] document, Jack, I cannot determine that this has been
 [13] designated as one of the potential exhibits to this
 [14] deposition and I therefore object -
 [15] MR. BRAY: You may reserve an objection on that
 [16] ground if you're concerned about that.
 [17] MR. MC CONNELL: Can you point me to any
 [18] designation of this?
 [19] MR. BRAY: Are we resolved on that? It's
 [20] designated?
 [21] MR. MC CONNELL: I'm not sure, but I've stated
 [22] my objection.

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[1] (Kelly Exhibit V-5 identified.)
 [2] BY MR. BRAY:
 [3] *Q Dr. Kelly, do you recall receiving reports*
 [4] *concerning Travelers' inspection of Monsanto plants after*
 [5] *March 1st, 1971?*
 [6] A Yes, I did.
 [7] *Q And when those reports arrived, did you review*
 [8] *them?*
 [9] A Yes, sir. Some did not - in very good depth to
 [10] which I reviewed them, it depended on what the purpose
 [11] of the - of the investigation was. Here this was mostly -
 [12] just what I'm looking at right now was mostly from an
 [13] explosion and fire hazards rather than health hazards.
 [14] *Q And I'd like to direct your attention to page 19*
 [15] *of this document, Exhibit Kelly V-5, where the subject is*
 [16] *the word under lined near the bottom "landfill." Do you*
 [17] *see that?*
 [18] A I'm getting there. Yes, sir.
 [19] *Q The document says "Landfill areas located across*
 [20] *the Mississippi River are used jointly with the Krummrich*
 [21] *plant for the disposal of corrosive and toxic liquids and*
 [22] *solid wastes. This cannot continue much longer because*

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[1] *the state of Illinois is somewhat concerned about this*
 [2] *disposal method. Test wells at the landfill sites do not*
 [3] *reveal contamination. However, when liquids are discarded*
 [4] *in this manner, it is difficult to predict what might*
 [5] *happen."*
 [6] MR. MC CONNELL: Objection. No foundation with
 [7] respect to this document.
 [8] BY MR. BRAY:
 [9] *Q Do you see that?*
 [10] A Yes, I do.
 [11] *Q Do you recall Travelers' loss prevention people*
 [12] *inspecting a landfill at the Krummrich plant?*

[13] MR. MC CONNELL: Objection. No foundation.
[14] THE WITNESS: Yes, I do.
[15] BY MR. BRAY:
[16] *Q In the reports you received from the Travelers'*
[17] *inspections of Monsanto plants, did you see from time to*
[18] *time that the Travelers' people inspected waste disposal*
[19] *locations used by Monsanto plants?*
[20] MR. MC CONNELL: Object to form.
[21] THE WITNESS: Yes, I did.
[22] BY MR. BRAY:

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[1] *Q Do you recall any occasion when representatives*
[2] *of the Travelers contacted you as the medical director of*
[3] *Monsanto and raised objection to the use of landfills as a*
[4] *form of disposal of solid wastes?*
[5] MR. MC CONNELL: Object to form. No foundation.
[6] THE WITNESS: No, sir, I do not recollect this
[7] statement.
[8] BY MR. BRAY:
[9] *Q The beginning of this document, this refers to*
[10] *in the unnumbered first page, the first page just before*
[11] *page numbered 2 -*
[12] MR. MANTA: We're talking about Kelly V-5 now?
[13] MR. BRAY: V-5, yes, "specialist team survey for
[14] Monsanto Company."
[15] THE WITNESS: What am I looking for?
[16] BY MR. BRAY:
[17] *Q It's the page that's labeled "introduction" and*
[18] *it's just prior to page number 2 but it doesn't have a*
[19] *number on it.*
[20] MS. SCHIFFER: For the clarification of the
[21] record, is this page MCO 0033774?
[22] MR. BRAY: It is.

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[1] MR. MC CONNELL: Jack, let me note that I do
[2] have an objection to foundation on this document and I'd
[3] like to have a continuing objection on that ground with
[4] respect to any questioning on this document.
[5] MR. BRAY: Yes, you may.
[6] BY MR. BRAY:
[7] *Q Do you know what a Travelers' chemical*
[8] *specialist is?*
[9] A I guess he's a chemical engineer or chemist
[10] that's knowledgeable about manufacturing processes but
[11] I
[11] don't know any more than that. I've never seen their
[12] definition of what that is.
[13] *Q Do you know what training a Travelers' chemical*
[14] *specialist goes through before conducting loss prevention*
[15] *inspections at a chemical manufacturing plant?*
[16] A No, I don't.
[17] *Q During the course of your dealings with plant*
[18] *environmental activities from and after March 1st, 1971,*
[19] *what, if any, recommendations came to your attention from*
[20] *Travelers' chemical specialists or other loss prevention*
[21] *people concerning changing the practices employed by*
[22] *Monsanto concerning waste disposal at Monsanto plants?*

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[1] A I don't recall any. There may be some of these
[2] in these reports, but that report went to several other
[3] people, and I don't think any of the reports necessitated
[4] comment or action by me.
[5] *Q Dr. Kelly, can I ask you to turn again at this*
[6] *time to page 30 of this report. I'm going to direct your*
[7] *attention up to a portion of the page where there's a*
[8] *heading - the second heading down "ethovan," do you see*
[9] *that, "building C"?*
[10] A I'm just one page away.
[11] *Q Page 30.*
[12] A Yeah, ethovan.
[13] *Q "Ethovan, building C," and in the second line of*
[14] *that paragraph there's a word "nitrobenzene." Do you see*
[15] *that?*
[16] A Yes, sir.
[17] *Q And two lines below that, the last word is*
[18] *"benzene extraction." Do you see that?*

[19] A Yes, sir.
[20] *Q Do you recall receiving reports from Travelers'*
[21] *loss prevention in which specific compounds used by*
[22] *Monsanto at its plants were discussed or evaluated?*

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[1] MR. MC CONNELL: Object to form.
[2] THE WITNESS: Repeat it, Jack.
[3] BY MR. BRAY:
[4] *Q Do you recall receiving reports after March 1,*
[5] *1971 from Travelers concerning loss prevention inspections*
[6] *at which specific compounds used by Monsanto at its plants*
[7] *were discussed or evaluated?*
[8] A No, sir, I don't.
[9] *Q Do you see here there's a reference to*
[10] *"nitrobenzene"?*
[11] A Yes.
[12] *Q As a listed material. Is that compound*
[13] *containing benzene or based on benzene?*
[14] A Yes, sir, it is.
[15] *Q Do you recall receiving any reports from*
[16] *Travelers' loss prevention in which Travelers' chemical*
[17] *specialists made any recommendations to Monsanto with*
[18] *respect to termination of the use of benzene at any of the*
[19] *Monsanto plants?*
[20] A No, I don't remember. We used it in almost
[21] every plant we had.
[22] *Q And down a little further on the same page in a*

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[1] *paragraph headed "toluene sulfonyl chloride," there's a*
[2] *reference to the word "toluene." Is that a material used*
[3] *at Monsanto plants?*
[4] A Yes, it is.
[5] *Q Are benzene and toluene used from time to time*
[6] *at the Texas City plant?*
[7] A Yes, they were.
[8] *Q And were they when you were medical director of*
[9] *Monsanto?*
[10] A Yes.
[11] *Q Were they used there at all times when you were*
[12] *medical director?*
[13] MR. MC CONNELL: Object to leading.
[14] THE WITNESS: Well, I can't be sure. There may
[15] have been times when they were not used but I don't know.
[16] I thought they were used there all the time but there
[17] could have been occasions when they weren't.
[18] BY MR. BRAY:
[19] *Q I'll ask the same question with respect to*
[20] *toluene. Do you recall receiving any reports after March*
[21] *1st, 1971 from Travelers recommending against Monsanto*
[22] *continuing to use toluene at any of its plants?*

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[1] MR. MC CONNELL: Object to form.
[2] THE WITNESS: No, sir, I don't.
[3] BY MR. BRAY:
[4] *Q During the period that you were medical director*
[5] *prior to March 1st, 1971, did you have occasion to consult*
[6] *with representatives of the Monsanto insurance department*
[7] *with respect to what sort of coverage Monsanto had with*
[8] *respect to general liability losses?*
[9] MR. MC CONNELL: Object to form.
[10] THE WITNESS: No, sir, I did not.
[11] BY MR. BRAY:
[12] *Q Did you have occasion to participate in general*
[13] *discussions with respect to that subject?*
[14] MR. MC CONNELL: Object to form.
[15] MR. MANTA: Objection. Unclear.
[16] THE WITNESS: I don't remember such discussions.
[17] BY MR. BRAY:
[18] *Q Who was the head of the insurance department?*
[19] A Chapman was the director. I don't know if the
[20] treasurer, if he reported to the treasurer of the company
[21] or not, I don't know. But Chapman was the individual
[22] that I had thought was the direct head of our insurance

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[1] department, and he was the one that talked to the

[2] carriers.
 [3] Q And with respect to insurance policies
 [4] themselves, did you ever have occasion to sit down and
 [5] read a Monsanto insurance policy?
 [6] A No, not - except on my own life. No casualty
 [7] insurance policy.
 [8] Q With respect to the period from the time you
 [9] started with Monsanto up until March 1st, 1971, did you
 [10] have a belief with respect to whether pollution losses,
 [11] liability, damages incurred by Monsanto were or were not
 [12] covered by insurance?
 [13] MR. MC CONNELL: Object to form. No
 [14] foundation. Calls for speculation.
 [15] THE WITNESS: No. In fact, I was quite sure
 [16] they were covered by our insurance carrier, whichever one
 [17] it was because when we had any problems, I would hear
 [18] about it through our dispensary. He would be saying had a
 [19] bunch of neighbors and they were sprayed on.
 [20] In fact, one Sunday I happened to be down there
 [21] and someone let go and about 110 people came in and I
 know
 [22] I got the names together and reported it to Chapman and I

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[1] understand they were taken care of by the insurance
 [2] people, the insurance carrier. I know that the auto spray
 [3] paints were taken care of by the insurance carrier. I
 [4] know that they were involved with the fluoride exposures
 [5] at Columbia, Tennessee and Soda Springs, so it was my
 [6] impression that all our pollution losses were covered by
 [7] whichever carrier was involved at that particular year.
 [8] Q But it's correct, is it not, that belief is not
 [9] based on any discussions directly with any of the
 [10] insurance carriers?
 [11] A That's correct.
 [12] Q I'll ask the same question after March 1st,
 [13] 1971. Did you have occasion to deal with the insurance
 [14] carriers with respect to the question of whether or not
 [15] there was coverage for so-called pollution losses or
 [16] claims or damage?
 [17] A No, sir, I did not.
 [18] Q Did you ever have any conversations with any of
 [19] the insurance carrier representatives about that subject?
 [20] A I don't recall any. I don't recall what
 [21] happened at that first meeting with the Travelers and
 [22] Marsh & McLennan. I don't know if there were
 discussions

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[1] about their coverage at that time or not. I don't know.
 [2] Q Did you have a belief during the period March 1,
 [3] 1971 and thereafter with respect to whether or not
 [4] Monsanto's pollution losses, damage or claims were or were
 [5] not covered by insurance?
 [6] MR. MC CONNELL: Object to form. No
 [7] foundation. Calls for speculation.
 [8] THE WITNESS: I had the - the impression I had
 [9] was that such losses were covered by our insurance
 [10] policies.
 [11] BY MR. BRAY:
 [12] Q I didn't hear.
 [13] A That our losses were covered -
 [14] Q Were or were not covered?
 [15] A Were covered by our insurance policies.
 [16] Q And what is the basis for your impression?
 [17] A As I said before, we had claims. I would send
 [18] them to Chapman, and I'd never hear any more about it.
 [19] And I'd never hear any complaints from the worker
 whose
 [20] auto was sprayed. And I do know talking to the people
 at
 [21] Columbia, Tennessee that they said such claims were
 taken
 [22] care of by the insurance people, by the insurance

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[1] carriers.
 [2] Q Were those reports made to you in the regular
 [3] course of your work as a medical director at Monsanto?

[4] MR. MC CONNELL: Objection.
 [5] THE WITNESS: No, it was sort of anecdotal. I'd
 [6] be sitting around having lunch with them or we were
 [7] talking about something else and this would come up.
 [8] What's happening down in Columbia, Tennessee and they
 [9] said, well, that's taken care of by the insurance people.
 [10] BY MR. BRAY:
 [11] Q Is it correct also in the period March 1, 1971
 [12] and thereafter that you did not have occasion to sit down
 [13] and read a Monsanto insurance policy relating to general
 [14] liability coverage?
 [15] A That's correct. I did not.
 [16] MR. BRAY: Can we take a break.
 [17] MR. MC CONNELL: Sure.
 [18] VIDEO OPERATOR: We're off the record at
 [19] approximately 3:15 p.m.
 [20] (Recess.)
 [21] VIDEO OPERATOR: We're back on the record at
 [22] approximately 3:34 p.m.

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[1] BY MR. BRAY:
 [2] Q Dr. Kelly, you mentioned that Mr. Wheeler was
 [3] the industrial hygienist whose duties primarily pertained
 [4] to air and water environmental matters, is that correct.
 [5] as among those in the medical department?
 [6] A That's correct.
 [7] Q You also mentioned that in the blueprints or
 [8] flow sheets that the medical department began reviewing in
 [9] the early 1950s at the request of the executive committee.
 [10] that there was occasionally on those blueprints or flow
 [11] sheets an arrow pointing to a sewer?
 [12] MR. MC CONNELL: Objection. Leading.
 [13] BY MR. BRAY:
 [14] Q Is that what you said?
 [15] A Yes.
 [16] Q And what did that mean in terms of the thing you
 [17] were reviewing? What did that convey?
 [18] A Well, it all depends what was in that stream.
 [19] If it was plain water, that's one thing. If there's any
 [20] contaminant in that water or a waste disposal thing that
 [21] was unsatisfactory and no treatment was shown for that
 [22] particular stream, it was just dumped.

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[1] Q Was there a period of time when you - after you
 [2] came to Monsanto when it was common practice to direct
 [3] effluents into public rivers, public streams?
 [4] MR. MC CONNELL: Objection. Leading.
 [5] THE WITNESS: Yes, sir, it was. In fact, I
 [6] would say all industry thought of bodies of water as a
 [7] conduit for waste material.
 [8] BY MR. BRAY:
 [9] Q What was the belief in industry while this
 [10] practice was prevalent concerning the effects of such
 [11] effluents to the body of water, to a river or stream?
 [12] MR. MC CONNELL: Object to form. No
 [13] foundation. Calls for speculation.
 [14] THE WITNESS: They thought that dilution was one
 [15] method of waste disposal. That was in the early times.
 [16] BY MR. BRAY:
 [17] Q What effect was this believed to have on the
 [18] aquatic life in the river to which this effluent went?
 [19] MR. MC CONNELL: Object to form. No
 [20] foundation. Calls for speculation.
 [21] THE WITNESS: It all depends on the size of the
 [22] stream. I think the Mississippi River as it goes by our

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[1] two plants that the flow of that river is so enormous.
 [2] that anything put in there really wouldn't bother the
 [3] fish. There weren't fish kills in the Mississippi River
 [4] that I can remember back in the '40s or '30s.
 [5] BY MR. BRAY:
 [6] Q Were there any names or principles given to
 [7] label this belief?
 [8] MR. MC CONNELL: Objection. No foundation
 [9] MR. MANTA: Leading.
 [10] THE WITNESS: Except dilution was an accepted

[11] form of waste disposal.
 [12] BY MR. BRAY:
 [13] *Q Dilution?*
 [14] *A Dilution.*
 [15] *Q Now, at the time that Monsanto had instances or*
 [16] *plants where there were such effluents, what was the*
 [17] *practice with respect to that subject matter elsewhere in*
 [18] *the chemical industry?*
 [19] *A The same.*
 [20] MR. MANTA: Objection. No foundation.
 [21] BY MR. BRAY:
 [22] *Q And what was the practice with respect to that*

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[1] *same type of disposal in other industries?*
 [2] MR. MC CONNELL: Objection. No foundation.
 [3] Calls for speculation.
 [4] THE WITNESS: Well, I can't speak for all
 [5] industries, but certainly the industries in Cleveland
 [6] where the river caught on fire quite frequently, in those
 [7] days they used the stream as a waste disposal system. I
 [8] forget the name of the river, but in those days, we're
 [9] talking now in the '30s, people used the streams and the
 [10] lakes as a disposal system.
 [11] BY MR. BRAY:
 [12] *Q Was it based on that same belief, dilution?*
 [13] *A Yes, that's correct.*
 [14] MR. MC CONNELL: Objection. No foundation.
 [15] Calls for speculation.
 [16] BY MR. BRAY:
 [17] *Q And what does dilution mean in terms of liquid*
 [18] *disposal of that type?*
 [19] MR. MANTA: Could I have --
 [20] MR. MC CONNELL: Objection.
 [21] MR. MANTA: Excuse me. Could I have a
 [22] clarification, Mr. Bray? You're asking questions without

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[1] any time frame. The witness answered as to the '30s. Are
 [2] we talking about the '30s or some particular other time
 [3] period?
 [4] MR. BRAY: Let me talk about specific time
 [5] periods.
 [6] BY MR. BRAY:
 [7] *Q After you became medical director of Monsanto in*
 [8] *1946, that is, you had been employed earlier, prior to the*
 [9] *war but became medical director in 1946, I'm referring to*
 [10] *that period of time. What was the belief with respect to*
 [11] *the effect of dilution of effluents going into a river?*
 [12] MR. MC CONNELL: Objection. No foundation.
 [13] Calls for speculation. Object to leading.
 [14] BY MR. BRAY:
 [15] *Q What was the belief regarding what happened?*
 [16] MR. MC CONNELL: Same objections.
 [17] THE WITNESS: The common belief in industry was
 [18] that what material was put in there was diluted to such an
 [19] extent by the receiving water that it did not cause any
 [20] problem for aquatic life. That was the thinking. We're
 [21] now back in the time frame of '36 to '42. Before that, I
 [22] knew nothing about it.

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[1] BY MR. BRAY:
 [2] *Q How about the period of 1946?*
 [3] MR. MC CONNELL: Same objections.
 [4] THE WITNESS: '46 on?
 [5] BY MR. BRAY:
 [6] *Q Yes.*
 [7] *A Oh, I think the public and industry and*
 [8] *government became more aware of the problems with*
 [9] *that*
 [10] *particular type of thinking, that they found out that*
 [11] *there was such a large amount of wastes put into these*
 [12] *streams, that dilution wasn't effective anymore.*
 [13] *Q And what happened?*
 [14] *A Some of the rivers were unable to sustain any*
 [15] *fish. Lake Erie was unable to sustain any fish. The*
 [16] *outflow from the city of Cleveland caught on fire, there*
 [17] *was so much oils and things in the river. And people*

[17] changed their thinking, but it was prodded by the state
 [18] governments. The federal government was not involved
 [19] at
 [20] that particular time, but the state departments of
 [21] conservation and other groups were quite adamant about
 [22] continuing it as a process.
 [23] *Q At the time those practices were prevalent in*

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[1] *the period that you mentioned, the '30s and up into the*
 [2] *'40s, what was the belief at Monsanto with respect to*
 [3] *whether that effluent was causing any damage?*
 [4] MR. MC CONNELL: Objection to form. Leading.
 [5] No foundation.
 [6] THE WITNESS: We didn't think it was.
 [7] BY MR. BRAY:
 [8] *Q You mentioned that one of the roles of the*
 [9] *medical department entrusted to it by the executive*
 [10] *committee of the Monsanto board had to do with making*
 [11] *health recommendations that affected capital outlays of*
 [12] *Monsanto; is that correct?*
 [13] MR. MC CONNELL: Objection to form. Leading.
 [14] MR. BRAY: Let me say it over again subject to
 [15] the objection. I think you're chiming in a little bit in
 [16] the question so they're hard to hear.
 [17] MR. MANTA: You know, it might be helpful.
 [18] though, is if the witness could pause a little bit.
 [19] MR. BRAY: That would be helpful as well.
 [20] MR. MC CONNELL: The other thing I'd be glad to
 [21] do, Jack, I know you didn't want to do it this morning,
 [22] but if we want to talk about continuing objections. I'm

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[1] perfectly willing to talk about that.
 [2] MR. BRAY: I'd rather not do that and I'm
 [3] sympathetic to your plight and on occasion, I think it
 [4] sort of cuts off the end of the question so I'm going to
 [5] restate it subject to that objection, but if the witness
 [6] can pause just a bit, too.
 [7] THE WITNESS: I'll do my best to pause.
 [8] MR. BRAY: That might help.
 [9] MR. MC CONNELL: My objection is continuing at
 [10] least as to the question you're about to ask.
 [11] MR. BRAY: Right, right.
 [12] BY MR. BRAY:
 [13] *Q You indicated that one of the duties entrusted*
 [14] *to you in the medical department by the Monsanto executive*
 [15] *committee of the board was making health recommendations*
 [16] *with respect to capital outlays.*
 [17] *A Yes, sir.*
 [18] *Q When such recommendations were made, did they*
 [19] *involve additional cost to be incurred by Monsanto?*
 [20] *A Oh, certainly.*
 [21] *Q Monsanto was a company in the business of*
 [22] *business. What was the attitude of the Monsanto*

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[1] *management to the medical department making*
 [2] *recommendations about capital outlays the effect of which*
 [3] *was going to cost more money?*
 [4] MR. MC CONNELL: Object to form. No
 [5] foundation.
 [6] THE WITNESS: Will you repeat the question.
 [7] MR. MC CONNELL: Is my objection continuing.
 [8] Jack?
 [9] MR. BRAY: Yes, it is for this one.
 [10] BY MR. BRAY:
 [11] *Q In view of the fact that Monsanto was a business*
 [12] *company, what was the attitude of management about the*
 [13] *medical department's making recommendations concerning*
 [14] *health in connection with those capital outlays where the*
 [15] *effect was going to be to cost the company money?*
 [16] *A Well, no company likes to spend money on*
 [17] *unproductive capital. So - but I heard no vetoes. I*
 [18] *remember no vetoes of any such suggestions of mine that*
 [19] *would cause capital improvements. Obviously, I didn't*
 [20] *ask*
 [21] *for a million dollar treatment plant or something like*
 [22] *that or a million dollar dispensary. But anything that I*

[22] considered reasonable was accepted by the company.

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[1] Q Were you discouraged from asking for costly
[2] additions to capital outlays for health purposes?
[3] A No. I wasn't discouraged. I don't know if
[4] everything I said was approved. I just don't remember
it.

[5] Q You used the term "veto." Let me use a simpler
[6] term.

[7] Do you ever remember any of your recommendations
[8] to incur additional cost for health purposes connected
[9] with capital outlays being turned down?

[10] MR. MANTA: Objection. Foundation. Lack of
[11] foundation.

[12] MR. MC CONNELL: Asked and answered.

[13] THE WITNESS: I'm trying to think of some. I
[14] mean, I don't want to be positive one way or the other,
[15] but I can't think, off the top of my head, of any of them
[16] being turned down, but there certainly may have been some
[17] over the course of 35 years that were turned down.

[18] BY MR. BRAY:

[19] Q Did you, as you were medical director of
[20] Monsanto, have occasion to become familiar with Monsanto's
[21] so-called safety record at its various plants?

[22] MR. MC CONNELL: Objection. Form.

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[1] THE WITNESS: Yes. Safety, remember, was not a
[2] function of the medical department. Safety referred to
[3] back injuries, following off a ladder, explosions. The
[4] amount of loss time accidents, which is the criterion used
[5] for -

[6] BY MR. BRAY:

[7] Q Used by whom?

[8] A All companies, insurance companies, government
[9] statistics. Loss time accidents were mostly accidents
[10] rather than occupational conditions with the exception of
[11] dermatitis. Dermatitis is probably the number one item
as

[12] far as loss time is concerned in the company. And
[13] Monsanto's record in loss time accidents was quite good.

[14] It was always the top three of the company. In
[15] some of their larger plants worth \$3 million without a
[16] loss time accident and they received numerous awards
from

[17] their carriers, National Safety Council during World War
[18] II when they had those E flags or something like that,
[19] that some government body gave out. They collected
quite

[20] a bunch of those.

[21] Q Was there any similar form of statistical
[22] measurement for occupational health or health matters?

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[1] A No, but if a person were off from a dermatitis,
[2] that was considered loss time accident. If he were off
[3] from silicosis, that would be considered a loss time
[4] accident, even though it was a health condition rather
[5] than what we think of as an accident falling off a ladder
[6] or getting hit by a pickup truck or something.

[7] MR. BRAY: Would you mark this as three
[8] exhibits.

[9] (Kelly Exhibits V-6 through V-8
[10] identified.)

[11] MR. BRAY: On or off the record, I tried. I
[12] tried to make it legible.

[13] MS. SCHIFFER: Jack, could you read the Bates
[14] numbers into the record so we've been trying to keep track
[15] of them.

[16] MR. MC CONNELL: That may be the only legible
[17] part here.

[18] MR. BRAY: I was afraid it may not be. We're
[19] going to mark as Kelly Exhibit V-6 a one-page document
[20] with the Bates number MCA 0233590 and as Kelly Exhibit
V-7

[21] a one-page document with Bates numbered MCA 0233591
and as

[22] Kelly Exhibit V-8 a one-page document with the Bates

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[1] number MCA 0233592.

[2] MS. SCHIFFER: Mr. Bray, I'm going to object to
[3] these documents. Again, they appear each to relate to the
[4] Anniston plant and the Anniston plant is not a Trial Group
[5] 1 plant site and so for the reasons that I stated in my
[6] earlier objection, I object to the use and examination of
[7] the basis on the use of these Anniston-related documents.

[8] MR. BRAY: But it is a Trial Group 2 site.

[9] MS. SCHIFFER: It is a phase 1 site but it is
[10] not a Trial Group 1 site and it's my position that the
[11] discovery plant pursuant to which this deposition is being
[12] taken limits this deposition to Trial Group 1 and not to
[13] phase 1, and so therefore, I reiterate my objection to
[14] examination on the basis of these documents.

[15] MR. BRAY: I understand your objection. You
[16] understand we don't agree with it.

[17] MS. SCHIFFER: I do understand that, but I
[18] repeat my objection on the record and I would request that
[19] it be a continuing objection for the basis of examination
[20] on these documents so I don't need to repeat it at the
[21] beginning of each question.

[22] MR. BRAY: That's acceptable.

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[1] BY MR. BRAY:

[2] Q Dr. Kelly, we've had marked as Kelly Exhibits
[3] V-6 through 8 three single pieces of paper which are very
[4] difficult to read. And I apologize. These are the best
[5] copies I could come up with. I ask you if A, you're able
[6] to read them and B, if you're familiar with them?

[7] A I've been able to read V-8 easily and V-7
[8] easily. A little tough on V-6, and I am familiar with
[9] this type of document.

[10] Q I ask you if at or about - referring first to
[11] V-8 since it's more legible, whether at or about the dates
[12] that are reflected on that document, the period 1962 to
[13] 1966, in the course of your work as medical director at
[14] Monsanto, you had occasion to see such documents?

[15] A Yes, I did.

[16] Q Would you describe what that occasion was.

[17] A Occasion to see them?

[18] Q Yes.

[19] A Well, we had newsletters that circulated through
[20] all the company and even though this might refer to an
[21] Anniston, Alabama plant, it was put in the newsletter
that

[22] came out of St. Louis. They also would have it on the

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[1] bulletin boards of the general office when a plant got an
[2] award similar to this, that I'd see it there.

[3] Q And what are these documents?

[4] A Well, it's a little promotional award given by
[5] the insurance company after a particular long period of
[6] operation without a loss time accident or disabling
[7] injury, as they term it. In one case, it was for four
[8] years. Another one was for three years. I don't know

how
[9] long the last one was. It looks like another three-year
[10] period.

[11] Q And who's the insurance company?

[12] A I beg your pardon?

[13] Q Who's the insurance company?

[14] A Liberty Mutual in this particular instance.

[15] Q And what is the award for?

[16] A For the workers working particular period of
[17] time without a disabling injury or which would be
termed a

[18] loss time. In other words, they lost work because of the
[19] injury.

[20] Q And Exhibit Kelly V-6, does that relate to a
[21] particular plant?

[22] A A particular plant?

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[1] Q Plant, yes.

[2] A Yes. I can't make out the plant.

[3] Q Do you see right down under the word "chemical

[4] company," under "Monsanto Chemical Company"?
 [5] A Anniston, Alabama. All three relate to
 [6] Anniston.
 [7] Q Where were PCBs made?
 [8] A In St. Louis - wait a minute. They're made in
 [9] Anniston, East St. Louis.
 [10] Q East St. Louis is Krummrich?
 [11] A Krummrich. They weren't made in St. Louis. The
 [12] main operation was in Anniston. They made the
 [13] diphenyl
 [14] there and sometimes they sent that diphenyl up to East
 [15] St. Louis for further process and sometimes it was
 [16] chlorinated right in Anniston.
 [17] (Kelly Exhibit V-9 identified.)
 [18] BY MR. BRAY:
 [19] Q Dr. Kelly, when you were medical director at
 [20] Monsanto, did Monsanto from time to time receive reaction
 [21] on the health, safety or environmental steps it took from
 [22] the public sector?
 A Yes, it did.

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[1] MR. MC CONNELL: Object to form. Vague. No
 [2] foundation.
 [3] THE WITNESS: Yes, it did.
 [4] BY MR. BRAY:
 [5] Q With respect to the subject of PCBs about which
 [6] you testified about earlier, do you recall receiving any
 [7] reaction on Monsanto's actions from the Environmental
 [8] Defense Fund?
 [9] MR. MC CONNELL: Object to form.
 [10] THE WITNESS: Yes, I did.
 [11] BY MR. BRAY:
 [12] Q I hand you what's been marked as Kelly
 [13] Deposition Exhibit V-9 and ask you if you can identify
 [14] that document.
 [15] A What about it?
 [16] Q Can you identify that document?
 [17] A Oh, yes, this is a letter from the executive
 [18] director of the Environmental Defense Fund to our public
 [19] relations department at New York.
 [20] Q At or around the date of this letter, August 24,
 [21] 1970 -
 [22] A That's correct.

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[1] Q - do you recall becoming familiar with this
 [2] letter?
 [3] A Yes.
 [4] Q And would you describe the circumstances under
 [5] which you would have seen it?
 [6] A Oh, I think it was circulated to anybody that
 [7] had a connection with the PCB problem. They were
 [8] happy to
 [9] have somebody on our side for a change. The
 [10] Environmental
 [11] Defense Fund was certainly no tool of the industry. So
 [12] coming from them, we considered it pretty fulsome
 [13] praise.
 [14] Q It's written by Roderick Cameron?
 [15] A Yes.
 [16] Q Who is he?
 [17] A The executive director of the Environmental
 [18] Defense Fund.
 [19] Q And the beginning of the second paragraph of the
 [20] letter, would you read that.
 [21] A "At EDF, we have been most impressed by
 [22] Monsanto's willingness to be responsible where the
 environment is concerned. We have closely watched the
 development of information concerning the
 environmental
 impact of Monsanto's product polychlorinated biphenols.

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[1] PCBs. What impressed us most was Monsanto's attitude
 [2] and
 [3] finally its action to lessen the environmental degradation
 [4] caused by its product. We continue to watch your PCB
 cleanup program to be sure your action is as good as

your

[5] word. But in the meantime, we are impressed by your
 [6] sensitivity and responsibility. Indeed, in many informal
 [7] conversations we have singled out your company as
 [8] being
 [9] one capable of acting in its own long term interest and
 [10] that of society rather than a short term economic
 [11] interest. We have great respect for you."
 [12] Q Dr. Kelly, when you were medical director -
 [13] MR. MANTA: I move to strike that. I don't
 [14] understand what that accomplished, have the witness read
 [15] from a document that he's - not addressed to him and he's
 [16] not copied on.
 [17] BY MR. BRAY:
 [18] Q Dr. Kelly, when you were medical director of
 [19] Monsanto, did you have occasion to become familiar with
 [20] the motivations and incentives that affected the decisions
 [21] of individual workers at Monsanto with respect to safety,
 [22] health and the environment?
 MR. MC CONNELL: Object to form. Vague. No

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[1] foundation.
 [2] THE WITNESS: Yes, I did.
 [3] BY MR. BRAY:
 [4] Q What was their incentive with respect to
 [5] environmental matters?
 [6] MR. MC CONNELL: Object to form. Vague. No
 [7] foundation.
 [8] THE WITNESS: Well, I think they're a worker at
 [9] Monsanto, but they're also a citizen of the United
 [10] States. They were interested - they were hunters. They
 [11] were fishermen. They fished in Texas City. They fished
 [12] off the dock down in Texas City. They were hunters and
 [13] fishermen in Michigan, and I think they exhibited a pretty
 [14] high level of concern for the environment.
 [15] Now, you asked about safety. Obviously, they
 [16] didn't want to get hurt themselves in the plants. But
 [17] from the environment is concerned, I think they had all
 [18] the concerns that an intelligent citizen had.
 [19] BY MR. BRAY:
 [20] Q What incentive did Monsanto management provide
 [21] or convey to the workers at Monsanto with respect to
 [22] environmental matters?

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[1] MR. MC CONNELL: Object to form.
 [2] MR. MANTA: No foundation.
 [3] THE WITNESS: I don't know what you can say
 [4] about incentive, but they were always preaching with
 [5] bulletins and at safety meetings that pollution starts
 [6] right in the plant - pollution control starts in the
 [7] plant. Don't tolerate spills. Don't tolerate washing it
 [8] in the drains and the sewers and the individual
 [9] departments and I think their concern was they did see how
 [10] much the company was spending on pollution abatement
 [11] concerns over the years.
 [12] There were really hundreds of millions of
 [13] dollars spent. They saw that on the part of the company.
 [14] The company was, in bulletins and newsletters, describing
 [15] what plans they were carrying out to abate pollution in
 [16] the various plants.
 [17] BY MR. BRAY:
 [18] Q Was there, during your tenure as medical
 [19] director of Monsanto, ever a message that you perceived to
 [20] be conveyed to Monsanto employees that they would somehow
 [21] benefit by taking environmentally irresponsible action?
 [22] MR. MC CONNELL: Object to form. Vague. No

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[1] foundation. Calls for speculation.
 [2] THE WITNESS: Was there ever a statement by
 [3] Monsanto that I can recollect that they would tell the
 [4] employees to take an irresponsible action towards waste
 [5] disposal? Is that your question?
 [6] BY MR. BRAY:
 [7] Q Or take environmentally irresponsible actions.
 [8] MR. MC CONNELL: Same objections.
 [9] THE WITNESS: There never was. I mean, there

[10] are so many phrases in that, I want to be sure what I'm
[11] answering to. Monsanto never told an employee to dump
[12] something just to get it out of the way or save it from
[13] being handled in an accurate fashion by sending it to a
[14] treatment plant or to a landfill.

[15] BY MR. BRAY:

[16] *Q During your tenure as medical director, matters*
[17] *relating to waste disposal were from time to time*
[18] *regulated by certain laws and law enforcement officials,*
[19] *were they not?*

[20] A Yes.

[21] MR. MC CONNELL: Object to form. Leading.

[22] THE WITNESS: Yes.

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[1] MS. SCHIFFER: Also, there's no time frame
[2] given.

[3] MR. BRAY: The time frame of the question was
[4] during his tenure as medical director.

[5] BY MR. BRAY:

[6] *Q During your career at medical director, do you*
[7] *recall what Monsanto's management's policy was with*
[8] *respect to compliance by plant employees, other employees*
[9] *with laws relating to the regulation of environmental*
[10] *matters?*

[11] MR. MC CONNELL: Object to form. Vague. No
[12] foundation. Calls for speculation.

[13] THE WITNESS: Well, yes. They were told what
[14] the law is and if you don't obey the law, you'll be fired.

[15] BY MR. BRAY:

[16] *Q Was that the case when you first became medical*
[17] *director at Monsanto?*

[18] MR. MC CONNELL: Same objections.

[19] THE WITNESS: There weren't any laws relating to
[20] it at that time.

[21] BY MR. BRAY:

[22] *Q When the law - excuse me.*

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[1] A Number two, no, it wasn't. After all, there was
[2] a tremendous change in the viewpoint of workers,
[3] management and the public at large about waste disposal
[4] between the 1930s and the 1960s, '70s, '80s.

[5] *Q In the case of the Texas City plant, referring*
[6] *to waste disposal, did you become familiar with the*
[7] *offices or the law enforcement agencies in the state of*
[8] *Texas who had responsibility for enforcing laws that*
[9] *protected the environment?*

[10] A Well, I didn't. I would know Jack. I'd see his
[11] expense accounts. He'd go down to Austin, Texas and I
[12] think that's where the state agencies were. I think
[13] that's the capital of Texas.

[14] *Q And he dealt with law enforcement officials?*

[15] A Yes. In fact, he was a registered lobbyist
[16] there.

[17] *Q With respect to Monsanto's policies concerning*
[18] *compliance with laws in Texas, when you were medical*
[19] *director and when there were laws, what was Monsanto's*
[20] *policy with respect to compliance?*

[21] MR. MC CONNELL: Object to form. Vague. No
[22] foundation. Calls for speculation.

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[1] THE WITNESS: If there's a law and we know about
[2] it, we'll follow it.

[3] BY MR. BRAY:

[4] *Q And would you follow the letter of the law?*

[5] MR. MC CONNELL: Same objections.

[6] THE WITNESS: Yes. Letter and the spirit.

[7] MR. BRAY: I have no further questions.

[8] MR. MC CONNELL: Why don't we go off the record
[9] now so we can change sides of the table.

[10] VIDEO OPERATOR: We're off the record at
[11] approximately 4:11 p.m.

[12] (Recess.)

[13] VIDEO OPERATOR: This is the end of video
[14] cassette number two. We're off the record at
[15] approximately 4:23 p.m.

[16] (Discussion off the record.)

[17] VIDEO OPERATOR: This is the beginning of video
[18] cassette number 3 of the deposition of R. Emmet Kelly.

[19] Back on the record at approximately 4:25 p.m.

[20] EXAMINATION

[21] BY MR. MC CONNELL:

[22] *Q Good afternoon, Dr. Kelly.*

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[1] A Good afternoon, sir.

[2] *Q My name is Dick McConnell. I'm one of the*
[3] *attorneys for The Travelers Indemnity Company. I'd like*
[4] *to make sure we understand each other in the deposition so*
[5] *if at any time you can't hear me properly or you have*
[6] *trouble understanding the question, if you'd tell me, I'd*
[7] *be glad to repeat it or rephrase it. Can we have that*
[8] *understanding?*

[9] A Thank you. Yes, we do.

[10] *Q Dr. Kelly, do you recall we had another*
[11] *deposition in this case last week?*

[12] A Yes, sir.

[13] *Q And you testified in that deposition?*

[14] A Yes, sir.

[15] *Q You were under oath?*

[16] A Yes, sir.

[17] *Q And we had a court reporter present in the room?*

[18] A Yes, sir.

[19] *Q We didn't have any video cameras that day, but*
[20] *we did have a reporter?*

[21] A Yes, sir.

[22] *Q And I asked a number of questions during the*

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[1] *course of that deposition?*

[2] A Yes, you did.

[3] *Q And Mr. Manta and Ms. Schiffer also asked some*
[4] *questions?*

[5] A That's correct.

[6] *Q Was your testimony in that deposition true and*
[7] *correct, sir?*

[8] A Yes, to the best of my recollection, it was.

[9] *Q There's nothing about that testimony that occurs*
[10] *to you now that you would want to change?*

[11] A No. I haven't seen the transcript, so I really
[12] don't know the details of the testimony.

[13] *Q But as far as you can recall, the testimony you*
[14] *gave was true and accurate?*

[15] A That's correct.

[16] *Q Dr. Kelly, you started as the medical director*
[17] *at Monsanto in 1946?*

[18] A Yes, sir.

[19] *Q You retired in 1974?*

[20] A Yes, sir.

[21] *Q You were the medical director at Monsanto for 28*
[22] *years?*

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[1] A Was it 28? '46 to '74, yes.

[2] *Q And prior to that time, you were the plant*
[3] *doctor at the Queeny Plant?*

[4] A Yes, sir.

[5] *Q And you held that position for six years?*

[6] A Yes, sir.

[7] *Q Is it correct, sir, that you were with Monsanto*
[8] *either as a plant doctor or the medical director of the*
[9] *company for a total of 34 years?*

[10] A Yes, sir.

[11] *Q After you retired, Dr. Kelly, did you do any*
[12] *consulting work for Monsanto?*

[13] A Yes, for one year I was on a retainer.

[14] *Q And after that one year, did you do any other*
[15] *consulting work for Monsanto?*

[16] A No, with the exception of their individual cases
[17] similar to this one.

[18] *Q Was that on a fee for service basis?*

[19] A Yes, sir.

[20] *Q And do you continue to do some consulting work*
[21] *for Monsanto right up through today, Dr. Kelly?*

[22] A Yes, sir.

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[1] Q Is there an hourly fee that you charge Monsanto?
 [2] A Yes, sir.
 [3] Q And what is that fee, sir?
 [4] A \$200 an hour.
 [5] Q Do you receive a pension from Monsanto,
 [6] Dr. Kelly?
 [7] A Yes, I do.
 [8] Q Is that in addition to any consulting work that
 [9] you perform for the company?
 [10] A Yes, sir.
 [11] Q Do you own stock in Monsanto, Dr. Kelly?
 [12] A Yes, I do.
 [13] Q Did Monsanto have a stock option program for its
 [14] top officers and key employees?
 [15] A Yes, sir.
 [16] Q Were you one of the key employees who received
 [17] stock options?
 [18] A Yes, sir.
 [19] Q Do you still own stock in Monsanto?
 [20] A Yes, I do.
 [21] Q Are you being represented by a lawyer in this
 [22] matter, sir?

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[1] A Two lawyers. One, Mr. Bray and one,
 [2] Mr. Snively.
 [3] Q Mr. Bray is one of Monsanto's lawyers in this
 [4] case?
 [5] A Yes, he's an outside counsel.
 [6] Q Is Monsanto paying Mr. Bray's fees to represent
 [7] you here today?
 [8] MR. BRAY: Objection.
 [9] THE WITNESS: I don't know.
 [10] BY MR. MC CONNELL:
 [11] Q Are you personally paying any of Mr. Bray's
 [12] fees?
 [13] MR. BRAY: Same objection.
 [14] THE WITNESS: I hope not.
 [15] BY MR. MC CONNELL:
 [16] Q Do you know who is paying his fees, sir?
 [17] MR. BRAY: Same objection.
 [18] THE WITNESS: If anybody, it will be Monsanto.
 [19] BY MR. MC CONNELL:
 [20] Q How many times have you met with Mr. Bray in
 [21] connection with this case, Dr. Kelly?
 [22] A You mean different days or like today, I met him

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[1] three times. Is that what -
 [2] Q Let's talk about different days. Excluding the
 [3] deposition sessions.
 [4] A Oh, I think one or two - probably three outside
 [5] of the deposition sessions.
 [6] Q When was the first time that you met with
 [7] Mr. Bray in connection with this case?
 [8] A About three weeks ago, I believe.
 [9] Q Where did you meet with him at that time, sir?
 [10] A In St. Louis.
 [11] Q How long did you meet on that occasion, sir?
 [12] A Three hours, four hours.
 [13] Q Was that in preparation for your deposition?
 [14] A Well, I think it was just to give me a general
 [15] idea of what the case referred to and what the details of
 [16] the case were.
 [17] Q And by this case, you're talking about the case
 [18] we're here today on?
 [19] A Monsanto versus Aetna.
 [20] Q Was anyone else present at that meeting, sir?
 [21] A Yes, but I don't remember. There was somebody
 [22] from the in-house counsel at Monsanto was there for part

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[1] of the time. Maybe not all the time.
 [2] Q That was an in-house lawyer for Monsanto?
 [3] A Yes, that's correct.
 [4] Q Do you remember his name?
 [5] A I don't know. No, I don't remember it. It may
 [6] have been Snively, but I don't know.
 [7] Q Is there a Mr. Snively who's a member of

[8] Monsanto's law department?
 [9] A Yes.
 [10] Q But in any event, whoever it was, it was a
 [11] member of the Monsanto law department?
 [12] A At some time, yes.
 [13] Q You told me you met three times with Mr. Bray.
 [14] When was the second time, Dr. Kelly?
 [15] A In Washington, on Monday the 25th.
 [16] Q The 25th of January?
 [17] A Yes, sir.
 [18] Q Of this year?
 [19] A Yes, sir.
 [20] Q How long did you meet with Mr. Bray on that
 [21] occasion, sir?
 [22] A About six hours, I suppose.

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[1] Q And what was the purpose of that meeting?
 [2] A Preparation for the deposition.
 [3] Q And did you have occasion to meet with Mr. Bray
 [4] again after that time?
 [5] A Well, I saw him at a deposition for two days,
 [6] and then I saw him for about four hours on Monday the
 1st.
 [7] Q Monday, February 1st?
 [8] A That's correct.
 [9] Q Yesterday?
 [10] A Yes.
 [11] Q And that was for how long, sir?
 [12] A Three hours.
 [13] Q You mentioned, Dr. Kelly, that there was another
 [14] lawyer, other than Mr. Bray, who's representing you in
 [15] this case?
 [16] A Snively. Dave Snively.
 [17] Q Who is that?
 [18] A A Monsanto lawyer, in-house counsel.
 [19] Q He's a member of Monsanto's law department?
 [20] A That's correct.
 [21] Q It's your understanding that Mr. Snively is
 [22] representing you in connection with this case?

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[1] A Yes.
 [2] Q Have you met with Mr. Snively about this case,
 [3] Dr. Kelly?
 [4] A Probably around the time I met with Mr. Bray the
 [5] first time. I believe Mr. Snively was the other lawyer
 [6] that was present when I met with Mr. Bray the first time.
 [7] Q And how long did that meeting last, sir?
 [8] A Snively was only in there a couple of hours, I
 [9] think.
 [10] Q Did you meet with Mr. Snively, apart from
 [11] Mr. Bray?
 [12] A I don't think so.
 [13] Q And how many times did you meet with
 [14] Mr. Snively?
 [15] A Once then and I saw him at lunch today.
 [16] Q Mr. Snively was in the deposition this morning?
 [17] A Yes.
 [18] Q And do you remember when we talked last week in
 [19] your deposition, Dr. Kelly, you told me you had met with
 [20] Mr. Snively twice in connection with this case?
 [21] A If I did, it may be in my other book for 1992,
 [22] but I've been in quite a few of these different

Page 164

[1] discussions. I think we have four cases on the plate
 [2] right now, so I could easily be mistaken when I met him
 [3] either once or twice, but I thought it was once.
 [4] Q You're working with Monsanto in four separate
 [5] cases right now, sir?
 [6] A Yes, sir.
 [7] Q Could you tell me what those cases are.
 [8] A One is Nevada Power.
 [9] Q Nevada Power?
 [10] A Nevada.
 [11] Q What's the general subject matter of that case,
 [12] Dr. Kelly?
 [13] A I think it's a leak - PCBs leaked from an air

[14] compressor.
 [15] Q What's the next case, Dr. Kelly?
 [16] A The other is a trichloroisocyanuric acid, which
 [17] is a swimming pool compound.
 [18] Q Could I ask you to spell that for the reporter,
 [19] sir?
 [20] A I beg your pardon?
 [21] Q Could I ask you to spell that word for the
 [22] reporter.

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[1] A Yes, T-r-i-c-h-l-o-r-c-y-a-n-u-r-i-c acid.
 [2] Q Is it a case of an injury caused by that
 [3] chemical?
 [4] A Alleged injury.
 [5] Q What's the next case, Dr. Kelly?
 [6] A There's one in New Brunswick.
 [7] Q Do you know what that case is about?
 [8] A Yes. He's alleging injury from PCBs that he was
 [9] exposed to rolling a drum over ground that allegedly had
 [10] PCB in it, in the ground rather than the drum.
 [11] Q And what's the last of the four cases you told
 [12] me about?
 [13] A This one.
 [14] Q This case. Have you had your deposition taken
 [15] in the Nevada Power case?
 [16] A Not as yet.
 [17] Q What about the New Brunswick case?
 [18] A No.
 [19] Q What about the trichloroisocyanuric acid case?
 [20] A I don't think so. I think I've just had the
 [21] prep.
 [22] Q But you've met with Monsanto regarding those

Page 166

[1] cases?
 [2] A Yes, I have.
 [3] Q Other than the four cases we've been talking
 [4] about, have you testified for Monsanto in other cases?
 [5] A By "testified," do you mean in trial or by
 [6] deposition?
 [7] Q Why don't we break it down.
 [8] How many times have you testified for Monsanto
 [9] in depositions?
 [10] A 10 or 12.
 [11] Q Is that in 10 or 12 separate cases?
 [12] A That's correct.
 [13] Q And how many times have you testified in court
 [14] for Monsanto, Dr. Kelly?
 [15] A Four or five, I believe.
 [16] Q Do you remember in your deposition last week,
 [17] Dr. Kelly, telling me you'd testified five to 10 times in
 [18] court for Monsanto?
 [19] A Did I say "give or take a few"?
 [20] Q Would you like to look at what you said?
 [21] A No, but I usually phrase it by that. I add that
 [22] to it.

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[1] Q Why don't we take a look at it and make sure.
 [2] We don't need to mark it.
 [3] A How did you get one of these and I didn't?
 [4] Q I don't know, Dr. Kelly. Your lawyer should
 [5] have one by now. Why don't we go ahead and mark that as
 [6] Kelly V-10.
 [7] (Kelly Exhibit V-10 identified.)
 [8] BY MR. MC CONNELL:
 [9] Q Dr. Kelly, we're going to mark volume 1 of the
 [10] transcript of your deposition from last week as Kelly
 [11] Exhibit V-10, and I'd like to ask you first, Dr. Kelly,
 [12] whether you recognize that as a transcript of the
 [13] deposition that you gave in this case last week?
 [14] A Yes, I do.
 [15] Q And you remember that you were under oath in the
 [16] deposition?
 [17] A Yes, I was.
 [18] MS. SCHIFFER: I'd like to state for the record
 [19] to clarify that it's a transcript of the first day of that
 [20] deposition.

[21] THE WITNESS: I cannot hear you.
 [22] MS. SCHIFFER: It's a transcript of the first

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[1] day of that deposition, not of the complete deposition.
 [2] MR. MC CONNELL: Yes. I've pointed that out.
 [3] BY MR. MC CONNELL:
 [4] Q Dr. Kelly, I'd like to ask you to look at page
 [5] 24 of the deposition, sir, and specifically I'd like to
 [6] direct your attention at line 8. Would you tell me when
 [7] you have that.
 [8] A I'm up to page 22 right now.
 [9] Q Do you see at line 8 -
 [10] A Five to 10, yes, sir. I see it. Is that what I
 [11] say today?
 [12] Q Yes, sir.
 [13] A What did I say to you earlier?
 [14] Q Well, I believe you said four to five today.
 [15] Last week you said five to 10; is that right?
 [16] MR. BRAY: Objection. That's a
 [17] mischaracterization of the transcript.
 [18] THE WITNESS: I guess five to 10 is more correct
 [19] than four to five.
 [20] BY MR. MC CONNELL:
 [21] Q Okay. Let me direct your attention now to page
 [22] 23, Dr. Kelly, the page right before that and you see at

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[1] line 13 I asked you whether you'd testified for Monsanto
 [2] in other cases?
 [3] A Yes, sir.
 [4] Q And then you asked me to break it down with
 [5] respect to trial or depositions?
 [6] A Yes, sir.
 [7] Q And I asked you this question: "Let's break it
 [8] down. Let's talk about depositions first."
 [9] A Yes, sir.
 [10] Q And if you look at line 21, Dr. Kelly, how many
 [11] depositions did you say you had given on behalf of
 [12] Monsanto in that?
 [13] A "15, give or take two or three."
 [14] Q You think that's an accurate statement,
 [15] Dr. Kelly?
 [16] A What did I say today?
 [17] Q Well, today, I think you said 10 or 12.
 [18] A Well, that's pretty close.
 [19] Q Pretty close. You've testified a number of
 [20] times for Monsanto both in depositions and in court cases?
 [21] A That's correct.
 [22] Q Did Monsanto pay you for your time when you

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[1] testified in those cases, Dr. Kelly?
 [2] A They did except in the Nitro case when I was a
 [3] fact witness, and I think the state of West Virginia paid
 [4] me \$35 a day.
 [5] Q But with the exception of the Nitro case in all
 [6] the other cases you were paid for your time when you
 [7] testified for Monsanto?
 [8] A That's correct.
 [9] Q Were you paid at your normal hourly rate, sir?
 [10] A It depends on the time frame. Some of the
 [11] earlier depositions in earlier trials, I believe my fee
 [12] was \$150 an hour.
 [13] Q Your hourly rate changes over time?
 [14] A Over time it did, yes, sir.
 [15] Q Is Monsanto paying you for your time in this
 [16] deposition today?
 [17] A Yes, they are.
 [18] Q And at what rate, sir?
 [19] A \$200 an hour.
 [20] Q Did Monsanto pay you for the time you spent
 [21] preparing with Mr. Bray?
 [22] A Yes, it did. Either it did or I don't know if

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[1] I've billed them yet but I will bill them at that rate.
 [2] Q And did Monsanto pay for your time in the
 [3] deposition last week, sir?
 [4] A I haven't billed them as yet, but they will.

[5] Q Dr. Kelly, you were Monsanto's plant doctor at
 [6] the Queeny Plant from 1936 to 1942?
 [7] A Yes, sir.
 [8] Q And during the same time, 1936 to 1942, you were
 [9] asked to visit other Monsanto plants?
 [10] A That's correct.
 [11] Q Did you visit them on a regular basis,
 [12] Dr. Kelly, or how was that determined?
 [13] A Well, that was sort of like putting a fire out.
 [14] The management of the company would have a problem
 that if
 [15] they bought a new phosphorus process, they got a great
 [16] amount of medical instructions from the German people
 from
 [17] whom they bought the technology and the Germans had
 quite
 [18] an amount of medical recommendations that the
 company
 [19] would ask me about it, and I would go down and see it,
 and
 [20] some I agreed with, the majority I disagreed with.
 [21] That was in Columbia, Tennessee. There may have
 [22] been isolated ones at other plants. I would say in those

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[1] years, the latter part of the '30s, I went to the major
 [2] plants, which were about four or five, major plants of
 [3] Monsanto.
 [4] Q How many plants did Monsanto have in the United
 [5] States at that time, sir?
 [6] A Seven to 10, to the best of my recollection.
 [7] Q Did they have plants in Canada?
 [8] A Yes.
 [9] Q Were there plants in other foreign countries?
 [10] A Yes. They had two in England. I did not see
 [11] those until '54. Later on they had one in Germany.
 They
 [12] had one in France. They had them - two in Mexico.
 [13] Q Any others that you can remember, Dr. Kelly?
 [14] A Well, they had subsidiaries, but I don't know
 [15] whether they had voting control, whether they had 51
 [16] percent, in Japan. I wasn't at the Japan plants until the
 [17] '70s.
 [18] Q Do you remember which plants you visited in the
 [19] period from 1936 to 1942, Dr. Kelly?
 [20] A '36 to '42?
 [21] Q Yes, sir.
 [22] A Well, I visited Merrimac. I visited

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[1] Springfield, Massachusetts. I visited Nitro. I visited
 [2] Anniston, East St. Louis.
 [3] Q Is East St. Louis -
 [4] A The Krummrich.
 [5] Q - the Krummrich plant?
 [6] A Right.
 [7] Q Can you remember any others, sir?
 [8] A I don't know whether I was at Norfolk or not.
 [9] That was a small plant.
 [10] Q Was there a plant known as the Carondelet plant?
 [11] A Yes.
 [12] Q Was that owned by Monsanto?
 [13] A What?
 [14] Q Was that owned by Monsanto?
 [15] A That was bought when they bought Swann. That
 [16] was in St. Louis, in the southern suburb of St. Louis. I
 [17] visited that one.
 [18] Q Is that plant known by any other name?
 [19] A It was plant C at first. And then it was the
 [20] Carondelet plant.
 [21] Q Did you visit the plant in Columbia, Tennessee?
 [22] A Yes.

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[1] Q Did you mention that one?
 [2] A Yes.
 [3] Q What about Montreal?
 [4] A Yes. I'm trying to think when I went up there,
 [5] though. I don't know whether I went up there before

1942

[6] or after '46. I don't know when I went up there.
 [7] Q And what about the plant in Toronto?
 [8] A That was a small little plant. Whenever I went
 [9] up to Montreal, I would go to Toronto.
 [10] Q Same time?
 [11] A Yes.
 [12] Q All of the plants we've been talking about were
 [13] owned by Monsanto during the period of 1936 to 1942?
 [14] A Yes, they were.
 [15] Q And where was your regular office at that time,
 [16] sir?
 [17] A In St. Louis at the Queeny Plant.
 [18] Q Was it part of your job at that time, Dr. Kelly,
 [19] to become knowledgeable about the toxicity of the
 [20] chemicals used by Monsanto as raw materials?
 [21] A Yes, it was.
 [22] Q And was it also part of your job to become

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[1] knowledgeable about the toxicity of the chemicals
 [2] manufactured by Monsanto?
 [3] A Yes, it was.
 [4] Q Was it part of your job to ensure that the
 [5] workers were not exposed to amounts of those chemicals
 [6] that would damage their health?
 [7] A Yes, it was.
 [8] Q Was it important to make sure that those
 [9] chemicals were handled safely?
 [10] A Yes.
 [11] Q And you knew at the time that many of those
 [12] chemicals could be hazardous to the workers if they were
 [13] not handled carefully?
 [14] A Well, not many. Some were and some weren't.
 [15] Q Did you leave Monsanto for a time in 1942, sir?
 [16] A Yes.
 [17] Q And where did you go?
 [18] A Pine Bluff, Arkansas and Edgewood Arsenal,
 [19] Maryland.
 [20] Q And were you in the U.S. Army during the war?
 [21] A That's correct.
 [22] Q What was your job function with the Army, sir?

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[1] A It was really much - very similar to what I was
 [2] doing in civilian life, only working at a chemical warfare
 [3] installation.
 [4] Q I'm sorry, sir, would you repeat that.
 [5] A It was very similar to what I was doing in
 [6] civilian life, only these workers belonged to the - worked
 [7] at a chemical warfare installation.
 [8] Q Was the Pine Bluff facility a chemical warfare
 [9] installation?
 [10] A Yes, it was.
 [11] Q And the Edgewood Arsenal was also a chemical
 [12] warfare installation?
 [13] A That's correct.
 [14] Q You came back to Monsanto as the medical
 [15] director in 1946?
 [16] A That's correct.
 [17] Q Were you the medical director for the entire
 [18] company, Dr. Kelly?
 [19] A Yes. I'm hesitating a little because I don't
 [20] know what the relationship was at first to some of our
 [21] foreign operations. I don't know because our Japanese
 [22] operations, they were not 100 percent Monsanto at first.

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[1] My knowledge of Japanese was nonexistent also,
 [2] and I didn't spend much time with the Japanese, but I
 did
 [3] have correspondence and responsibility for the European
 [4] installations and after - we had textile plants in
 [5] Luxemburg and Scotland and Lignen, Germany and I was
 over
 [6] at those places, and I was really their medical director.
 [7] But that was - that gradually evolved after we got things
 [8] rolling here, so in the '50s, I went over to see the
 [9] European plants.

[10] Q Had Monsanto built or acquired any new plants
[11] while you were gone. Dr. Kelly?
[12] A While I was where?
[13] Q While you were in the Army.
[14] A Yes. They acquired Texas City.
[15] Q Do you know when that occurred?
[16] A No. They ran it for a while. I know they
[17] bought it after I came back from the service.
[18] Q They were in the plant before that?
[19] A They were running the plant, yes.
[20] Q Do you know when they started running the plant?
[21] A Sometime after 1942, before 1946, that's all I
[22] know.

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[1] Q It was while you were gone?
[2] A Yes.
[3] Q And they bought the planted when?
[4] A In '46 after I came back. I remember when they
[5] were bidding on it.
[6] Q Were you responsible for the medical operations
[7] at all of the Monsanto plants in the United States?
[8] A Yes, I was.
[9] Q And in Canada?
[10] A Yes.
[11] Q As well as in Europe?
[12] A Again, it was only formalized in the late '50s
[13] in Europe, the mid-'50s.
[14] Q Did Monsanto continue to build or buy additional
[15] plants in the years after 1946?
[16] A Well, yes, when I left there, they either built
[17] them or they acquired them by taking over the plants.
[18] They bought a bunch of plants out in the West Coast that
[19] were plywood glue factories. Built Chocolate Bayou
[20] sometime, I guess in the early '50s. And when I ended
[21] up,
[21] I think they had 45 to 50 plants in the United States.
[22] Q And do you remember how many they had in foreign

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[1] countries, Dr. Kelly?
[2] A Two in Mexico, three in Canada, one in Spain,
[3] one in France, two in the United Kingdom, three and one
[4] in
[4] Scotland, one in Lignen, Germany and - how many is
[5] that?
[5] Q I've lost track. Was there one in Luxembourg?
[6] A Yes.
[7] Q Any others that you can remember now?
[8] A Other than those I've said?
[9] Q Yes, sir.
[10] A No. There was Luxembourg, Lignen, one or two in
[11] France. That's four. Two in England, six; one in Spain,
[12] seven. One in Belgium, eight; about 10, I guess, over in
[13] Europe, give or take.
[14] Q Give or take?
[15] A Give or take a couple.
[16] Q Did you still have the plant in Japan?
[17] A I don't know what's happened. We didn't own all
[18] of it. It was partly run by Mitsubishi. I think, and
[19] whether or not we got out of it or not, I don't know.
[20] Q Did you continue to visit the plants after you
[21] became medical director, sir?
[22] A Yes, with the exception, as I said, of the

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[1] Japanese one, and I did not see the European ones until
[2] the middle '50s.
[3] Q Why don't we talk about the plants in the United
[4] States and Canada. Did you continue to visit those?
[5] A Yes.
[6] Q How often did you visit them?
[7] A I tried to go once a year and sometimes in the
[8] major plants and when we had major problems, I went
[9] oftener but certainly I tried to go once a year.
[10] Q Did you visit all the plants?
[11] A Yes.
[12] Q And did you visit the Texas City plant?
[13] A Yes, quite frequently.

[14] Q I think you told us this morning you were in
[15] Texas City right after the Grand Camp explosion?
[16] A That's correct, and I was there off and on quite
[17] frequently for the next two months.
[18] Q Putting that one aside, Dr. Kelly, how often did
[19] you visit the Texas City plant after that?
[20] A I'd say three times in two years. They were
[21] always having hurricanes or something down there, and I
[22] had to go down there and see what was happening.

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[1] Q Once or twice a year, you would say?
[2] A I would say so.
[3] Q What happened when the hurricanes hit that area.
[4] sir?
[5] A Well, the plant would be flooded. They would
[6] have a bunch of refugees sleeping in the polyethylene
[7] department, children who were just infants were living
[8] in
[8] the chemical plant and I had to get them out of there and
[9] tell them this wasn't a very good idea.
[10] Q The grounds of the plant were flooded at times?
[11] A Yes.
[12] Q That's something you expect down in that part of
[13] the country?
[14] A It's pretty flat there and the water table is
[15] about 2 inches below the ground.
[16] Q Did you continue to visit the plants until you
[17] retired in 1974, Dr. Kelly?
[18] A Yes, I did.
[19] Q When you were visiting the plants, did you talk
[20] with the plant chemists and engineers?
[21] A Yes, I did.
[22] Q Plant managers?

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[1] A The chemists, I don't know with about the
[2] chemists but I would start with the plant manager, and I
[3] talked with the manufacturing superintendent. And then
[4] I
[4] would talk to the area superintendents. That would be
[5] like Texas City would be divided into the ethylene
[6] department, the oxygen department and I would talk to
[7] them.
[8] I would talk to the physician and the nurses. I
[9] would talk to the insurance people. I would talk to them
[10] about life and health and accident costs. And then I
[11] would talk to the engineers about any problems they
[12] had.
[12] But usually, Jack Garrett or Elmer Wheeler would talk to
[13] them about the pollution activities, and I didn't do that
[14] as a rule all the time.
[15] Q That was more Mr. Garrett's responsibility?
[16] A Down at Texas City, yes.
[17] Q So you do have some knowledge of the chemicals
[18] that were used at the Texas City plant?
[19] A Yes, sir.
[20] Q And chemicals that were used at the other
[21] Monsanto plants?
[22] A Yes. I don't know as much about it now as I did

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[1] 18 years ago.
[2] Q I understand that. And you have some knowledge
[3] of the products that were made at the different plants?
[4] A Yes, I do.
[5] Q Was it part of your responsibility as the
[6] medical director to answer questions about the toxicity of
[7] chemicals that were used in Monsanto plants?
[8] A Yes.
[9] Q Was it part of your job to answer questions
[10] about the toxicity of Monsanto products?
[11] A That were sold or given away or anything,
[12] samples, sales, yes.
[13] Q Was it important to have toxicity information
[14] about the chemicals Monsanto was using at its plants?
[15] A Yes. How could you -
[16] Q And why was that, Dr. Kelly?
[17] A You couldn't protect the person unless you knew

[18] what the inherent toxicity of the product was.

[19] Q By "protect the person," are you talking about

[20] protecting the plant workers?

[21] A That's correct.

[22] Q Was it important to know the toxicity of the

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[1] products that Monsanto was making at its plants?

[2] A Didn't I just answer that?

[3] Q I think - I had split it up into two questions.

[4] The first one was about the chemicals that Monsanto was

[5] using at the plants and my question now is whether it was

[6] important to know about the toxicity of the products that

[7] Monsanto was manufacturing at the plants?

[8] A Oh, yes, because we had to give our customers

[9] the knowledge of how to protect their own workers and

have

[10] information that was satisfactory for a label,

[11] satisfactory transportation of material.

[12] Q You talked this morning with Mr. Bray about some

[13] protective measures that were used by Monsanto. Do you

[14] remember that, Dr. Kelly?

[15] A Well, I'm sure I could remember it.

[16] Q Why don't I be more specific. You talked with

[17] Mr. Bray about using protective clothing at the Monsanto

[18] plants?

[19] A At some of the plants, yes, sir.

[20] Q And that was designed to protect the worker?

[21] A Yes.

[22] Q You talked with Mr. Bray about personal

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[1] protective devices, such as respirators?

[2] A Yes, sir.

[3] Q And what is a respirator, sir?

[4] A A respirator is a gadget you put over your nose

[5] and mouth that filters out harmful constituents in the

[6] breathing air that you're taking in.

[7] Q Why would you need a respirator in a chemical

[8] plant?

[9] A Why would you need it?

[10] Q Yes, sir.

[11] A Because there was more contaminants in the air -

[12] the contaminants in the air were at a higher level than

[13] was accepted as safe for an eight-hour day for a lifetime.

[14] Q They were designed to protect the workers as

[15] well?

[16] A That's what they were designed for.

[17] Q They had nothing to do with controlling

[18] pollution?

[19] A No.

[20] Q They had nothing to do with controlling waste

[21] disposal?

[22] A No.

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[1] MR. MC CONNELL: Dr. Kelly, I see that I've run

[2] over our agreed stopping point by a minute or two, and I

[3] think maybe this would be a good time to break for the

[4] evening.

[5] THE WITNESS: Fine.

[6] MR. MC CONNELL: Off the record.

[7] VIDEO OPERATOR: The time is approximately 5:02

[8] p.m. We're off the record.

[9] (Whereupon, at 5:02 p.m., the deposition was

[10] adjourned, to reconvene at 10:30 a.m., on Wednesday,

[11] February 3, 1993.)

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[14] R. EMMET KELLY

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TOTAL OCCURANCES:
10,675

NOISE WORDS: 385
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