

IN THE CIRCUIT COURT
TWENTIETH JUDICIAL CIRCUIT OF ILLINOIS
ST. CLAIR COUNTY

FRANCES E. KEMNER, et al.)
)
Plaintiff,)
)
vs.) No. 80-L-970
)
MONSANTO COMPANY,)
)
Defendant.)

Before the HON. RICHARD P. GOLDENHERSH, Judge

REPORT OF PROCEEDINGS

JURY TRIAL

February 10, 1986

APPEARANCES:

MR. REX CARR & MR. JERRY SEIGFREID, Attorneys at Law
Appeared on Behalf of the Plaintiff.

MR. KENNETH R. HEINEMAN & MR. JOSEPH MASSIF,
Attorneys at Law
Appeared on Behalf of the Defendant.

MARSHA SCHNIPPER
Official Court Reporter

PG LN	[Ngl]Dioxin 2/10	2,3,7,8-TCDD
63 1	to tetrochlorodibenzodioxin,	2,3,7,8-TCDD in the work place
PG LN	DIOXIN	
31 20	claim to have been exposed to	dioxin? A. That -- that's a
31 24	A. Not NIEHS. The NIOSH	dioxin registry, which was
37 22	commonly known as	dioxin or TCDD. Q. How did
40 11	who told us about the	dioxin registry, but
69 6	of Chapter 17 of the book on	dioxin in the environment,
80 14	discussed was chloracne and	dioxin, and I was asked to do
82 4	With respect to chloracne and	dioxin. It is a paper he has
84 4	or not acne is a hallmark of	dioxin intoxication? A. Yes,
84 16	being the hallmark of	dioxin intoxication? A. Well,
12 22	being the hallmark of	dioxin intoxication, not

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EXHIBITS

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EXHIBITS SUBMITTED ON BEHALF OF THE DEFENDANTS:

Defendant's Exhibit No.:

1692	68	69
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1 BE IT REMEMBERED AND CERTIFIED that heretofore, on
2 to-wit: February 10, 1986, being one of the regular judicial
3 days of this Court, the matter as hereinbefore set forth came
4 on for hearing before the Honorable Richard P. Goldenhersh, a
5 Judge in and for the Twentieth Judicial Circuit of the State
6 of Illinois, Belleville, St. Clair County, Illinois, and the
7 following was had of record, to-wit:

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9 * * * * *

10
11 (The following proceedings were had in open Court.)

12 MR. HEINEMAN: Morning, Your Honor. The defense at
13 this time will interrupt the testimony of Dr. Cugell and call
14 Dr. Raymond R. Suskind to the stand.

15 RAYMOND R. SUSKIND

16 being called on behalf of the defendant, having been first
17 duly sworn, testified as follows:

18 DIRECT EXAMINATION

19 BY MR. HEINEMAN:

20 Q. Would you state your name for the record please,
21 sir.

22 A. My name is Raymond R. Suskind.

23 Q. And what is your date of birth, sir?

24 A. November 29, 1913.

1 Q. And where were you born?

2 A. New York City.

3 Q. Now, Dr. Suskind, would you state briefly what your
4 current employment is, sir?

5 A. At the present time I am a director emeritus of the
6 Institute of Environmental Health at the University of
7 Cincinnati. I retired from the position as the director of
8 that institute in September of last year.

9 Q. All right, sir. And immediately prior to your
10 retirement, Dr. Suskind, how long did you have the position
11 of director of that institute?

12 A. I was the director of that institute from 1969
13 until 1975 -- I'm sorry, 1985.

14 Q. And I wonder if you would tell us your educational
15 background, sir, please?

16 A. I went to college at Columbia University, and I
17 received a bachelor of arts degree with a major in
18 chemistry. I went to medical school at the State University
19 of New York, downstate medical center, and I interned at the
20 Cincinnati General Hospital and had a residency in
21 dermatology at that hospital in 1944 to '46 and from '48 to
22 '50.

23 Q. All right, sir. Now, with respect to the work at
24 Columbia University when did you receive your AB with a major

1 in chemistry?

2 A. In 1934.

3 Q. And did you do any work at the university following
4 your graduation at Columbia?

5 A. No, I did not. This was during the depression
6 years, and I got a job in a laboratory devoted to the -- to
7 polio myelitis at New York University. And I spent two years
8 there as a research assistant.

9 Q. Did I understand you to say polio myelitis?

10 A. Polio myelitis. It was actually the same
11 laboratory in which Dr. Albert Sabin also got his start.

12 Q. And the notoriety of Dr. Albert Sabin is what, sir?

13 A. He's the man that developed the most effective
14 polio myelitis vaccine, and as a result of that, the epidemic
15 polio myelitis has been eliminated practically all over the
16 world.

17 Q. Now, did you have any opportunities to do any work
18 overseas in terms of your studies, medical studies?

19 A. Yes, in 1937 I entered medical school at -- in
20 Edinboro and spent a year and a half there until the outbreak
21 of World War II, and just before that outbreak I returned to
22 the United States, and since it was not possible to return to
23 Edinboro, I entered an American medical school at the State
24 University in New York.

1 Q. Now, in your study of medicine, generally what were
2 the types of courses that you took?

3 A. Well, medical students have a rather formal
4 curriculum, and the courses include the basic sciences such
5 as anatomy and physiology and biochemistry, pharmacology,
6 pathology, and the clinical subjects include internal
7 medicine, pediatrics, surgery, psychiatry, and the
8 specialties such as dermatology, ear, nose, and throat,
9 diseases of the eye.

10 Q. Now, during that time was there any exposure to the
11 field of preventive medicine?

12 A. Well, in -- at medical school I had an opportunity
13 to be involved in a symposium in the field of occupational
14 health and found that the field had a lot of unanswered
15 questions which were kind of important socially as well as
16 medically. I attended sessions of the workmen's compensation
17 hearings and became attracted to the field at the time.

18 Q. Now, following your graduation from medical school
19 in 1943 you mentioned that you did an internship at the
20 University of-- at Cincinnati General Hospital, is that
21 right?

22 A. Right.

23 Q. And what sort of training did that entail, sir?

24 A. Well, that also included hospital experiences and

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1 outpatient experiences in medicine and surgery and
2 orthopedics and pediatrics and psychiatry and some of the
3 specialties like ear, nose, and throat and disease of the
4 eye.

5 Q. Now, at that -- following that training did you
6 elect to become a specialist in a particular field?

7 A. Well, I decided because of a variety of reasons --
8 one of them was that the field of dermatology was a very
9 useful one to be trained in, especially if one was interested
10 in occupational illnesses, because at that time about 60 to
11 70 percent in some states like New York, 60 to 70 percent of
12 all occupational diseases were skin disease, so I thought it
13 would be a useful thing to do to receive my residency
14 training in the field of skin diseases.

15 Q. That would be the science of dermatology?

16 A. Right, that would be dermatology.

17 Q. Now, when did you undertake that training, sir?

18 A. I started in October of 1944 and finished two
19 periods of training. This was during World War II and
20 instead of having yearly periods of training, there were nine
21 month periods without holiday, and I served until 1946 and
22 then went into the Armed Forces. After I came out I
23 continued the residency. I finished the residency as well as
24 accepting a fellowship in preventive medicine and industrial

1 medicine.

2 Q. Now, Dr. Suskind, I've heard you use the term
3 preventive medicine, industrial medicine, and occupational
4 medicine. Can you define those for us please?

5 A. Well, preventive medicine is a field which deals
6 with the prevention of diseases and injury generally, and one
7 can get specialized training in preventive medicine following
8 medical school and following an internship. This was not my
9 intent. You can practice preventive medicine in specific
10 fields like in internal medicine and pediatrics and
11 obstetrics, and you can certainly do it in a rather large way
12 in the field of occupational medicine, because one is largely
13 concerned in occupational medicine not simply with the
14 diagnosis of occupational diseases, but the prevention of
15 occupational diseases.

16 Q. Now, in -- upon completion of your residency
17 training were you -- what was your first employment, sir?

18 A. My first employment was that of an instructor in
19 the Department of Preventive Medicine and Industrial Health,
20 which was located in the Kettering Laboratory, the same
21 department years afterwards I became the director of as well
22 as an appointment as an assistant professor in dermatology,
23 so I had a joint appointment in two departments.

24 My primary reason for returning to Cincinnati after

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1 discharge from the Armed Forces was that it provided a rather
2 unique opportunity for me at least to develop a research
3 program in the toxicology of the skin, that is, to study how
4 toxic agents affect the skin, how they're absorbed and how
5 the skin reacts to it, which is the key to the prevention of
6 occupational skin diseases and I had an opportunity to set up
7 a laboratory for the study of skin problems relating to
8 environmental chemicals.

9 I was particularly interested in the reaction of
10 the sebaceous glands to chemical agents, and in 1948 when I
11 returned set up a laboratory to study the reaction of the
12 sebaceous glands to chemical agents.

13 Q. Now, would you define sebaceous glands?

14 A. A sebaceous gland is -- are the fat glands of the
15 skin. The glands that are attached to the hair follicle, and
16 the fat from these glands keep the skin flexible and smooth,
17 and as a matter of fact, they're an important organ of
18 defense of the skin against certain kinds of stresses such
19 as, for example, the fatty acids from the sebaceous glands
20 will prevent infection, so that it's very difficult really to
21 infect the skin. The skin has to be damaged severely for the
22 skin to become infected with bacteria, because of the fact
23 that there are these fatty acids secreted by the sebaceous
24 glands, which defend the skin against invasion by

1 micro-organisms.

2 Q. Now, Dr. Suskind, as I understand it, you had a
3 professorship in the Dermatology Department as well as the
4 Department of Preventive Medicine and Industrial Health?

5 A. Right, and that Department of Preventive Medicine
6 and Industrial Health eventually became the Institute of
7 Environmental Health and from 1962 to 1969 I held joint
8 appointments in both departments and was also responsible for
9 teaching the residents in both occupational medicine and
10 dermatology.

11 Q. Now, at the University of Cincinnati, sir, you
12 mentioned the teaching that you did. Did you do any clinical
13 work there as well?

14 A. Yes. From 1962 to 1969 I served in the
15 Occupational Health Clinic, which was at the Kettering
16 Laboratory, as well as in the clinic and the hospital service
17 of the Department of Dermatology.

18 Q. Now, would you tell me the difference -- the jury
19 has heard quite a number of times reference to the Kettering
20 Laboratory. How is that different from the University of
21 Cincinnati Medical School, how are they related?

22 A. Well, the Institute of Environmental Health is a
23 comprehensive institute devoted largely to research and
24 teaching in all aspects of environmental and occupational

1 health. This is a department -- this is a department of the
2 College of Medicine at the University of Cincinnati, one of
3 the largest departments of the College of Medicine and enjoys
4 the same status as the Department of Surgery or Department of
5 Medicine. It's uniqueness is that it has a large research
6 unit, and the research unit is located in the building called
7 the Kettering Laboratory.

8 Q. Now, from the University of Cincinnati did you go
9 to another medical school?

10 A. In 1962 I was invited to develop a new
11 environmental medicine research program at the University of
12 Oregon in Portland, Oregon. They were interested in
13 developing a unit, and I went there as the head of the
14 Division of Environmental Medicine and set up a research
15 unit, in which we were engaged in studying the effects of
16 certain environmental agents on health, particularly on the
17 skin, and it had to do with humidity as humidity and wetting
18 the skin affected absorption through the skin. We now know as
19 a result of that work that when you wet the skin, toxic
20 agents will go through much more readily through the skin.

21 We did a study of forest product workers. We did a
22 study of the photosensitizing, that is, the capability of
23 chemical agents found in products to sensitize the skin to
24 sunlight, and we did some work on -- in that area as well.

1 Q. Did you do any study with respect to farm workers
2 while you were there at the University of Oregon?

3 A. Well, we had an opportunity to do some studies of
4 orchardists, workers who were involved in cherry picking and
5 there -- some of the migrant farm families which came up from
6 California to Oregon to pick the cherries developed problems
7 which we eventually found out were due to the spraying of
8 lead arsenate on the cherries before they were picked, and
9 because the cherries were so luscious and edible, the pickers
10 actually ate the cherries that had the lead arsenate on it.

11 Q. And did you have any chance while at the University
12 of Oregon to work with detergents and bacteria stats?

13 A. Well, when I talked about photosensitizing agents,
14 the agents that we were largely concerned with were agents
15 that were being incorporated into soaps and into detergents
16 to prevent the growth of bacteria. They're called
17 bacteriostatic agents, and there were a series of them at
18 that time, the so-called salicylanilides and these were
19 brominated salicylanilides, and the most active
20 photosensitizer was an agent which was very commonly used,
21 and it was called tribromsalicylanilides, and we did a study
22 of a group of people who had become photosensitized to the
23 agent and some of these people became what are known as
24 persistent light reactors even though they did not use the

1 soap any longer or the detergent any longer, they still were
2 sensitive to sunlight.

3 Q. Were these materials in any commonly sold or
4 commonly used soaps that the jurors might be familiar with?

5 A. Well, they aren't any longer. They're no longer
6 incorporated into consumer products, but at the time there
7 were products like Safeguard that had it in it, Lifebuoy
8 soap. As a matter of fact, as a result of that study I was
9 asked by the government of Australia to come and look at a
10 problem that was developing there, and it was very similar.
11 They were using soaps and detergents that had brominated
12 salicylanilides in it, and people were developing sunlight
13 reactions.

14 Q. Now, following your time at the University of
15 Oregon what did you then do?

16 A. Well, in 1969 I was invited -- even though Oregon
17 is a beautiful area of the world, and we loved it there -- I
18 was invited by the University of Cincinnati to become the
19 director of the now Institute of Environmental Health and
20 occupy the first endowed chair in that position of the
21 director of the institute.

22 Q. What is an endowed chair, Dr. Suskind?

23 A. An endowed chair is a position, a chairmanship of a
24 department position which is paid for by a grant or a gift,

1 and the interest on that gift or grant provides the income,
2 the complete income of the occupant of the chair.

3 Q. All right. So that this -- the interest from this
4 grant was in essence paid your salary?

5 A. Yes, it was, and had paid my complete salary up
6 until I retired.

7 Q. And was this grant a public or a private gift, what
8 sort of a thing was it?

9 A. Well, there was a foundation called the Schmidlapp
10 Foundation and the Schmidlapp Foundation in 1969 decided to
11 endow a chair in environmental health for the director of the
12 department, and as I indicated, I -- my income came from that
13 endowment.

14 Q. Now, if it weren't for an endowment of that kind
15 would you be then paid by the university itself?

16 A. Yes, the university usually has a salary for full
17 time faculty and, however, in many of the departments, many
18 of the major departments and the basic science departments
19 there are endowed chairs. In some instances the amount is
20 not sufficient to cover the salary, so the university pays
21 the rest. This university is a state university, so that the
22 monies for salaries also come from the state.

23 Q. Now, in your position as director of the Kettering
24 Laboratory what were your duties?

1 A. My duties included developing and administering a
2 rather substantial research program in a variety of areas
3 involving environmental health problems as well as teaching
4 and as well as participating in the clinical activities of
5 the department, so I spent about 35 to 40 percent of my time
6 in research administration and some of my own research and
7 about another 30 percent in teaching, which I still do, and
8 the rest of the time in clinical activities.

9 Q. All right. Now, when you say clinical activities,
10 what are you specifically referring to?

11 A. I mean seeing patients in the occupational health
12 clinical facility of the department, and I spent two to three
13 afternoons a week doing that, and I still do.

14 Q. And the teaching aspect, whom do you teach at the
15 university?

16 A. Well, first of all, we have -- within the
17 department we have graduate students, and there are about 70
18 graduate students, and they include physicians, PhD students
19 in toxicology, graduate students in industrial hygiene,
20 graduate nursing students in occupational health, graduate
21 students in occupational safety and environmental
22 epidemiology and biostatistics.

23 I also have some responsibility to teach
24 undergraduate medical students, medical students in their

1 second year and medical students in their fourth year, and
2 some of that teaching as well as the teaching of the
3 physicians who are graduate students or residents is carried
4 out within the clinical facility, so my two or three
5 afternoons a week are spent in seeing referral patients as
6 well as teaching the residents as well as medical students
7 who serve clerkships in the clinic.

8 Q. Do these students go on rounds with you and
9 participate in the examination of patients?

10 A. They not only do that, but they actually help work
11 up the patient. They take histories, they do the examination
12 under my supervision.

13 Q. Now, with respect to the research work that you
14 have done at the Kettering Institute or Kettering Laboratory
15 would you describe for us generally what is the nature of
16 that research?

17 A. Well, as I indicated, the research effort at the
18 Kettering Laboratory is a rather comprehensive one. It
19 includes research efforts in the toxicity of heavy metals
20 like lead and cadmium and selenium and arsenic. Right now
21 there are a substantial number of programs devoted to the
22 study of the effects of lead as well as mercury on
23 experimental animals and also on human health.

24 The research program includes a research unit

1 devoted to pulmonary problems, a research unit devoted to
2 neurological problems or neurotoxicology, a research unit,
3 rather large one, devoted to the study of cancer, the
4 mechanism of the carcinogenesis or the induction of cancer.
5 This is largely done in animals. There's a research unit
6 devoted to clinical studies, in which populations are studied
7 in the field. There's a group studying or developing new
8 methods of the prevention of or the control of hazards. This
9 is the development of industrial hygiene methods. And
10 there's a research program in epidemiology and
11 biostatistics. So that as you can see it's a rather broad
12 program, and my job was to administrate that program and to
13 see that the investigators had a sufficient amount of support
14 for their efforts.

15 Q. I believe you mentioned that you did some personal
16 research, some research of your own within that context.

17 A. Yes.

18 Q. Would you describe that for us please?

19 A. Well, from 1969 on I have carried out a number of
20 studies, and they have included studies of the effects of
21 environments on absorption through the skin, that is, the
22 study of the effects of certain types of injury, injury by
23 chemical agents, injury by wetting and so on.

24 We also have done some studies on rubber workers.

1 We did a large field study to determine the cause of a large
2 frequency or rather high frequency of skin problems in the
3 rubber industry. We have carried out, as the court has
4 heard, studies on the effects of working with 2,4,5-T, that
5 is, the manufacture of 2,4,5-T on the health of workers.

6 Q. Now, with respect to the clinical practice you say
7 you still do the clinical practice?

8 A. Yes, we do.

9 Q. Whom do you normally see in that context? Are they
10 your own patients or are they referred, what is the nature of
11 that practice?

12 A. Well, the department's clinical effort is largely a
13 tertiary care facility, that is, we don't see acute problems
14 as a rule. We do see problems that have been seen by other
15 physicians, and the physicians want a consultation to
16 determine how to understand the problem which is not getting
17 any better perhaps and how to treat the problem, and the
18 cases that we see, not only myself but others who are working
19 in the clinical facility, are referred by physicians,
20 referred by the medical departments of industries, referred
21 by unions, referred by workmen's compensation agencies of the
22 state as well as the federal worker's compensation office.

23 Q. Now, with respect to the toxicology work that you
24 do, do you do that yourself?

1 A. Well, the toxicologic efforts are very broad, as I
2 indicated, and they include work on lead and mercury and
3 cancer and a variety of things, and my job was to supervise
4 and to administrate. My own efforts, if you're asking me
5 what my own efforts in the field of toxicology were, I think
6 I have already indicated that they involved human efforts,
7 human studies. We have done, for example, a study quite
8 recently on the toxicologic effects of certain rubber
9 additives. This was a spillover of the study we did in a
10 rubber tire plant to determine what or how sensitizing, for
11 example, certain rubber additives were and for that we did a
12 study in guinea pigs.

13 Q. Now, with respect to the types of teaching that you
14 do, the nature of the courses that you teach, could you give
15 us an idea of the kinds of subject matters that you do teach
16 these students?

17 A. Well, I have a seminar course which I give. It's
18 called Perspectives in Environmental Health, and what it does
19 is to allow for an indepth discussion of some of the critical
20 problems in environmental health. For example, a review of
21 the toxic metals, which -- we discuss sources, we discuss
22 processing, we discuss the utilization of these products as
23 well as the health problems which may ensue from the -- from
24 working with metals, for example, or using products which

1 actually contain them.

2 We are not only concerned with products, we are
3 concerned with the other aspects of the environment which may
4 be contaminated by such products, air, water, food chain, and
5 so on. In addition to a discussion, indepth discussion of
6 the health issues involved in -- with metals, we discuss the
7 critical cancer causing agents that are -- that are emerging,
8 that are emerging. This is to keep the students up to date.

9 The seminar discusses immunotoxicology or the
10 immunologic aspects of environmental agents and the effects
11 of such agents through immunologic processes like asthma or
12 like allergic problems involving the skin.

13 We have -- this seminar also discusses the problems
14 of energy sources and energy utilization, which means the
15 discussion of fossil fuels like petroleum and coal and
16 shale. It's their origin, mining, the processing, the
17 refining and also utilization as well as nuclear sources of
18 energy and solar sources of energy and title sources of
19 energy and so on.

20 I also give lectures to the graduate students in
21 each of the special areas like toxicology, in which I will
22 discuss largely the toxicologic problems as they affect the
23 skin and the mechanisms and patterns of injury. Also discuss
24 these issues with the graduate students in industrial

1 hygiene. I participate in the general seminar given for the
2 whole department, which is a weekly seminar, in which the
3 whole department is involved.

4 Q. Now, with respect to the -- you're talking about
5 energy sources and oils and lubricants and that sort of
6 thing. Do you look at the health effects of exposure to
7 those materials?

8 A. We start off by looking at the sources of the
9 energy, the coal that needs to be mined, the shale that needs
10 to be taken out of the earth, the nuclear, origins of nuclear
11 energy, the fuels that are used, and then we discuss how
12 these energy sources are processed, and then how they're
13 refined and then the materials that are used from these
14 sources by industries or by consumers and the health hazard
15 aspects of them if there are any and what we know about them.

16 Q. I'd like to deal with your dermatology
17 specialization for a moment. Are you board certified, sir?

18 A. Yes, I am.

19 Q. And when did you achieve that certification?

20 A. In 1949.

21 Q. How did you become certified?

22 A. Well, one has to serve a period of training and by
23 1949 I had already served the equivalent of three years of
24 training, and then at that time one took a written

1 examination and then had an oral examination, and following
2 that examination I got a certificate.

3 Q. All right. Now, you -- how many times did you take
4 that examination?

5 A. I only took it once.

6 Q. And who did the certifying?

7 A. Well, there's an American Board of Dermatology,
8 which is a certifying board, and just like an American Board
9 of Internal Medicine or American Board of Surgery, these are
10 certifying boards that are maintained, and the certification
11 examination was given by members of the board.

12 Q. And those were written and oral?

13 A. At that time they were written and oral, right.

14 Q. Now, are you a member or have you been a member in
15 any professional societies relating to the science of
16 dermatology?

17 A. Yes. I've been a member of the American Academy of
18 Dermatology, I've been a member of Society for Investigative
19 Dermatology, I was a member of the Board of Directors of that
20 society and a vice president of the society, and last year I
21 was made an honorary member of that society. I'm also a
22 member of the American Dermatological Association.

23 Q. All right. Now, what is the nature of these
24 professional societies, what is it that they do?

1 A. Well, most professional societies are organized to
2 enhance the level of knowledge and level of understanding of
3 the diseases that members of that specialty are confronted
4 with, so that the American Academy of Dermatology is largely
5 a large society that has an annual meeting devoted largely to
6 education. The Society for Investigative Dermatology is a
7 society, as the title describes, interested in research in
8 dermatology, and not only does it provide forums or fora for
9 the discussion of research in dermatology, but also provides,
10 and I had a hand in helping to develop fellowships for the
11 training of research dermatologists, so that the professional
12 societies are largely to enhance the status, enhance the
13 scientific and the professional status of the specialty.

14 Q. Do you have any relationship with any societies or
15 foundations overseas?

16 A. Well, I have been made a honorary member of the
17 Japanese Dermatologic Association and a member, because of a
18 three month teaching and consultation effort I did in Chile
19 in 1966 was made a honorary member of the Chilean
20 Dermatological Association.

21 Q. Do you have any appointments to committees or
22 councils in the field of dermatology?

23 A. Well, I have been a member of the -- member of the
24 Board of Directors of the Society of Investigative

1 Dermatology, but if you're asking about the appointments to
2 councils, I have been a chairman of the Standards Advisory
3 Committee on skin hazards of OSHA and developed a report
4 after a year's work in that.

5 I was a member of the Board of Trustees of the
6 Dermatology Foundation. I was a chairman of the program
7 committee of the Academy of Dermatology and chairman of the
8 education evaluation committee of the American Academy of
9 Dermatology.

10 Recently I was appointed a member of the
11 subcommittee on malignant melanoma of the Lawrence Livermore
12 National Laboratory in California and am serving currently on
13 that committee.

14 Q. Now, with respect to the Lawrence Livermore
15 appointment, what is the subcommittee on malignant melanoma,
16 what is that appointment all about?

17 A. Well, some years ago it was discovered that the
18 employees of the Lawrence Livermore Laboratory, which is a
19 national laboratory, there was a -- there was apparently an
20 increased frequency in a type of skin cancer, rather serious
21 skin cancer called melanoma, and the job of the committee
22 which was appointed is to see whether or not this frequency
23 is real, whether or not it's really greater than the people
24 living in the area or the State of California, and the

1 committee of experts was assembled by the University of
2 California to look into it, and this is what we're now doing.

3 Q. Now, what is the -- what is the nature of the work
4 that you're doing on that committee? Who's serving on it and
5 --

6 A. The chairman of the committee is Dr. Arthur Upton,
7 who used to be the Director of the National Cancer Institute
8 and is now the Director of the Institute of Environmental
9 Medicine at NYU. It's an institute very similar to the
10 Institute of Environmental Health at the University of
11 Cincinnati.

12 And the other members of the board are the dean of
13 the School of Public Health at UCLA, Dr. Breslow or Dr.
14 Sober, who's from Harvard and who's an expert on the
15 pathology and the clinical aspects of melanoma, a young man
16 from the National Institute of Environmental Health Sciences
17 whose work is largely the nature of environments that may
18 result in injury or disease, that's industrial hygiene or
19 environmental hygiene, and then there is myself, who I serve
20 in the capacity of an occupational physician who has done
21 research in populations who can study or knows what to look
22 for in the environment. For example, in this instance, the
23 laboratory's been in existence since 1952, so one would have
24 to determine what have they been doing in those various

1 laboratories since 1952. That's not been done, but it has to
2 be done.

3 Q. Now, with respect to the field of occupational
4 medicine, when did you begin your involvement in that
5 specialty?

6 A. I really began the involvement when I became a
7 member of the faculty of the Kettering Laboratory and the
8 Department of Environmental Health back in 196 -- 1948, and I
9 have learned a great deal about occupational medicine and
10 occupational illnesses as a result of my work at the
11 Kettering Laboratory, so that I've been involved in the study
12 of occupational illnesses and the source mechanisms of
13 occupational illness since 1948.

14 Q. Some 38 years or so you been involved in that
15 field?

16 A. About that, yes.

17 Q. And when you began in this field, was there such a
18 thing as certification?

19 A. No, certification actually came later. As a matter
20 of fact, the certifying board, I think, gave its first
21 examination in the early fifties, it must have been '54, '55,
22 so that when I entered, there wasn't any certifying board.
23 However, I have served on the residency review committee of
24 the Association of American Medical Colleges and the AMA

1 which reviews curricula and experiences for training special
2 lists in occupational medicine, and in the last, oh, seven or
3 eight years I must have reviewed, site visited about six or
4 seven different residency programs.

5 I also have in the past served as a examiner for
6 the board. When oral examinations were given and they needed
7 examiners for that, I have been asked to be a examiner for
8 the board.

9 Q. Now what is that board, sir?

10 A. This is the American Board of Preventive Medicine,
11 which has a special area of occupational medicine, so it's a
12 subspecialty of preventive medicine, but it's a certification
13 in occupational medicine.

14 Q. So you give the exams for board certification in
15 that field?

16 A. Right.

17 Q. Now, with respect to the occupational medicine
18 field, do you have any society memberships in that area?

19 A. I'm a member of the American Occupational Medicine
20 Association and member of the American Academy of
21 Occupational Medicine and have been a member of the Board of
22 Directors of the American Occupational Medical Association on
23 -- for two terms.

24 Q. What is the function of those particular societies?

1 A. Like other professional societies they -- their
2 main thrust is to enhance the level of education, the level
3 of understanding of the diseases covered by the specialty or
4 the problems covered by the specialty. So that the American
5 Occupational Clinical Association, which is a very large
6 body, not all of the people in it are certified, is to
7 provide short courses and symposia at its annual meeting to
8 -- again to increase the knowledge, understanding, and skills
9 of the occupational physician.

10 Q. Now, are you a member of any councils or committees
11 or have any appointments in that specialty of occupational
12 medicine?

13 A. Well, I serve as an -- as the representative of
14 occupational medicine on the editorial board of the Annals of
15 Internal Medicine. I am on the Board of Directors of the
16 permanent commission or the International Commission of
17 Occupational Health, and I'm currently on that board.

18 I was a member of the -- of NIOSH's task force on
19 occupational surveillance and served about a year or two on
20 that, in that group. I have served both as a consultant in
21 occupational problems for both the Army as well as the Navy.

22 THE COURT: Mr. Heineman, is this a good point to
23 break for a short recess?

24 MR. HEINEMAN: Oh, yes, sir.

1 THE COURT: We'll take a short recess at this time.
2 I would remind you, and this covers any other breaks we take
3 during the day that you're not to discuss this matter among
4 yourselves or with anyone outside the jury panel or as of yet
5 form any opinions or conclusions about the matters on trial.
6 Court's in a short recess.

7 (At this time a short recess was taken.)
8

9 (The following proceedings were had in open Court.)

10 Q. Dr. Suskind, before the break you were mentioning
11 that you had been on the NIOSH task force on occupational
12 health surveillance, sir?

13 A. Yes.

14 Q. And NIOSH is what, sir?

15 A. That's the National Institute of Occupational
16 Safety and Health. This is the organization, national
17 organization, national agency which is responsible for
18 carrying out research and education in relation to
19 occupational illnesses and injuries.

20 Q. Now, further in connection with the -- with your
21 specialty of occupational medicine, have you had any
22 relationship or consultancy with the National Institute of
23 Environmental Health Sciences?

24 A. Yes, I have, a rather longstanding one. First of

all, the National Institute of Environmental Health Sciences provides the basic support for the Institute of Environmental Health. It is a designated center of environmental health research sponsored by the NIEHS, National Institute of Environmental Health Sciences.

I also served on a -- in 1975 served on a task force for research planning in the environmental health sciences. Every four or five years Congress asks the various institutes to provide them with an update on what their needs are, and in this instance there have been now three volumes of research needs which the NIEHS has provided for Congress, and I was even before I went to Cincinnati in 1969, I was on a task force that developed such a program, but in '75 the second task force was created, and I served as a member of that task force and wrote and edited the document which was sent to Congress.

Q. That was with respect to needs or areas of research that needed to be looked into?

A. What the task force did was to identify the state of the science in environmental health, how much do we know about anything that we should be paying attention to, and what are the current and future needs for study, current and future needs for study. This would give Congress some idea as to what the tax dollar will be supporting in environmental

1 health research and education for the next five years or so.

2 Q. Now, when you said that the NIEHS has a connection
3 with the Environmental Health Center, you're referring to the
4 University of Cincinnati?

5 A. Yes, and there are -- there are now nine others
6 that are also designated environmental health research
7 centers.

8 Q. Now, when you say designated, what do you mean by
9 that?

10 A. The National Institute of Environmental Health
11 Sciences as a result of an application that the university
12 makes for support of a large comprehensive program. The
13 application and its program are reviewed, and then it takes a
14 good while to do this, it takes over a year to do this. The
15 NIEHS with counsel then decides, yes, they will designate the
16 University of Cincinnati as one of their comprehensive
17 environmental health research centers and support it so that
18 the core support of the Institute of Environmental Health now
19 and since 1965 in Cincinnati has been from the NIEHS. Matter
20 of fact, there was no NIEHS in 1965, but the Public Health
21 Service had an Office of Environmental Health, and it was
22 only in 1969 that the NIEHS was created.

23 However, that's beside the point. The point is
24 though that government agencies like the NIEHS, National

1 Insitute of Environmental Health Sciences, has now ten
2 different universities has research centers and the
3 University of Cincinnati is one of them.

4 Q. And so these research projects that you were
5 telling the jury about a few minutes ago, these are then
6 funded by NIEHS?

7 A. The NIEHS supports the basic staff and basic
8 resources, but for specific projects, for specific projects
9 one can apply to the NIEHS, but it's not part of the center
10 grant. So that in addition to the NIEHS center grant which
11 we have, we may have seven or eight other project grants for
12 specific research projects.

13 Q. Then those are funded as well?

14 A. Those are funded as well, and what they do -- and
15 without the center we probably could not, we couldn't get
16 these other grants, because we wouldn't have the facilities
17 or the staff.

18 Q. Now, in connection with NIEHS, sir, is there any
19 maintenance of a registry with respect to people who have
20 been exposed or claim to have been exposed to dioxin?

21 A. That -- that's a registry which is maintained by
22 NIOSH.

23 Q. By NIOSH?

24 A. Not NIEHS. The NIOSH dioxin registry, which was

1 started some years ago and is now directed by Marilyn
2 Fingerhut, is, I think, what you're referring to, but that's
3 NIOSH. Again I said that the NIOSH was responsible for
4 research and education about problems of the work place.
5 NIEHS is responsible for research in other environmental
6 areas and sometimes gets into the areas of the work place,
7 but it's usually not in the work place.

8 Q. Now, with respect to the Environmental Protection
9 Agency, do you have any -- have you had a relationship with
10 that agency?

11 A. Well, I been on a number of advisory committees. I
12 been on a National Academy of Sciences Committee to look into
13 the problems of polycyclic aromatic hydrocarbons or
14 polycyclic organic materials, and that project essentially
15 was sponsored by EPA, but carried out by the National Academy
16 of Sciences. I also served on a committee, it was a National
17 Air Quality Advisory Committee for the EPA, so that when the
18 EPA was reviewing the need to regulate air pollutants like
19 carbon monoxide or photochemical oxidants or sulfur oxide,
20 this committee would review the documents that -- that
21 supported or were supposed to support the regulations which
22 were being considered.

23 Q. All right. Now, you mentioned earlier the Annals
24 of Internal Medicine. What is that publication, sir?

1 A. The Annals of Internal Medicine is a very
2 well-known medical journal published by the American College
3 of Physicians, and I think that it's probably in circulation
4 it's second only to the Journal of the AMA insofar as
5 world-wide distribution insofar as circulation is concerned,
6 and my role on the editorial board was to serve as a peer
7 reviewer of articles submitted to the journal for publication
8 as well as to advise the journal on matters that concerned
9 occupational health.

10 Q. What are the -- as a member of editorial board the
11 types of public, types of articles that are included in that
12 publication?

13 A. The types of articles include the whole range of
14 disease problems that are the -- that internal medicine
15 addresses, so it would include hematologic diseases or
16 diseases of the blood, diseases of the lungs, diseases of the
17 central nervous system, diseases of the kidney, a wide
18 variety of disease problems, which internists or specialists
19 in internal medicine would be interested in.

20 Q. Now, is this a peer-reviewed journal?

21 A. Oh, yes.

22 Q. All right. In terms of the peer review process
23 being on the editorial board do you get involved in that
24 process?

1 A. I do get referred to me articles that are being
2 considered for publication, and I have to read them and
3 appraise them and give an evaluation and finally whether or
4 not the article is worthy of publication in that journal.

5 Q. All right. Now --

6 A. What happens is that my review without name will go
7 back to the author, and sometimes the article is worth
8 publishing if they make certain required revisions, and if
9 the revisions are made, and the author accepts the idea that
10 these these revisions ought to be made, then the article will
11 be published, and then sometimes, and this is true for all
12 peer-reviewed journals, they get articles which are not
13 qualified for publication.

14 Q. And so you are a peer reviewer?

15 A. Right.

16 Q. Is that right? What are the factors that go into
17 that process to decide whether an article should be published
18 in a peer-reviewed journal?

19 A. Well, there are a set of criteria which the journal
20 actually designates, originality, medical interest, whether
21 it's of strong medical interest, moderate or there's very
22 little interest on the part of medical community in the
23 subject of the article. Looks at the adequacy of the
24 writing, whether it's good English or not, and that sometimes

1 is a problem, whether the material is of value, but not
2 presented properly, and the peer reviewer can determine, yes,
3 it's of great value, this new information, but it's not
4 interpreted properly or presented properly, so that one looks
5 for originality, one looks for level of interest, one looks
6 for organization, one looks for adequacy of the writing and
7 then makes a judgment about whether it's worth publishing in
8 the journal.

9 Q. Do you get involved in a determination of the
10 merits of what's being presented, whether the conclusions are
11 justified?

12 A. Yes, that's part of it, but I not only do peer
13 reviewing for that journal, but peer review for the Journal
14 of the AMA and the Journal of Investigative Dermatology and
15 the Journal of the American Academy of Dermatology, so that
16 -- and it takes a lot of effort, because one does recognize
17 that it is a responsibility of the peer reviewer to be, to be
18 thorough about the review.

19 Q. Now, I'd like to deal with your toxicology
20 background. What is the board -- is there a board or a
21 governing group in the field of toxicology?

22 A. Well, up until 1978 there was no certifying board
23 in toxicology, and several scholars in the field decided that
24 it would be a good idea to develop such a certification,

1 again to enhance the level of education, to enhance the level
2 of skills of the toxicologists who are going to be
3 responsible for making judgments about products, about
4 processes, about work places, and their efforts are going to
5 have an important role in regulatory decisions.

6 In 1978 a group was brought together, and I was
7 asked to join that group to develop an examination, and this
8 is -- we spent two years developing this program of
9 examination, and the exam has been given now since 1980, and
10 I served on the board for five years, from 1978 to 1983, and
11 now the board is well on its way, and they are giving
12 examinations not only in the United States but overseas.
13 They give the examinations in Great Britain and Germany and
14 Australia and New Zealand.

15 Q. All right. Now, with respect to the field of
16 toxicology do you serve and have you served on other
17 committees or councils in that connection?

18 A. I have served on a few. I served as a member of
19 the advisory panel on toxicology of the American Medical
20 Association from 1980 to 1985. I served on the Ohio State
21 Agent Orange advisory committee from 1982 on. I served on
22 the Veterans Administration committee on health related
23 effects of herbicides. This was a national committee, and I
24 was a consultant to the VA on Agent Orange studies.

1 Q. With respect to the AMA panel on toxicology did you
2 have a specific project that you were involved in in that
3 connection?

4 A. Originally the panels developed to advise the AMA
5 on a variety of toxicologic issues, but one issue appeared to
6 be very urgent at the time, and that's -- this was the Agent
7 Orange issue, and the panel was then asked to develop a state
8 of the science, a state of the knowledge that we had about
9 Agent Orange and its possible contaminants and look into the
10 environmental aspects of it, the toxicologic aspects of it in
11 animals, that is, at least the contaminants or the materials
12 that made up Agent Orange 2,4,-D and 2,4,5-T, and then
13 particularly interested in the state of our knowledge about
14 the health effects of Agent Orange and what studies were
15 being done, what studies should be done to develop critical
16 information about the effect of Agent Orange on Vietnam
17 veterans or the effect of the materials that were used in
18 Agent Orange on other populations.

19 Q. Now, by the contaminants what particular
20 contaminants were you referring to?

21 A. We were particularly concerned with 2,3,7,8
22 tetrachlorodibenzo-para-dioxin commonly known as dioxin or
23 TCDD.

24 Q. How did you get appointed, how did you get involved

1 in this particular project?

2 A. Well, I'm not altogether sure who recommended me,
3 but I got a call one day from the office of the council on
4 scientific affairs of the AMA asking me whether I would serve
5 on that toxicology committee, and they indicated, whoever
6 called me indicated what the need was and I had served years
7 ago on other AMA committees and found it a very useful
8 professional responsibility.

9 Q. Who else was on this committee with you?

10 A. The committee was chaired by a physician who was
11 the dean at Wright State University Medical School named John
12 Belgian, and other members of the committee were the
13 toxicologist, Wendell Kilgore from Davis, a physician
14 toxicologist from Dayton named Kimura, a pathologist from the
15 Armed Forces Institute of Pathology named Nelson Irely, who
16 was very knowledgeable about the pathological aspects of
17 toxicology, and a man named Vostal, a toxicologist who had
18 been -- I had known him from the University of Rochester
19 Center for Environmental Health Research, who was at the time
20 of his appointment the Director of Toxicology of the General
21 Motors.

22 Q. Now, what -- how did your group function, what did
23 you do?

24 A. Well, we felt -- oh, yes, I'm sorry, there was a

1 secretary who was staff named Robert Wheeler, who was a very
2 knowledgeable, scholarly man who put together references and
3 even did some of the writing for us to look at, examine and
4 appraise before it went into any of the documents.

5 I think the way we went about our affairs could
6 best be described by what we did to develop the latest issue
7 of a document on the health effects of Agent Orange. There
8 was one put out in 1981 and a second one in 1984, which was
9 the revision, and what we did was literally to divide up the
10 responsibility, because there were representatives of a
11 variety of disciplines on that panel. Dr. Kilgore knew a
12 good deal about the environmental aspects and analytical
13 aspects of the Agent Orange components and their contaminants
14 like TCDD.

15 Dr. Vostal handled the toxicologic aspects, what
16 the state of knowledge was about the effects of TCDD and
17 other related substances on animals, and Dr. Kimura and I
18 were really responsible for putting together the human health
19 effects material and all the references, and we submitted our
20 review to the whole committee. It was gone over very
21 carefully by the whole committee, and then we decided what
22 should go in that final document.

23 Q. Now, how long did this committee operate?

24 A. Well, the committee existed actually from 1980 to

1 '85.

2 Q. And what materials did the committee refer to in
3 order to reach the conclusions that it eventually expressed?

4 A. First of all, we went to the literature, and we had
5 a good informational backup including my own library of the
6 Institute of Environmental Health, and then we brought in a
7 series of consultants to tell us about what they knew of the
8 various studies that were going on and listed in the latest
9 edition of '84 is a list of those people, and they included
10 Renate Kimbrough, who worked with the CDC, and it included
11 Marilyn Fingerhut, who told us about the dioxin registry, but
12 particularly about her work on the soft tissue sarcoma issue,
13 what she had done up until that time and what new knowledge
14 there was throughout the world as well as through the efforts
15 of NIOSH about clarifying the diagnostic issue with respect
16 to soft tissue sarcoma.

17 We had doctor -- the epidemiologist at Dow, whose
18 name escapes me at the moment, but he told us about what Dow
19 was actually doing. We had Sheila Hoar from the National
20 Cancer Institute told us about the studies that the NCI was
21 doing on effects of spraying and non-Vietnam community, for
22 example, among Kansas farmers that used 2,4,5-T years ago,
23 what the state of their health was.

24 Nelson Iry represented the Armed Forces Institute

1 of Pathology. Dr. Shepherd from the VA came as a
2 consultant. Dr. Merlo, who was a graduate student of mine,
3 but was the Director of the biostatistical unit at Seveso,
4 told us about what new knowledge there was with respect to
5 the studies being carried out at Seveso. Those were some of
6 the consultants.

7 Q. All right. Then having --

8 A. The name of the -- I'm sorry, if I can interrupt --
9 the name of the epidemiologist from Dow was Ralph Cook. I'm
10 sorry.

11 Q. Now, once you had gathered all of that information
12 and searched the literature and had the consultations what
13 did the committee then do?

14 A. Well, the committee decided that all this material
15 should go into a document, which would be made available to
16 American physicians or any other people that would like to
17 have a copy of this review.

18 Q. And then is that when the responsibilities were
19 differentiated as you described them?

20 A. No, no, the responsibilities were differentiated at
21 the very beginning when we set out to develop this revised
22 document on health effects of Agent Orange, but when all of
23 our individual work was done this was brought together,
24 reviewed by the committee as a whole and then edited and

1 published.

2 Q. All right. Was there any feedback? In other
3 words, did you send it out to the people that had spoken to
4 you and consulted with you for further consultation?

5 A. Yes. Individual sections that referred to the work
6 that was being carried out like at the National Cancer
7 Institute or at NIOSH and the update of the research at
8 Seveso, this was all reviewed by the consultants themselves.

9 Q. And then did you receive remarks back from them?

10 A. Yes, yes, and I think in most instances the
11 reporting was very accurate so that there was very little in
12 the way of correction.

13 Q. How does the procedure that you went through with
14 this AMA report on Agent Orange, how does that compare to the
15 peer-review process which you have just described to the
16 jury?

17 A. Well, first of all, I have to explain that the peer
18 review process of an original article which is submitted to a
19 journal is really very different than a review of an -- a
20 review of a review. The AMA's document was really an
21 informational review, and then a discussion of the state of
22 the science, of the state of knowledge and some -- and
23 conclusions based upon the state of the knowledge.

24 Q. That was -- was that based in part on review of

1 other peer-reviewed articles?

2 A. It was based upon the collective information about
3 all of these various levels of research activity,
4 environmental and analytical toxicology, human health
5 effects, human health effects, and the information that was
6 gleaned from the articles was summarized in this document.

7 Now, I can't really tell you that all of the
8 articles that we had looked at and quoted were peer-reviewed
9 adequately. I really don't know. Nobody can tell you that,
10 but most of the articles were published in peer-reviewed
11 journals.

12 Q. Now --

13 A. Some of them actually were documents that came out
14 of national agencies and while documents that come out of
15 national agencies may not be peer-reviewed in the same sense
16 as we know it, but they usually are reviewed before they are
17 published.

18 Q. Now, you, sir, have written articles of your own,
19 have you not?

20 A. I have.

21 Q. And can you give us an idea of approximately how
22 many, let's say, peer-reviewed publications that you have
23 written?

24 A. Well, I would -- I've never counted the number of

1 peer-reviewed articles, but most of the original publications
2 that I have submitted were peer-reviewed and published in
3 peer-reviewed journals like the Journal of Investigative
4 Dermatology, the Journal of Occupational Medicine, even the
5 state of the arts document on the environment and skin, which
6 I published in Environmental Health Perspectives, that's a
7 national, that's a journal of the NIEHS, that's also
8 peer-reviewed.

9 Q. So when you write an article, then someone else is
10 peer reviewing it for the journal.

11 A. Yes, yes.

12 Q. You get back their comments?

13 A. Yes.

14 THE COURT: Is this -- before you get into a
15 specific article, is this a good point to break for lunch?

16 MR. HEINEMAN: Yes, sir.

17 THE COURT: We'll break at this time. We'll resume
18 again at 1:15. The admonishments that I gave you earlier
19 will apply during this break also. Court's in recess for
20 lunch.

21 (At this time a short recess was taken.)

22 (At this time the following proceedings were had in
23 chambers out of the hearing of the jury.)

24 THE COURT: Let the record indicate we're in

1 chambers outside the presence of the jury, and would you
2 please indicate for the record what days Dr. Suskind has told
3 us that he's available?

4 MR. HEINEMAN: The days he's available are -- other
5 than today, of course.

6 THE COURT: Sure, right.

7 MR. HEINEMAN: Thursday and Friday of this week.

8 THE COURT: That's the 13th and 14th?

9 MR. HEINEMAN: Right. The 18th and 19th, the 25th
10 through the 28th, and the 3rd and 4th of March. Now, I'd
11 also note that he is also available on the days that have
12 been declared that there's no court, which is the 11th and
13 12th and 17th and 24th.

14 THE COURT: The 17th and 12th are court holidays,
15 and this building is closed down. Okay. And that's it?
16 He's not available past that is what you're telling me?

17 MR. HEINEMAN: That's what he's informed me.

18 THE COURT: How long is your direct going to be?

19 MR. HEINEMAN: I will finish my direct, I'm
20 assuming I'll finish my direct on Friday of this week.

21 THE COURT: So that would be -- you'd finish on the
22 14th, and we'd have the 18th and 19th. Where is he going to
23 be the 20th and 21st?

24 MR. HEINEMAN: In California at the University of

1 California at a meeting of that committee that he described
2 this morning at the Lawrence Livermore Laboratories at the
3 University of California.

4 THE COURT: I'm assuming you've got a witness to put
5 in those two dates, the 20th and 21st. Can you get Dr.
6 Cugell back?

7 MR. HEINEMAN: I can assume so. I don't know, I
8 haven't addressed that point.

9 THE COURT: Mr. Carr, do you have anything to say?

10 MR. CARR: Yes, your Honor. The plaintiff would
11 object to Dr. Suskind not being being here on the 20th and
12 21st and some other witness interposed. We've already got a
13 witness that has been interrupted for Dr. Suskind to come
14 here. If you recall, Dr. Cugell testified for a couple of
15 days and has been pulled off now so that Dr. Suskind can come
16 on. If Suskind isn't here on the 20th and 21st presumably
17 Dr. Kugell will be put back on in the middle of my cross
18 examination of Dr. Suskind, and I submit, Your Honor, that I
19 cannot develop a decent cross examination for the benefit of
20 the jury to develop the points that need to be developed if
21 the cross-examination is interrupted in this way by some
22 other witness on direct examination. And I would object to
23 taking Dr. Suskind off the stand for the purpose of him
24 attending a committee meeting in California.

1 They must have known of this committee meeting
2 prior to this time. They could have scheduled Dr. Suskind in
3 March or April or whenever they-- or in January, whenever
4 they wanted to, and I would object to any -- to taking him
5 off the stand for the 20th and 21st and some other witness
6 coming on in his place. I think it's unfair to the
7 cross-examination that we're going to give.

8 THE COURT: Why can't he be here past the 4th.

9 MR. HEINEMAN: I don't know that, Judge. That's
10 the date upon which he says beginning the fifth he's got to
11 be off doing something else, and I don't honestly know what
12 it is as of the 4th or the 5th of March.

13 Now, I might say that at the time that we scheduled
14 him during this period we were not aware of the additional
15 days off that had occurred, and, of course, the examination
16 of Dr. Cugell was unfortunately interrupted by, I think,
17 three days of juror illness as I'm informed.

18 THE COURT: Yeah, it was juror illness.

19 MR. HEINEMAN: Further I recall pretty well, I
20 think, occasions when both Dr. Silbergeld and Dr. Carnow were
21 away for a day or so in the midst of examination. I think it
22 was my cross-examination when that occurred.

23 THE COURT: Well, if I remember correctly, those
24 were not where another witness was put in. I think those

1 were days that were off.

2 MR. HEINEMAN: Well, they weren't off until Dr.
3 Carnow couldn't be here, cause I remember one of those
4 specifically. He had to go to Boston or something for some
5 conference or meeting. Now, we had not proposed, at least I
6 didn't propose to Mr. Carr to put a witness on during those
7 two days. I know that Musgrave talked to Mr. Carr about
8 that, and I don't know what the subject of that conversation
9 was.

10 MR. CARR: I have not been talked to about
11 anything. I just assumed you were going to put somebody on
12 during those two days. In essence you're asking the Court
13 shut down those two days then?

14 MR. HEINEMAN: If you don't want somebody else in
15 the meantime.

16 MR. CARR: I sure don't. I think it would be
17 unfair to everybody to shut down for two days because he's
18 going to be in California at a committee meeting. I think
19 they should have scheduled him at a point in time when they
20 wouldn't have to ask for a recess. We're going to end up with
21 two days, we're ending up with three days this week, two days
22 next week.

23 MR. HEINEMAN: Well, if the Court please, I know
24 that, I'm informed that the 24th we're not on because Mr.

1 Carr has some other --

2 MR. CARR: That's exactly correct.

3 MR. HEINEMAN: -- Engagement that he has to
4 participate in.

5 MR. CARR: I have to appear in the Appellate Court.
6 The courts have a little more authority in the judicial
7 system over a committee meeting in California.

8 MR. HEINEMAN: Well, they may to you, but--

9 MR. CARR: They do to the Court as well.

10 MR. HEINEMAN: I think that this meeting in
11 California is of the utmost importance to the witness. The
12 participation that Drs. Carnow and Silbergeld had, the court
13 days were called off when they couldn't be here.

14 MR. CARR: Well, I don't know of any days when
15 Silbergeld was called. There may have been some. As far as
16 Carnow you have an advantage on me. I don't recollect him
17 being gone during cross examination-- one day he had --
18 that's when he had to testify in Congress about Bopal
19 incident.

20 MR. HEINEMAN: Well, I remember a trip to Boston,
21 as I recall.

22 THE COURT: That was the Bopal incident, cause I
23 tasked to -- that came about from Congressman Blackmon
24 calling me to get him off for the testimony. I think that

1 was correct. Well, what about this? If you're going to
2 finish him -- of course, how long -- do you have any idea how
3 long Dr. Cugell is going to take, how much longer?

4 MR. CARR: I have no idea. It's their witness,
5 Judge. They just got two or three plaintiffs that they have
6 discussed, and if you recall, they gave us a long list of
7 plaintiffs that they're going to talk about.

8 THE COURT: 21 of them.

9 MR. CARR: Abnormal spirometers are only relatively
10 few, so I don't see how -- there's only about five that have
11 an abnormal spirometer. I don't see how it can take very
12 long for Cugell on direct examination.

13 THE COURT: What I am thinking is perhaps we could
14 put Cugell in the week of the 17th, just the whole week after
15 cross-examination is finished on the 14th, and then start up
16 with Dr. Suskind the week of the 24th.

17 MR. CARR: Then Cugell's cross-examination -- I
18 don't know how long they're going to put on Cugell, and
19 Cugell's cross-examination may be interrupted to start Dr.
20 Carnow's examination-- I mean Suskind's cross-examination.

21 THE COURT: This is getting crazy.

22 MR. CARR: I don't know if I could keep it
23 straight.

24 THE COURT: This is that ongoing committee on the --

1 this suspected exposure at Livermore Laboratory, right?

2 MR. HEINEMAN: Umhm. That's my understanding,
3 Judge.

4 THE COURT: That's what I remember. I've got my
5 notes out in the courtroom, but my understanding, so this is
6 an ongoing committee meeting. Well --

7 MR. CARR: Why can't Suskind be here in March? Why
8 can't you pull him off the stand, bring Cugell back, Cugell
9 can be the 13th and 14th and the following week and then
10 bring Suskind, and we get through with Cugell by the middle
11 of the week of the 25 or sometime during that week, we can
12 have Suskind then, and he can be here unlimited.

13 MR. NASSIF: You can put this on the record, but,
14 Judge, I have a recollection that he's gone someplace for two
15 months.

16 MR. CARR: Who?

17 MR. NASSIF: Suskind, right after this March date
18 that he's given us on a major thing that he's working on, a
19 project, and I can't recall exactly what the details were,
20 but I remember we had him scheduled before Christmas
21 originally, and things got -- because of Mrs. Melton's
22 illness, things got all pushed back and then he said well,
23 I've got this window from the 10th until March the date that
24 he gave us, and I can remember vaguely that after March he's

1 unavailable, and I think it's for a significant period of
2 time, and I can't recall what it is, but I think it's
3 something out of this area, it's not in Cincinnati. He's
4 working someplace else.

5 THE COURT: He's actually engaged in a project
6 somewhere else. Well then, the only way we are going to
7 finish him is if we go the 20th and 21st and I'm sustaining
8 your objection to that. That is the only way we can possibly
9 finish him. I remember the scope of what his testimony was
10 going to be. I have been served. I've gotten a copy of
11 various discovery matters concerning his testimony and
12 looking at the history of this thing and the way witnesses go
13 in this trial there's no way in the world we'll finish this
14 otherwise if he actually has to be out on a contracted or
15 committed project on the 5th or the 6th or whenever it is,
16 the 5th of March. That's the only way we're going to finish
17 him, so I will sustain your objection.

18 MR. HEINEMAN: Your Honor --

19 THE COURT: The difference with those other
20 situation when we shut down or whatever was we didn't have a
21 witness on the stand who had limitations as far as -- as far
22 as when the thing had to end, and life was a little easier as
23 far as dealing with that. If it weren't for the -- this
24 apparent commitment on the 5th and beyond, you know, this

1 would be a lot easier to deal with, but under the
2 circumstances, I don't see any other way that we can finish
3 this witness with cross-examination and the inevitable
4 redirect and recross-examination that comes about with these
5 witnesses.

6 MR. HEINEMAN: Let me-- As I said to you, I don't
7 know what this March thing is. If the court would like I'd
8 take a few minutes and go talk to him about it.

9 THE COURT: Why don't you talk to him at the recess
10 and report to me.

11 (The following proceedings were had in open Court.)

12 THE COURT: Okay.

13 Q. Dr. Suskind, one of the things I neglected to cover
14 with you this morning was at the time you were -- from 1969
15 until the time that you retired when you were at the
16 University of Cincinnati in the Kettering Laboratory, what
17 professorships did you hold with the university?

18 A. I held a faculty appointment as full professor in
19 three departments. One, my major department, I was professor
20 of environmental health, and I also held appointments in the
21 Department of Internal Medicine as professor of internal
22 medicine as well as professor of dermatology, and I
23 participated in the activities of those departments to some
24 degree.

1 Q. All right, sir. Now, just before the lunch break
2 we had begun talking about your publications, and I don't --
3 while I realize you've written many articles, I just want to
4 deal with a few. First of all, have you written on the
5 subject of human sebaceous glands?

6 A. Yes, I have, sir.

7 Q. And when was that?

8 A. Well, as I indicated earlier, when I came to
9 Cincinnati in 1948, I came with the idea that I was going to
10 establish a laboratory to do studies on the physiology and
11 the chemistry of the skin, which would help explain why the
12 skin reacts in certain ways and how it reacts, and I was
13 particularly interested in the problem of young people with
14 acne vulgaris, juvenile acne, which is very common, and
15 wanted to compare the reaction of the sebaceous glands in
16 juvenile acne to those that were caused by chemical agents
17 such as causing chloracne, so that the first paper we did was
18 on a histochemical, which means you take biopsies of the skin
19 of people who have normal skin, a wide age range, and then
20 you take biopsies of people with acne vulgaris, and then
21 biopsies of people that have chloracne, and you stain them
22 for certain chemical components like cholesterol and lipids,
23 like triglycerides and so on on and you determine what the
24 difference is, what the difference between the normal skin of

1 certain age groups, especially adolescents and those who have
2 acne vulgaris, and even some adults have acne vulgaris as you
3 know. Then we compared those reactions or those
4 characteristics, chemical characteristics to the biopsies of
5 the first four people who were involved in a runaway reaction
6 involving trichlorophenol, and they had chloracne, severe
7 chloracne, and we did the same kinds of examinations of those
8 people.

9 We then followed this up -- this was
10 histochemically, this was staining for chemicals, staining
11 for the characteristic chemicals and then we went ahead and
12 we did analytical measurements. A chemist physiologist named
13 Schmidt Nielsen joined me. Dr. Schmidt Nielsen is now a
14 professor of physiology at Duke University, but he spent
15 several years with us, and he had just developed new
16 techniques to determine micro amounts, very, very small
17 amounts of lipids in tissues, which he had developed when he
18 was in Copenhagen, and he joined us, and he did some
19 analytical studies, not staining, but he actually measured
20 the amount of triglycerides and fatty acids within the
21 material that came out of the sebaceous orifice, came out of
22 the opening in the skin.

23 And the second paper in that series is about that.

24 Q. All right. Now, and what was the year when those

1 papers were published?

2 A. These were published, I believe, in 1951, again in
3 the Journal of Investigative Dermatology. One -- they were
4 published in July of 1951.

5 Q. All right, sir. Now, did you have occasion to
6 publish in the areas of occupational skin problems?

7 A. Well, I had because of my interest in mechanisms of
8 how and why skin reactions occur, which is really the basis
9 of understanding occupational skin disease, by the time, oh,
10 1958 arrived I had a fair amount of information which I had
11 gathered both myself and then through reading and published a
12 series of review articles, sort of state of the science of
13 occupational skin problems in the first, second, and third
14 issues of the Journal of Occupational Medicine.

15 The first article was on the mechanisms of
16 dermatological or skin response, and the second article had
17 to do with the patterns of response, the manner in which the,
18 I'm sorry, the second article was on methods of study,
19 methods of evaluation, and the third article was on
20 diagnostic methods to clearly define what the origin of
21 occupational skin problems were, and this was published in
22 the Journal of Occupational Medicine beginning in January of
23 1959.

24 Q. All right, sir. Following that did you have an