
Trial Transcript [December 6, 1993]

Transwestern v. Monsanto

**CONDENSED TRANSCRIPT AND CONCORDANCE
PREPARED BY:**

*PREUSS, WALKER & SHANAGHER
Attorneys at Law
595 Market Street, 16th Floor
San Francisco, CA 94105
Phone: [415] 978-2600
FAX: [415] 978-2613*

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- (1) LOS ANGELES, CALIFORNIA; MONDAY, DECEMBER 6, 1993
(2) 9:30 A.M.
(3) DEPARTMENT NO. 31 G. KEITH WISOT, JUDGE
(4) ---0---
(5) (APPEARANCES AS HERETOFORE NOTED.)
(6) (DAVID A. SALYER, OFFICIAL REPORTER.)
(7)
(8) THE COURT: AND GOOD MORNING, LADIES AND
(9) GENTLEMEN, RETURNING, AGAIN, TO TRIAL PROCEEDINGS
IN
(10) TRANSWESTERN VERSUS MONSANTO WITH ALL OF THE
(11) APPROPRIATE PARTICIPANTS IN THEIR RESPECTIVE
PLACES.
(12) WE CONTINUE WITH A DEPOSITION READING,
(13) MR. TALLON. YOU MAY CONTINUE.
(14) MR. TALLON: YES.
(15) THIS IS CONTINUATION OF THE READING OF
(16) THE DEPOSITION OF R. EMMET KELLY, M.D., FROM A
(17) TRANSCRIPT OF APRIL 30, 1992.
(18) AND WE ARE RESUMING ON PAGE 68 WHERE WE
(19) LEFT OFF.
(20) Q WHEN YOU SAID IN YOUR ANSWER OF A
(21) MOMENT AGO, DOCTOR, THAT
(22) TOXICOLOGICAL WORK SHOWED THE
(23) LIVER WAS A TARGET ORGAN IN ACUTE
(24) EXPOSURES, TO WHAT TOXICOLOGICAL
(25) WORK WERE YOU REFERRING?
(26) A DRINKERS AND SOME OF OUR OWN
(27) BASIC TOXICOLOGICAL WORK THAT WE
(28) HAD CARRIED OUT THAT I DESCRIBED

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- (1) BEFORE.
(2) I MEAN, THE BASIC PACKAGE OF FOUR
(3) DIFFERENT TYPES OF TOXICOLOGICAL
(4) EXPERIMENTATION, EYES, SKIN,
(5) INHALATION AND ORAL.
(6) Q AND WHAT WAS -- WHAT IS THE
(7) MEANING OF THE TERMINOLOGY THAT
(8) YOU USED, "THE LIVER IS, THE
(9) TARGET ORGAN"?
(10) A WELL, THAT SEEMS TO BE THE ONE
(11) THAT IS MOST AFFECTED BY A
(12) CHEMICAL IN A TOXICOLOGICAL
(13) EXPERIMENT.
(14) Q MOST AFFECTED BY A CHEMICAL?
(15) A ANY CHEMICAL, WHATEVER,
(16) DEPENDING.
(17) IT MIGHT MAY BE THE KIDNEY. IT
(18) MAY BE THE LIVER. IT MAY BE THE
(19) BRAIN.
(20) IT ALL DEPENDS ON WHAT CHEMICAL
(21) YOU'RE TESTING.
(22) THAT IS REFERRED TO BY THE
(23) TOXICOLOGIST AS A TARGET ORGAN.
(24) Q DID THE TOXICOLOGICAL WORK YOU
(25) HAD ON HAND IN FORMULATING YOUR
(26) REPLY TO DR. SPOLYER INDICATE
(27) THAT THE LIVER WAS THE TARGET
(28) ORGAN OF PCB'S?

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- (1) A YES.
(2) Q DO YOU RECALL WHETHER THE
(3) TOXICOLOGICAL WORK ON HAND AT
(4) THAT TIME DIFFERENTIATED BETWEEN
(5) THE AROCLOR PRODUCTS WITH RESPECT
(6) TO CLASSIFYING THE LIVER AS A
(7) TARGET ORGAN?
(8) A THAT IS UNCLEAR TO ME.
(9) WOULD YOU REPEAT IT?
(10) Q I'M WONDERING WHETHER THE
(11) TOXICOLOGICAL WORK WHICH YOU WERE
(12) REFERRING TO IN ORDER TO
(13) FORMULATE YOUR RESPONSE TO
(14) DR. SPOLYER MADE ANY DISTINCTION
(15) BETWEEN AROCLOR 1254 OR 1232 IN

- (16) IDENTIFYING THE LIVER AS A TARGET
(17) ORGAN?
(18) A NO. I THINK IT MIGHT BE A
(19) DIFFERENCE IN THE DOSAGE, BUT I
(20) THINK THE TARGET ORGAN IS THE
(21) SAME FOR VARIOUS DIFFERENT
(22) AROCLORS.
(23) Q ARE THERE AROCLORS FOR WHICH THE
(24) LIVER IS NOT A TARGET ORGAN?
(25) A I DON'T RECALL ANY.
(26) Q DO YOU RECOLLECT, DR. KELLY,
(27) HAVING RECOMMENDED ANY CHANGES IN
(28) PRODUCT LABELING AS A RESULT OF

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- (1) YOUR COMMUNICATION WITH
(2) DR. SPOLYER?
(3) A NO.
(4) BECAUSE IF THEY HAD FOLLOWED THE
(5) RECOMMENDATION ON THE LABELING
(6) WHICH SAYS "DO NOT INHALE FUMES
(7) IN CONFINED SPACES OR AT ELEVATED
(8) TEMPERATURES," THIS WOULDN'T HAVE
(9) HAPPENED.
(10) Q YOU MENTIONED IN YOUR ANSWER,
(11) ALSO, THAT YOU ADDRESSED THE
(12) SUBJECT OF CHEMICAL HEPATITIS.
(13) CAN YOU TELL ME HOW THE CONDITION
(14) OF CHEMICAL HEPATITIS IS RELATED
(15) TO EXPOSURE TO AROCLOR FUMES OR
(16) HOW YOU BELIEVED IT TO BE, THEN,
(17) RATHER?
(18) A IF YOU GET A SUFFICIENT AMOUNT OF
(19) AROCLOR ABSORBED INTO THE SYSTEM,
(20) SUFFICIENT AMOUNT, AND THAT
(21) VARIES WITH SPECIES AND WITH -
(22) WELL, IN HUMANS YOU CAN GET AN
(23) INVOLVEMENT OF THE LIVER.
(24) Q I'M SORRY.
(25) WHAT OF THE LIVER?
(26) A INVOLVEMENT.
(27) Q INVOLVEMENT.
(28) A AND THAT IS WHAT IS KNOWN AS A

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- (1) CHEMICAL HEPATITIS AS CONTRASTED
(2) TO INFECTIOUS HEPATITIS, VIRAL
(3) HEPATITIS, ET CETERA.
(4) Q ARE YOU USING "INVOLVEMENT" IN
(5) THAT SENTENCE AS A TECHNICAL
(6) TERM?
(7) A I DON'T THINK IT'S TOO TECHNICAL.
(8) I MEAN, THE LIVER, IT AFFECTS THE
(9) LIVER.
(10) Q I WAS JUST WONDERING IF YOU WERE
(11) USING "INVOLVEMENT" AS A
(12) TECHNICAL TERM AS OPPOSED TO
(13) INDICATING THAT THE LIVER WAS
(14) IMPLICATED AS A RESULT OF THE
(15) ABSORPTION AND YOUR ANSWER, I
(16) BELIEVE, WAS YOU WERE NOT USING
(17) IT AS A TECHNICAL TERM?
(18) A NO.
(19) Q IN WHAT MANNER IS THE LIVER
(20) INVOLVED?
(21) WHAT HAPPENS?
(22) A YOU GET CLOUDY SWELLING OF SOME
(23) OF THE LIVER AS WELL AS,
(24) DEPENDING ON THE DOSAGE,
(25) AND THEY EITHER CAN PROGRESS OR
(26) REGRESS.
(27) Q DURING THE PERIOD THAT YOU WERE
(28) MEDICAL DIRECTOR DID YOU, FROM

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- (1) TIME TO TIME, MAKE TELEPHONE
(2) CALLS TO CUSTOMERS AT THE REQUEST
(3) OF SALES PERSONNEL?
(4) A OH, YES.

(5) Q WAS IT IN PART YOUR PURPOSE IN
(6) MAKING THOSE CALLS TO ASSIST THE
(7) SALES EFFORT?
(8) A WELL, INDIRECTLY.
(9) BUT THE MAIN PURPOSE WAS TO TELL
(10) THE INFORMATION - IT DEPENDS ON
(11) THE REASON FOR THE CALL.
(12) IT WAS EITHER TO GIVE THE MAN
(13) INFORMATION AS TO THE
(14) TOXICOLOGICAL ASPECTS OF THE
(15) PRODUCT, WHETHER OR NOT THERE IS
(16) ANY POTENTIAL AVENUES OF HARM TO
(17) A WORKER FROM THE PRODUCT AND
(18) ANSWER WHAT QUESTIONS THEY HAD
(19) ABOUT THE SAFETY OF THE PRODUCT.
(20) IF THAT HELPS THE SALES EFFORT,
(21) FINE. BUT THE MAIN WAS TO MAKE
(22) SURE OUR PRODUCT WAS USED
(23) SAFELY.
(24) Q WHEN YOU USED THE TERM
(25) "INDIRECTLY" IN YOUR LAST
(26) ANSWER, DID YOU MEAN TO SAY IF,
(27) THE INFORMATION WAS PROVIDED TO
(28) THE PERSON TO WHOM YOU SPOKE,

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(1) THEN THAT WOULD AID THE SALES
(2) EFFORT?
(3) A IF HE DIDN'T WANT TO USE THE
(4) PRODUCT BECAUSE HE DIDN'T KNOW
(5) ANYTHING ABOUT THE TOXICITY, HE
(6) WAS WORRIED ABOUT THE TOXICITY,
(7) AND IF I WAS ABLE TO EXPLAIN TO
(8) HIM THE SAFE USE OF THE PRODUCT,
(9) HOW IT HAD BEEN USED SAFELY, THAT
(10) WOULD CERTAINLY HELP THE SALES
(11) EFFORT.
(12) BUT THAT IS THE INDIRECT EXTRA
(13) DIVIDEND OF IT.
(14) Q IS THE TERM "CHLORINATED
(15) HYDROCARBONS" SYNONYMOUS WITH
(16) POLYCHLORINATED BIPHENYLS?
(17) A OH, NO. CHLORINATED HYDROCARBONS
(18) IS A GENERIC TERM THAT RELATES TO
(19) ANYTHING HAVING CHLORINE,
(20) HYDROGEN AND CARBON IN IT.
(21) CARBON TETROCHLORIDE WHICH USED
(22) TO BE USED FOR CLEANING
(23) TYPEWRITERS IS A CHLORINATED
(24) HYDROCARBON.
(25) SO CHLORINATED BIPHENYLS IS A
(26) CHLORINATED HYDROCARBON BUT ALL
(27) HYDROCARBONS - BUT THEY MAKE UP
(28) ONLY A SMALL PERCENTAGE OF

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(1) CHLORINATED HYDROCARBONS.
(2) Q DOCTOR, I WANT TO SHOW YOU A
(3) ONE- PAGE DOCUMENT WHICH DOESN'T
(4) HAVE A PRODUCTION NUMBER ON IT.
(5) IT DOES HAVE A DESIGNATION AT THE
(6) BOTTOM THAT SAYS, "ATTACHMENT
(7) 3-2."
(8) I WILL ASK THE COURT REPORTER TO
(9) MARK THAT.
(10) YOUR HONOR, IN THIS CASE THAT IS
(11) TRANSWESTERN EXHIBIT 2 WHICH IS
(12) IN THE JURY NOTEBOOK.
(13) WOULD YOU TAKE A MOMENT TO REVIEW
(14) THAT DOCUMENT.
(15) A YES, I REMEMBER IT.
(16) Q CAN YOU DESCRIBE IT FOR THE
(17) RECORD, PLEASE.
(18) A THIS IS A MEMORANDUM BY L.A. WATT
(19) DATED OCTOBER 11, 1937 IN WHICH
(20) HE WRITES SOME SAFE HANDLING OR
(21) SOME SAFE- HANDLING DATA AND SOME
(22) POSSIBLE ILL EFFECTS OR THE ILL

(23) EFFECTS IN EXPERIMENTAL ANIMALS.
(24) HE QUOTES ME, HE QUOTES - HE
(25) MENTIONS THAT HE TALKED TO ME
(26) BEFORE THESE PARAGRAPHS WERE
(27) WRITTEN AND WE AGREED THEY COULD
(28) BE USED NOT ONLY IN THE AROCLOR

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(1) BOOKLET BUT QUOTED IN
(2) CORRESPONDENCE AS THAT MAY BE
(3) NECESSARY.
(4) Q DO YOU RECALL DISCUSSING THE
(5) FIRST THREE PARAGRAPHS OF THIS
(6) MEMORANDUM WITH L.A. WATT?
(7) A YES, I DO.
(8) Q DO YOU KNOW WHAT EXPERIMENTAL
(9) WORK THEY REFERRED TO IN THE
(10) AFFAIRS PARAGRAPH OF THIS
(11) MEMORANDUM?
(12) A I THINK - I BELIEVE IT'S
(13) DRINKER'S WORK.
(14) Q AND WHEN THE PHRASE "HIGH
(15) TEMPERATURES" IS USED IN THE
(16) FIRST PARAGRAPH, DO YOU KNOW TO
(17) WHAT THAT REFERS?
(18) ARE THERE A RANGE OF
(19) TEMPERATURES?
(20) A I DON'T KNOW THE RANGE.
(21) Q DO YOU KNOW WHAT IS MEANT BY THE
(22) PHRASE "SYSTEMIC TOXIC EFFECTS"
(23) AS IT IS USED IN THE FIRST
(24) PARAGRAPH?
(25) A YES.
(26) IT JUST MEANS ILL EFFECTS ON THE
(27) BODY AS A WHOLE, RATHER THAN
(28) LOCAL EFFECTS ON THE SKIN.

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(1) Q DO YOU KNOW WHAT PARTICULAR
(2) SYSTEMIC TOXIC EFFECTS ARE
(3) REFERRED TO AS A RESULT OF THE
(4) EXPERIMENTAL WORK ON ANIMALS
(5) REFERRED TO IN THAT PARAGRAPH?
(6) A YES.
(7) Q WHICH?
(8) A LIVER.
(9) Q ANYTHING ELSE?
(10) A NO, SIR.
(11) Q I WANT TO REFER YOU TO THE SECOND
(12) PARAGRAPH OF THIS ONE- PAGE
(13) EXHIBIT, DOCTOR.
(14) THERE IS A REFERENCE TO AN ACNE
(15) FORM OF SKIN ERUPTION. IS THAT A
(16) REFERENCE TO CHLORACNE?
(17) A YES.
(18) Q WHAT IS CHLORACNE, EXACTLY?
(19) A CHLORACNE IS A SKIN ERUPTION
(20) SIMILAR TO TEENAGE ACNE THAT IS
(21) MORE SERIOUS.
(22) IT MAY BE ACCOMPANIED BY
(23) PIGMENTATION THAT IS SOMEWHAT
(24) MORE SEVERE, THAT IS CAUSED BY
(25) EXPOSURE TO CHLORINATED
(26) COMPOUNDS, NOT NECESSARILY ONLY
(27) PCB, ANY NUMBER OF CHLORINATED
(28) COMPOUNDS CAUSE CHLORACNE.

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(1) Q IS CHLORACNE CAUSED BY EXPOSURE
(2) TO PCB'S?
(3) A NOT BY EXPOSURE, BY SUFFICIENT
(4) EXPOSURE, PROLONGED EXPOSURE.
(5) Q THE CHLORACNE CAUSED BY
(6) SUFFICIENT EXPOSURE TO PCB IS A
(7) SYSTEMIC CONDITION?
(8) A THAT IS WHAT IT'S BELIEVED TO BE.
(9) I BELIEVE IT ALSO.
(10) Q AND HOW DO YOU DEFINE "SYSTEMIC"
(11) AS USED IN YOUR RESPONSE TO MY

(12) **QUESTION?**

(13) A THAT IS AN ACTION ON THE VARIOUS
(14) ELEMENTS OF THE SKIN CAUSED BY
(15) ABSORPTION OF THE OFFENDING AGENT
(16) AND NOT DUE TO LOCAL CONTACT WITH
(17) THE SKIN, NOT DUE TO LOCAL ACTION
(18) ON THE SKIN, RATHER THAN LOCAL
(19) CONTACT.

(20) **Q AND ARE YOU FAMILIAR WITH THE
(21) TERM DERMATITIS?**

(22) A YES.

(23) **Q AND HOW DO YOU DEFINE DERMATITIS?**

(24) A DERMATITIS IS EITHER AN
(25) INFLAMMATION OR AN INFECTION OF
(26) THE SKIN.

(27) **Q IS THERE A DIFFERENCE BETWEEN A
(28) SYSTEMIC CONDITION RESULTING IN**

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(1) **CHLORACNE AND DERMATITIS
(2) RESULTING IN CHLORACNE?**

(3) A WELL, DERMATITIS IS A NAME FOR
(4) THE DISEASE OF THE SKIN.

(5) AND CHLORACNE IS A DERMATITIS.
(6) BUT IT'S CAUSED BY SYSTEMIC
(7) ACTION.

(8) JUST LIKE HIVES FROM STRAWBERRIES
(9) IF A DERMATITIS DUE TO INGESTION
(10) OF STRAWBERRIES AND A SYSTEMIC
(11) REACTION TO STRAWBERRIES.

(12) **Q WHAT IS THE SYSTEMIC FUNCTION
(13) IMPLICATED BY CHLORACNE CAUSED BY
(14) SUFFICIENT EXPOSURE TO PCB'S?**

(15) A "WHAT IS THE SYSTEMIC FUNCTION?"
(16) I DON'T KNOW WHAT THAT MEANS.

(17) **Q WHAT SYSTEM IS IT THAT CAUSES
(18) CHLORACNE BASED ON SUFFICIENT
(19) EXPOSURE TO PCB'S?**

(20) A PRESUMABLY SOMETHING TO DO WITH
(21) FAT METABOLISM.

(22) **Q DURING THE PERIOD THAT YOU WERE**

(23) **MEDICAL DIRECTOR DID YOU
(24) COMMISSION ANY STUDIES TO**

(25) **DETERMINE THE RELATIONSHIP
(26) BETWEEN CHLORACNE AND EXPOSURE TO
(27) PCB'S?**

(28) **A WE KNEW THAT IF YOU GOT EXCESSIVE**

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(1) **EXPOSURE YOU MAY GET CHLORACNE.**

(2) **Q COULD YOU PLACE IN TIME WHEN YOU
(3) FIRST KNEW THAT?**

(4) A YES.

(5) 1937.

(6) **Q AND UPON WHAT DO YOU BASE THAT
(7) ANSWER?**

(8) A THERE WAS INFORMATION IN THE
(9) LITERATURE THAT SWANN CHEMICAL
(10) COMPANY HAD LAWYERS, HAD WORKERS

(11) DEVELOP CHLORACNE IN THEIR PCB
(12) DEPARTMENT DUE TO THE USE OF AN
(13) OFF- SPECIFICATION BENZENE IN THE
(14) MANUFACTURE OF A MATERIAL.

(15) **Q DOCTOR, THE OCTOBER 11, 1937 MEMO
(16) REFERS TO THE USE OF PROTECTIVE
(17) CLOTHING IN PARAGRAPH THREE?**

(18) A YES, SIR.

(19) **Q AND FOR WHAT PURPOSE WAS
(20) PROTECTIVE CLOTHING RECOMMENDED?**

(21) A IF YOU WERE IN AN OPERATION WHERE
(22) YOU ARE LIABLE TO HAVE SPILLS OR
(23) SPLASHES, YOU PUT SOMETHING ON TO
(24) KEEP IT FROM GETTING ON YOUR
(25) SKIN.

(26) **Q OKAY. I WAS ABOUT TO ASK THE
(27) COURT REPORTER TO MARK AS EXHIBIT
(28) 155 A ONE- PAGE DOCUMENT BEARING**

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(1) **A NUMBER OF DOCUMENT NUMBER**

(2) **DESIGNATIONS, THE MOST RECENT OF**

(3) **WHICH MAY BE T 091748.**

(4) **IT APPEARS TO BE A ONE- PAGE**

(5) **DOCUMENT DATED FEBRUARY 12,
(6) 1954.**

(7) **THAT, YOUR HONOR, IS TRANSWESTERN**

(8) **EXHIBIT NUMBER EIGHT IN THIS**

(9) **CASE.**

(10) **WOULD YOU TAKE A MOMENT, PLEASE
(11) AND REVIEW THAT DOCUMENT.**

(12) A YES, SIR, I'VE READ IT.

(13) **Q CAN YOU IDENTIFY THE DOCUMENT?**

(14) A IT'S A LETTER MEMORANDUM FROM ME
(15) TO DR. NEWMAN WHO WAS IN CHARGE
(16) OF OUR PLANT AT NEWPORT, ENGLAND
(17) DATED FEBRUARY 12, 1954.

(18) **Q WAS IT PART OF YOUR JOB TO WRITE
(19) THIS MEMO?**

(20) A YES, SIR.

(21) **Q DID YOU INTEND FOR DR. NEWMAN TO
(22) RELY ON THE INFORMATION IN IT?**

(23) A YES, SIR.

(24) **Q AND DID YOU WRITE IT ON OR ABOUT
(25) THE DATE THAT IT IS DATED, THAT
(26) IS TO SAY FEBRUARY 12, 1954?**

(27) A YES, SIR.

(28) **Q WERE YOU RESPONDING TO? INQUIRY**

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(1) **FROM DR. NEWMAN IN AUTHORIZING THIS
(2) MEMO?**

(3) A YES.

(4) I'M SURE BECAUSE THE LAST
(5) PARAGRAPH SAYS, "DON'T WORRY
(6) ABOUT ASKING ME THESE
(7) QUESTIONS." SO HE MUST HAVE
(8) ASKED ME SOME QUESTIONS.

(9) **Q THE THIRD PARAGRAPH OF THE
(10) MEMORANDUM STATES, "WHAT WE WERE
(11) REALLY WORRYING ABOUT WAS THE
(12) POSSIBILITY THAT A MAN WOULD
(13) DEVELOP HEPATITIS AND SO FORTH."**

(14) **TO WHAT WORRY DOES THAT REFER?**

(15) A IT REFERS TO THE POSSIBILITY THAT
(16) A MAN WOULD DEVELOP HEPATITIS AND
(17) BLAME THE PAINT THAT HE USED AT A
(18) TIME IN THE PAST AS THE CAUSE OF
(19) HIS HEPATITIS.

(20) **Q THERE IS A SENTENCE WHICH FOLLOWS
(21) THE SENTENCE WHICH I JUST READ
(22) FROM.**

(23) **I DID NOT READ THE FULL SENTENCE,
(24) BUT THERE IS A SENTENCE FOLLOWING
(25) THE SENTENCE I JUST READ FROM**

(26) **STATING, "I AM AFRAID WE MIGHT BE**

(27) **CONVICTED BY ASSOCIATION, ET**

(28) **CETERA."**

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(1) A YES.

(2) **Q IS THE MEANING OF THAT SENTENCE
(3) THAT YOU WERE AFRAID THAT
(4) MONSANTO MIGHT BE HELD LIABLE FOR
(5) SUCH A CONDITION ON THE PART OF A
(6) PAINTER?**

(7) A WELL, I DON'T KNOW ABOUT THE
(8) LIABILITY.

(9) I MEAN, A PAINTER MAY BELIEVE
(10) THAT AROCLOR PAINT HAD SOME
(11) ASSOCIATION WITH HIS HEPATITIS.

(12) **Q AND SO WHAT -**

(13) A I CAN'T ADDRESS MYSELF TO YOUR
(14) LIABILITY QUESTION.

(15) **Q WHAT DID YOU MEAN WHEN YOU USED
(16) THE TERM "WE MIGHT BE CONVICTED"?**

(17) A IN SOMEBODY'S MIND.

(18) **Q THERE IS A SENTENCE IN THE FIRST**

(19) PARAGRAPH OF THIS MEMORANDUM THAT
 (20) STATES, "WE HAVE RUN ANIMALS FOR
 (21) ABOUT 60 DAYS AT SEVEN TIMES THIS
 (22) AND FOUND SOME LIVER DAMAGE."
 (23) DO YOU SEE THAT?
 (24) A YES, SIR.
 (25) Q DOES THAT SENTENCE REFER TO A
 (26) STUDY OR SERIES OF STUDIES?
 (27) A IT REFERS TO A SERIES OF STUDIES
 (28) THAT WE WERE RUNNING AT THE

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(1) UNIVERSITY OF CINCINNATI BY
 (2) DR. TREON, T-R-E-O-N.
 (3) Q AND TO THE BEST OF YOUR
 (4) RECOLLECTION WHEN WERE THOSE
 (5) STUDIES COMPLETED?
 (6) A SOMETIME IN 1954.
 (7) Q AND WHEN YOU USED THE TERM
 (8) "SERIES OF STUDIES," ARE YOU
 (9) REFERRING TO MORE THAN ONE REPORT
 (10) RESULTING FROM A STUDY?
 (11) A NO.
 (12) I THINK IT'S ALL PARTS OF THE
 (13) SAME STUDY.
 (14) IN OTHER WORDS, THIS MAN STARTED
 (15) OUT PRESUMABLY AROUND SEVEN
 (16) MILLIGRAMS PER CUBIC METER AND
 (17) THEN DID SOME MORE LOWER LEVEL.
 (18) Q AND WHAT DOES THE TERM "LIVER
 (19) DAMAGE" REFER TO IN THAT SAME
 (20) SENTENCE?
 (21) A EFFECTS OF THE LIVER, CLOUDY,
 (22) SWELLING.
 (23) I DIDN'T GO INTO THE MEDICAL
 (24) ASPECT OF EXACTLY WHAT TYPE OF
 (25) MICROSCOPIC DAMAGE WAS DONE.
 (26) Q RIGHT.
 (27) THE MEMORANDUM DOES NOT SPECIFY
 (28) THE TYPES OF DIFFERENT DAMAGE.

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(1) I'M WONDERING, NOW, WHAT YOU WERE
 (2) REFERRING TO.
 (3) YOU MENTIONED CLOUDY AND
 (4) SWELLING?
 (5) WAS THERE ANYTHING ELSE?
 (6) A NO.
 (7) THERE WAS SOME DISEASE AT THE
 (8) CELLULAR LEVEL.
 (9) Q WHAT DO YOU MEAN BY THE PHRASE,
 (10) "DISEASE AT CELLULAR LEVEL"?
 (11) A WELL, THE LIVER CELLS AT THE
 (12) INDIVIDUAL MICROSCOPIC CELLULAR
 (13) LEVEL SHOWED CHANGES IN THEIR
 (14) STRUCTURE DUE TO THE EFFECTS OF
 (15) THE AROCLOR.
 (16) Q HAVE YOU EVER HEARD OF AROCLOR
 (17) HAVING THE EFFECT OF CAUSING
 (18) ENZYMIC CHANGES OF LIVER
 (19) FUNCTION?
 (20) A YES.
 (21) Q WHAT HAVE YOU HEARD?
 (22) A THAT IT DOES SOMETIMES.
 (23) Q AND WHAT ENZYMIC CHANGES HAVE
 (24) YOU HEARD THAT AROCLOR CAUSED IN
 (25) LIVER FUNCTION?
 (26) A AGAIN, IT DEPENDS ON THE AMOUNT,
 (27) IF THEY HAVE A SERIOUS AMOUNT.
 (28) REMEMBER, WE ARE TALKING ABOUT

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(1) ENZYMES.
 (2) THEY WERE NOT RUNNING LIVER
 (3) ENZYMES IN 1954.
 (4) Q RIGHT.
 (5) A SO THE ENZYMES THAT THEY RUN NOW
 (6) IN THE USUAL LIVER PANEL IS GGT,
 (7) SCOT AND SGPT.

(8) Q AND SETTING ASIDE FOR A MOMENT
 (9) THE AMOUNT OF AROCLOR INVOLVED,
 (10) WHAT ARE THE POSSIBILITIES THAT
 (11) YOU KNOW ABOUT WITH RESPECT TO
 (12) THE ENZYMIC CHANGES?
 (13) A YOU CAN'T SET ASIDE THE EXPOSURE
 (14) LEVELS.
 (15) Q WHAT ARE THE POSSIBILITIES?
 (16) A OF WHAT?
 (17) Q WHAT CHANGES MIGHT OCCUR?
 (18) A MIGHT OCCUR FROM NOTHING TO VERY,
 (19) VERY SERIOUS CHANGES.
 (20) Q WHAT ARE THE VERY SERIOUS ONES?
 (21) A SWELLING OF THE LIVER, DAMAGE TO
 (22) THE LIVER CELLS.
 (23) Q ANYTHING ELSE?
 (24) A NO. I CAN'T BE SURE - I CANNOT
 (25) RECALL THE DETAILS OF THE HIGH
 (26) EXPOSURE LEVELS IN EXPERIMENTAL
 (27) ANIMALS.
 (28) OBVIOUSLY SOME OF THE ANIMALS

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(1) DIED.
 (2) Q WAS THE DEATH RELATED TO LIVER
 (3) DYSFUNCTION?
 (4) A WHETHER IT WAS SOLELY DUE TO THE
 (5) LIVER OR NOT, I CAN'T SAY.
 (6) BUT I BELIEVE THE LIVER PLAYED A
 (7) MAJOR PART IN IT.
 (8) Q YOU INDICATED, DOCTOR, THAT IN
 (9) 1954 WORK WASN'T BEING DONE ON
 (10) ENZYMES, LIVER ENZYMES; IS THAT
 (11) CORRECT?
 (12) A THAT'S CORRECT.
 (13) Q DO YOU RECALL WHEN THAT WORK
 (14) FIRST BEGAN?
 (15) A I CAN'T BE SURE OF THE DATE.
 (16) Q CAN YOU APPROXIMATE IT?
 (17) A LATE 1960'S.
 (18) Q ONE OTHER QUESTION ON THIS
 (19) DOCUMENT, DOCTOR.
 (20) IF YOU LOOK AT PARAGRAPH THREE,
 (21) THE DOCUMENT STATES, "WE HAVE,
 (22) HOWEVER, BEEN CONCERNED WITH THE
 (23) LEVEL OF AROCLOR DURING SPRAY
 (24) PAINTING."
 (25) DO YOU SEE THAT?
 (26) A YES.
 (27) Q WHAT WAS THE CONCERN REFERENCED
 (28) IN THAT SENTENCE?

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(1) A WELL, ANYBODY WHO HAS SEEN SPRAY
 (2) PAINTING KNOWS THAT THEY BLOW A
 (3) LOT OF PAINT OUT.
 (4) THE POSSIBILITY OF A MAN SPRAY
 (5) PAINTING, SPRAYING INSIDE A
 (6) BOOTH, HE CAN GET A PRETTY
 (7) SIZEABLE EXPOSURE.
 (8) Q WHY DON'T WE MARK AS EXHIBIT 156
 (9) A TWO-PAGE DOCUMENT BEARING
 (10) PRODUCTION NUMBERS TRAN 019922
 (11) AND 019923.
 (12) AND THIS IS TRANSWESTERN EXHIBIT
 (13) 10 REFERRED TO IN THE
 (14) DEPOSITION.
 (15) WOULD YOU TAKE A MOMENT AND
 (16) REVIEW IT, PLEASE.
 (17) THAT DOCUMENT IS IN THE JURY
 (18) NOTEBOOK.
 (19) A YES, SIR, I HAVE READ IT.
 (20) Q CAN YOU IDENTIFY THE DOCUMENT FOR
 (21) THE RECORD?
 (22) A IT'S A DOCUMENT FROM ME TO
 (23) DR. BARRETT AT OUR ENGLISH
 (24) SUBSIDIARY ON AROCLOR TOXICITY
 (25) DATED SEPTEMBER 20, 1955.

(26) Q DID YOU AUTHOR THIS MEMO IN THE
(27) DISCHARGE OF YOUR
(28) RESPONSIBILITIES AS MEDICAL

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(1) DIRECTOR OF MONSANTO?
(2) A YES, I DID.
(3) Q WAS IT PART OF YOUR JOB TO DO SO?
(4) A YES, IT IS, IT WAS.
(5) Q DID YOU AUTHOR THIS MEMO AT OR
(6) ABOUT THE DATE IT WAS DATED?
(7) A YES, SIR.
(8) Q DID YOU INTEND FOR DR. BARRETT TO
(9) RELY ON THE INFORMATION IN IT?
(10) A YES.
(11) Q NOW, I WANTED TO REFER YOU TO THE
(12) SECOND PARAGRAPH ON THE FIRST
(13) PAGE, DR. KELLY.
(14) DID YOU GET A CHANCE TO READ THAT
(15) ALREADY?
(16) A YES, I DID.
(17) Q THE PARAGRAPH STATES, AMONG OTHER
(18) THINGS, "FRANKLY THERE WAS NOT
(19) TOO GREAT A DIFFERENCE BETWEEN
(20) THE TWO COMPOUNDS."
(21) DO YOU SEE THAT?
(22) A YES, SIR.
(23) Q WAS THAT A CORRECT STATEMENT WHEN
(24) MADE?
(25) A YES, SIR.
(26) I WAS REFERRING TO THE TOXICITY.
(27) Q THE FIRST SENTENCE OF THE THIRD
(28) PARAGRAPH ON THAT PAGE, DOCTOR,

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(1) STATES, "I DON'T KNOW HOW YOU
(2) WOULD GET ANY PARTICULAR
(3) ADVANTAGE IN DOING MORE WORK,"
(4) CORRECT?
(5) A YES.
(6) Q DO YOU RECOLLECT THAT DR. BARRETT
(7) WAS MAKING A SUGGESTION OR
(8) RECOMMENDATION THAT MORE WORK OF
(9) SOME KIND BE DONE?
(10) A YES.
(11) WHAT HE WANTED TO DO WAS FIND OUT
(12) A LEVEL THAT WOULD KILL THE
(13) ANIMALS.
(14) I COULDN'T FIGURE THAT ONE OUT
(15) BECAUSE ALL I WANTED TO DO WAS
(16) FIND OUT WHAT IS A SAFE LEVEL AT
(17) WORK, NOT WHAT IS A LEVEL THAT
(18) WOULD KILL PEOPLE.
(19) Q AND YOUR RESPONSE TO HIM WAS,
(20) ESSENTIALLY, "THERE IS NO NEED
(21) FOR THIS"?
(22) A NO.
(23) "WHAT ARE YOU TRYING TO PROVE?"
(24) Q THE LAST PARAGRAPH ON PAGE 1
(25) BEGINS WITH THE SENTENCE, "MCC'S
(26) POSITION CAN BE SUMMARIZED IN
(27) THIS FASHION"; IS THAT CORRECT?
(28) A THAT'S CORRECT.

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(1) Q AND MCC IN THAT SENTENCE IS
(2) REFERRING TO MONSANTO CHEMICAL
(3) COMPANY?
(4) A YES, SIR.
(5) Q THE PARAGRAPH GOES ON TO STATE,
(6) QUOTE, "WE KNOW AROCLORS ARE
(7) TOXIC BUT THE ACTUAL LIMIT HAS
(8) NOT BEEN PRECISELY DEFINED," END
(9) QUOTE.
(10) WAS THAT A TRUE STATEMENT WHEN
(11) MADE?
(12) A YES. BUT IT WOULD REQUIRE A
(13) LITTLE BIT OF INTERPRETATION.
(14) THE ACUTE LIMIT TO WHAT? TO

(15) INHALATION, FOR PEOPLE OR RATS,
(16) RABBITS.
(17) PROBABLY IN '55 I COULD HAVE BEEN
(18) A LITTLE MORE EXPLANATORY TO HIM.
(19) BUT THE CONNOTATION ON THE BASIS
(20) OF THE PREVIOUS CORRESPONDENCE
(21) WAS, WE HAVE GOT A SAFE LEVEL.
(22) WHY DO WE NEED TO FIND OUT ANY
(23) MORE.
(24) Q THE PARAGRAPH GOES ON TO STATE,
(25) IT DOES NOT MAKE TOO MUCH -
(26) QUOTE, EXCUSE ME, "IT DOES NOT
(27) MAKE TOO MUCH DIFFERENCE, IT
(28) SEEMS TO ME, BECAUSE OUR MAIN

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(1) WORRY IS WHAT WILL HAPPEN IF AN
(2) INDIVIDUAL DEVELOPS ANY TYPE OF
(3) LIVER DISEASE AND GIVES A HISTORY
(4) OF AROCLOR EXPOSURE," END QUOTE.
(5) DO YOU SEE THAT?
(6) A YES, SIR.
(7) Q AND WAS THAT A MAIN WORRY?
(8) A WELL, IT WAS A CONCERN THAT THERE
(9) ARE A GREAT DEAL OF OPINIONS MADE
(10) NOT ON THE BASIS OF SCIENTIFIC
(11) BASIS BUT JUST ON UNSCIENTIFIC
(12) BELIEF.
(13) Q AND THE PARAGRAPH GOES ON TO
(14) READ, QUOTE, "I AM SURE THAT
(15) JURIES WOULD NOT PAY A GREAT DEAL
(16) OF ATTENTION TO MAC'S," END
(17) QUOTE, RIGHT?
(18) A I THINK THAT IS TRUE.
(19) Q AND MAC'S IS AN ABBREVIATION FOR
(20) "MAXIMUM ALLOWABLE
(21) CONCENTRATION"?
(22) A THAT'S CORRECT.
(23) Q AND DOES THE SENTENCE EXPRESS A
(24) CONCERN THAT JURIES WOULD HOLD
(25) MONSANTO RESPONSIBLE FOR THE
(26) SITUATION DESCRIBED IN THAT
(27) PARAGRAPH?
(28) A THAT THEY MIGHT.

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(1) Q WELL, ACTUALLY THE SENTENCE SAYS,
(2) QUOTE, "I AM SURE THAT JURIES
(3) WOULD NOT PAY A GREAT DEAL OF
(4) ATTENTION," END QUOTE.
(5) SO THAT WAS A CONCERN OF YOURS,
(6) CORRECT?
(7) A I WAS SURE THEY WOULDN'T PAY A
(8) GREAT DEAL OF ATTENTION.
(9) WHETHER THEY WOULD HOLD MONSANTO
(10) LIABLE OR BLAME THE MAN FOR NOT
(11) PAYING ATTENTION TO THE WARNING
(12) LABELS ON THIS PAINT, IF WE WERE
(13) EVER MAKING, IT IS A PAINT FOR
(14) HOUSEHOLD USE.
(15) YOU REALIZE YOU READ JUST THAT
(16) ONE PARAGRAPH THERE.
(17) IF YOU LOOK AT THE SECOND PAGE -
(18) Q WE ARE GOING OVER TO THAT.
(19) A FINE.
(20) Q THE PARAGRAPH ON THE SECOND PAGE,
(21) DOCTOR, REFERS TO THE USE OF
(22) AROCLORS.
(23) AND I BELIEVE YOU ARE CONTRASTING
(24) BETWEEN THE SITUATION OF USE IN
(25) AN INDUSTRIAL SETTING AND USE IN
(26) THE HOME.
(27) IS WHAT YOU MEAN BY
(28) "HOUSEHOLDERS"?

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(1) A YES, SIR.
(2) Q AND YOU INDICATE, QUOTE, "IF,
(3) HOWEVER, IT IS DISTRIBUTED TO

(4) HOUSEHOLDERS WHERE IT CAN BE USED
(5) IN ALMOST ANY SHAPE AND FORM AND
(6) WE ARE NEVER ABLE TO KNOW HOW
(7) MUCH OF THE CONCENTRATION THEY
(8) ARE EXPOSED TO, WE ARE MUCH MORE
(9) STRICT," CLOSE QUOTE.
(10) DO YOU SEE THAT?

(11) A YES, SIR.
(12) Q IN WHAT SENSE WERE YOU MUCH MORE
(13) STRICT?
(14) A WELL, WE WOULD HAVE - I THINK I
(15) SHOULD HAVE SAID - I THINK I
(16) SHOULD HAVE SAID THERE WE WOULD
(17) BE MUCH MORE STRICT BECAUSE WE
(18) DID NOT - WE WERE NOT, AT THAT
(19) TIME, SELLING ANYTHING TO THE
(20) HOUSEHOLDERS.
(21) BUT WHAT I MEANT TO IMPLY THERE
(22) IS THAT WE SOLD A SPRAY PAINT
(23) CONTAINING AROCLOR INTO A
(24) HOUSEHOLD AND SAID, "DO NOT
(25) BREATHE THE FUMES IN CONFINED
(26) SPACES," WE HAD NO WAY OF
(27) KNOWING WHETHER THIS MAN MIGHT GO
(28) INTO A CLOSET AND SPEND AN HOUR

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(1) AND A HALF SPRAYING THIS PAINT
(2) ALL OVER THE CLOSET.
(3) AND HE MAY HAVE TROUBLES FROM
(4) THAT.
(5) Q "TROUBLES" REFERRING TO WHAT?
(6) A POSSIBLE ILL EFFECTS.
(7) Q SUCH AS LIVER CANCER OR
(8) CHLORACNE?
(9) A HE WOULD NEVER GET CHLORACNE FROM
(10) ONE DOSE - I MEAN, IT HAS TO BE
(11) REPEATED FOR CHLORACNE.
(12) HE WOULD GET EYE IRRITATION, NOSE
(13) IRRITATION.
(14) Q LIVER DAMAGE?
(15) A IT'S POSSIBLE.
(16) BUT HE MAY HAVE AN AWFUL LOT OF
(17) COMPLAINTS THAT WERE OF ILLNESSES
(18) THAT WERE NOT DUE - CONCEIVABLY
(19) NOT DUE, AT ALL, TO THE AROCLORS,
(20) SUCH AS DIABETES OR TUMOR OF THE
(21) LUNG WHICH HE WOULD ALLEGE TO THE
(22) AROCLOR.
(23) Q LET ME SHOW YOU A DOCUMENT,
(24) DR. KELLY, THAT WE WILL ASK THE
(25) COURT REPORTER TO MARK AS 157 AND
(26) ASK YOU HOW IT RELATES TO YOUR
(27) MEMORANDUM OF SEPTEMBER 20,
(28) 1955.

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(1) A YES, SIR.
(2) Q AND THE QUESTION, DR. KELLY, IS,
(3) HOW DOES THAT RELATE TO YOUR MEMO
(4) OF SEPTEMBER 20, 1955?
(5) A I'M TRYING TO FIND THE ERROR IN
(6) THE SECOND PARAGRAPH THAT I
(7) REFERRED TO IN MY MEMORANDUM OF
(8) SEPTEMBER 22ND.
(9) WELL, I THINK THE WHOLE - I
(10) THINK THE ONLY THING DIFFERENT,
(11) IT WAS AN AWKWARD - THE THIRD
(12) PARAGRAPH IN MY MEMORANDUM OF
(13) SEPTEMBER 20TH WAS A LITTLE
(14) FORMAL.
(15) OF COURSE, FROM THE STANDPOINT OF
(16) VOLATILITY IN THE CASE OF
(17) INHALATION OR ABSORPTION FROM THE
(18) GUT, FROM THE POINT OF VIEW OF
(19) INGESTION, ARE IMPORTANT.
(20) FRANKLY, THERE WAS NOT TOO GREAT
(21) A DIFFERENCE BETWEEN THE TWO

(22) COMPOUNDS.
(23) BUT THAT DID NOT REFER TO
(24) ABSORPTION. THAT COULD REFER TO
(25) VOLATILITY, COULD REFER TO AN
(26) AWFUL LOT OF THINGS.
(27) SO I TRIED TO POLICE UP MY
(28) LANGUAGE A LITTLE BIT BY SAYING

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(1) THE VOLATILITY IS IMPORTANT IN
(2) THE CASE OF INHALATION TOXICITY.
(3) AND ABSORPTION INTO THE
(4) INTESTINAL TRACT IS IMPORTANT
(5) FROM THE STANDPOINT OF ORAL
(6) TOXICITY.
(7) I THINK THAT IS BETTER
(8) PHRASEOLOGY.
(9) FRANKLY I THINK THERE WAS NOT A
(10) GREAT DEAL OF DIFFERENCE.
(11) Q MEANING THERE IS NOT A GREAT DEAL
(12) OF DIFFERENCE IN THE TOXICITY
(13) BETWEEN 1254 AND 1242?
(14) A THAT'S RIGHT.
(15) I MEAN, MAYBE A FACTOR OF TWO OR
(16) SOMETHING LIKE THAT.
(17) Q DID YOU AUTHOR EXHIBIT 157, THE
(18) SEPTEMBER 22, 1955 ADDENDUM, AS
(19) PART OF YOUR FUNCTION AS MEDICAL
(20) DIRECTOR OF MONSANTO?
(21) A YES, I DID.
(22) Q AND DID YOU WRITE IT ON OR ABOUT
(23) SEPTEMBER 22, 1955?
(24) A YES, I DID.
(25) Q AND DID YOU INTEND FOR
(26) DR. BARRETT TO RELY ON THE
(27) INFORMATION THEREIN?
(28) A YES, I DID.

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(1) Q YOU HAVE IDENTIFIED DR. NEWMAN
(2) BEFORE.
(3) WHO WAS D. V. - D. V. N. HARDY
(4) IN SEPTEMBER OF 1955?
(5) A HARDY WAS, I THINK, IN TECHNICAL
(6) SERVICE OVER THERE OR IN RESEARCH
(7) OVER THERE.
(8) HE WAS NOT A PHYSICIAN.
(9) HE WAS NOT AN INDUSTRIAL
(10) HYGIENIST.
(11) Q MONSANTO IS THE ONLY MANUFACTURER
(12) OF PCB- BASED PRODUCTS IN THE
(13) UNITED STATES?
(14) A WAS THE ONLY ONE.
(15) Q DOCTOR, JUST ONE OTHER QUESTION.
(16) LOOKING AT YOUR LETTER TO DR. KEY
(17) OF MARCH 1962, THE LAST SENTENCE
(18) ON THE FIRST PARAGRAPH SAYS,
(19) AMONG OTHERS, "WE HAVE SUMMARIZED
(20) OUR AVAILABLE DATA RELATING TO
(21) POSSIBLE SKIN EFFECTS IF THE
(22) AROCLORS ARE MISUSED."
(23) DO YOU SEE THAT?
(24) A YES, SIR.
(25) Q DO YOU RECOLLECT WHAT YOU MEANT
(26) BY THE TERM "MISUSED"?
(27) A YES.
(28) BY HAVING - BREATHING THE FUMES

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(1) AT ELEVATED TEMPERATURES OR IN
(2) CONFINED SPACES AND GETTING
(3) PROLONGED OR REPEATED SKIN
(4) CONTACT, THAT'S WHAT I MEAN BY
(5) "MISUSED," DISREGARDING OUR
(6) SAFETY INSTRUCTIONS.
(7) Q TURN, PLEASE, TO THE SECOND PAGE
(8) OF THAT LETTER, DR. KELLY.
(9) IN THE SECOND FULL PARAGRAPH
(10) THERE IS A PHRASE, "USES OF PCB'S

(11) WHERE IT CANNOT BE CONTROLLED,"
(12) CLOSE QUOTE.
(13) DO YOU SEE THAT?
(14) A YES, SIR.
(15) Q WHAT DID YOU MEAN WHEN YOU WROTE,
(16) QUOTE,: "USES WHERE IT CANNOT BE
(17) CONTROLLED," CLOSE QUOTE?
(18) A CONTROLLED TO PREVENT ESCAPE INTO
(19) THE ENVIRONMENT.
(20) BY THAT I MEAN OPEN USES,
(21) PLASTICIZERS, PAINTS, COATINGS,
(22) INDUSTRIAL FLUIDS.
(23) WE WITHDREW ALMOST EVERYTHING
(24) EXCEPT ELECTRICAL - ELECTRICAL
(25) USES.
(26) Q WHEN YOU USED THE PHRASE, "USES
(27) WHERE IT CANNOT BE CONTROLLED,"
(28) DID YOU INTEND TO EXCLUDE

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(1) CLOSED- SYSTEM USES WHERE THE
(2) POSSIBILITY OF LEAKS EXISTED?
(3) A WE DID AT FIRST BUT THEN WE -
(4) THE FIRST WAVE OF WITHDRAWAL WAS
(5) THE FRANKLY OPEN USES, CARBONLESS
(6) CARBON PAPER, TYPE PAINT, WAXES,
(7) GREASES.
(8) THEN THE NEXT ONE - AND
(9) HYDRAULIC FLUIDS WHERE THERE IS
(10) NATURALLY THE DIE CAST MACHINE,
(11) YOU WERE LOSING A CERTAIN AMOUNT
(12) OF HYDRAULIC FLUID EVERY TIME YOU
(13) PUSHED THAT RAM OUT.
(14) THE NEXT ONE WAS HEAT TRANSFER
(15) USES AND COMPRESSOR USES.
(16) BECAUSE THERE WERE LOSSES FROM
(17) THOSE OPERATIONS.
(18) AND SO THE LAST ONE WAS THE
(19) ELECTRICAL ONES.
(20) Q WHAT ACCOUNTED FOR THAT PRIORITY?
(21) A BEG PARDON?
(22) Q WHAT ACCOUNTED FOR THAT, IF YOU
(23) CAN PRIORITIZE?
(24) A WELL, THE FACT THAT THERE WERE
(25) NO - START WITH THE LAST ONE
(26) FIRST.
(27) THERE WERE NO SUBSTITUTES FOR
(28) IT.

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(1) THE ELECTRICAL USES AT THE TIME I
(2) WROTE THIS.
(3) IN FACT, THE GOVERNMENT TOLD US
(4) TO KEEP ON MANUFACTURING THIS
(5) STUFF BECAUSE THE HEAT, THE FIRE
(6) RETARDANCY IN TRANSFORMERS WAS AN
(7) ENORMOUS VALUE IN PLACES LIKE
(8) SUBWAYS, RAILROAD TRAINS, THE
(9) WHITE HOUSE, BUSCH STADIUM, IT
(10) HAD TO BE USED UNTIL THEY CAME UP
(11) WITH A SUBSTITUTE.
(12) THE OTHER ONE WAS WHERE THERE
(13) WERE SUBSTITUTES AND THERE WERE
(14) OPEN USES, WE STOPPED IT.
(15) THE SUBSTITUTES WERE NOT AS GOOD,
(16) OBVIOUSLY, OTHERWISE WE WOULDN'T
(17) HAVE BEEN SELLING THE STUFF
(18) BEFORE.
(19) Q LET ME SHOW YOU, DR. KELLY, A
(20) DOCUMENT BATES STAMPED TW 2 -
(21) WHICH IS BATES STAMPED TW
(22) 2-2007037 THROUGH 043.
(23) AND I WOULD ASK YOU TO DISREGARD
(24) THE FIRST PAGE OR READ IT, IF YOU
(25) LIKE.
(26) I'M MOSTLY INTERESTED IN THE
(27) ATTACHMENT TO IT.
(28) THIS, YOUR HONOR, IS TRANSWESTERN

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(1) 18.
(2) A YES, SIR, I HAVE READ IT.
(3) Q DO YOU RECOLLECT HAVING SEEN THE
(4) OS-81 TECHNICAL BULLETIN WHICH
(5) COMPRISES MOST OF THIS EXHIBIT?
(6) A I HAVE NO SPECIFIC RECOLLECTION
(7) OF SEEING IT.
(8) I KNOW I HAVE SEEN IT.
(9) Q AND DO YOU KNOW UNDER WHAT
(10) CIRCUMSTANCES YOU SAW IT?
(11) A PROBABLY WHEN IT FIRST CAME OUT,
(12) WHEN THEY ASKED ME ABOUT THE
(13) TOXICITY AND SAFE- HANDLING DATA
(14) ON THE BULLETIN.
(15) Q COULD YOU TURN TO THE LAST PAGE,
(16) PLEASE.
(17) A YES, SIR.
(18) Q THAT IS A PAGE CAPTIONED
(19) "TOXICITY AND SAFE-HANDLING
(20) INFORMATION"?
(21) A YES, SIR.
(22) Q DO YOU RECOLLECT HAVING DRAFTED
(23) ANY OF THE LANGUAGE WHICH APPEARS
(24) THERE?
(25) A I DON'T RECOLLECT IT, BUT I'M
(26) SURE I HAVE.
(27) I'M SURE I DID IT.
(28) Q DO YOU RECOMMEND OR DO YOU

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(1) RECOLLECT RECOMMENDING IT FOR
(2) INCLUSION IN THIS PORTION OF THE
(3) TECHNICAL BULLETIN ANY
(4) INFORMATION ABOUT SYSTEMIC TOXIC
(5) EFFECTS OF EXPOSURE TO OS-81?
(6) A NO, SIR, I DON'T SEE THAT.
(7) BUT I DO SEE THE LAST PARAGRAPH,
(8) QUOTE, "IF, HOWEVER, THE MATERIAL
(9) IS USED AT ELEVATED TEMPERATURES,
(10) REPEATED OR CONTINUOUS BREATHING
(11) OF FUMES MUST BE AVOIDED BY
(12) WORKMEN."
(13) Q I'M SORRY.
(14) A QUOTE, "MUST BE AVOIDED BY
(15) WORKMEN," UNQUOTE.
(16) I MEAN, THE INFERENCE THERE IS IF
(17) YOU DON'T AVOID IT, YOU ARE GOING
(18) TO HAVE PROBLEMS.
(19) BUT I DON'T SEE ANYTHING SPECIFIC
(20) ABOUT SYSTEMIC ILLNESSES.
(21) Q ARE YOU FAMILIAR, DR. KELLY, WITH
(22) WORK DONE IN SWEDEN BY A SOREN
(23) JENSEN?
(24) A YES, I AM.
(25) Q AND CAN YOU DESCRIBE THE
(26) CIRCUMSTANCES WHICH YOU FIRST
(27) BECAME FAMILIAR WITH THAT WORK?
(28) A YES.

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(1) SOMETHING APPEARED IN A SWEDISH
(2) NEWSPAPER IN 1966 OR 1967.
(3) I'M NOT EXACTLY SURE OF THE DATE.
(4) AND EVENTUALLY IT SHOWED UP IN
(5) THE UNITED KINGDOM'S NEWSPAPERS.
(6) AND PEOPLE FROM DR. JENSEN FOUND
(7) WHAT HE BELIEVED TO BE PCB WAS
(8) PRESENT IN THE FEATHERS OF BIRDS
(9) AND SOME PEOPLE.
(10) I MEAN, THIS INFORMATION FINALLY
(11) GOT TO OUR RESEARCH DEPARTMENT.
(12) EXCUSE ME, TO OUR RESEARCH
(13) GROUP.
(14) I DON'T KNOW IF THEY FOUND THAT
(15) IN THE FEATHERS OF THE BIRDS OR
(16) HE FOUND IT IN THE LAND IN SWEDEN
(17) OR IN THE WATER OFF SWEDEN. I

(18) DON'T KNOW WHETHER HE FOUND IT IN
(19) THE BIRDS, IN THE FEATHERS, I
(20) BELIEVE.
(21) AND IT GOT INTO THE - CAME TO
(22) THE KNOWLEDGE OF OUR PEOPLE IN
(23) LONDON, OUR LONDON PLANT, LONDON
(24) OFFICE.
(25) THEY WROTE US AND ASKED IF WE
(26) KNEW ANYTHING ABOUT IT.
(27) WE SAID, "THIS IS ALL NEWS TO
(28) US."

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(1) SO THEN WE SAID, "WHY DON'T YOU
(2) TALK TO JENSEN AND FIND OUT WHAT
(3) HE KNOWS."
(4) SO WOOD WENT OVER THERE AND HE
(5) COMMUNICATED WITH THE MANAGEMENT
(6) IN ST. LOUIS ABOUT THIS AND SAID,
(7) "MAYBE WE OUGHT TO FIND OUT MORE
(8) ABOUT WHAT JENSEN AND WIDMARK
(9) HAVE BEEN DOING WITH THIS."
(10) BECAUSE AT THAT TIME THERE WAS
(11) CONFUSION WITH DDT.
(12) HE WAS LOOKING FOR AN
(13) INTERFERENCE WITH DDT AND WAS
(14) LOOKING FOR DDT IN THE ECOSYSTEM
(15) AND HE FOUND OUT THAT HE HAD THIS
(16) INTERFERENCE IN HIS CHROMATOGRAPH
(17) AND EVENTUALLY HE FOUND OUT THE
(18) INTERFERING COMPOUND WAS PCB.
(19) WHOSE PCB, I DON'T THINK HE
(20) IDENTIFIED IT.
(21) WE PROBABLY HAD LESS THAN 20
(22) PERCENT OF THE MARKET IN EUROPE.
(23) SO WE THOUGHT, WELL, WE HAD
(24) BETTER FIND OUT ABOUT THIS.
(25) SO WE SENT A GROUP OF PEOPLE
(26) OVER, INCLUDING OUR MR. WHEELER
(27) FROM THE MEDICAL DEPARTMENT, AND
(28) TALKED TO JENSEN AND WIDMARK.

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(1) AND THEY CAME BACK AND SAID, THIS
(2) MAN HAS GOT SOME PRETTY
(3) SOPHISTICATED INSTRUMENTATION,
(4) SPECTROPHOTOMETERS WITH GAS
(5) CHROMATOGRAPHY. I'M NOT GOOD AT
(6) EXPLAINING THIS COMPLETELY BUT IT
(7) WAS PRETTY SOPHISTICATED.
(8) WE DIDN'T HAVE IT, MONSANTO
(9) DIDN'T HAVE IT.
(10) SO WHEELER CAME BACK AND SAID,
(11) "IT LOOKS LIKE THIS MAN MAY BE
(12) ONTO SOMETHING. LET'S GET THE
(13) EQUIPMENT AND CHECK IT OUT."
(14) Q DID YOU SAY WHEELER?
(15) A WHEELER.
(16) Q AND DID MONSANTO PURCHASE THE
(17) NECESSARY EQUIPMENT TO CHECK IT
(18) OUT?
(19) A YES.
(20) IT TOOK A LITTLE WHILE.
(21) I MEAN, THIS WAS NOT AN
(22) OFF- THE- COUNTER ITEM.
(23) Q DO YOU KNOW HOW LONG IT DID TAKE?
(24) A NO, I DON'T.
(25) MONTHS RATHER THAN WEEKS.
(26) Q IS IT FAIR TO SAY THAT THE
(27) RESULTS OF THE SWEDISH WORK WERE
(28) CONSIDERED SERIOUS BY MONSANTO AT

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(1) THE TIME?
(2) A WELL, FIRST WE WANTED TO - YES,
(3) IT WAS CERTAINLY CONSIDERED
(4) IMPORTANT, I THINK IS THE TERM,
(5) RATHER THAN SERIOUS.
(6) FIRST OF ALL, WE REALLY DIDN'T

(7) KNOW WHAT IT WAS.
(8) IT WAS ALL NEWS TO US.
(9) AND WE DECIDED, LET'S FIND OUT IF
(10) IT REALLY IS PCB OUT THERE AND
(11) WHERE ELSE IS IT.
(12) SO, YES, IT WAS IMPORTANT TO US.
(13) Q AND HOW SOON AFTER THE DISCLOSURE
(14) OF THE SWEDISH WORK TO MONSANTO
(15) IN ST. LOUIS DID MR. WHEELER GO
(16) TO SWEDEN?
(17) A I THINK WE FOUND OUT ABOUT IN -
(18) ABOUT IT IN 1967 AND WHEELER WENT
(19) OVER THERE IN LIKE MAY OF 1968.
(20) I BELIEVE I'M CORRECT IN THE
(21) DATES.
(22) Q IN ANSWER TO MY QUESTION ABOUT
(23) THE SERIOUSNESS OF THE
(24) INFORMATION A MOMENT AGO, YOU
(25) SAID A MOMENT AGO THAT MONSANTO
(26) CONSIDERED IT IMPORTANT.
(27) WHAT WAS THE REASON FOR
(28) CONSIDERING THE INFORMATION

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(1) IMPORTANT?
(2) A WELL, ABOUT THAT TIME THE
(3) QUESTION OF NON-BIODEGRADABILITY
(4) BECAME IMPORTANT.
(5) IT WAS GIVEN A LOT OF ATTENTION
(6) BY SCIENTISTS AND ECOLOGISTS.
(7) IF WE HAD A PRODUCT GETTING OUT
(8) INTO THE ENVIRONMENT AND
(9) CONCEIVABLY GETTING INTO THE
(10) FEATHERS OF BIRDS, WE OUGHT TO
(11) FIND OUT MORE ABOUT IT.
(12) Q IN YOUR USE OF THE TERM
(13) "NON-BIODEGRADABILITY" JUST NOW,
(14) ARE YOU REFERRING TO THE FACT
(15) THAT IF PCB'S ARE FOUND IN BIRD
(16) FEATHERS OR SOIL IT IS NOT
(17) BIODEGRADING?
(18) A NO.
(19) "BIODEGRADING," I WILL HAVE TO
(20) QUALIFY THAT.
(21) NO.
(22) THAT IS NOT THE TEST FOR
(23) BIODEGRADABILITY.
(24) IF YOU TAKE A PIECE OF GRAVEL,
(25) THAT DOESN'T BIODEGRADE.
(26) AND WE THE THOUGHT THAT PCB WAS A
(27) COMPOUND VERY INERT, MUCH SIMILAR
(28) TO A PIECE OF GRAVEL.

Page 1701

(1) IF A PCB GOT INTO THE RIVER OR
(2) ESTUARY OR THE OCEAN, IT WOULD GO
(3) TO THE BOTTOM AND LIE THERE LIKE
(4) A PIECE OF GRAVEL. WELL,
(5) SOMETHING - IF IT GETS INTO THE
(6) BIRDS' FEATHERS, WE KNOW THAT
(7) SOMETHING IS HAPPENING.
(8) IT ISN'T LYING THERE LIKE A PIECE
(9) OF GRAVEL. THERE IS SOME
(10) METABOLISM BY SOME OF THE MARINE
(11) ORGANISMS THAT EVENTUALLY FINDS
(12) ITS WAY INTO THE FOOD CHAIN UP
(13) INTO THE BIRDS. THAT IS WHY IT
(14) WAS IMPORTANT TO US.
(15) Q HAVE YOU HEARD THE TERM BEFORE,
(16) "PERSISTS IN THE ENVIRONMENT,"
(17) APPLIED TO PCB'S?
(18) A YES.
(19) Q AND WHAT DOES THAT TERM MEAN TO
(20) YOU?
(21) A IT DOESN'T BIODEGRADE.
(22) Q IS THE FINDING OF PCB'S IN THE
(23) FEATHERS OF BIRDS EVIDENCE OF THE
(24) PERSISTENCE OF PCB'S IN THE

(25) **ENVIRONMENT?**

(26) A NOT NECESSARILY.

(27) I MEAN, IT'S A QUESTION OF THERE

(28) IS SOME METABOLISM IN THE FOOD

Page 1702

(1) CHAIN THAT GETS IT UP TO THE

(2) BIRDS, WHETHER THAT IS - SKIPS

(3) ALL THE LOWER - I MEAN, NOW WE

(4) ARE SPEAKING THEORETICAL, WHETHER

(5) THIS IS IN THE FOOD CHAIN, IT

(6) STARTS WITH THE ALGAE AND THEN

(7) GOES TO THE SHRIMP AND THEN IT

(8) GOES TO THE MACKERAL AND THEN IT

(9) GOES TO THE PEREGRINE FALCON OR

(10) THE BALD EAGLE AND FINALLY ENDS

(11) UP IN THOSE FEATHERS. THAT IS

(12) ONE WAY.

(13) IT HAS TO BE METABOLIZED.

(14) BUT PERSISTENCE,

(15) NON-BIODEGRADABILITY IS, YOU FIND

(16) MATERIAL IN BIRDS AND IN HUMANS,

(17) THAT IS BIODEGRADABLE,

(18) OBVIOUSLY. IT'S IN THERE.

(19) IF FOOD IS BIODEGRADABLE IT'S IN

(20) THERE.

(21) YOU TAKE MINERALS THAT CAN'T BE

(22) BIODEGRADED. THEY CAN BE CHANGED

(23) AND METABOLIZED AND GET INTO THE

(24) PERSON'S BODY.

(25) **Q IN THE EXAMPLE YOU JUST GAVE OF**

(26) **PCB'S GOING INTO ALGAE, INTO**

(27) **SHRIMP, INTO MACKERALS AND SO**

(28) **FORTH, AND ULTIMATELY INTO THE**

Page 1703

(1) **FEATHERS OF BALD EAGLES, IS THAT**

(2) **PCB BEING METABOLIZED OR NOT**

(3) **BEING METABOLIZED?**

(4) A IT'S BEING METABOLIZED.

(5) THAT IS A PHENOMENON CALLED

(6) BIOACCUMULATION.

(7) THERE IS A LITTLE BIT IN THE

(8) ALGAE, THE SHRIMP.

(9) THE MACKERAL EATS THE SHRIMP. HE

(10) EATS EVERYTHING UP WITH MORE

(11) PCB'S.

(12) THE PEREGRINE FALCON EATS THE

(13) MACKERAL AND IT ENDS UP WITH MORE

(14) PCB'S. SO IT'S METABOLIZED AND

(15) ACCUMULATED.

(16) **Q WHEN YOU SAY, "IT ENDS UP WITH**

(17) **MORE PCB'S," WHAT DO YOU MEAN?**

(18) A WELL, THERE IS MORE PCB'S IN THE

(19) PEREGRINE FALCON THAN THERE WAS

(20) IN A SHRIMP.

(21) **Q BECAUSE?**

(22) A BECAUSE OF BIOACCUMULATION.

(23) **Q AND WHAT IS THE MECHANISM THAT**

(24) **RESULTS IN THE GREATER QUANTITY**

(25) **OF PCB'S IN THE FALCON THAN THE**

(26) **FISH?**

(27) A BECAUSE IF ALGAE COMES

(28) UP - THESE ARE ALL THEORETICAL

Page 1704

(1) NUMBERS.

(2) IF ALGAE COMES UP WITH ONE PART

(3) PER MILLION, THE SHRIMP EATS A

(4) LOT OF ALGAE. SO HE GETS A LOT

(5) OF PCB'S, EVEN THOUGH IT'S THERE

(6) IN ONE PART PER MILLION.

(7) SO HE MAY END UP WITH A HUNDRED

(8) PARTS PER MILLION IN HIS BODY.

(9) SO THE MACKERAL EATS A LOT OF

(10) SHRIMP AND HE ENDS UP WITH A

(11) HIGHER LEVEL OF PCB IN ITS BODY

(12) THAN THE SHRIMP HAS.

(13) ALONG COMES THE EAGLE AND IT MAY

(14) EAT THE MACKERAL'S LIVER AND

(15) FINDS OUT THAT THERE IS MORE -

(16) THE MACKERAL HAS ACQUIRED A

(17) QUANTITY OF PCB IN ITS LIVER AND

(18) FAT THAN - MUCH MORE THAN WAY

(19) DOWN AT THE BOTTOM OF THE FOOD

(20) CHAIN, THE ALGAE.

(21) SO HERE THE FALCON COMES EATING

(22) THE LIVER AND SOME OF THE FAT OF

(23) THE FISH AND ENDS UP AT A HIGHER

(24) LEVEL OF PCB THAN THOSE LOWER IN

(25) THE FOOD CHAIN.

(26) **Q DID YOU COMMUNICATE WITH**

(27) **MR. WHEELER BEFORE HE TRAVELED TO**

(28) **SWEDEN ON HIS TRIP IN MAY OF '68,**

Page 1705

(1) **IF THAT IS WHEN IT WAS?**

(2) A YES.

(3) **Q AND FOR WHAT PURPOSE DID YOU**

(4) **COMMUNICATE WITH MR. WHEELER?**

(5) A I SAID, "GO OVER THERE AND FIND

(6) OUT EVERYTHING YOU CAN."

(7) I MEAN, THE PURPOSE WAS TO FIND

(8) OUT IS THIS REALLY PCB, HOW IS HE

(9) FINDING IT.

(10) WE HAVEN'T FOUND IT.

(11) I MEAN, WE HAVEN'T GONE DOWN -

(12) WE ARE ABLE TO GET DOWN TO LEVELS

(13) THAT HE WAS TALKING ABOUT.

(14) SO FIND OUT WHAT HE HAS DONE AND

(15) HOW HE DID IT. CAN WE DO IT.

(16) WE MEANING MONSANTO, NOT MEDICAL

(17) DEPARTMENT.

(18) **Q WHY WAS MR. WHEELER SELECTED TO**

(19) **GO ON THIS TRIP?**

(20) A WELL, HE WAS A - THE MEMBER OF

(21) THE MEDICAL DEPARTMENT AND THE

(22) MEDICAL DEPARTMENT WAS PROBABLY

(23) IN A SENSE, AT THAT TIME, CLOSER

(24) TO ENVIRONMENTAL PROBLEMS THAN

(25) ANYBODY, ANY OTHER GROUP IN THE

(26) COMPANY.

(27) WE SENT, ALSO, A RESEARCH MAN, A

(28) PRODUCTION MAN AND AN ANALYTICAL

Page 1706

(1) CHEMIST FROM AN ANALYTICAL

(2) CHEMIST DEPARTMENT.

(3) **Q AND WHO WAS THE RESEARCH MAN WHO**

(4) **ACCOMPANIED MR. WHEELER?**

(5) A I THOUGHT IT WAS BILL RICHARD,

(6) DR. RICHARD. I BELIEVE THAT WAS

(7) IT.

(8) **Q AND WHO WAS THE PRODUCTION MAN?**

(9) A I DON'T KNOW.

(10) BOB - ROBERT KELLER, DR. ROBERT

(11) KELLER, WAS THE ANALYTICAL MAN.

(12) **Q DID THOSE GENTLEMAN RENDER A**

(13) **WRITTEN REPORT UPON RETURN FROM**

(14) **SWEDEN?**

(15) A I'M SURE THEY DID.

(16) **Q DO YOU REMEMBER WHETHER THEY DID**

(17) **OR NOT?**

(18) A YES, I'M SURE.

(19) YES, I KNOW THEY DID.

(20) **Q AND DID MR. WHEELER FIND OUT FROM**

(21) **YOU WHERE DO WE GO FROM HERE, TO**

(22) **USE YOUR TERM?**

(23) A YES.

(24) I THINK THE WHOLE TASK FORCE WAS

(25) SORT OF FORMALIZED AND THEY CAME

(26) UP WITH AN AGENDA FOR ACTION.

(27) I DON'T RECALL THE DETAILS OF IT.

(28) BUT THE MAIN - THE FIRST THING

Page 1707

(1) WAS, "LET'S GET THIS INSTRUMENT

(2) AND LET'S START FINDING OUT

(3) OURSELVES ABOUT THIS."
 (4) Q DO YOU RECOLLECT WHICH AROCLORS
 (5) WERE IDENTIFIED AS A RESULT OF
 (6) THE SWEDISH WORK?
 (7) A YES.
 (8) NOTHING BELOW 1254.
 (9) Q AND DO YOU RECALL WHICH AROCLORS
 (10) WERE IDENTIFIED AS A RESULT OF
 (11) MACKERAL RISEBROUGH'S WORK?
 (12) A NOTHING BELOW 1254.
 (13) Q DID YOU PARTICIPATE IN ANY
 (14) DISCUSSIONS, DR. KELLY, WHERE THE
 (15) SUBJECT OF A DISCUSSION OR A
 (16) SUBJECT OF A DISCUSSION WAS THE
 (17) EFFECT ON THE FUTURE OF
 (18) PCB- BASED PRODUCTS OF THE
 (19) SWEDISH WORK?
 (20) A WELL, FIRST OF ALL I'M NOT SURE
 (21) OF THE DATE.
 (22) I MEAN, WHEN WE DID PARTICIPATE
 (23) IN DISCUSSIONS AS TO WHERE WE
 (24) WOULD GO, IF WE FOUND OUT BASED
 (25) ON WHAT INFORMATION WE FOUND OUT,
 (26) NOT ONLY THE SWEDISH WORK, IT
 (27) WOULD BE THE WORK THAT WAS DONE
 (28) BY RISEBROUGH.

Page 1708

(1) BY THAT TIME THE GOVERNMENT WAS
 (2) GETTING VERY MUCH INTERESTED IN
 (3) THE PRESENCE OF PCB IN THE
 (4) ENVIRONMENT AND THEY WERE DOING
 (5) INVESTIGATIVE WORK, TOO.
 (6) IT WASN'T ONLY BASED ON SWEDEN.
 (7) SWEDEN AND RISEBROUGH STARTED THE
 (8) BALL ROLLING BUT EVERYBODY WAS
 (9) EXAMINING FOR PCB FOLLOWING THOSE
 (10) TWO PEOPLE.
 (11) Q AND IN THE PERIOD FOLLOWING, I
 (12) DON'T KNOW IF YOU JUST CAN'T
 (13) IDENTIFY THE DATE, BUT DO YOU
 (14) RECALL PARTICIPATING IN
 (15) DISCUSSIONS IN 1968 ABOUT THE
 (16) FUTURE OF PCB-BASED PRODUCTS
 (17) FOLLOWING ON THE SWEDISH WORK?
 (18) A YES.
 (19) WE HAD TWO MEETINGS WITH THE
 (20) EXECUTIVE COMMITTEE ON -
 (21) DEVELOPMENT COMMITTEE. BUT I
 (22) DON'T KNOW THE DATES. AND I HAD
 (23) NUMEROUS MEETINGS WITH THE HEAD
 (24) OF THE ORGANIC DIVISION.
 (25) Q LET ME SHOW YOU A DOCUMENT,
 (26) DR. KELLY, WHICH BEARS PRODUCTION
 (27) NUMBER TRAN 008619 THROUGH
 (28) 008622.

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(1) AND THAT IS TRANSWESTERN 83, YOUR
 (2) HONOR.
 (3) A YES, SIR, I HAVE READ IT.
 (4) Q HAVE YOU SEEN THIS BEFORE?
 (5) A I THINK I HAVE.
 (6) I DON'T KNOW WHOSE IT IS.
 (7) THERE DOESN'T SEEM TO BE ANY
 (8) SIGNATURE ON THE BOTTOM OF IT.
 (9) Q I WOULD NOTE FOR THE RECORD THAT
 (10) THERE IS A LITTLE BIT OF
 (11) HANDWRITING ON THE BOTTOM
 (12) RIGHT- HAND CORNER OF THE LAST
 (13) PAGE AND IT LOOKS LIKE IT SAYS R.
 (14) E. KELLER.
 (15) A THAT IS KELLER NOT KELLY.
 (16) Q KELLER, RIGHT.
 (17) A BUT WHETHER HE WROTE IT OR
 (18) WHETHER THIS WAS HIS COPY OR NOT,
 (19) I DON'T KNOW.
 (20) Q YOU THINK YOU RECALL THE

(21) CIRCUMSTANCE UNDER WHICH YOU
 (22) THINK YOU MAY HAVE SEEN THIS?
 (23) A I GUESS WHEN IT WAS - SOMEBODY
 (24) PUT ALL OF THIS TOGETHER AND SENT
 (25) IT AROUND TO THE PEOPLE
 (26) INTERESTED, BUT I DON'T KNOW ANY
 (27) MORE THAN THAT.
 (28) Q WOULD YOU JUST TAKE A MOMENT TO

Page 1710

(1) GLANCE AT THE FIRST ENTRY ON THE
 (2) FIRST PAGE, "12-15-66, REPORT OF
 (3) NEW CHEMICAL HAZARD,
 (4) NEW SCIENTIST, DECEMBER, 1966,
 (5) JENSEN'S WORK."
 (6) A YES.
 (7) Q YOU STATED EARLIER YOU WERE
 (8) UNSURE OF WHETHER THE FIRST
 (9) AWARENESS YOU HAD OF JENSEN'S
 (10) WORK WAS '66 OR '67.
 (11) DOES REVIEWING THAT ENTRY OR ANY
 (12) INFORMATION ON THIS PAGE REFRESH
 (13) YOUR RECOLLECTION AS TO WHEN YOU
 (14) LEARNED OF JENSEN'S WORK?
 (15) A NO.
 (16) BECAUSE I THINK NEW SCIENTIST IS
 (17) AN ENGLISH PUBLICATION AND THAT
 (18) GENERALLY DOESN'T CROSS MY DESK.
 (19) SO - BUT THEN WHEN WIDMARK SENT
 (20) A LETTER TO FORD, THAT WAS
 (21) PRACTICALLY 1967.
 (22) FORD IS AT MONSANTO. AND THEN I
 (23) DON'T KNOW WHEN THAT - WHEN THE
 (24) PUBLICITY WAS, SOMETIME BEFORE
 (25) WOOD VISITED SWEDEN.
 (26) THE PRESS RELEASE, I DON'T KNOW
 (27) WHEN THAT WAS.
 (28) BUT THE NEWS STORY WAS "WHAT

Page 1711

(1) CAUSED WOOD TO GO TO SWEDEN IN
 (2) JANUARY OF 1967."
 (3) Q LET ME SHOW YOU A DOCUMENT BATES
 (4) STAMPED - ONE- PAGE DOCUMENT
 (5) BATES STAMPED 007566.
 (6) THAT IS TRANSWESTERN EXHIBIT 35.
 (7) WHY DON'T YOU TAKE A LOOK AT THAT
 (8) DOCUMENT, PLEASE, DR. KELLY.
 (9) A YES, SIR, I HAVE READ THAT.
 (10) Q AND, DOCTOR, I HAVE JUST A FEW
 (11) QUESTIONS ON THIS DOCUMENT.
 (12) MR. BENIGNUS WAS IN ST. LOUIS?
 (13) A YES.
 (14) Q WHAT WAS HIS JOB?
 (15) A HE WAS IN THE FUNCTIONAL FLUIDS
 (16) DEPARTMENT. BUT HE WAS MOSTLY IN
 (17) THE DIELECTRIC PART.
 (18) Q AND MR. BUCHANAN WAS IN ST.
 (19) LOUIS?
 (20) A YES.
 (21) Q WHAT WAS HIS JOB?
 (22) A SOME PLACE IN MARKETING.
 (23) I DON'T KNOW.
 (24) I MEAN, IN THIS SAME FIELD.
 (25) Q WE WERE TALKING AS OF THE TIME WE
 (26) SPLIT UP LAST NIGHT ABOUT WORK
 (27) DONE BY DR. JENSEN AND HIS
 (28) COLLEAGUE IN SWEDEN, DO YOU

Page 1712

(1) RECALL THAT?
 (2) A YES, SIR.
 (3) Q YOU TESTIFIED, I BELIEVE, THAT
 (4) YOU BECAME AWARE OF THAT WORK IN
 (5) 1966 OR '67; IS THAT RIGHT,
 (6) OR -
 (7) A '67, I BELIEVE.
 (8) THE END OF EITHER DECEMBER, 1966
 (9) OR 1967.

(10) Q DID THERE COME A TIME WHEN YOU
(11) PERSONALLY ACCEPTED, AS ACCURATE
(12) OR VALID, THE WORK DONE BY
(13) JENSEN?
(14) A YES.
(15) Q AND WHEN DID YOU SO ACCEPT IT?
(16) A I THINK THE MIDDLE OF 1967.
(17) Q DID YOU TAKE ANY STEPS, AS A
(18) RESULT OF YOUR CONCLUSIONS, WITH
(19) RESPECT TO JENSEN'S WORK TO
(20) CHANGE LABELING ON MONSANTO
(21) PCB- CONTAINING PRODUCTS?
(22) A I CAN'T RECALL WHEN WE STARTED TO
(23) CHANGE THE LABELS.
(24) WE DID TWO THINGS.
(25) WE NOTIFIED ALL OUR CUSTOMERS
(26) ABOUT THE - BUT THAT WASN'T THE
(27) MIDDLE OF 1967.
(28) I THINK THAT WAS PROBABLY IN

Page 1713

(1) 1968.
(2) WE NOTIFIED ALL OF OUR CUSTOMERS
(3) AND THEN WE CHANGED THE - ADDED
(4) AN ENVIRONMENTAL STICKER TO THE
(5) LABEL. I'M NOT SURE ABOUT THE
(6) TIME OF THAT.
(7) THEN WE CHANGED THE LABEL BY
(8) INCORPORATING THE ENVIRONMENTAL
(9) DATA, NOT THE ENVIRONMENTAL DATA,
(10) THE ENVIRONMENTAL WARNINGS.
(11) I'M NOT SURE OF THE TIME FRAME,
(12) THOUGH, OF THOSE LAST TWO THINGS.
(13) Q CAN YOU APPROXIMATE THE TIME
(14) FRAME?
(15) A I DON'T THINK I CAN.
(16) I MEAN, IT WAS - IT WAS SOME
(17) TIME AFTER THE MIDDLE OF 1968,
(18) BUT - AND BEFORE 1970. BUT I
(19) CAN'T BE ANY CLOSER THAN THAT.
(20) Q WHEN YOU REFERRED IN YOUR ANSWER
(21) A MOMENT AGO TO "A NOTIFICATION
(22) OF ALL CUSTOMERS," TO WHAT WERE
(23) YOU REFERRING?
(24) A WE EITHER TOLD OUR - I'M NOT
(25) SURE HOW FAR IT WENT, COUNSEL,
(26) DOWN TO, BUT CERTAINLY TOLD ALL
(27) OUR MAJOR CUSTOMERS, THAT IS MY
(28) IMPRESSION, THAT WE TOLD ALL OF

Page 1714

(1) OUR MAJOR CUSTOMERS.
(2) I DON'T KNOW WHAT THAT DEFINITION
(3) INCLUDED ABOUT THE DEVELOPMENT OF
(4) THE ENVIRONMENTAL ASPECT OF
(5) DISCARDING, NOT TREATING THE
(6) WASTE BUT THE UNUSED OR DISCARDED
(7) PCB'S INCORRECTLY.
(8) Q ARE YOU REFERRING IN YOUR
(9) DISCUSSION OF NOTIFICATION TO AN
(10) ORAL NOTIFICATION OR A WRITTEN
(11) NOTIFICATION OR BOTH?
(12) A BOTH.
(13) Q LET ME SHOW YOU A DOCUMENT,
(14) DR. KELLY, WHICH WE WILL MARK AS
(15) EXHIBIT 178, A ONE- PAGE DOCUMENT
(16) BEARING PRODUCTION NUMBER TRAN
(17) 055796.
(18) AND, YOUR HONOR, THAT IS
(19) TRANSWESTERN 39.
(20) TAKE A MOMENT, PLEASE, AND REVIEW
(21) THAT.
(22) A YES, SIR.
(23) Q CAN YOU IDENTIFY THE DOCUMENT?
(24) A YES.
(25) THIS IS A DOCUMENT WRITTEN BY ME
(26) TO MR. GENE WILDE, W-I-L-D-E, OF
(27) MONSANTO, DATED FEBRUARY 21,

(28) 1967.

Page 1715

(1) Q AND YOU WROTE THAT DOCUMENT IN
(2) THE DISCHARGE OF YOUR
(3) RESPONSIBILITIES AS MEDICAL
(4) DIRECTOR AT MONSANTO?
(5) A YES.
(6) Q AND YOU WROTE IT ON OR ABOUT
(7) FEBRUARY 21, 1967?
(8) A YES, SIR.
(9) Q AND YOU INTENDED MR. WILDE TO
(10) RELY ON THE INFORMATION CONTAINED
(11) IN THIS DOCUMENT?
(12) A YES, I DID.
(13) Q THERE IS A REFERENCE IN
(14) PARAGRAPH - THE PARAGRAPH THAT
(15) IS NUMBERED THREE, DOCTOR, THAT
(16) STATES, QUOTE, "THERE IS NO
(17) NECESSITY AT PRESENT FOR ANYONE
(18) FROM ST. LOUIS TO CONTACT THE
(19) SWEDISH PEOPLE," CLOSE QUOTE.
(20) DO YOU SEE THAT?
(21) A YES, I DO.
(22) Q AND THE PARAGRAPH GOES ON TO SAY,
(23) QUOTE, "IN FACT IT WOULD BE
(24) UNWISE AT PRESENT," CLOSE QUOTE.
(25) DO YOU SEE THAT?
(26) A YES.
(27) Q DO YOU RECOLLECT HAVING WRITTEN
(28) THAT PASSAGE?

Page 1716

(1) A I DIDN'T RECOLLECT UNTIL I SAW
(2) THIS, YES.
(3) Q DO YOU RECOLLECT WHAT MEANING YOU
(4) ATTACHED TO THE USE OF "UNWISE"
(5) AS IT IS USED IN THAT PARAGRAPH
(6) NUMBERED THREE?
(7) A WELL, YES.
(8) FIRST, WE DIDN'T KNOW MUCH ABOUT
(9) THE PROBLEM. WE COULDN'T
(10) CONTRIBUTE ANYTHING TO THE
(11) MEETING.
(12) SECOND, IT WAS HANDLED PRETTY
(13) WELL BY OUR PEOPLE FROM OUR
(14) LONDON OFFICE.
(15) Q AND IN WHAT FASHION DOES THAT
(16) RENDER CONTACT UNWISE?
(17) A WELL, I THOUGHT WE WERE GETTING
(18) ALL THE INFORMATION WE WERE
(19) GETTING FROM OUR LONDON OFFICE.
(20) WE COULDN'T CONTRIBUTE ANYTHING
(21) TO A MEETING UNTIL WE FOUND OUT
(22) MORE.
(23) Q LET ME SHOW YOU A DOCUMENT, A
(24) TWO-PAGE DOCUMENT WHICH WE WILL
(25) MARK AS EXHIBIT 179 WHICH BEARS
(26) PRODUCTION NUMBER TRAN 056068 AND
(27) 069.
(28) THAT DEPOSITION EXHIBIT, YOUR

Page 1717

(1) HONOR, IS TRANSWESTERN 38.
(2) IN THIS CASE.
(3) CAN YOU TAKE A MOMENT, PLEASE,
(4) AND REVIEW THAT?
(5) A YES, I WILL.
(6) YES, SIR, I HAVE READ IT.
(7) Q THIS DOCUMENT APPEARS TO BE A
(8) MEMORANDUM TO YOU FROM A GENE
(9) WILDE; IS THAT CORRECT?
(10) A YES.
(11) Q AND DO YOU RECOLLECT MR. WILDE'S
(12) POSITION WITH MONSANTO IN
(13) FEBRUARY, 1967?
(14) A HE WAS A SALES CORRESPONDENT.
(15) Q A SALES -
(16) A CORRESPONDENT.

(17) Q AND WHAT KIND OF POSITION IS
(18) THAT?
(19) A NOT TOO HIGH UP.
(20) I MEAN, HE WASN'T A PROJECT
(21) DIRECTOR.
(22) HE WAS A DIRECTOR OF MARKETING.
(23) HE WAS A COUPLE OF STEPS BELOW IN
(24) THE HIERARCHY, BELOW A PRODUCT
(25) MANAGER.
(26) Q LOOK JUST AT THE TOP LEFT OF THE
(27) FIRST PAGE AFTER MR. WILDE'S
(28) NAME.

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(1) THERE IS A STATEMENT OR AT LEAST
(2) A REFERENCE.
(3) IT SAYS, QUOTE, "GENERAL
(4) OFFICES," CLOSE QUOTE.
(5) A YES.
(6) Q WHAT DOES GENERAL OFFICES MEAN OR
(7) WHAT DID IT MEAN IN FEBRUARY,
(8) 1967?
(9) A 800 NORTH LINDBERGH, ST. LOUIS,
(10) MISSOURI.
(11) Q WHAT WAS ENCOMPASSED WITHIN THE
(12) GENERAL OFFICES?
(13) A THAT WAS THE HEADQUARTERS.
(14) Q OKAY. DID THE FIVE NUMBERED
(15) PARAGRAPHS AT THE TOP OF PAGE 2
(16) REFLECT THE ACTION PLAN AS OF
(17) THIS POINT, FEBRUARY, 1967?
(18) A WELL, I DON'T KNOW.
(19) I MEAN, I THINK WE PROBABLY
(20) PASSED THIS ACTION PLAN UP TO
(21) OTHER PEOPLE THAT WERE INVOLVED
(22) IN THE PROBLEM, NOT JUST KELLY
(23) AND WILDE, WHOEVER ELSE MIGHT
(24) HAVE BEEN AT THAT MEETING.
(25) BUT IT DIDN'T SEEM, TO MY
(26) RECOLLECTION, IN THE FACT THAT I
(27) DON'T REMEMBER ANYTHING ABOUT IT,
(28) THAT IT WAS A VERY HIGH-POWERED

Page 1719

(1) MEETING.
(2) Q DO YOU REMEMBER EVER
(3) COMMUNICATING WITH MR. WILDE TO
(4) TELL HIM THAT THIS ACTION PLAN
(5) WAS REJECTED?
(6) A OH, NO.
(7) IT WASN'T REJECTED. BECAUSE -
(8) EXCEPT I DON'T KNOW - I'VE NEVER
(9) CONTACTED BEYER OR BRODOLACK,
(10) WHICH ARE THE MAJOR MANUFACTURERS
(11) OF PCB'S IN EUROPE.
(12) Q DO YOU KNOW WHETHER MONSANTO DID
(13) MAKE CONTACT WITH THOSE
(14) COMPANIES, A CONTACT NOT
(15) INCLUDING YOU?
(16) A NOT THAT I KNOW OF.
(17) BUT THEY MAY.
(18) BUT I THINK THAT IS ANOTHER
(19) REASON THAT I ADVISED GENE WILDE
(20) THAT ST. LOUIS NOT GET INVOLVED
(21) IN THE PROJECT, WHAT WAS
(22) HAPPENING OVER THERE.
(23) LET'S SEE WHAT THE MAJOR
(24) MANUFACTURERS OF PCB'S WERE DOING
(25) OVER THERE.
(26) AFTER ALL, THE ODDS WERE THAT
(27) THIS WAS THEIR PCB THEY WERE
(28) FINDING, NOT MONSANTO'S PCB.

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(1) Q WITHOUT REGARD TO THE IDENTITY OF
(2) THE PCB THAT MAY HAVE BEEN FOUND
(3) IN THE STUDIES DONE BY
(4) MR. JENSEN, WAS IT A CONCERN TO
(5) THAT YOU PCB'S WERE FOUND IN

(6) DR. JENSEN'S WORK?
(7) A YES.
(8) Q OKAY. DOCTOR, ARE YOU FAMILIAR
(9) WITH SOMETHING CALLED THE "YUSHO
(10) INCIDENT"?
(11) A OH, YES.
(12) Q CAN YOU DESCRIBE, IN BRIEF, YOUR
(13) UNDERSTANDING OF THE YUSHO
(14) INCIDENT.
(15) A YES.
(16) YUSHO IS A TOWN IN JAPAN, A
(17) PENTACHLOROPHENOL - I MEAN A PCB
(18) WAS MANUFACTURED BY KAWASAKI OR
(19) SOME JAPANESE COMPANY.
(20) THEY MANUFACTURED A COMPOUND
(21) CALLED CANTACHLOR 500.
(22) IT WAS MADE BY A DIFFERENT
(23) PROCESS THAN MONSANTO'S PCB'S.
(24) IT WAS - IT HAD A DIFFERENT
(25) LEVEL OF IMPURITIES THAT DID NOT
(26) EXIST IN THAT LEVEL IN MONSANTO'S
(27) COMPOUND.
(28) IT WAS SOLD AS A HEAT TRANSFER

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(1) AGENT AND IT WAS USED TO COOK
(2) RICE OIL.
(3) THE PCB'S LEAKED OUT OF THE HEAT
(4) TRANSFER AGENT APPARATUS, GOT
(5) INTO THE RICE OIL AND THE
(6) MATERIAL WAS SOLD TO A COUPLE OF
(7) TOWNS IN JAPAN, I PRESUME FOR
(8) USING IN COOKING.
(9) SO IT WOULD COOK THEIR SOYBEAN
(10) CAKES IN WOKS AND SOME OTHER
(11) PARTICULAR TYPE OF COOKING
(12) APPARATUS THEY USED AND HEATED IT
(13) AGAIN.
(14) SO PEOPLE GOT - RECEIVED AN
(15) INDETERMINATE AMOUNT OF THE
(16) JAPANESE PCB CANTACHLOR OVER A
(17) PERIOD OF SIX MONTHS AND THEY
(18) DEVELOPED QUITE A LOT OF PROBLEMS
(19) FROM SKIN PROBLEMS TO PROBLEMS
(20) WITH THE NEWBORNS AND VARIOUS
(21) ILLNESSES.
(22) AFTER SEVERAL YEARS IT WAS
(23) FOUND - DETERMINED BY THE
(24) JAPANESE SCIENTISTS THAT IT WAS
(25) NOT - THEIR OPINION WAS IT WAS
(26) NOT DUE TO THE PCB'S BUT WAS DUE
(27) TO THE DIBENZOFURANS THAT WERE
(28) CAUSED BY THE ACTION OF HEAT AND

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(1) OXYGEN AT THE TIME THE MATERIAL
(2) LEAKED OUT AT THE HEAT TRANSFER
(3) AGENCY.
(4) ALSO THAT WAS AGGRAVATED BY THE
(5) COOKING OF THE RICE PANCAKES IN
(6) THE HOUSEHOLD OF THE JAPANESE
(7) HOUSEWIVES.
(8) SO THAT IS ABOUT WHAT HAPPENED AT
(9) YUSHO.
(10) Q DO YOU RECOLLECT APPROXIMATELY
(11) WHEN IT WAS THAT YOU HEARD ABOUT
(12) THE YUSHO INCIDENT?
(13) A I THINK IT WAS 1968 OR 1969 IT
(14) OCCURRED, BY THE TIME WE READ
(15) ABOUT IT IN THE UNITED STATES
(16) NEWSPAPERS.
(17) WE DO NOT READ JAPANESE
(18) NEWSPAPERS, JAPANESE SCIENTIFIC
(19) JOURNALS.
(20) Q YOU INDICATED THAT AFTER STUDY
(21) JAPANESE SCIENTISTS CONCLUDED
(22) THAT THE ILL-EFFECTS SUFFERED BY
(23) THE POPULACE OF YUSHO WAS DUE TO

(24) FURANS?
(25) A CHLORINATED DIBENZOFURANS, YES.
(26) Q FOR THE PURPOSE OF THIS EXERCISE
(27) I WILL JUST REFER TO IT AS
(28) FURANS.

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(1) A YES, FURANS.
(2) Q AND DO YOU RECOLLECT WHEN OR
(3) RATHER HOW LONG AFTER THE INITIAL
(4) INCIDENT THAT CONCLUSION WAS
(5) REACHED?
(6) A MIDDLE 1970'S.
(7) Q WHEN YOU LEARNED OF THE YUSHO
(8) INCIDENT WERE YOU CONCERNED THAT
(9) THE INCIDENT WAS AS A RESULT OF
(10) PCB POISONING, IN ESSENCE?
(11) A YES.
(12) Q WAS THERE ANY REPORTED LIVER
(13) DAMAGE AS A RESULT OF THE
(14) CONTAMINATION OF THE RICE OIL?
(15) A I BELIEVE THERE WAS.
(16) Q AND WERE THERE CASES OF CANCER
(17) CONNECTED WITH THE CONTAMINATION
(18) OF THE RICE OIL?
(19) A NO, NOT THAT I CAN RECALL.
(20) Q LET ME JUST SHOW YOU, DR. KELLY,
(21) A DOCUMENT WHICH WE WILL MARK AS
(22) EXHIBIT 181.
(23) IT BEARS A COUPLE OF DIFFERENT
(24) PRODUCTION NUMBERS.
(25) WE WILL IDENTIFY IT AS PRR 050542
(26) THROUGH 558.
(27) YOUR HONOR, THAT IS TRANSWESTERN
(28) 57.

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(1) WOULD YOU TAKE A MOMENT AND
(2) REVIEW THAT.
(3) YOU NEED NOT STUDY THE ENTIRE
(4) EXHIBIT, BUT JUST TO FAMILIARIZE
(5) YOURSELF WITH IT OR READ IT ALL,
(6) IF YOU LIKE. BUT I WON'T
(7) QUESTION YOU IN DETAIL ABOUT IT.
(8) A AS YOU REALIZE, I HAVE REALLY
(9) SKIMMED THIS.
(10) Q FOR THESE PURPOSES I THINK THAT
(11) IS PROBABLY SUFFICIENT.
(12) THE EXHIBIT APPEARS TO BE A
(13) MEMORANDUM FROM ELMER WHEELER TO
(14) DR. RICHARD TO WHICH YOU ARE
(15) COPIED DATED OCTOBER 21, 1968,
(16) CORRECT?
(17) A YES.
(18) Q DO YOU HAVE A RECOLLECTION OF
(19) HAVING RECEIVED THIS MEMORANDUM
(20) AND ITS ATTACHMENTS?
(21) A VAGUELY.
(22) I MEAN, IT'S REALLY ALL
(23) ANALYTICAL CHEMISTRY, SO IT WAS
(24) REALLY OUTSIDE MY SPHERE OF
(25) EXPERTISE SO I COULDN'T ANALYZE
(26) THE ARTICLE, ALTHOUGH I DIDN'T
(27) SEE WHERE HE SAID HE FOUND
(28) ANYTHING - I DIDN'T SEE IN MY

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(1) FAST SKIPPING OF THIS WHERE HE
(2) LABELED THE PCB'S, I DIDN'T SEE
(3) 1254 MENTIONED. I DON'T THINK HE
(4) CHARACTERIZES THEM.
(5) Q DO YOU KNOW IF THIS IS ONE OF A
(6) SERIES OF WORKS DONE BY
(7) DR. RISEBROUGH ON THE SUBJECT?
(8) A I DON'T KNOW, BUT IT WOULD BE
(9) VERY UNUSUAL IF HE ONLY DID ONE.
(10) Q DO YOU HAVE A RECOLLECTION OF
(11) HAVING DISCUSSED THIS REPORT WITH
(12) MR. WHEELER?

(13) A I PROBABLY DID, BUT I HAVE NO
(14) RECOLLECTION OF IT.
(15) Q YOU STATED THAT YOU HAD NOT MET
(16) DR. RISEBROUGH.
(17) DO YOU KNOW IF OTHERS FROM
(18) MONSANTO MET WITH HIM?
(19) A OH, YES, TUCKER DID.
(20) HE IS AN ANALYTICAL CHEMIST.
(21) WHEELER MET HIM.
(22) I'M SURE OTHER - BUT I KNOW
(23) THOSE TWO DID.
(24) Q AND WHAT IS THE BASIS OF YOUR
(25) STATEMENT THAT YOU ARE SURE THAT
(26) TUCKER AND WHEELER DID?
(27) A BECAUSE I REMEMBER WHEELER
(28) TALKING ABOUT RISEBROUGH.

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(1) Q DO YOU REMEMBER WHAT WHEELER SAID
(2) TO YOU ABOUT RISEBROUGH?
(3) A NO, I DON'T.
(4) I REMEMBER HIM GOING OUT THERE.
(5) I SAW HIS EXPENSE ACCOUNT.
(6) Q AND DO YOU REMEMBER IF
(7) MR. WHEELER ACCEPTED THE
(8) CONCLUSIONS OF DR. RISEBROUGH'S
(9) WORK?
(10) A WELL, IT ALL DEPENDS.
(11) YOU HAVE TO PUT THAT IN A FRAME.
(12) A TIME FRAME.
(13) I MEAN, AT THE END HE CERTAINLY
(14) DID.
(15) RIGHT OFF THE BAT THERE WAS AN
(16) AWFUL LOT MORE WORK TO BE DONE
(17) BECAUSE AS LATE AS DECEMBER, 1967
(18) HE DIDN'T REALLY HAVE THE SAMPLES
(19) THAT HE COMPARED OF AROCLORS, THE
(20) PURE SAMPLES THAT HE COMPARED
(21) WITH WHAT HE FOUND, WHAT HE
(22) BELIEVED TO BE AROCLORS IN THE
(23) FISH AND EGGS.
(24) BUT EVENTUALLY HE DID BELIEVE IN
(25) IT, YES.
(26) Q WHEN YOU USE THE TERM
(27) "EVENTUALLY," WHAT TIME FRAME
(28) ARE YOU REFERRING TO?

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(1) A 12 MONTHS AFTER HE STARTED.
(2) WE GAVE THE SAMPLES OF 1967 AND
(3) BY THE END OF 1968 THIS PAPER
(4) CAME OUT IN AROUND 1968, LATE
(5) 1968, I THOUGHT.
(6) Q WHY DON'T WE MARK AS THE NEXT
(7) EXHIBIT A THREE-PAGE DOCUMENT
(8) BEARING PRODUCTION NUMBERS TRAN
(9) 058816 THROUGH 818.
(10) YOUR HONOR, THIS IS TRANSWESTERN
(11) 80.
(12) A YES, SIR, I HAVE READ IT.
(13) Q DO YOU REMEMBER RECEIVING THIS
(14) MEMO FROM DR. RICHARD TO ELMER
(15) WHEELER IN MARCH OF '69?
(16) A MY RECOLLECTION ISN'T COMPLETELY
(17) CLEAR, BUT I HAVE A VAGUE
(18) RECOLLECTION OF IT.
(19) Q DO YOU HAVE A RECOLLECTION OF
(20) PARTICIPATING IN ANY DISCUSSION
(21) WHERE A PORTION OF DISCUSSION
(22) TOUCHED ON ATTACKING OR
(23) DISCOUNTING RISEBROUGH'S STUDIES?
(24) A I DON'T RECALL THAT.
(25) Q DOES LOOKING AT THE
(26) SECOND- TO- LAST PARAGRAPH ON
(27) PAGE 2 REFRESH YOUR RECOLLECTION
(28) IN ANY RESPECT ABOUT SUCH A

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(1) CONVERSATION?

(2) A NO, SIR, IT DOESN'T.
(3) Q DO YOU KNOW WHETHER DR. RICHARD
(4) UNDERTOOK TO ATTACK AND DISCOUNT
(5) RISEBROUGH'S WORK?
(6) A WELL, I DON'T KNOW WHAT YOU MEAN
(7) BY "ATTACK AND DISCOUNT."
(8) I MEAN, ALL THROUGH THIS HE IS
(9) SAYING, "LET'S FIND OUT SOME OF
(10) THE ANSWERS TO RICHARD'S
(11) QUESTIONS."
(12) I MEAN, "TO RISEBROUGH'S
(13) QUESTIONS."
(14) AND LET'S SEE WHAT OTHER AVENUES
(15) THERE ARE.
(16) SO I DON'T - I MEAN, THAT ISN'T
(17) ATTACKING RISEBROUGH.
(18) BUT THE ANSWER TO THE QUESTION IS
(19) I DON'T RECALL WHAT RICHARD DID.
(20) Q DID YOU PARTICIPATE IN ANY
(21) COMMUNICATION WITH CUSTOMERS
(22) WHERE THE SUBJECT OF THE
(23) COMMUNICATION WAS A DISCUSSION OF
(24) RISEBROUGH'S WORK?
(25) A NO, SIR, NOT THAT I CAN RECALL.
(26) Q DO YOU KNOW IF COMMUNICATIONS
(27) WITH CUSTOMERS WERE HELD, WERE
(28) ACCOMPLISHED WHERE THE SUBJECT OF

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(1) THE COMMUNICATION WAS
(2) RISEBROUGH'S WORK?
(3) A NOT THAT I REMEMBER AT ALL.
(4) I DO NOT THINK SO.
(5) Q LET'S TAKE A BRIEF LOOK AT A
(6) DOCUMENT THAT WE WILL MARK AS AN
(7) EXHIBIT, A TWO-PAGE DOCUMENT
(8) BEARING A SERIES OF DIFFERENT
(9) IDENTIFYING NUMBERS INCLUDING T
(10) 091770 AND 771.
(11) YOUR HONOR, THIS IS TRANSWESTERN
(12) 82.
(13) TAKE A MOMENT AND REVIEW THAT,
(14) PLEASE.
(15) A YES.
(16) Q DID YOU GET A CHANCE TO REVIEW
(17) THAT?
(18) A YES, I DID.
(19) Q IS THAT A MEMO TO YOU FROM
(20) MR. WHEELER DATED MARCH 7, 1969?
(21) A YES, IT IS.
(22) Q DO YOU RECALL GETTING THAT?
(23) A YES, I DO.
(24) Q WHEN MR. WHEELER WRITES IN THE
(25) FIRST SENTENCE OF THE FIRST
(26) PARAGRAPH, "THE AROCLOR POT IS
(27) REALLY BOILING," DO YOU BELIEVE
(28) THAT TO BE A REFERENCE TO ISSUES

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(1) RAISED BY DR. RISEBROUGH'S WORK?
(2) A I THINK HE MEANS ISSUES RAISED BY
(3) THE MEDIA.
(4) Q AND WAS THE MEDIA AT THE TIME,
(5) MARCH, 1969, FOCUSING ON
(6) DR. RISEBROUGH'S WORK?
(7) A I DON'T RECALL THAT THEY WERE
(8) SPECIFIC ABOUT ANY DETAILS, BUT
(9) THEY WERE QUITE ALARMISTS IN
(10) THEIR EDITORIALIZING AND
(11) REPORTING.
(12) Q REFERRING BACK FOR A MOMENT, IF
(13) YOU WILL, DR. KELLY, TO THAT
(14) EXHIBIT WHICH IS THE MARCH 7,
(15) 1969 MEMO TO YOU, IN THE FOURTH
(16) PARAGRAPH ON PAGE 1, MR. WHEELER
(17) WRITES THAT, QUOTE, "I HAVE
(18) ENCLOSED A COPY OF THE FINAL FORM
(19) OF THE PR RELEASE THAT WAS

(20) DEVELOPED LAST WEEK.
(21) THIS HAS BEEN SENT TO 21 MONSANTO
(22) CUSTOMERS OVER MY SIGNATURE,"
(23) CLOSE QUOTE.
(24) DO YOU SEE THE REFERENCE?
(25) A YES, I DO.
(26) Q DO YOU KNOW IF EXHIBIT 184 IS THE
(27) PRESS RELEASE REFERRED TO?
(28) A NO, I DON'T.

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(1) BUT I DON'T THINK IT WOULD BE.
(2) THIS IS AN INDIVIDUAL LETTER TO
(3) INNES.
(4) IF IT WERE A PRESS RELEASE, HE
(5) WOULD SAY, "ATTACHED IS THE
(6) INFORMATION WE HAVE."
(7) I DON'T THINK THAT IS A RELEASE.
(8) Q THERE IS A REFERENCE TO 21
(9) CUSTOMERS WHICH I JUST READ.
(10) DO YOU HAVE ANY KNOWLEDGE AS TO
(11) WHO THE 21 CUSTOMERS REFERRED TO
(12) WERE?
(13) A NO, SIR, I DO NOT.
(14) Q DO YOU KNOW IF THE 21 CUSTOMERS
(15) COMPRISE THE TOTAL CUSTOMER
(16) CONSTITUENCY FOR AROCLOR PRODUCTS
(17) IN 1969?
(18) A I FEEL QUITE SURE IT DID NOT.
(19) Q DO YOU KNOW IF 21 CUSTOMERS
(20) REPRESENTED THE BIGGEST CUSTOMERS
(21) OF AROCLOR PRODUCTS IN 1969?
(22) A IT WOULD HAVE TO BE AN
(23) ASSUMPTION, BUT I WOULD ASSUME IT
(24) WAS.
(25) Q DO YOU RECOLLECT HAVING ATTENDED
(26) A MEETING IN AUGUST OF 1969 WITH,
(27) AMONG OTHER PERSONS, WHEELER,
(28) RICHARD, TUCKER, SPRINGGATE?

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(1) A NO, SIR, I DO NOT.
(2) Q DO YOU RECOLLECT EVER HAVING BEEN
(3) APPOINTED A COMMITTEE CHAIR IN
(4) AUGUST OF 1969 FOR REASONS HAVING
(5) TO DO WITH THE STUDY OF THE PCB
(6) ISSUES?
(7) A NO, SIR, IT LOOKS LIKE WHEELER
(8) WAS APPOINTED IN THIS MEMORANDUM.
(9) Q DO YOU REMEMBER WHETHER
(10) MR. WHEELER EVER CHAIRED A
(11) COMMITTEE HAVING TO DO WITH PCB
(12) ISSUES IN '69?
(13) A YES, HE DID.
(14) Q WHAT WAS THE NAME OF THE
(15) COMMITTEE?
(16) A AD HOC PCB COMMITTEE OR SOMETHING
(17) LIKE THAT.
(18) I DON'T KNOW THE NAME OF IT.
(19) Q DID YOU SIT ON THE COMMITTEE?
(20) A NO, SIR.
(21) Q DID MR. WHEELER REPORT TO YOU?
(22) A YES, HE DID.
(23) Q WITH RESPECT TO THE COMMITTEE'S
(24) WORK?
(25) A YES, ALONG WITH HIS REPORTS TO
(26) EVERYONE.
(27) Q WHO ELSE, TO YOUR RECOLLECTION,
(28) RECEIVED REPORTS OF THE

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(1) COMMITTEE'S WORK?
(2) A I'M SURE BERGEN DID.
(3) I'M SURE MINCKLER DID.
(4) Q DO YOU RECOLLECT THE PURPOSE FOR
(5) WHICH THE COMMITTEE WAS FORMED?
(6) A YES.
(7) TO TRY TO SOLVE THE PROBLEM OF
(8) LESSENING PCB CONTAMINATION AND

(9) FINALLY GETTING THE FACTS OF THE
(10) WHOLE PROBLEM.
(11) Q AND YOU MAY HAVE TOUCHED UPON
(12) THIS YESTERDAY. IF SO, I'VE
(13) FORGOTTEN.
(14) WAS IT DETERMINED THAT 1242 IS
(15) NOT BIODEGRADABLE?
(16) A IT WAS FOUND OUT IT WAS NOT
(17) BIODEGRADABLE.
(18) Q WAS THERE ANY DISCUSSION AT THE
(19) MEETING OF CUSTOMERS WITH RESPECT
(20) TO THE ISSUES BEING RAISED?
(21) MR. PREUSS: YOUR HONOR, I WILL OBJECT TO THE
(22) PAGE 283 THERE.
(23) THERE ARE TWO LINES THAT WERE NOT READ.
(24) MR. TALLON: OKAY.
(25) THE COURT: DO YOU TO GO BACK, MR. TALLON?
(26) MR. TALLON: THE OBJECTION?
(27) MR. PREUSS: JUST AS LONG AS HE GOES FROM LINES
(28) 1 TO NINE.

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(1) MR. TALLON: OKAY.
(2) Q AND YOU MAY HAVE TOUCHED ON THIS
(3) YESTERDAY, IF SO, I HAVE
(4) FORGOTTEN.
(5) WAS IT DETERMINED THAT 1242 IS
(6) NOT BIODEGRADABLE?
(7) MR. PREUSS: YOU MEAN AS OF THIS TIME?
(8) MR. TALLON: EVER.
(9) A IT WAS FOUND OUT IT WAS NOT
(10) BIODEGRADABLE.
(11) Q WAS THERE ANY DISCUSSION AT THE
(12) MEETING OF COMMUNICATIONS WITH
(13) CUSTOMERS WITH RESPECT TO THE
(14) ISSUES BEING RAISED?
(15) A YES.
(16) WE TOLD THEM WE WERE GOING TO DO
(17) IT TO - ITEM FOUR, QUOTE,
(18) "EDUCATE CUSTOMERS ON NEED TO
(19) REDUCE, EFFECTIVELY CONTROL."
(20) ITEM TWO, QUOTE, "NOTIFY ALL
(21) AROCLOR CUSTOMERS OF PCB
(22) PROBLEMS," END QUOTE.
(23) ALL CUSTOMERS.
(24) WE HAD DONE THE 26 BEFORE, BUT
(25) THIS ONE WE DECIDED TO DO
(26) EVERYBODY.
(27) Q DO YOU KNOW IF A PROGRAM WAS
(28) UNDERTAKEN TO EDUCATE CUSTOMERS

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(1) AS INDICATED IN ITEM FOUR ON PAGE
(2) 79 OF THE MINUTES?
(3) A YES, IT WAS.
(4) Q AND WHAT WAS THE PROGRAM?
(5) A THE PROGRAM WAS TO HAVE THE - TO
(6) SEND THEM LETTERS, TO HAVE THE
(7) CUSTOMER OR THE SALESPeOPLE TALK
(8) TO THEM, TO TELL THEM ABOUT OUR
(9) IN SEPARATION PROGRAM, ABOUT THE
(10) FACT THAT WE WOULD BRING THIS
(11) MATERIAL BACK AND AT COST AND
(12) INCINERATE IT.
(13) Q DO YOU KNOW WHEN THAT PROGRAM WAS
(14) COMMENCED?
(15) A I THINK IT WAS SOMETIME IN 1970.
(16) WE HAD TO BUILD THE INCINERATOR.
(17) I DON'T KNOW WHEN THAT WAS
(18) FINISHED.
(19) Q WHY DON'T WE TAKE A BRIEF LOOK AT
(20) DOCUMENT TRAN 008408.
(21) YOUR HONOR, THIS IS TRANSWESTERN
(22) 142.
(23) A YES, SIR, I HAVE READ IT.
(24) Q THAT APPEARS TO BE A MEMORANDUM
(25) FROM KELLER TO PAPAGEORGE DATED
(26) APRIL 17, 1970 ON WHICH YOU WERE

(27) COPIED, RIGHT?
(28) A YES, IT IS.

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(1) Q DO YOU REMEMBER RECEIVING THAT
(2) MEMO?
(3) A I DO NOW, YES, SIR, AFTER LOOKING
(4) AT IT.
(5) Q DO YOU RECOLLECT HAVING ANY
(6) DISCUSSIONS WITH MR. KELLER ABOUT
(7) THE TOPICS DESCRIBED IN THIS
(8) MEMO?
(9) A I MAY HAVE.
(10) I DON'T REMEMBER.
(11) Q DO YOU REMEMBER HAVING ANY
(12) COMMUNICATIONS WITH
(13) MR. PAPAGEORGE ON THE SUBJECT OF
(14) THIS MEMORANDUM?
(15) A AGAIN, I MAY HAVE, BUT I DON'T
(16) REMEMBER.
(17) Q THERE IS A REFERENCE IN THE
(18) SECOND TO LAST SENTENCE IN THE
(19) MEMO THAT SAYS, "THE WATER
(20) SEDIMENT AND AIR SAMPLES
(21) CONTAINED PCB'S TYPICAL OF
(22) AROCLOR 1242, 1248, 1254 AND/OR
(23) 1260."
(24) DO YOU SEE THAT?
(25) A YES, I DO.
(26) Q DO YOU HAVE ANY RECOLLECTION AS
(27) TO THE DEGREE TO WHICH 1242 WAS
(28) FOUND IN WATER, SEDIMENT OR AIR

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(1) SAMPLES?
(2) A IN COMPARISON OF 54 OR 60?
(3) Q YES.
(4) A I DO NOT.
(5) Q BEFORE APRIL 17, 1970, HAD YOU
(6) SEEN DOCUMENTS CONCERNING THE
(7) EXISTENCE OF 1242 IN WATER,
(8) SEDIMENT OR AIR SAMPLES?
(9) A SAY THAT OVER.
(10) I DO NOT BELIEVE I DID.
(11) Q ARE YOU FAMILIAR WITH SOMETHING
(12) CALLED THE PENSACOLA INCIDENT?
(13) A YES, I AM.
(14) Q WHAT IS THE PENSACOLA INCIDENT?
(15) A BY THAT YOU MEAN THE PENSACOLA
(16) INCIDENT RELATING TO PCB'S?
(17) Q RIGHT.
(18) A IT SEEMS THAT THERE WERE TWO
(19) THINGS THAT OCCURRED MORE OR LESS
(20) SIMULTANEOUSLY.
(21) THERE WAS SOME PCB'S WERE FOUND
(22) IN ESCAMBIA BAY WHICH IS THE PART
(23) OF THE GULF OF MEXICO TO WHICH
(24) THE OUTFLOWS FROM THE WATER FROM
(25) THE PENSACOLA NYLON PLANT
(26) DISCHARGED.
(27) THEY FOUND PCB'S IN IT.
(28) I DON'T KNOW WHICH ONE IT WAS.

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(1) I THINK IT WAS ONE OF THE HIGHER
(2) ONES, 54. AT THE SAME TIME A
(3) RESEARCH GROUP DOWN THERE WAS
(4) FINDING THAT THERE WAS A
(5) LESSENING OF THE SHRIMP IN THE
(6) BAY. FOR SOME REASON THEY DID
(7) NOT KNOW.
(8) SO WE TESTED THIS PARTICULAR PCB
(9) ON THE - FIRST WE ONLY USED PCB
(10) IN COMPRESSORS IN OUR PLANT, AT
(11) THIS NYLON PLANT. WE DIDN'T
(12) MANUFACTURE. WE DIDN'T USE IT
(13) FOR ANYTHING EXCEPT AS A
(14) FUNCTIONAL FLUID.
(15) SO WE INVESTIGATED OUR OUTFLOW

(16) AND WE DID FIND THERE WAS LEAKS
(17) AND THERE WAS DISCHARGE OF PCB'S.
(18) THEN, AS I SAY, THEN WE TESTED TO
(19) SEE WHAT THE EFFECT OF THAT LEVEL
(20) OF PCB ON SHRIMP WOULD BE.
(21) WE CALLED THE GULF FISHERIES
(22) DEPARTMENT OF GOVERNMENT,
(23) WHATEVER THEY WERE CALLED. THEY
(24) CALLED ON IT AND FOUND OUT IT
(25) WASN'T HARMFUL ON ADULT SHRIMP
(26) BUT IT WAS TO BABY FISH, WHATEVER
(27) YOU CALL THEM, BABY SHRIMP.
(28) SO WHETHER THAT WAS A CAUSE AND

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(1) EFFECT, NOBODY EVER DECIDED.
(2) BUT WE DECIDED TO CHANGE THE PCB
(3) FLUID IN OUR COMPRESSORS AND WE
(4) HEARD NO MORE ABOUT IT.
(5) THE SHRIMP PRESUMABLY ARE
(6) THRIVING. THAT'S IT.
(7) Q WHEN YOU REFERRED A MOMENT AGO TO
(8) THE USE OF PCB'S IN A FUNCTIONAL
(9) FLUID IN YOUR PENSACOLA PLANT, I
(10) BELIEVE YOU REFERRED TO USE IN
(11) COMPRESSORS?
(12) A THAT'S CORRECT.
(13) Q WHAT TYPE OF COMPRESSORS?
(14) A THEY EXTRUDED THE NYLON TO MAKE A
(15) NYLON FINER.
(16) YOU PUT THE RESIN IN A SOLUTION
(17) AND YOU HAVE SOME SORT OF A
(18) PROPELLING FORCE AND WHATEVER IS
(19) PUSHING THAT OUT IS THE
(20) COMPRESSOR.
(21) IT'S SUPPOSED TO LUBRICATE THE
(22) COMPRESSOR.
(23) THAT IS A LAYMAN'S VIEWPOINT OF
(24) MAKING NYLON.
(25) I'M NOT TOO FAMILIAR WITH THE
(26) INTRICACIES OF WHAT WENT ON.
(27) Q I JUST WANTED TO TOUCH ON ONE
(28) OTHER THING.

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(1) YOU HAD MENTIONED YOU ATTENDED
(2) TWO MEETINGS OF THE CORPORATE
(3) DEVELOPMENT COMMITTEE AND WE
(4) LOOKED AT THE MINUTES OF ONE.
(5) DO YOU REMEMBER WHEN THE OTHER
(6) MEETING YOU ATTENDED TOOK PLACE?
(7) A I THOUGHT IT WAS THREE OR SIX
(8) MONTHS LATER.
(9) THEY WANTED A FOLLOW-UP
(10) MEETING.
(11) Q AND WHAT WAS THE PURPOSE OF THE
(12) FOLLOW-UP?
(13) A TO SEE HOW THE PROBLEM WAS
(14) GETTING ALONG AND WHETHER WE HAD
(15) BEEN WORKING ON ALL THE THINGS
(16) THAT WE HAD OUTLINED IN THE FIRST
(17) MEETING.
(18) Q AND DO YOU REMEMBER WHETHER YOU
(19) GAVE A REPORT AT THAT MEETING,
(20) THE SECOND MEETING?
(21) A YES, GAVE A PROGRESS REPORT OF
(22) WHAT WAS HAPPENING.
(23) Q AND DO YOU REMEMBER -
(24) A NOT ONLY - BY THAT TIME WE HAD
(25) APPOINTED BILL PAPAGEORGE WHO WAS
(26) THE POINT MAN ON PCB'S.
(27) HE WAS DIRECTING THE PROBLEM AT
(28) THAT TIME.

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(1) WE HAD WITHDRAWN WHEELER BACK TO
(2) HIS MEDICAL DEPARTMENT AND THEY
(3) HAD PAPAGEORGE WORKING
(4) FULL-TIME.

(5) Q AND WHAT WAS THE SUM AND
(6) SUBSTANCE OF THE REPORT THAT YOU
(7) GAVE TO THE COMMITTEE THAT DATE?
(8) A WE ARE DOING ALL WE CAN BUT IT
(9) TAKES TIME.
(10) Q LET'S TAKE BRIEF LOOK AT A
(11) DOCUMENT BEARING PRODUCTION
(12) NUMBERS TRAN 024242 THROUGH 247.
(13) AND THAT, YOUR HONOR IS
(14) TRANSWESTERN 91.
(15) A YES, SIR, I HAVE READ IT.
(16) Q IS THIS A QUARTERLY REPORT OF THE
(17) MEDICAL DEPARTMENT FOR JULY,
(18) AUGUST, SEPTEMBER, 1969 WHICH YOU
(19) SIGNED?
(20) A YES, I DID.
(21) Q DID YOU DRAFT IT?
(22) A YES. WELL, ALONG WITH OTHER
(23) MEMBERS OF THE DEPARTMENT, YES.
(24) Q DID YOU PREPARE THIS QUARTERLY
(25) REPORT AS A FUNCTION OF YOUR
(26) RESPONSIBILITY AS MEDICAL
(27) DIRECTOR AT MONSANTO?
(28) A YES.

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(1) Q AND YOU ATTENDED THE 29 ODD
(2) RECIPIENTS - AND YOU INTENDED
(3) THE 29 ODD RECIPIENTS TO RELY ON
(4) THE INFORMATION CONTAINED
(5) THEREIN?
(6) A YES.
(7) Q AND YOU WROTE THIS REPORT AT OR
(8) ABOUT THE TIME OF THE EVENTS
(9) DESCRIBED IN IT?
(10) A YES.
(11) Q WAS THIS THE ONLY QUARTERLY
(12) REPORT YOU AUTHORED WHERE THE
(13) TOPIC OF DISCUSSION INCLUDED A
(14) DISCUSSION OF PCB ISSUES?
(15) A WELL, I'M SURE THERE WERE OTHERS.
(16) Q DID ALL OF YOUR MEDICAL
(17) DEPARTMENT QUARTERLY REPORTS GET
(18) DIRECTED TO THE DISTRIBUTEES
(19) LIST ON THE FIRST PAGE OF THIS
(20) EXHIBIT?
(21) A PRESUMABLY.
(22) I DIDN'T REALIZE IT WAS THIS
(23) WIDELY DISTRIBUTED, BUT THE
(24) ANSWER IS PROBABLY YES.
(25) Q THE QUARTERLY REPORT IS ACTUALLY
(26) ADDRESSED TO MR. BOCK AND THEN
(27) COPIED TO A NUMBER OF OTHERS.
(28) THE FIRST NAMES, MR. BOCK,

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(1) MR. BIBLE, MR. GILLIS,
(2) MR. PUTZELL, MR. SOMMER
(3) MR. THRODAHL, MR. ECK AND
(4) MR. EHLERS, THOSE ARE THE SENIOR
(5) OFFICERS OF THE COMPANY YOU
(6) IDENTIFIED BEFORE?
(7) A YES.
(8) Q AND WHO ARE THE OTHER GENTLEMEN
(9) WHOSE NAMES ARE LISTED ON THE
(10) RIGHT-HAND SIDE OF THAT PAGE?
(11) A WELL, THERE ARE VARIOUS
(12) VICE-PRESIDENTS, BAUER WAS
(13) VICE-PRESIDENT OF THE AGRICULTURE
(14) DIVISION, BROMLEY WAS HEAD OF
(15) PLASTICS, BRYAN WAS
(16) VICE-PRESIDENT OF THE OVERSEAS
(17) DEPARTMENT.
(18) I DON'T KNOW WHAT CRAWFORD WAS
(19) DOING.
(20) CUNNINGHAM WAS HEAD OF
(21) ENGINEERING.
(22) DAUME WAS HEAD OF PERSONNEL.

(23) DEPP WAS HEAD OF ENGINEERS.
(24) FERNANDEZ WAS SOMETHING IN THE
(25) INORGANIC DIVISION.
(26) FLITCRAFT WAS IN RESEARCH.
(27) FORRESTAL WAS HEAD OF PR.
(28) GORDON WAS HEAD OF RESEARCH.

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(1) I DON'T KNOW WHO MAHONEY WAS BUT
(2) HE ENDED UP BEING CEO, THAT'S A
(3) DIFFERENT MAHONEY.
(4) MINCKLER WAS HEAD OF THE ORGANIC
(5) DIVISION.
(6) NASON WAS HEAD OF RESEARCH.
(7) I DON'T KNOW WHAT O'NEAL WAS.
(8) SAM PICKARD WAS WASHINGTON
(9) OFFICE.
(10) REESE WAS HYDROCARBONS
(11) VICE-PRESIDENT.
(12) T. K. SMITH WAS VICE-PRESIDENT OF
(13) MARKETING.
(14) I'M NOT SURE WHAT HE WAS, BUT HE
(15) WAS UP THERE.
(16) JOHNSON AND WHEELER ARE IN THE
(17) MEDICAL DEPARTMENT.
(18) Q AND WHO IS FINIS MORGAN?
(19) A FINANCE.
(20) Q I MAY HAVE ASKED THIS QUESTION
(21) BUT LET ME ASK IT A SLIGHTLY
(22) DIFFERENT WAY.
(23) WAS YOUR QUARTERLY REPORT
(24) DISTRIBUTED TO THIS SAME GROUP IN
(25) EACH QUARTER?
(26) A THE SAME POSITIONS.
(27) THEY MAY HAVE BEEN DIFFERENT
(28) PEOPLE.

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(1) MR. TALLON: YOUR HONOR, AT THIS TIME WE WOULD
(2) LIKE TO PUBLISH A PORTION OF THIS DOCUMENT TO THE
(3) JURY.
(4) THE COURT: THIS IS EXHIBIT NUMBER?
(5) MR. TALLON: THIS IS EXHIBIT NUMBER 91.
(6) THE COURT: AND YOU WANT TO JUST SELECT A PAGE
(7) OF IT?
(8) MR. TALLON: ACTUALLY - IT'S ACTUALLY THE
(9) PAGES - THE FIRST PAGE IS NOT NUMBERED.
(10) THE TOP OF IT HAS A HEADING, IT SAYS
(11) "GENERAL MEDICAL SUPERVISION" THEN PAGE 2, THEN
(12) PAGE
(13) 3.
(14) THE COURT: I'M SORRY, WHAT IS IT YOU WANT TO
(15) GIVE THE JURY?
(16) MR. TALLON: ACTUALLY I THOUGHT I WOULD READ
(17) THE DOCUMENT OR WE CAN GIVE IT TO THEM AND PASS IT
(18) AROUND.
(19) THE COURT: I THINK IT WOULD BE BETTER TO GIVE
(20) THEM COPIES AND LET THEM READ IT.
(21) MR. TALLON: OH, COPIES.
(22) I DON'T HAVE A SUFFICIENT NUMBER OF
(23) COPIES, BUT WE CAN DO THAT OR I CAN - WOULD YOU
(24) RATHER PURSUE IT THAT WAY RATHER THAN PUT IT ON THE
(25) ELMO?
(26) THE COURT: OH, NO, YOU CAN PUT IT ON THE
(27) OVERHEAD NOW, IF YOU WISH.
(28) MR. TALLON: YEAH.
(29) AS LONG AS WE ARE DOING IT THIS WAY,

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(1) PERHAPS IT WOULD BE BEST IF I READ THE TEXT INSTEAD
(2) OF -
(3) THE COURT: YES.
(4) THERE SHOULD BE SOME READING OF THE TEXT.
(5) BUT ASK THE GENTLEMAN READING THE
(6) DEPOSITION ANSWERS TO READ THAT TEXT PLEASE.
(7) MR. PREUSS: YOUR HONOR, I WOULD OBJECT UNLESS
(8) THE ENTIRE DOCUMENT WAS READ.
(9) BECAUSE THERE IS NO ABILITY TO
(10) CROSS-EXAMINE IN THIS CONTEXT.

(11) THE COURT: THE OBJECTION IS OVERRULED.
(12) MR. TALLON: YOU NEED TO TURN AROUND AND GET A
(13) BLUE BINDER THAT WOULD HAVE TRANSWESTERN 91 IN IT.
(14) TURN TO THE PAGE OF THE DOCUMENT THAT IS SHOWN
(15) ON THE
(16) SCREEN AND START WITH THE SECTION THAT IS
(17) CAPTIONED,
(18) "ENVIRONMENTAL CONTROL, GENERAL."
(19) MR. MARKS: (READING).
(20) INTEREST AND CONCERN REGARDING
(21) THE PRESENCE OF AROCLORS
(22) (SPECIFICALLY 1254 AND 1260) IN
(23) THE ENVIRONMENT CONTINUE TO GROW.
(24) NEWSPAPER COMMENTS, (SOME, QUOTE,
(25) "VIEWING WITH ALARM," END QUOTE)
(26) ON THE APPEARANCE OF A NEW,
(27) QUOTE, "GLOBAL CONTAMINANT," END
(28) QUOTE, FOLLOWED THE WISCONSIN DDT
(29) HEARINGS ON PROPOSALS TO BAN THE
(30) USE AND SALE OF THIS

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(1) INSECTICIDE.
(2) THE AROCLORS OR, QUOTE, "PCB'S,"
(3) END QUOTE, WERE BROUGHT INTO THE
(4) TESTIMONY AS INTERFERING
(5) SUBSTANCES WHICH EXAGGERATE THE
(6) CONCENTRATION OF DDT BEING FOUND
(7) IN FISH, FOOD AND THE
(8) ENVIRONMENT.
(9) AN EDITORIAL WRITING SERVICE
(10) PICKED UP THE STORY AND A
(11) "CANNED" EDITORIAL APPEARED IN
(12) ALL OF THE SMALLER NEWSPAPERS IN
(13) VARIOUS PARTS OF THE COUNTRY
(14) IDENTIFYING MONSANTO AS THE ONLY
(15) UNITED STATES PRODUCER OF THIS
(16) NEW MENACING CONTAMINANT.
(17) THE STATE DEPARTMENT OF
(18) AGRICULTURE IN CONNECTICUT
(19) REPORTED FINDING PCB'S IN FISH IN
(20) THAT STATE.
(21) THIS LED TO TWO ARTICLES IN THE
(22) HARTFORD TIMES, THE FIRST
(23) FOLLOWING AN INTERVIEW WITH A
(24) CHEMIST'S REPORT TELLING FINDINGS
(25) AND A LONGER STORY IN THE SUNDAY
(26) SUPPLEMENT COVERING MONSANTO'S
(27) POSITION RELATIVE TO THE
(28) SITUATION.

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(1) SUBSEQUENTLY TWO FIVE-MINUTE
(2) RADIO TAPES PREPARED BY THE
(3) OUTDOOR AND WILDLIFE EDITOR WERE
(4) MADE AVAILABLE TO A SYNDICATED
(5) NETWORK OF 108 RADIO STATIONS.
(6) THE FIRST, AGAIN, WAS AN
(7) INTERVIEW OF THE ANALYTICAL
(8) CHEMIST AND THE SECOND AN
(9) INTERVIEW WITH THE MEMBER OF THE
(10) MEDICAL DEPARTMENT.
(11) DURING THE SUMMER WE HAVE
(12) RECEIVED REPORTS OF PCB'S IN MILK
(13) IN GEORGIA AND MARYLAND, IN FISH
(14) AND WATER OF LAKE MICHIGAN AND IN
(15) FISH AND OYSTERS IN THE GULF OF
(16) MEXICO.
(17) THE LATTER LED TO SAMPLING OF THE
(18) ESCAMBIA RIVER BELOW OUR
(19) PENSACOLA PLANT OUTFALL AND
(20) APPROXIMATELY 40 PPB (PARTS PER
(21) BILLION END) OF AROCLOR 1254 WERE
(22) FOUND BY BIOLOGISTS OF THE WEST
(23) FLORIDA STATE UNIVERSITY,
(24) ONE-FOURTH MILE BELOW THE PLANT.
(25) STUDIES THEN DONE BY THE
(26) PENSACOLA LABORATORIES OF THE

(27) BUREAU OF COMMERCIAL FISHERIES
(28) (U.S. DEPARTMENT OF INTERIOR

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(1) END), INDICATED THAT 400 PPB
(2) KILLED 50 PERCENT OF THE SHRIMP
(3) EXPOSED TO THIS CONCENTRATION FOR
(4) 96 HOURS.
(5) SUBSEQUENTLY THE LABORATORY FOUND
(6) THAT FIVE PPB KILLED BABY SHRIMP
(7) IN 18 DAYS.
(8) THIS IS SIGNIFICANT SINCE SHRIMP
(9) ARE NOT COMPLETELY A DEEP
(10) SEAWATER ORGANISM.
(11) INSTEAD THEY SPAWN IN BRACKISH OR
(12) FRESH WATERS ADJACENT TO THE SEA.
(13) WE ARE IN DANGER OF BEING HELD
(14) RESPONSIBLE FOR THE DECLINING
(15) SHRIMP POPULATION IN THE
(16) PENSACOLA BAY.
(17) THE PENSACOLA PLANT WAS CONTACTED
(18) BY THE UNIVERSITY AND THE FLORIDA
(19) STATE AND LOCAL WATER POLLUTION
(20) AGENCIES.
(21) INVESTIGATION BY THE PLANT
(22) REVEALED THAT PYDRAUL-AC WAS
(23) BEING USED IN OUR AIR COMPRESSORS
(24) AS A LUBRICANT AND THE
(25) APPROXIMATELY TWO TO SIX GALLONS
(26) A DAY WERE BEING LOST TO OUR
(27) DRAINS AND EVENTUALLY THE RIVER.
(28) PYDRAUL-AC CONTAINS NEARLY 50

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(1) PERCENT AROCLOR 1254 SO THE LOSS
(2) REPRESENTS ONLY ONE TO THREE
(3) GALLONS A DAY OF PCB. THE PLANT
(4) IMMEDIATELY SWITCHED BACK TO
(5) MINERAL OIL LUBRICANTS.
(6) IT MAY BE A NUMBER OF YEARS,
(7) HOWEVER, BEFORE AROCLOR 1254
(8) DISAPPEARS FROM THE RIVER SINCE
(9) BOTTOM SAMPLES OF MUD HAVE SHOWN
(10) PRESENCE OF SEVERAL HUNDRED PARTS
(11) PER BILLION OF AROCLOR.
(12) EVIDENCE INDICATES THAT THE MORE
(13) HIGHLY CHLORINATED PCB'S,
(14) INCLUDING AROCLOR 1254 ARE NOT
(15) SUBJECT TO BIODEGRADATION AND THE
(16) SOLUBILITY OF 1254 IS ONLY
(17) APPROXIMATELY A HUNDRED PARTS PER
(18) BILLION.
(19) OTHER SOURCES OF CONTAMINATION
(20) (IN MILK, ET CETERA), HAVE NOT
(21) BEEN PINPOINTED BUT IT APPEARS
(22) LIKELY THAT SOME OF OUR
(23) CUSTOMERS' PRODUCTS WILL BE FOUND
(24) RESPONSIBLE.
(25) FOR EXAMPLE, OUR RESEARCH EFFORT
(26) STIMULATED BY A REPORT THAT A
(27) DISHWASHING COMPOUND WAS FOUND TO
(28) CONTAIN PCB'S BY A FEDERAL

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(1) GOVERNMENT LABORATORY IN
(2) MICHIGAN, REVEALED THAT FOUR OF
(3) FIVE ELECTRIC DISHWASHING
(4) COMPOUNDS PURCHASED IN A
(5) SUPERMARKET IN ST. LOUIS
(6) CONTAINED UP TO FIVE PPB OF
(7) AROCLOR.
(8) THE COURT: MR. TALLON, WE WILL TAKE
(9) THE MORNING BREAK AT THIS POINT
(10) AND BE IN RECESS, LADIES AND
(11) GENTLEMEN, UNTIL FIVE AFTER 11.
(12) PLEASE RETURN AT FIVE AFTER 11 SO
(13) WE CAN RESUME AT THAT TIME.
(14) (RECESS.)
(15) THE COURT: AND RESUMING.

(16) GO AHEAD, MR. TALLON.
(17) MR. TALLON: YOUR HONOR, IT HAS BEEN POINTED
(18) OUT TO ME THAT I MAY NOT HAVE GIVEN THE EXHIBIT
(19) NUMBER THAT THE WITNESS IS READING FROM,
(20) TRANSWESTERN
(21) 91, THE QUARTERLY REPORT OF '91.
(22) THE COURT: GO AHEAD.
(23) MR. TALLON: PLEASE CONTINUE AT THE BOTTOM OF
(24) THE PAGE WHERE IT BEGINS "THE POSSIBLE EFFECTS."
(25) MR. MARKS: (READING).
(26) THE POSSIBLE EFFECTS OF THE
(27) CONTAMINATION ARE EXPRESSED BY
(28) GOVERNMENT AND UNIVERSITY
REPRESENTATIVES IN TERMS OF

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(1) IMPLICATIONS RELATING TO DDT AND
(2) CHLORINATED HYDROCARBON
(3) PESTICIDES, RATHER THAN TO ANY,
(4) QUOTE, "HARD," END QUOTE, FACTS.
(5) FOR EXAMPLE, THE "ANACAPA
(6) DISASTER" ALLEGEDLY HAS RESULTED
(7) FROM DDT AND PCB'S IN ANCHOVIES.
(8) ANACAPA ISLAND OFF THE COAST OF
(9) OXNARD, CALIFORNIA IS THE
(10) BREEDING GROUND FOR MANY SEA
(11) BIRDS AND PARTICULARLY THE BROWN
(12) PELICAN.
(13) INVESTIGATIONS BY SCIENTISTS AT
(14) THE UNIVERSITY OF CALIFORNIA AT
(15) BERKELEY IN THE LAST TWO YEARS
(16) HAVE "PROVEN" THAT THE PELICAN
(17) FACES EXTINCTION BECAUSE OF DDT
(18) AND "HUNDREDS OF PARTS PER
(19) MILLION" OF PCB'S BEING FOUND IN
(20) ANCHOVIES, THE CHIEF DIET OF THE
(21) PELICAN.
(22) THIS YEAR, OF 1,000 EGGS FOUND ON
(23) THE ISLAND, ONLY THREE HAD ANY
(24) SHELLS AND ONLY ONE NEWBORN BIRD
(25) WAS FOUND IN THE AREA. (ANY
(26) POSSIBLE EFFECT OF THE OIL SPILL
(27) AT SANTA BARBARA HAS BEEN RULED
(28) OUT.)

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(1) BRIEFLY, THE BIOLOGICAL CYCLE
(2) INVOLVED IS AS FOLLOWS:
(3) ONE, FISH LIVING IN WATERS
(4) CONTAINING A FEW PARTS PER
(5) BILLION OF PERSISTENT CHLORINATED
(6) HYDROCARBONS CONCENTRATE THESE
(7) COMPOUNDS IN THEIR TISSUES MORE
(8) THAN 1,000- FOLD (E.G., TROUT IN
(9) WATER WITH ONE PART PER BILLION
(10) OF DDT WILL HAVE ONE PART PER
(11) MILLION OF DDT IN THEIR TISSUES
(12) AFTER SIX WEEKS.)
(13) TWO, BIRDS EATING SUCH FISH
(14) CONCENTRATE THE CHLORINATED
(15) COMPOUNDS IN THEIR FATTY TISSUE
(16) AND LIVER.
(17) THREE, IN THE LIVER THE COMPOUNDS
(18) ENHANCE MICROSOMIAL ENZYME
(19) ACTIVITY THAT AFFECTS HORMONE
(20) PRODUCTION.
(21) FOUR, THE INFLUENCE OR HORMONES
(22) IN TURN AFFECT CALCIUM METABOLISM
(23) WHICH LEADS TO THE PRODUCTION OF
(24) EGGS WITH DECREASED SHELL
(25) THICKNESS OR NO SHELL AT ALL.
(26) (COLORED SLIDES OF ANACAPA ISLAND
(27) SHOW JUST "BLOBS" OF EGGS LYING
(28) IN THE NESTS WITH THE YOLKS AND

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(1) WHITES CONTAINED ONLY IN THE
(2) SHELL INNER MEMBRANE.)
(3) IN WASHINGTON, IN OCTOBER, A

(4) PAPER WILL BE PRESENTED AT THE
(5) MEETING OF THE ASSOCIATIONS OF
(6) OFFICIAL ANALYTICAL CHEMISTS
(7) ENTITLED "THE DETERMINATION OF
(8) PCB'S IN TWO BALD EAGLES."
(9) FROM THIS MAY ARISE PROCLAMATIONS
(10) THAT "THE VERY EMBLEM OF AMERICAN
(11) HERITAGE IS THREATENED WITH
(12) EXTINCTION DUE TO PCB'S."
(13) THE ORGANIC DIVISION WHICH
(14) PRODUCES THIS SERIES OF VERY
(15) PROFITABLE PRODUCTS HAS A
(16) CONCERTED EFFORT UNDERWAY TO
(17) PROTECT CONTINUED SALES AND
(18) USES.
(19) IT IS LIKELY, HOWEVER, THAT IT
(20) WILL BE FOUND IMPOSSIBLE TO
(21) PREVENT LOSSES TO THE ENVIRONMENT
(22) OF AROCLORS 1254 AND 1260 IN SOME
(23) CUSTOMER APPLICATIONS AND THAT
(24) PUBLIC AND GOVERNMENTAL PRESSURES
(25) WILL LEAD TO RESTRICTIONS THAT
(26) CANNOT BE MET WITHOUT
(27) DISCONTINUING PRODUCTION AND
(28) SALES.

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(1) CONCURRENTLY, ACTION IS BEING
(2) DIRECTED AT PROTECTING THE SALE
(3) AND USES OF THE OTHER
(4) POLYCHLORINATED BIPHENYLS AND
(5) TERPHENYLS.
(6) Q HOW DOES THE CONCERTED EFFORT,
(7) HOW DOES TELLING CUSTOMERS NOT TO
(8) DISCHARGE STUFF INTO THE
(9) ENVIRONMENT PROTECT CONTINUED
(10) SALES AND USES?
(11) A WELL, IF A WORRY ABOUT CONTINUED
(12) SALES IS AN ENVIRONMENTAL PROBLEM
(13) OF THE BIRDS AND WE ARE JUST AS
(14) ANXIOUS TO KEEP THE PELICANS AND
(15) THE BALD EAGLES EXISTING IN THE
(16) UNITED STATES AND IF WE COULD
(17) SOLVE THAT PROBLEM RATHER THAN
(18) GET OUT OF THE BUSINESS,
(19) ESPECIALLY GETTING OUT OF THE
(20) AREAS OF THE BUSINESS WHERE IT IS
(21) ABSOLUTELY ESSENTIALLY TO HAVE A
(22) FIRE- RESISTANT PRODUCT SUCH AS
(23) IN THE SUBWAYS, BUSCH STADIUM OR
(24) THE WHITE HOUSE, WE WANT TO DO
(25) IT.
(26) Q SO IT'S YOUR TESTIMONY THAT THE
(27) CONCERTED EFFORT UNDERWAY TO
(28) PROTECT CONTINUED SALES AND USES

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(1) REFERS TO EDUCATING CUSTOMERS
(2) ABOUT DEALING WITH EFFLUENCE?
(3) A YES.
(4) AMONG OTHER THINGS I MENTIONED,
(5) I'M SURE THERE WERE OTHER
(6) THINGS. I'M SURE WE WERE
(7) THINKING OF STOPPING SALES TO
(8) AREAS WHERE WE KNEW IT COULD NOT
(9) BE CONTROLLED, OPEN OPERATIONS
(10) THAT WE KNEW WE COULD NOT CONTROL
(11) IT AND WHERE SUBSTITUTES PROBABLY
(12) EXISTED.
(13) Q DO YOU KNOW IF THE CONCERTED
(14) EFFORT REFERRED TO INCLUDED ANY
(15) EFFORT TO REFORMULATE PRODUCTS?
(16) A WELL, EVENTUALLY THEY TRIED TO
(17) REFORMULATE IT WITH LOWER - WITH
(18) GETTING THE HIGHER CHLORINATED
(19) COMPOUNDS OUT.
(20) IN OTHER WORDS, SUPPOSE WE TAKE
(21) 1248. THAT HAS SOME 1254 IN IT.

(22) SO THEY TRIED TO GET THE 54 OUT
(23) OF THE 48 SO YOU WOULD HAVE A
(24) LOWER- CHLORINATED PRODUCT WITH
(25) THE SAME USE.
(26) Q I UNDERSTAND. I'M JUST ASKING IF
(27) YOU KNOW WHETHER THAT
(28) REFORMULATION PROCESS WAS PART OF

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(1) THE CONCERTED EFFORT UNDERWAY
(2) REFERRED TO IN THIS MEMO?
(3) A YES, IT WAS.
(4) Q IS THERE ANYTHING ELSE THAT YOU
(5) BELIEVE IS COVERED BY THE PHRASE
(6) "THE CURRENT EFFORT"?
(7) A I DON'T THINK SO.
(8) I MENTIONED - WE MENTIONED
(9) REFORMULATION. WE MENTIONED
(10) EDUCATION OF THE CUSTOMERS.
(11) SO, WE WERE - WE ALSO PROVIDED
(12) FOR - WHETHER WE WERE DOING THIS
(13) AT THIS TIME OR NOT, WE HAD AN
(14) INCINERATOR, MAYBE NOT IN 1969.
(15) WE WERE TRYING TO PUT IT ON
(16) STREAM OF HAVING AN INCINERATOR
(17) WHERE WE COULD DISPOSE OF THE
(18) MATERIAL.
(19) IF THE CUSTOMER SENT IT BACK TO
(20) US, WE WOULD DISPOSE OF IT AT
(21) COST.
(22) Q BASED ON YOUR TESTIMONY YESTERDAY
(23) WOULD IT BE FAIR TO SAY THAT YOU
(24) DON'T RECOLLECT EVER HAVING
(25) PARTICIPATED IN A COMMUNICATION
(26) WITH REPRESENTATIVES OF TEXAS
(27) EASTERN TRANSMISSION COMPANY
(28) WHERE THE SUBJECTS INCLUDED THE

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(1) TOXICOLOGY AND BIODEGRADABILITY
(2) OF AROCLOR 1242?
(3) A THAT'S CORRECT.
(4) MR. TALLON: JUST A MOMENT, YOUR HONOR, EXCUSE
(5) US.
(6) Q WOULD IT ALSO BE FAIR TO SAY THAT
(7) YOU DO NOT RECOLLECT EVER HAVING
(8) PARTICIPATED IN A COMMUNICATION
(9) WITH REPRESENTATIVES OF
(10) TRANSWESTERN PIPELINE COMPANY
(11) WHERE THE SUBJECTS INCLUDED THE
(12) TOXICOLOGY AND BIODEGRADABILITY
(13) OF AROCLOR 1242?
(14) A THAT'S CORRECT.
(15) MR. TALLON: YOUR HONOR, FOR THE RECORD, DUE TO
(16) A TECHNICAL MALFUNCTION, THE READER DID NOT HAVE
(17) THE
(18) LAST ANSWER.
(19) HE ANSWERED "THAT'S CORRECT" IN THE
(20) DEPOSITION TRANSCRIPT.
(21) THE ACTUAL ANSWER WAS, "YES, SIR, THAT'S
(22) TRUE."
(23) THE COURT: STIPULATED, MR. PREUSS?
(24) MR. PREUSS: YES, SIR.
(25) THE COURT: VERY GOOD.
(26) MR. TALLON: THAT CONCLUDES THE READING OF
(27) DR. KELLY.
(28) THE COURT: ALL RIGHT.
(29) A FURTHER WITNESS, MR. TALLON?

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(1) MR. TALLON: YOUR HONOR, TRANSWESTERN CALLS
(2) MR. WILLIAM PAPAGEORGE UNDER EVIDENCE CODE 776.
(3) THE CLERK: RAISE YOUR RIGHT HAND, SIR, TO BE
(4) SWORN.
(5)
(6) WILLIAM B. PAPAGEORGE,
(7) CALLED AS A WITNESS BY THE PLAINTIFF, TRANSWESTERN,
(8) UNDER THE PROVISIONS OF EVIDENCE CODE 776, WAS
(9) SWORN

(9) AND TESTIFIED AS FOLLOWS:
(10)
(11) THE WITNESS: I DO.
(12) THE CLERK: PLEASE, BE SEATED.
(13) PLEASE STATE AND SPELL YOUR NAME FOR THE
(14) RECORD.
(15) THE WITNESS: WILLIAM B. PAPAGEORGE,
(16) P-A-P-A-G-E-O-R-G-E.
(17)
(18) DIRECT EXAMINATION
(19) BY MR. TALLON:
(20) Q GOOD MORNING, MR. PAPAGEORGE?
(21) A GOOD MORNING.
(22) Q HOW ARE YOU?
(23) A FINE, SIR.
(24) Q MR. PAPAGEORGE, YOU ARE CURRENTLY
(25) RETIRED, CORRECT?
(26) A THAT IS CORRECT.
(27) Q BUT YOU WERE EMPLOYED BY MONSANTO BETWEEN
(28) 1951 AND 1986?

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(1) A THAT IS CORRECT.
(2) Q AND YOU RETIRED IN 1986?
(3) A I DID.
(4) Q HAVING HELD A NUMBER OF DIFFERENT
(5) POSITIONS OVER THOSE YEARS?
(6) A THAT IS CORRECT.
(7) Q OKAY. NOW, YOU RECEIVED A BACHELOR OF
(8) SCIENCE DEGREE IN CHEMICAL ENGINEERING FROM
(9) WASHINGTON UNIVERSITY IN MISSOURI IN 1943?
(10) A YES.
(11) Q AND YOU ALSO RECEIVED A MASTER'S DEGREE
(12) IN CHEMICAL ENGINEERING FROM WASHINGTON
(13) UNIVERSITY IN
(14) 1947?
(15) A YES.
(16) Q AND YOU DID DOCTORAL WORK BUT DID NOT
(17) COMPLETE YOUR DISSERTATION; IS THAT RIGHT?
(18) A THAT IS CORRECT.
(19) Q WHEN LAST WE SPOKE, YOU WERE A REGISTERED
(20) PROFESSIONAL ENGINEER.
(21) ARE YOU STILL?
(22) A I AM.
(23) Q NOW, WHEN YOU JOINED MONSANTO IN 1951 YOU
(24) STARTED WORKING AT THE JOHN F. QUEENY PLANT?
(25) A YES.
(26) Q AND WHERE WAS THAT LOCATED?
(27) A IN ST. LOUIS.
(28) Q AND WERE YOU THERE UNTIL 1965?
(29) A 1964.

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(1) Q '64?
(2) A YES, SIR.
(3) Q NOW, WHEN YOU WERE WORKING AT THE QUEENY
(4) PLANT BETWEEN 1951 AND 1964 PCB PRODUCTS WERE
(5) BLENDED
(6) AT THE QUEENY PLANT, RIGHT?
(7) A THAT IS CORRECT.
(8) Q AND YOU ARE FAMILIAR WITH THE TERM
(9) "AROCLOR," OF COURSE?
(10) A YES.
(11) Q AND AROCLOR IS THE TRADE NAME THAT
(12) MONSANTO USED TO DESCRIBE ITS BASE STOCKS, ITS
(13) BASE
(14) STOCKS FOR PCB'S, RIGHT?
(15) A WELL, I'M NOT ACCUSTOMED TO USING THE
(16) TERM "BASE STOCK."
(17) THIS COULD APPLY TO SO MANY DIFFERENT
(18) MATERIALS.
(19) THAT IS THE TERMINOLOGY USED BY MONSANTO
(20) TO DESCRIBE ITS PCB MATERIALS IT PRODUCED FOR USE
(21) AND
(22) SALE.
(23) Q OKAY. SO AROCLOR 1242 WAS A PCB
(24) MATERIAL?
(25) A YES.

(23) Q OKAY. AND AROCLOR 1248 WAS A PCB
(24) MATERIAL?
(25) A YES.
(26) Q AND AROCLOR 1232 WAS A PCB MATERIAL?
(27) A YES.
(28) Q AROCLORS 1242 AND 1248 WERE USED AT

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(1) QUEENY TO MAKE OR TO BLEND TOGETHER TO MAKE
(2) PRODUCTS,
(3) RIGHT?
(4) A YES.
(5) Q OKAY. NOW, WHEN MONSANTO DESIGNATED A
(6) PARTICULAR PRODUCT AS, LET'S SAY, AROCLOR 1242,
(7) THAT
(8) INDICATED SOMETHING WITH RESPECT TO THE DEGREE
(9) OF
(10) CHLORINATION OF THAT PRODUCT, CORRECT?
(11) A THAT'S CORRECT.
(12) Q LET'S TAKE FOR EXAMPLE AROCLOR 1242.
(13) THE 42 IN AROCLOR 1242 INDICATED THAT IT
(14) WAS CHLORINATED TO THE DEGREE OF 42 PERCENT BY
(15) WEIGHT
(16) ON AVERAGE?
(17) A YES.
(18) Q AND WHAT WOULD YOU SAY WAS THE PRINCIPAL
(19) PCB PRESENT IN AROCLOR 1242?
(20) A THE THREE- CHLORINE TYPE.
(21) Q IT IS ALSO THE CASE THAT AROCLOR 1242
(22) CONTAINED SOME OF THE FOUR- CHLORINE- PCB TYPE?
(23) A THAT'S TRUE.
(24) Q AND SOME OF THE FIVE- CHLORINE- PCB TYPE?
(25) A YES.
(26) Q NOW, WHEN YOU WERE AT THE QUEENY PLANT
(27) SOME OF THE PRODUCTS THAT WERE BLENDED THERE
(28) WERE THE
(29) PYDRAUL SERIES; IS THAT RIGHT?
(30) A YES.
(31) Q AND WERE THE PYDRAUL SERIES BASICALLY
(32) HYDRAULIC FLUIDS?
(33) A YES.

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(1) Q AND A HYDRAULIC FLUID IS BASICALLY A
(2) FLUID USED IN A MACHINE WHERE THE FLUID IS PUT
(3) UNDER
(4) VERY HIGH PRESSURE AT HIGH TEMPERATURES, RIGHT?
(5) A IN SOME APPLICATIONS, YES.
(6) Q OKAY. PYDRAULS WERE ALSO USED AS
(7) LUBRICANTS IN AIR COMPRESSORS?
(8) A YES.
(9) Q QUEENY - WELL, WHEN YOU WERE AT QUEENY
(10) PCB PRODUCTS SUCH AS AN AROCLOR WERE NOT
(11) ACTUALLY
(12) MADE AT THE QUEENY PLANT, RIGHT?
(13) A THAT IS CORRECT.
(14) Q WHEN YOU WERE AT QUEENY, THE PLANT ITSELF
(15) USED SOME OF MONSANTO'S PCB PRODUCTS, FOR
(16) EXAMPLE, AS
(17) LUBRICANTS IN AIR COMPRESSORS THAT YOU HAD
(18) THERE?
(19) A THAT IS CORRECT.
(20) Q AND YOU CAME INTO CONTACT WITH THE USE OF
(21) THOSE PYDRAUL PRODUCTS, FOR EXAMPLE, IN AIR
(22) COMPRESSORS AS PART OF YOUR JOB
(23) RESPONSIBILITIES?
(24) A MY RESPONSIBILITIES INCLUDED OPERATIONS
(25) THAT HAD THAT TYPE OF EQUIPMENT, YES.
(26) Q OKAY. AND THE QUEENY PLANT ALSO USED PCB
(27) FLUIDS IN HEAT EXCHANGE SYSTEMS AT THE QUEENY
(28) PLANT?
(29) A THEY DID.
(30) Q OKAY. PCB FLUIDS WERE USED AT THE QUEENY
(31) PLANT IN PUMPS?
(32) A I DON'T - I DON'T KNOW THAT THEY WERE
(33) USED IN PUMPS.
(34) PUMPS WERE USED TO MOVE PCB'S FROM ONE

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