
Trial Transcript [December 3, 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; FRIDAY, DECEMBER 3, 1993
 (2) 10:00 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.
 (10) RESUMING TRIAL PROCEEDINGS IN
 (11) TRANSWESTERN VERSUS MONSANTO WITH ALL OF THE
 (12) APPROPRIATE PARTICIPANTS AGAIN IN THEIR RESPECTIVE
 (13) PLACES.
 (14) LADIES AND GENTLEMEN, I'M SORRY I KEPT
 (15) YOU WAITING UNTIL NOW.
 (16) WE HAD ANOTHER CASE HERE THIS MORNING
 (17) THAT SIMPLY NEEDED THE TIME THAT WAS APPROPRIATE
 (18) TO
 (19) IT.
 (20) I HAD TO TAKE AWAY SOME OF OUR TIME.
 (21) MY APOLOGIES.
 (22) MR. TALLON, A FURTHER WITNESS?
 (23) MR. TALLON: YOUR HONOR, TRANSWESTERN CALLS
 (24) DAVID WOOD.
 (25) THE CLERK: RAISE YOUR RIGHT HAND, SIR, TO BE
 (26) SWORN.
 (27) ///
 (28) ///

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(1) DAVID WOOD,
 (2) CALLED AS A WITNESS BY THE PLAINTIFF, TRANSWESTERN,
 (3) UNDER THE PROVISIONS OF EVIDENCE CODE 776, WAS
 (4) SWORN
 (5) AND TESTIFIED AS FOLLOWS:
 (6) THE WITNESS: I DO.
 (7) THE CLERK: PLEASE, BE SEATED.
 (8) PLEASE STATE AND SPELL YOUR NAME FOR THE
 (9) RECORD.
 (10) THE WITNESS: MY NAME IS DAVID WOOD, D-A-V-I-D,
 (11) W-O-O-D.
 (12) THE COURT: MR. TALLON.
 (13)
 (14) DIRECT EXAMINATION
 (15) BY MR. TALLON:
 (16) Q GOOD MORNING MR. WOOD.
 (17) A GOOD MORNING.
 (18) Q WE MET BEFORE ON SEPTEMBER 3RD, 1992,
 (19) RIGHT?
 (20) A IN ST. LOUIS, YES.
 (21) Q AT THAT TIME YOU WERE EMPLOYED BY
 (22) MONSANTO'S SOUTHPLEX AMERICAN BUSINESS AS A
 (23) DIRECTOR;
 (24) IS THAT CORRECT?
 (25) A I WAS DIRECTOR OF THE MONSANTO'S
 (26) SAFEPLEX.
 (27) Q SAFEPLEX.
 (28) YOU STARTED WORK WITH MONSANTO IN 1961,
 (29) CORRECT?

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(1) A I BELIEVE LATE 1960.
 (2) Q THAT WAS AFTER YOU RECEIVED A DEGREE FROM
 (3) TRINITY COLLEGE AT CAMBRIDGE UNIVERSITY?
 (4) A I STUDIED CHEMISTRY AND LAW AT CAMBRIDGE
 (5) IN ENGLAND.
 (6) Q YOUR DEGREE WAS IN NATURAL SCIENCES,
 (7) INCLUDING CHEMISTRY, RIGHT?
 (8) A YES, IT WAS.
 (9) Q AND YOU RECEIVED HONORS IN CHEMISTRY?
 (10) A YES, I DID.
 (11) Q NOW, STARTING ON NOVEMBER 1, 1966 YOU
 (12) WERE MONSANTO'S PRODUCTS SUPERVISOR FOR
 (13) DIELECTRIC
 (14) FLUIDS IN EUROPE, CORRECT?

(14) A YES, I WAS.
 (15) Q ALL RIGHT. NOW, DIELECTRIC FLUIDS WERE
 (16) MADE OF PCB'S, CORRECT?
 (17) A THE DIELECTRIC FLUIDS THAT MONSANTO WAS
 (18) SELLING AT THAT POINT IN TIME WERE EITHER
 (19) CHLORINATED
 (20) DIPHENYLS IN EUROPEAN CONTACTS OR MIXTURES OF
 (21) CHLORINATED DIPHENYLS WITH CHLORINATED BENZENES.
 (22) Q YOU WERE BASED IN BRUSSELS?
 (23) A IN 1966 I HAD MOVED FROM ENGLAND TO
 (24) BRUSSELS, BELGIUM.
 (25) Q AT THAT TIME YOU WERE AWARE THAT MONSANTO
 (26) HAD AN AGENT IN SWEDEN, THE NAME OF WHICH WAS
 (27) RISING
 (28) AND STRAND; IS THAT RIGHT?
 (29) A RISING AND STRAND HAD BEEN MONSANTO'S
 (30) AGENT IN SWEDEN FOR SOME YEARS.

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(1) Q OKAY. AND YOU WERE AWARE THAT THAT WAS
 (2) THEIR FUNCTION IN SWEDEN?
 (3) A I WAS.
 (4) Q ALL RIGHT. NOW, MR. WOOD, CAN YOU TURN
 (5) AROUND, PLEASE.
 (6) ON THE TOP SHELF OF THAT LITTLE - ON THE
 (7) SECOND SHELF, ACTUALLY, OF THAT STAND BEHIND YOU
 (8) THERE IS A BUNCH OF BLUE BINDERS AND I WOULD LIKE
 (9) YOU
 (10) TO, PLEASE, TO TAKE OUT THE BINDER THAT INCLUDES
 (11) EXHIBIT 31.
 (12) YOUR HONOR, THIS DOCUMENT IS IN THE JURY
 (13) NOTEBOOK. IT IS A NOTICE DOCUMENT.
 (14) THE COURT: LADIES AND GENTLEMEN, IN CONNECTION
 (15) WITH THIS EXHIBIT, EXHIBIT 31, AS WELL AS A NUMBER OF
 (16) OTHERS THAT I WILL ALERT YOU TO WHEN WE GET TO
 (17) THEM
 (18) IN THE EVIDENCE, YOU WILL HEAR EVIDENCE THAT
 (19) MONSANTO
 (20) WAS TOLD CERTAIN INFORMATION ABOUT ANIMAL OR
 (21) MEDICAL
 (22) STUDIES OF PCB'S AND ABOUT THE IDENTIFICATION OF
 (23) PCB'S IN SAMPLES FROM HUMANS AND THE
 (24) ENVIRONMENT.
 (25) THIS EVIDENCE IS FOR YOUR CONSIDERATION
 (26) ONLY FOR THE LIMITED PURPOSE OF SHOWING THAT
 (27) MONSANTO
 (28) WAS TOLD CERTAIN INFORMATION AND WHEN.
 (29) YOU MAY NOT CONSIDER IT OR USE IT FOR ANY
 (30) OTHER PURPOSE.
 (31) IN PARTICULAR, YOU MAY NOT CONSIDER IT OR
 (32) USE IT FOR THE PURPOSE OF SHOWING THE INFORMATION
 (33) PROVIDED TO MONSANTO WAS TRUE.
 (34) THE COURT: ALL RIGHT.

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(1) MR. TALLON.
 (2) Q BY MR. TALLON: MR. WOOD, IN NOVEMBER,
 (3) 1966 YOU WERE AWARE THAT OLA PALME WORKED FOR
 (4) RISING
 (5) AND STRAND, CORRECT?
 (6) A YES, I WAS.
 (7) Q YOU HAVE GOT EXHIBIT 31 BEFORE YOU.
 (8) THAT IS A LETTER THAT MR. PALME OF RISING
 (9) AND STRAND SENT TO YOU.
 (10) IT IS DATED NOVEMBER 28, 1966, CORRECT?
 (11) A I GUESS IT IS.
 (12) Q AND IT'S ADDRESSED TO MONSANTO EUROPE AND
 (13) BRUSSELS, BELGIUM, CORRECT?
 (14) A CORRECT.
 (15) Q AND IT IS FOR THE ATTENTION OF
 (16) MR. D. WOOD AND IT'S ADDRESSED "DEAR DAVID,"
 (17) RIGHT?
 (18) A OLA PALME AND MYSELF HAD MET ON NUMEROUS
 (19) OCCASIONS. SO WE WERE ON FAMILIAR TERMS.
 (20) Q AND, IN FACT, AS IT INDICATES IN THE
 (21) FIRST PARAGRAPH OF THIS LETTER, MR. PALME IS
 (22) TELLING
 (23) YOU IN THIS LETTER THAT AS MENTIONED THERE HAS

BEEN

(21) SOME PUBLICITY IN SWEDEN CONCERNING INVESTIGATIONS
(22) MADE AT THE INSTITUTION OF ANALYTICAL CHEMISTRY AT
(23) THE STOCKHOLM UNIVERSITY, RIGHT?
(24) A YES.
(25) Q AND HE FURTHER TOLD YOU IN THIS LETTER
(26) THAT THOSE INVESTIGATIONS HAVE REVEALED THAT A GROUP
(27) OF PRODUCTS CALLED POLYCHLORINATED BIPHENYLS, PCB'S
(28) FOR SHORT, ACCUMULATED IN CERTAIN ORGANS OF ANIMALS.

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(1) THAT IS WHAT HE SAID IN THE LETTER?
(2) A HE STATES THAT IN THE OPENING PARAGRAPH
(3) OF THIS LETTER.
(4) Q AND HE TOLD YOU IN THE OPENING PARAGRAPH
(5) OF THE LETTER HE WROTE TO YOU, THAT THEY ARE SAID TO
(6) BE RELATED TO DDT AND EQUALLY POISONOUS, CORRECT?
(7) A THAT IS A STATEMENT THAT HE MAKES IN THIS
(8) LETTER.
(9) Q THAT'S RIGHT.
(10) AND HE TOLD YOU, FURTHER, IN THE LETTER
(11) OF A PUBLICATION IN SWEDEN AND HE GAVE YOU A
(12) TRANSLATION OF IT, CORRECT?
(13) A IN THE SECOND PARAGRAPH OF THIS LETTER HE
(14) TRANSLATES SOME MATERIAL FROM A SWEDISH DAILY PAPER.
(15) Q AND THAT SWEDISH DAILY PAPER WAS
(16) REPORTING ON THE FINDINGS OR THE INVESTIGATION THAT
(17) MR. PALME WAS REFERRING TO IN THE FIRST
(18) PARAGRAPH OF
(19) THE LETTER, RIGHT?
(20) A THEY ARE ALLUDING TO SUCH A REPORT.
(21) Q AND THE REPORT THAT MR. PALME PASSED ON
(22) TO YOU INDICATED THAT IT IS FOUND IN SALMON AND IN
(23) PIKE, RIGHT.
(24) THAT IS WHAT IT SAYS IN THE LETTER?
(25) A YES, IT DOES.
(26) Q AND THAT WAS REFERRING TO THE PCB, WHAT
(27) HE REFERRED TO AS PCB IN THE FIRST PARAGRAPH?
(28) MR. ZIMMER: OBJECTION, YOUR HONOR, CALLS FOR SPECULATION.

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(1) THE COURT: OVERRULED.
(2) THAT IS CALLING FOR YOUR UNDERSTANDING OF
(3) THE LETTER AS YOU READ IT.
(4) THE WITNESS: CAN YOU REPEAT THE QUESTION,
(5) PLEASE.
(6) Q BY MR. TALLON: IN THE FIRST PARAGRAPH HE
(7) REFERRED TO PCB, CORRECT?
(8) A HE REFERRED TO PCB FOR SHORT.
(9) I THINK IT'S NECESSARY THAT WE UNDERSTAND
(10) THAT PCB WAS NOT A TERM IN COMMON CURRENCY AT
(11) THAT
(12) PARTICULAR POINT IN TIME.
(13) THE LETTERS "PCB" STAND OBVIOUSLY AND
(14) ALLUDE TO POLYCHLORINATED BIPHENOL, WHICH WAS A
(15) PRODUCT THAT MONSANTO NEVER MADE.
(16) Q POLYCHLORINATED BIPHENOL?
(17) A BIPHENOL.
(18) SO PCB, THERE, IN THAT OPENING STATEMENT,
(19) STEMS SOME OF THE CONFUSION THAT REALLY
(20) ORIGINATED AT
(21) THIS POINT OF PUBLICATION OF INFORMATION IN SWEDEN.
(22) Q THE CONFUSION IS WHEN HE WRITES TO YOU HE
(23) SAYS "POLYCHLORINATED BI P-H-E-N-O-L-S" AND THEN
(24) HE
(25) SAYS "PCB'S" FOR SHORT?
(26) A AS HE WROTE TO ME.
(27) THAT IS A CONFUSING CONJUNCTION OF

(25) WORDS.
(26) Q RIGHT.
(27) NOW, POLYCHLORINATED BIPHENYL WOULD BE
(28) SPELLED P-H-E-N-Y-L-S, IF IT WAS BIPHENYLS?

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(1) A YES, IT WOULD.
(2) Q SO WHAT MR. PALME IS REFERRING TO IN THE
(3) FIRST PARAGRAPH OF THE ARTICLE HE TRANSLATES
(4) FOR YOU
(5) ARE THE SUBSTANCES, THE CHEMICALS HE WAS
(6) REFERRING TO
(7) IN THE FIRST PARAGRAPH; ISN'T THAT RIGHT?
(8) A IT - WHATEVER IT IS IS ALLEGED TO HAVE
(9) BEEN FOUND IN SALMON AND PIKE.
(10) Q OKAY. AND HE TOLD YOU FURTHER THAT THE
(11) ARTICLE SAID THAT IT IS FOUND IN SEA EAGLES LIVING
(12) ON
(13) FISH, CORRECT?
(14) A THAT IS THE TRANSLATION HE GIVES ME IN
(15) THE LETTER.
(16) Q AND THE TRANSLATION HE GIVES YOU IN THE
(17) LETTER FURTHER SAYS THAT IT IS FOUND ON THE
(18) SURFACE
(19) OF NEEDLES OF THE FIR TREES THAT IS IN THE AIR. IT
(20) IS FOUND IN THE HAIR OF A FIVE-MONTHS BABY,
(21) CORRECT?
(22) A THAT IS THE STATEMENT THAT WAS MADE IN
(23) THE SWEDISH NEWSPAPER, TRANSLATED INTO ENGLISH.
(24) Q AND HE FURTHER TOLD YOU IN THIS LETTER
(25) THAT THE TRANSLATION OF THE SWEDISH ARTICLE SAID
(26) THAT
(27) PCB IS BROKEN DOWN CONSIDERABLY SLOWER THAN
(28) DDT AND
(29) GIVES RISE TO DAMAGE OF LIVER AND SKIN, CORRECT?
(30) THOSE WORDS ARE IN THE LETTER?
(31) A I WOULD NEED TO REFRESH MY MEMORY AS TO
(32) WHERE THEY APPEAR.
(33) Q GO RIGHT AHEAD.
(34) LOOK RIGHT AT THE BOTTOM OF THE FIRST
(35) PAGE, MR. WOOD.

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(1) A YES, UH-HUH.
(2) THAT ALLEGATION IS, AGAIN, MADE IN THE
(3) ARTICLE.
(4) Q NOW, IF YOU WOULD TURN FOR A SECOND,
(5) MR. WOOD, TO PAGE 2, ONE OF THE THINGS THAT YOU
(6) READ
(7) IN THIS LETTER FROM MR. PALME WAS IN THE SECOND
(8) PARAGRAPH, THE ONE THAT BEGINS, "RESEARCH
(9) ASSISTANT,
(10) S. JENSEN."
(11) DO YOU SEE THAT PARAGRAPH?
(12) A THAT IS THE SECOND PARAGRAPH ON PAGE TWO?
(13) Q CORRECT.
(14) NOW, IN THAT PARAGRAPH 1. THINGS THAT
(15) MR. PALME WAS TELLING YOU ABOUT IN THIS ARTICLE IN
(16) THE SWEDISH LANGUAGE NEWSPAPER WAS THAT THE
(17) SUBSTANCE
(18) HAD BEEN FOUND EVEN IN FISH IN LAPLAND, CORRECT?
(19) A YES.
(20) Q AND LAPLAND IS A VERY NORTHERLY AREA OF
(21) SCANDINAVIA; IS THAT RIGHT?
(22) A YES, IT IS.
(23) Q NOW, S. JENSEN, THAT WAS A MAN BY THE
(24) NAME OF SOREN JENSEN; IS THAT RIGHT?
(25) A YES, IT WAS.
(26) Q NOW, ONE OF THE OTHER THINGS THAT
(27) MR. PALME TOLD YOU IN THIS LETTER, MR. WOOD, WAS
(28) THAT
(29) THE USE - I'M REFERRING YOU, NOW, SIR, TO THE
(30) BOTTOM
(31) OF PAGE 2, THE LAST PARAGRAPH, THE ONE THAT IS
(32) RIGHT
(33) NEXT TO THE STAMP, "COMPANY CONFIDENTIAL," DO
(34) YOU SEE
(35) THAT?

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(1) A THE USE OF PCB?
 (2) Q YES.
 (3) HE TOLD YOU THAT ONE OF THE THINGS THAT
 (4) WAS SAID IN THE SWEDISH LANGUAGE ARTICLE WAS,
 "THE
 (5) USE OF PCB IN SWEDEN IS NOT ESTABLISHED IN DETAIL,"
 (6) CORRECT?
 (7) A YES.
 (8) Q AND HE WENT ON TO TELL YOU THAT ACCORDING
 (9) TO AMERICAN SOURCES THESE TYPES OF PRODUCTS
 ARE USED
 (10) IN THE MANUFACTURE OF A VARIETY OF
 HEAT-RESISTANT
 (11) MATERIALS, RIGHT?
 (12) A THAT IS STATED.
 (13) Q AND ONE OF THE OTHER THINGS THAT WAS SAID
 (14) WAS, ONE OF THE USES, AND THIS IS APPEARING ON THE
 (15) BOTTOM OF PAGE 2, WAS IN LUBRICATING OILS USED AT
 (16) HIGH TEMPERATURE AND PRESSURE.
 (17) THAT GOES OVER TO PAGE 3, CORRECT?
 (18) A UH-HUH. YES.
 (19) Q NOW, ON PAGE 3 OF THE LETTER MR. PALME
 (20) FINISHED HIS TRANSLATION OF THE SWEDISH
 LANGUAGE
 (21) NEWSPAPER ARTICLE, CORRECT?
 (22) IT CONCLUDES ON PAGE 3?
 (23) A YES, IT DOES.
 (24) Q AND THEN, ACTUALLY SORT OF IN THE TOP
 (25) HALF OF THE PAGE WHERE IT GOES ON TO ANOTHER
 DAILY
 (26) PAPER, THAT IS, GOING BACK TO MR. PALME REPORTING
 TO
 (27) YOU.
 (28) AND THAT IS NO LONGER THE TRANSLATION OF

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(1) THE SWEDISH LANGUAGE NEWSPAPER, RIGHT?
 (2) A THAT WAS MY UNDERSTANDING.
 (3) Q OKAY. AND THEN ONE OF THE THINGS THAT
 (4) MR. PALME WROTE TO YOU WAS THAT, "I SUPPOSE
 THERE IS
 (5) NO DOUBT THAT WHAT HAS BEEN TERMED
 'POLYCHLORINATED
 (6) BIPHENYLS' IS EQUAL TO AROCLOR."
 (7) THAT IS WHAT HE SAID?
 (8) A THAT IS A SPECULATION THAT HE MADE IN
 (9) THIS LETTER TO ME.
 (10) Q AND THAT IS WHAT HE WROTE TO YOU?
 (11) A UH-HUH.
 (12) Q AND YOU KNEW AT THAT TIME THAT AROCLOR
 (13) WAS THE TRADE NAME THAT MONSANTO USED TO
 DESCRIBE ITS
 (14) PCB PRODUCTS?
 (15) A AROCLOR WAS THE - AROCLOR WAS THE TRADE
 (16) MARK THAT MONSANTO USED TO DESCRIBE THE
 CHLORINATED
 (17) DIPHENYL THAT WE SOLD TO THE DIELECTRIC INDUSTRY IN
 (18) EUROPE.
 (19) AGAIN, I WILL HAVE TO COME BACK AND JUST
 (20) MAKE THE POINT THAT PCB, AS A COLLECTION OF
 ALPHABET
 (21) SOUP, WAS SOMETHING THAT WAS NOT IN COMMON
 CURRENCY
 (22) AT THIS POINT IN TIME.
 (23) IT BLURS SOME OF THE ACTIONS AND THINGS
 (24) THAT MONSANTO WAS TAKING IN AT THAT POINT IN TIME
 FOR
 (25) US TO KEEP COMING BACK THAT PCB WAS ALREADY A
 (26) WELL-ESTABLISHED FACT.
 (27) IT WASN'T.
 (28) Q ONE OF THE THINGS THAT MR. PALME WROTE TO

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(1) YOU IN THIS LETTER WAS THAT IT WAS HIS THOUGHT
 THAT
 (2) "WE PROBABLY WILL HAVE TO HAVE AROCLOR
 REGISTERED

(3) WITH THE SWEDISH BOARD OF POISONOUS
 SUBSTANCES AND
 (4) THE INDUSTRY WILL HAVE TO BE PARTICULARLY
 CAREFUL IN
 (5) HANDLING THE MATERIAL," RIGHT?
 (6) A THAT IS A SUGGESTION HE WAS MAKING.
 (7) Q ONE OF THE THINGS YOU DID WITH THIS
 (8) LETTER WHEN YOU RECEIVED IT, MR. WOOD, WAS TO
 SEND IT
 (9) ON TO MONSANTO'S HEADQUARTERS IN ST. LOUIS,
 CORRECT?
 (10) A YES, I DID.
 (11) Q AND AT THAT TIME GEORGE BUCHANAN WAS
 (12) WORKING FOR MONSANTO IN ST. LOUIS, RIGHT?
 (13) A YES, HE WAS.
 (14) Q HE WAS THE DIRECTOR OF THE FUNCTIONAL
 (15) FLUIDS BUSINESS OR SPECIALITY CHEMICALS BUSINESS
 IN
 (16) ST. LOUIS?
 (17) A I BELIEVE HE WAS IN THAT POSITION AT THAT
 (18) POINT IN TIME.
 (19) Q WHILE YOU HAVE THAT BOOK OPEN, PLEASE,
 (20) MR. WOOD, COULD YOU PLEASE TURN TO
 TRANSWESTERN
 (21) EXHIBIT 32.
 (22) A YES, I HAVE IT.
 (23) Q NOW, THIS, MR. WOOD, IS A MEMORANDUM
 (24) DATED THE FIRST OF DECEMBER, 1966, RIGHT?
 (25) A IT IS.
 (26) Q AND THE DATE OF THAT FOLLOWS THE DATE OF
 (27) MR. PALME'S LETTER TO YOU OF NOVEMBER 28, 1966 BY
 (28) JUST A FEW DAYS, RIGHT?

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(1) A YES, UH-HUH.
 (2) Q YOU SENT MR. PALME'S LETTER UNDER COVER
 (3) OF THIS MEMORANDUM TO MR. BUCHANAN IN ST. LOUIS,
 DID
 (4) YOU NOT?
 (5) A I DID.
 (6) Q AND IN ADDITION TO SENDING IT TO
 (7) MR. BUCHANAN, YOU ALSO SENT IT TO DR. EMMET KELLY
 IN
 (8) ST. LOUIS; ISN'T THAT RIGHT?
 (9) A YES, I DID.
 (10) Q AND, IN FACT, THIS GROUP OF FOUR NAMES
 (11) WHICH APPEARS IN THE UPPER RIGHT-HAND CORNER
 OF THE
 (12) DOCUMENT IS, PARDON ME, A LIST OF THE COPIES OR
 (13) PERSONS WHO RECEIVED CARBON COPIES OF THE
 LETTER; IS
 (14) THAT RIGHT?
 (15) A THE LIST OF NAMES IN THE TOP RIGHT-HAND
 (16) SIDE ARE THE PEOPLE WHO RECEIVED IDENTIFIED COPIES
 OF
 (17) THIS MEMO.
 (18) Q OKAY. AT THAT TIME DR. KELLY'S JOB IN
 (19) ST. LOUIS WAS AS THE MEDICAL DIRECTOR OF THE
 MONSANTO
 (20) COMPANY, RIGHT?
 (21) A I BELIEVE THAT WAS HIS TITLE.
 (22) Q HE WAS THE HEAD OF THE MEDICAL DEPARTMENT
 (23) AT MONSANTO?
 (24) A HE WAS THE PERSON THAT I WOULD TALK TO IF
 (25) I HAD A QUESTION ABOUT A MEDICAL ISSUE RELATED TO A
 MONSANTO PRODUCT.
 (26) Q ALL RIGHT. AND ONE OF THE OTHER PEOPLE
 (27) YOU SENT THIS MEMO TO WAS D. V. N. HARDY IN THE
 (28)

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(1) LONDON OFFICE OF MONSANTO, RIGHT?
 (2) A YES, IT WAS.
 (3) Q AND AT THAT TIME D. V. N. HARDY WAS A
 (4) MEDICAL CONSULTANT FOR MONSANTO IN ITS LONDON
 OFFICE,
 (5) RIGHT?
 (6) A HE ESSENTIALLY CONSULTED FOR MONSANTO
 (7) EUROPE TO HELP US UNDERSTAND MEDICAL ISSUES

(8) SURROUNDING THE PRODUCTS WE WERE SELLING IN EUROPE.
(9) Q YOUR MEMO TO MR. BUCHANAN INFORMED HIM IN THE FIRST PARAGRAPH AND FIRST LINE THAT YOU WERE ATTACHING A COPY OF THE LETTER RECEIVED FROM OLA PALME WHO WAS IN STOCKHOLM, RIGHT?
(10) A YES.
(11) Q AND THAT WAS THE LETTER WE JUST LOOKED AT A MOMENT AGO?
(12) A YES, IT WAS.
(13) Q YOU TOLD HIM THAT "IN CONSIDERATION OF THE IMPORTANCE WE ARE PLACING ON THE DEVELOPMENT OF THE SWEDISH MARKET FOR AROCLOR OVER THE NEXT FIVE YEARS WE WOULD BE GRATEFUL IF YOU COULD ARRANGE FOR THIS INFORMATION TO BE CONSIDERED BY THE APPROPRIATE DEPARTMENTS IN ST. LOUIS AND THEIR COMMENTS TRANSMITTED TO US AS SOON AS POSSIBLE."
(14) THAT IS WHAT YOU ASKED HIM TO DO?
(15) A YES, I DID.
(16) Q OKAY. AND BY - WHEN YOU REFERRED TO THE FACT THAT YOU WERE PLACING IMPORTANCE ON THE DEVELOPMENT OF THE SWEDISH MARKET FOR AROCLOR, WHAT

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(1) YOU MEANT WAS, AT THAT TIME IT WAS PART OF YOUR JOB
(2) TO GROW MONSANTO'S DIELECTRIC BUSINESS IN SWEDEN; IS
(3) THAT RIGHT?
(4) A IT WAS PART OF MY JOB TO PROMOTE THE
(5) SALES OF A PRODUCT THAT MONSANTO MANUFACTURED IN GREAT BRITAIN WITH THE FORMATION OF THE AFTER-TRADING BLOCK AT THAT TIME, POTENTIALLY A CHLORINATED BIPHENYL WOULD BE IMPORTABLE INTO SWEDEN AT A LOWER DUTY THAN THAT MADE BY OUR COMPETITORS AT THAT TIME
(6) IN GERMANY AND FRANCE.
(7) THEREFORE, SWEDEN, AS A MEMBER OF THE AFTER-TRADING BLOCK, WAS A POTENTIAL TRADING MARKET FOR A BRITISH-PRODUCED CHEMICAL.
(8) Q BY "BRITISH-PRODUCED CHEMICAL," YOU MEAN MONSANTO PRODUCED THE CHEMICAL IN BRITAIN AND YOU HOPED TO SELL IT IN SWEDEN?
(9) A THAT'S CORRECT.
(10) Q NOW, ONE OF THE THINGS YOU ASKED MR. BUCHANAN IN YOUR MEMORANDUM TO HIM OF THE FIRST OF DECEMBER, 1966 WAS, "HAS ANY ENTIRELY SAFE METHOD BEEN DEVELOPED FOR THE DISPOSAL OF WASTE AROCLOR?"
(11) YOU ASKED THAT QUESTION, CORRECT?
(12) A YES, I DID.
(13) Q NOW, YOU RECEIVED A MEMORANDUM FROM D. V. N. HARDY WHO WAS THE MEDICAL CONSULTANT IN THE LONDON OFFICE OF MONSANTO IN JANUARY OF 1967 ON THE SUBJECT OF THE SWEDISH FINDINGS, CORRECT?
(14) A I'M SORRY?

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(1) Q WHY DON'T WE MAKE IT EASIER.
(2) WHY DON'T YOU TURN TO THE NEXT EXHIBIT, WHICH IS TRANSWESTERN 35.
(3) A 35?
(4) Q 35.

(5) OKAY. TRANSWESTERN EXHIBIT 35 IS A MEMORANDUM FROM D. V. N. HARDY TO A GROUP OF EMPLOYEES, INCLUDING YOU, RIGHT?
(6) A YES, IT IS.
(7) Q AND IT IS DATED 12TH JANUARY, 1967, RIGHT?
(8) A YES, IT IS.
(9) Q AND IN THIS MEMORANDUM D. V. N. HARDY IN LONDON IS RELAYING INFORMATION TO YOU, TO MR. BUCHANAN, WHO IS THE DIRECTOR OF FUNCTIONAL FLUID'S BUSINESS IN ST. LOUIS, RIGHT?
(10) A YES.
(11) Q AND TO MR. BENIGNUS WHO WAS ALSO IN ST. LOUIS.
(12) WHAT WAS HIS JOB THEN?
(13) A MR. BENIGNUS WAS THE WORLDWIDE PRODUCT MANAGER FOR THE DIELECTRIC FLUIDS SOLD BY MONSANTO.
(14) Q AND ALSO D. V. N. HARDY SENT HIS - YES, HIS MEMORANDUM OF THE 12TH OF JANUARY, 1967 TO DR. EMMET KELLY, ALSO IN ST. LOUIS?
(15) A YES, HE DID.
(16) Q IN THE MEMORANDUM - IT WAS DR. HARDY, RIGHT?

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(1) A I DON'T RECALL, AT THIS POINT WHETHER DOUG HARDY WAS A MEDICAL DOCTOR OR A DOCTOR OF CHEMISTRY, A DOCTOR -
(2) Q LET'S CALL HIM D. V. N. HARDY, THEN.
(3) IN THE MEMORANDUM OF 12TH JANUARY, 1967, D. V. N. HARDY WAS INFORMING YOU AS WELL AS THE OTHER RECIPIENTS OF THIS MEMORANDUM THAT HE HAD BEEN TALKING TO SOME PEOPLE AT SHELL CHEMICALS IN THE UK, RIGHT?
(4) A HE WAS REPORTING ABOUT A CONVERSATION HE HAD HAD WITH MR. RICHARDSON OF SHELL CHEMICALS.
(5) Q HE WAS REPORTING THAT SHELL CHEMICALS HAD LEARNED OF THE SWEDISH STUDY, AS HAD MONSANTO, CORRECT?
(6) A YES.
(7) Q AND ONE OF THE THINGS THAT D. V. N. HARDY TOLD YOU ABOUT THE CONVERSATION WITH SHELL CHEMICAL IS REFLECTED AT THE BEGINNING OF THE THIRD PARAGRAPH OF HIS MEMORANDUM TO YOU AND WHAT HE TOLD YOU WAS, "I DISCUSSED WITH RICHARDSON THE SOUNDNESS OF JENSEN'S CLAIMS AND WAS ASSURED THAT HIS WORK AND FINDINGS WERE SOUND," RIGHT?
(8) A THAT WAS A COMMENT WHICH HAD BEEN MADE BY MR. RICHARDSON, OBVIOUSLY TO MR. HARDY.
(9) AND HE HAD DISCUSSED WITH RICHARDSON - MY UNDERSTANDING WAS THAT HE HAD TALKED TO RICHARDSON WHO WORKED FOR SHELL WHO WERE MANUFACTURERS OF PESTICIDES AND SOREN JENSEN'S WORK INVOLVED PESTICIDE

Page 1510

(1) RESIDUES IN SWEDEN.
(2) SO MR. HARDY HAD TALKED TO MR. RICHARDSON TO SAY, "IS MR. JENSEN A COMPETENT ANALYST?"
(3) "WHAT DO YOU KNOW THROUGH YOUR PREVIOUS CONTACT WITH MR. JENSEN'S WORK IN OTHER CONTEXTS ABOUT HIS QUALITIES AS A SCIENTIST?"
(4) Q OKAY. SOREN JENSEN WAS ONE OF THE RESEARCHERS WHOSE WORK WAS BEING REPORTED TO YOU BY OLA PALME, CORRECT?
(5) A YES, IT WAS.

(11) Q AND THE OTHER FELLOW OR ONE OF THE OTHER
 (12) PEOPLE WITH WHOM JENSEN WAS WORKING WAS
 GUNNAR
 (13) WIDMARK, CORRECT?
 (14) A PROFESSOR WIDMARK WAS A DEPARTMENTAL HEAD
 (15) OF A SCIENTIFIC INSTITUTE IN STOCKHOLM IN SWEDEN.
 (16) AND WAS ESSENTIALLY SOREN JENSEN'S MENTOR
 (17) AND PROFESSOR AND WAS GIVING HIM COLLEGIAL
 GUIDANCE
 (18) FROM THAT POSITION IN SOREN JENSEN'S GRADUATE
 WORK
 (19) PROGRAM.
 (20) Q WHAT INSTITUTE WAS THAT?
 (21) A THE KAROLINSKA INSTITUTE.
 (22) Q AND, IN FACT, YOU TRAVELED TO SWEDEN IN
 (23) JANUARY, 1967, CORRECT?
 (24) A YES, I DID.
 (25) Q AND YOU MET AT THAT TIME WITH SOREN
 (26) JENSEN?
 (27) A YES, I DID. I WAS GOING TO BE IN SWEDEN
 (28) IN THE COURSE OF BUSINESS.

Page 1511

(1) I MADE A POINT OF MEETING WITH MR. JENSEN
 (2) DURING THAT VISIT TO SWEDEN.
 (3) Q WHEN YOU RETURNED TO BRUSSELS FROM SWEDEN
 (4) YOU REPORTED TO ST. LOUIS ON YOUR TRIP, DID YOU
 NOT?
 (5) A YES, I DID.
 (6) Q AND, IN FACT, IF YOU WOULD SKIP TO
 (7) TRANSWESTERN EXHIBIT 36, WHICH IS ALSO IN THE
 JURY
 (8) NOTEBOOK, THAT TRANSWESTERN EXHIBIT 36 IS A COPY
 OF
 (9) THE MEMO YOU WROTE TO MR. BUCHANAN IN ST. LOUIS
 (10) REPORTING ON THE RESULTS OF YOUR TRIP TO
 SWEDEN,
 (11) RIGHT?
 (12) A YES.
 (13) Q IT IS DATED JANUARY 26, 1967 FROM YOUR
 (14) OFFICE IN BRUSSELS, BELGIUM, RIGHT?
 (15) A THAT IS CORRECT.
 (16) Q TURN FOR A SECOND, MR. WOOD, TO PAGE 3.
 (17) THAT IS YOUR SIGNATURE THAT APPEARS THERE
 (18) OVER THE TYPED INDICATION "D. WOOD"?
 (19) A IT HAS CHANGED A LITTLE OVER THE YEARS,
 (20) BUT, YES, THAT IS MY SIGNATURE.
 (21) Q LET'S TURN BACK FOR A SECOND TO THE FIRST
 (22) PAGE.
 (23) YOU WERE SENDING THIS MEMO TO
 (24) MR. BUCHANAN IN ST. LOUIS, CORRECT?
 (25) A I WAS.
 (26) Q AND YOU ALSO SENT IT TO MR. BENIGNUS IN
 (27) ST. LOUIS?
 (28) A YES, I DID.

Page 1512

(1) Q AS WELL AS TO DR. KELLY IN ST. LOUIS?
 (2) A YES, I DID.
 (3) Q NOW, ONE OF THE THINGS THAT YOU TOLD THEM
 (4) IN YOUR MEMO REPORTING ON THE RESULTS OF YOUR
 TRIP TO
 (5) SWEDEN WAS, AND I WILL QUOTE NOW FROM THE
 SECOND
 (6) PARAGRAPH OF YOUR MEMO, MR. WOOD, "TO ELIMINATE
 ANY
 (7) EARLIER CONFUSION THAT THERE MAY HAVE BEEN, I
 SHOULD
 (8) LIKE TO EMPHASIZE THAT THERE IS NO DOUBT THAT THE
 (9) CHEMICAL WHICH IS THE SUBJECT OF THE
 INVESTIGATION
 (10) AND THE NEWS RELEASE IS CHLORINATED DIPHENYL,
 I.E.
 (11) AROCLOR."
 (12) THAT IS WHAT YOU TOLD THE FOLKS IN
 (13) ST. LOUIS?
 (14) A I WROTE THAT IN THIS LETTER, IN JANUARY
 (15) OF 1967.

(16) AND I NEED TO CLARIFY.
 (17) WHAT I'M SAYING HERE IS THAT IN THE
 (18) REPORTS IN THE SWEDISH PRESS WHICH HAD PROMPTED
 MY
 (19) VISIT TO SWEDEN, THERE WAS SOME CONJECTURE ABOUT,
 (20) AGAIN, THE TERMINOLOGY OF THE MATERIAL WHICH WAS
 (21) BEING REPORTED FROM SWEDEN, WAS THIS A
 (22) HYDROCARBON-BASED MATERIAL, WAS IT A PHENOLIC
 BASED
 (23) MATERIAL.
 (24) AND DURING MY VISIT TO SWEDEN THE
 (25) CONFUSION THAT WAS ELIMINATED WAS THAT WHAT
 SOREN
 (26) JENSEN AND GUNNAR WIDMARK BELIEVED THEY WERE
 (27) DETECTING IN THEIR PESTICIDE RESIDUE TESTS WAS A
 (28) CHLORINATED HYDROCARBON AND NOT A CHLORINATED

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(1) PHENOLIC MATERIAL.
 (2) Q AND WHAT YOU WROTE IN THE LETTER WAS, "TO
 (3) ELIMINATE ANY EARLIER CONFUSION THAT THERE MAY
 HAVE
 (4) BEEN, I WOULD LIKE TO EMPHASIZE THERE IS NO DOUBT
 (5) THAT THE CHEMICAL WHICH IS THE SUBJECT OF THE
 (6) INVESTIGATION AND THE NEWS RELEASE IS
 CHLORINATED
 (7) DIPHENYL, I.E. AROCLOR," CORRECT?
 (8) A THAT IS WHAT I WROTE.
 (9) BUT THERE WAS STILL A QUESTION OF WERE
 (10) THEY ACTUALLY FINDING CHLORINATED BI, D-I OR B-I.
 (11) BOTH TERMS ARE USED.
 (12) BIPHENYL IS USED -
 (13) THE COURT: HOLD ON, SIR, WAIT FOR A FURTHER
 (14) QUESTION.
 (15) Q BY MR. TALLON: MR. WOOD, IN YOUR MEMO TO
 (16) MR. BUCHANAN YOU REFERRED TO THE FACT THAT THE
 (17) INSTRUMENTATION THAT JENSEN AND WIDMARK WERE
 USING
 (18) INVOLVED A MASS SPECTROMETER, A MASS
 SPECTROMETER,
 (19) CORRECT?
 (20) A IT'S AMAZING HOW MANY OF US HAVE TROUBLE
 (21) WITH THE PRONUNCIATION OF THE MASS SPECTROMETER.
 (22) Q NOT YOU APPARENTLY.
 (23) ONE OF THE THINGS THAT YOU SENT TO
 (24) MR. BUCHANAN WAS A PRESS RELEASE FROM A
 COMPANY THAT
 (25) HAD MADE THE INSTRUMENTATION THAT WIDMARK AND
 JENSEN
 (26) WERE USING, RIGHT?
 (27) A I BELIEVE AT SOME POINT I DID SEND A
 (28) PRESS RELEASE FROM A COMPANY THERE, LVK
 PRODUCTOR IN

Page 1514

(1) SWEDEN.
 (2) Q ONE OF THE THINGS YOU TOLD MR. BUCHANAN
 (3) ABOUT THAT PRESS RELEASE, IT APPEARS IN PAGE
 THREE OF
 (4) YOUR MEMO OF JANUARY 26, 1967, IS THAT THE PRESS
 (5) RELEASE DOES BASICALLY DESCRIBE THE RESEARCH
 PROGRAM
 (6) CARRIED OUT IN SWEDEN AND DESCRIBES IN CLEAR
 TERMS
 (7) HOW CHLORINATED DIPHENYLS WERE IDENTIFIED,
 RIGHT?
 (8) A THAT STATEMENT IS MADE, CONTAINED IN THAT
 (9) PRESS RELEASE.
 (10) Q NOW, ONE OF THE THINGS YOU TOLD
 (11) MR. BUCHANAN AND MR. BENIGNUS AND DR. KELLY, WAS
 THAT
 (12) JENSEN'S ONLY AIM IN LIFE WAS AS AN ANALYTICAL
 (13) CHEMIST, WAS TO TEST SUBSTANCES FOUND IN HIS
 RESEARCH
 (14) WORK ON THE - EXCUSE ME, ON THE OCCURRENCE OF
 (15) INSECTICIDES IN NATURE, RIGHT?
 (16) A THE MAJOR THRUST OF JENSEN'S WORK WAS TO
 (17) EXAMINE THE SPREAD OF PESTICIDE RESIDUES IN THE

(18) SWEDISH ENVIRONMENT.
 (19) **Q TURN TO PAGE 2 OF THAT SAME EXHIBIT, IF**
 (20) **YOU WOULD, PLEASE, MR. WOOD.**
 (21) **IN REPORTING ON YOUR VISIT WITH JENSEN IN**
 (22) **SWEDEN, WHAT YOU TOLD BUCHANAN, BENIGNUS AND**
 (23) **KELLY ON**
 (24) **THE LAST PARAGRAPH OF PAGE 2 WAS THAT THE POINT**
 (25) **YOU**
 (26) **MADE TO JENSEN WAS THE NEED FOR CARE IN ANY**
 (27) **FURTHER**
 (28) **PUBLICATION OF HIS WORK WHICH IS MADE, RIGHT?**
 (29) **A IN THAT CONTEXT, I WAS CONCERNED AT THE**
 (30) **TIME THAT A DAILY PAPER, AS OPPOSED TO A SCIENTIFIC**
 (31) **JOURNAL IN SWEDEN, WAS PUBLISHING JENSEN'S WORK,**
 (32) **THAT**

Page 1515

(1) THEY HAD TAKEN HIS COMMENTARY ABOUT HIS
 HYPOTHESIS OF
 (2) DETECTING SOMETHING IN THE SWEDISH ENVIRONMENT
 AND
 (3) HAD MADE CERTAIN LEAPS ABOUT THE CONSEQUENCES
 OF THE
 (4) PRESENCE OF THAT MATERIAL IN THE ENVIRONMENT
 WHICH
 (5) DETRACTED FROM THE CREDIBILITY OF SOREN JENSEN.
 (6) HIS PROFESSOR, GUNNAR WIDMARK, WAS ALSO
 (7) COUNSELING JENSEN AT THAT TIME THAT HE NEEDED TO
 (8) PROTECT THE INTEGRITY OF HIS ANALYTICAL WORK TO
 MAKE
 (9) SURE THAT IT WAS NOT ABUSED FOR ANY SENSATIONAL
 (10) PURPOSES BY A LACK OF CARE OF THOSE REPORTING
 THAT
 (11) BODY OF WORK.
 (12) **Q YOU TOOK NOTES OF THAT MEETING WITH**
 (13) **JENSEN, CORRECT?**
 (14) **A I PROBABLY TOOK HANDWRITTEN NOTES WHICH I**
 (15) **TRANSCRIBED INTO THIS MEMO WHICH I SENT TO MY**
 (16) **COLLEAGUES IN EUROPE AND ST. LOUIS.**
 (17) **Q AND YOU DESTROYED THE NOTES, RIGHT?**
 (18) **A I WOULD HAVE NO PURPOSE TO KEEP THEM.**
 (19) **Q BUT YOU DID DESTROY THEM?**
 (20) **A I DON'T RECOLLECT WHETHER I STUFFED THEM**
 (21) **IN A FILE OR WHETHER I DESTROYED THEM.**
 (22) **I DON'T KNOW WHERE THEY ARE TODAY.**
 (23) **Q LET ME READ FROM YOUR DEPOSITION OF**
 (24) **SEPTEMBER 3RD, 1992, MR. WOOD.**
 (25) **ON PAGE 58, STARTING AT LINE 15:**
 (26) **"Q. DID YOU MAKE ANY HANDWRITTEN NOTES?"**
 (27) **THE COURT: MR. TALLON, BOTH SIDES, PLEASE**
 (28) **PAUSE AFTER YOU NOTE THE CITATION.**

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(1) LET ME SEE IF THERE IS ANY OBJECTION.
 (2) YOU ARE ON PAGE 58, WHAT LINE?
 (3) MR. TALLON: 58 STARTING WITH LINE 15.
 (4) THE COURT: GOING TO WHAT LINE?
 (5) MR. TALLON: GOING TO LINE 25 ON THAT PAGE AND
 (6) OVER TO LINE 2 ON THE TOP OF PAGE 59.
 (7) THE COURT: NOW, IF YOU WILL PAUSE FOR A
 (8) MOMENT, I WILL LISTEN TO HEAR IF THERE IS ANY
 (9) OBJECTION.
 (10) GO AHEAD, MR. TALLON.
 (11) MR. TALLON: (READING)
 (12) *Q. DID YOU MAKE ANY
 (13) HANDWRITTEN NOTES OF YOUR MEETING
 (14) WITH SOREN JENSEN?
 (15) *A. I PROBABLY - I
 (16) PROBABLY DID.
 (17) *Q. DO YOU RECOLLECT
 (18) WHETHER YOU SAVED THOSE IN ANY
 (19) FILE AFTER YOUR MEETING?
 (20) *A. I DIDN'T.
 (21) *Q. YOU DIDN'T?
 (22) *A. I DID NOT.
 (23) *I COMMUNICATED BASED ON MY
 (24) NOTES AT THE MEETING AND THEN
 (25) SORT OF DESTROYED THE - NORMAL

(26) PRACTICE, NO USE KEEPING
 (27) HANDWRITTEN NOTES WHEN YOU HAVE
 (28) COMMUNICATED THE CONTEXT OF WHAT

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(1) YOU HAVE WANTED TO.
 (2) **Q ONE OF THE THINGS THAT YOU TOLD JENSEN**
 (3) **WHEN YOU WERE IN SWEDEN, MR. WOOD, WAS THAT YOU**
 (4) **ENCOURAGED HIM, WHEN TALKING TO THE PRESS, NOT**
 (5) **TO BE**
 (6) **DRAWN INTO AREAS THAT WERE NOT AREAS OF HIS**
 (7) **SPECIFIC**
 (8) **EXPERTISE, CORRECT?**
 (9) **A YES, I DID.**
 (10) **Q AND YOU EMPHASIZED TO JENSEN THE NEED TO**
 (11) **STICK TO WHAT HE KNEW IN DEALING WITH THE PRESS,**
 (12) **CORRECT?**
 (13) **A YES, I DID.**
 (14) **Q IN FACT, YOU TOLD JENSEN IT WAS UNWISE**
 (15) **AND UNPROFESSIONAL FOR PEOPLE TO SPEAK TO THE**
 (16) **PRESS**
 (17) **OUTSIDE OF THEIR AREAS OF EXPERTISE, CORRECT?**
 (18) **A I WOULD HAVE USED WORDS TO COMMUNICATE**
 (19) **THAT SENSE BECAUSE I BELIEVED DEEPLY THAT THAT IS**
 (20) **AN**
 (21) **AREA - THAT PEOPLE SHOULD COMMUNICATE IN AREAS**
 (22) **WHERE**
 (23) **THEY HAVE FACTUAL BASED KNOWLEDGE.**
 (24) **Q TURNING TO PAGE 2 OF YOUR MEMO TO**
 (25) **MR. BUCHANAN OF 26 JANUARY, 1967, MR. WOOD, THE**
 (26) **VERY**
 (27) **BOTTOM OF PAGE 2, ONE OF THE THINGS YOU WROTE TO**
 (28) **MR. BUCHANAN WAS THAT "WE DO NOT WANT,**
 (29) **PERSONALLY AS**
 (30) **MONSANTO, TO GET TOO INVOLVED IN THIS QUESTION."**
 (31) **THAT IS WHAT YOU SAID IN THE MEMO, RIGHT?**
 (32) **A AT THAT POINT IN TIME, WHEN WE WERE STILL**
 (33) **IN MAJOR DOUBT AS TO WHAT HAD BEEN FOUND IN**
 (34) **SWEDEN,**
 (35) **TO START MAKING ANY PROFOUND STATEMENTS ABOUT A**
 (36) **PRODUCT WHICH MAY NOT HAVE BEEN THE SUBJECT OF**
 (37) **THE**

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(1) WORK IN SWEDEN.
 (2) **Q AND ONE OF THE THINGS THAT YOU SAID IN**
 (3) **THAT CONNECTION TO MR. JENSEN WAS, IN THAT SAME**
 (4) **PARAGRAPH, BUT ACTUALLY AT THE BEGINNING OF IT,**
 (5) **WAS**
 (6) **"THE POINT THAT I HAVE MADE TO JENSEN, IS THE NEED**
 (7) **FOR CARE IN ANY FURTHER PUBLICATION OF HIS WORK**
 (8) **WHICH**
 (9) **IS MADE," RIGHT?**
 (10) **A I MADE THAT POINT.**
 (11) **Q AND THEN AT THE BOTTOM OF PAGE 2, YOU**
 (12) **TOLD MR. BUCHANAN IN YOUR MEMO THAT, "I AM**
 (13) **HOPEFUL**
 (14) **THAT WE MIGHT PERSUADE JENSEN HIMSELF TO WRITE**
 (15) **A**
 (16) **LETTER DEFINING THE TRUE EXTENT OF HIS OWN**
 (17) **RESEARCH**
 (18) **WORK AND PLACING HIS RESULTS IN THEIR PROPER**
 (19) **PERSPECTIVE."**
 (20) **YOU WERE HOPEFUL YOU MIGHT GET HIM TO**
 (21) **WRITE A LETTER AND HELP WITH THE PRESS, RIGHT?**
 (22) **A I WAS HOPING THAT HE WOULD PUBLISH A**
 (23) **LETTER IN EITHER ONE OF THE DAILY JOURNALS THAT HAD**
 (24) **PUBLISHED HIS WORK ALONGSIDE SOME CONSEQUENTIAL**
 (25) **ALLEGATIONS, AFTER MAKING IT CLEAR THAT HE**
 (26) **REQUIRED**
 (27) **AND REQUESTED THAT THEY DID PARTICULARIZE WHERE**
 (28) **HIS**
 (29) **CONTRIBUTION STARTED AND STOPPED.**
 (30) **Q AND ONE OF THE THINGS THAT YOU WANTED TO**
 (31) **DO WAS THAT YOU THOUGHT IT WOULD BE HELPFUL TO**
 (32) **GAIN**
 (33) **HIS FURTHER SUPPORT IF YOU WERE ABLE TO MAKE**
 (34) **AVAILABLE TO HIM SMALL QUANTITIES OF PURE**

ISOMERS,

(27) RIGHT?

(28) A DURING OUR DISCUSSION IT BECAME CLEAR AS

Page 1519

(1) HE DESCRIBED HIS WORK THAT SMALL QUANTITIES OF PURE

(2) ISOMERS OF CHLORINATED BIPHENYLS WOULD BE VERY

(3) HELPFUL TO HE AND THE TECHNICAL COMMUNITY IN TERMS OF

(4) IDENTIFYING AND ESTABLISHING EXACTLY WHAT WAS BEING

(5) SEEN IN THE SWEDISH ENVIRONMENT.

(6) Q WHAT YOU WERE TELLING MR. BUCHANAN, IT

(7) WOULD BE HELPFUL TO GAIN HIS SUPPORT IF

MONSANTO WAS

(8) ABLE TO MAKE THOSE AVAILABLE TO HIM, RIGHT?

(9) A I WAS ASKING THE QUESTION DO WE HAPPEN TO HAVE SUCH BEASTS AVAILABLE.

(10) Q AND YOU WERE WRITING IN THE MEMO, "IT WOULD CERTAINLY BE HELPFUL IN GAINING HIS

SUPPORT IF

(13) WE WERE ABLE TO MAKE AVAILABLE TO HIM ANY SMALL

(14) QUANTITIES OF PURE ISOMERS," RIGHT?

(15) A YES, I WROTE THAT, YES.

(16) Q NOW, AFTER YOUR JANUARY 26, 1967

(17) CORRESPONDENCE WITH MR. BUCHANAN, YOU LEARNED THAT

(18) PEOPLE IN ST. LOUIS WERE LOOKING AT THIS ISSUE; IS THAT RIGHT?

(19) A YES, I DID.

(20) Q AND ONE OF THE THINGS THEY WERE LOOKING

(21) AT WAS THE PRESS RELEASE THAT YOU HAD SENT ALONG WITH

(22) YOUR MEMORANDUM OF 26 JANUARY, 1967, RIGHT?

(23) A YES, THEY WERE.

(24) Q THAT WAS A PRESS RELEASE - THIS IS A

(25) NOTICE DOCUMENT, YOUR HONOR.

(26) THE COURT: THE EXHIBIT NUMBER, AGAIN,

(27) MR. TALLON?

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(1) MR. TALLON: THIS IS AN ATTACHMENT TO

(2) TRANSWESTERN EXHIBIT NUMBER 36, WHICH IS THE

(3) MEMORANDUM, NOT A NOTICE DOCUMENT BUT THE PRESS RELEASE IS.

(4) THE COURT: THEN, LADIES AND GENTLEMEN, AGAIN

(5) THE INSTRUCTION APPLIES THAT THE INFORMATION WAS TO

(6) SHOW WHAT MONSANTO WAS TOLD AND WHEN, NOT NECESSARILY

(7) THAT THE INFORMATION ITSELF IS TRUE.

(8) MR. TALLON?

(9) MR. TALLON: SO ONE OF THE THINGS YOU HAD SENT

(10) TO ST. LOUIS WAS THIS PRESS RELEASE THAT DESCRIBED

(11) THE ACTUAL INSTRUMENTATION USED BY WIDMARK AND

(12) JENSEN, CORRECT?

(13) A YES.

(14) Q AND LKB WAS THE MAKER OF THAT

(15) INSTRUMENTATION AND THIS WAS THEIR PRESS

RELEASE,

(16) RIGHT?

(17) A THIS WAS A PRESS RELEASE WHICH THEY

(18) WANTED TO TAKE COMMERCIAL ADVANTAGE OF A PARTICULAR

(19) PESTICIDE CONFERENCE BEING HELD IN STOCKHOLM TO

(20) LAUNCH A NEW PIECE OF EQUIPMENT, A RADICALLY NEW

(21) PIECE OF EQUIPMENT AND TO MAKE CLAIMS FOR ITS

(22) POTENTIAL CONTRIBUTION TO THE SCIENTIFIC COMMUNITY.

(23) Q AND WE CAN SEE IN THE MEMORANDUM THAT

(24) WHAT THEY WERE REFERRING TO, THE MACHINERY OR THE

(25) INSTRUMENT OR MACHINERY THEY MADE WAS A COMBINED GAS

(26) CHROMATOGRAPH-MASS SPECTROMETER, LKB 9000, RIGHT?

(27) A THAT WAS A VERY NEW CONCEPT.

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(1) Q THAT WAS WHAT WAS BEING USED IN SWEDEN BY

(2) THESE TWO RESEARCHERS IN STOCKHOLM?

(3) A BY THE ONE RESEARCHER SOREN JENSEN.

(4) I'M NOT SURE THAT WIDMARK WAS ACTUALLY USING THE EQUIPMENT.

(5) HE WAS, AGAIN, A COUNSELOR OF SOREN

(6) JENSEN AND GIVING HIM GUIDANCE IN HIS

POST-GRADUATE

(7) WORK.

(8) Q SO YOU KNEW THAT FOLKS IN ST. LOUIS WERE

(9) LOOKING AT THIS INFORMATION THAT YOU HAD SENT THEM

(10) AND GETTING TOGETHER AND HAVING MEETINGS AND

(11) EVENTUALLY YOU HEARD BACK FROM DR. KELLY

HIMSELF,

(12) RIGHT?

(13) A I HAD CERTAIN COMMUNICATIONS FROM

(14) DR. KELLY DURING THIS PERIOD.

(15) Q WHY DON'T YOU TURN TO EXHIBIT NUMBER 37

(16) IN THAT SAME NOTEBOOK.

(17) A 30?

(18) Q 37.

(19) THAT IS A COPY OF A MEMORANDUM THAT YOU

(20) RECEIVED FROM DR. KELLY, CORRECT?

(21) A YES.

(22) Q AND IT IS - HIS NAME THERE IS ON THE

(23) SECOND PAGE AT THE BOTTOM, R. EMMET KELLY, M.D., RIGHT?

(24) A YES, IT IS.

(25) Q AND IT IS DATED FEBRUARY 10TH, 1967,

(26) CORRECT?

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(1) A IT IS.

(2) Q FROM ST. LOUIS TO YOU AND IT'S ACTUALLY

(3) ADDRESSED TO THE LONDON OFFICE?

(4) A ST. LOUIS HAD OBVIOUSLY FORGOTTEN WE HAD

(5) MOVED OUR EUROPEAN HEADQUARTERS FROM LONDON TO

(6) BRUSSELS, A TEMPORARY ABERRATION.

(7) Q THE MEMORANDUM OF FEBRUARY 10, 1967 ALSO

(8) WENT TO MR. BUCHANAN?

(9) A YES, IT DID.

(10) Q AS WELL AS TO D. V. N. HARDY IN LONDON?

(11) A YES, IT DID.

(12) Q NOW, ONE OF THE THINGS THAT DR. KELLY WAS

(13) REPORTING TO YOU WAS THAT IN ST. LOUIS WE HAD A

(14) RATHER EXTENSIVE MEETING WHICH INCLUDED THE ST. LOUIS

(15) INDIVIDUALS RECEIVING COPIES OF DR. KELLY'S FEBRUARY

(16) 10, 1967 MEMO ON AROCLOR IN THE AIR AND IN VARIOUS

(17) FISH AND OTHER LIVING RESERVOIRS.

(18) THAT IS WHAT HE WAS TELLING YOU ABOUT THE

(19) MEETING IN ST. LOUIS, RIGHT?

(20) A YES, HE DID.

(21) Q AND WHAT ELSE HE TOLD YOU WAS THAT "WE

(22) ARE VERY WORRIED ABOUT WHAT IS LIABLE TO HAPPEN IN

(23) THE STATES WHEN THE VARIOUS TECHNICAL AND LAY NEWS

(24) MEDIA PICK UP THE SUBJECT," RIGHT?

(25) A HE REPORTS THAT IN THE THIRD PARAGRAPH,

(26) IMMEDIATELY AFTER THE SECOND PARAGRAPH, WHERE HE

(27) REPORTS THAT WE DEFINITELY NEED TO BE PROACTIVE IN

(28) GETTING MORE INFORMATION.

Page 1523

(1) Q AND WHAT HE TOLD YOU WAS, "THIS IS

(2) ESPECIALLY CRITICAL AT THIS TIME BECAUSE AIR

(3) POLLUTION IS GETTING A TREMENDOUS AMOUNT OF PUBLICITY

(4) IN THE UNITED STATES," RIGHT?

(5) A HE MAKES THAT STATEMENT AND I CAN ADD

(6) THAT AIR QUALITY WAS EQUALLY, AT THIS PARTICULAR

(7) POINT IN TIME, RECEIVING ATTENTION IN EUROPE.

(8) THE COURT: MR. TALLON, WE WILL TAKE THE NORMAL

(9) TIME FOR THE BREAK AT THIS POINT.
(10) THE STAFF HAS BEEN GOING SINCE WELL
(11) BEFORE TEN O'CLOCK.
(12) LADIES AND GENTLEMEN, WE WILL BE IN
(13) RECESS UNTIL 11 O'CLOCK, RESUMING AT THAT TIME SO
(14) RETURN JUST BEFORE 11 O'CLOCK, THANK YOU.
(15) (RECESS.)
(16) THE COURT: AND RESUMING.
(17) GO AHEAD, MR. TALLON.
(18) MR. TALLON: THANK YOU, YOUR HONOR.
(19) Q MR. WOOD, I WANTED TO RETURN TO SOMETHING
(20) YOU SAID WHEN WE WERE LOOKING AT THE LETTER
FROM OLA
(21) PALME.
(22) YOU SAID THAT PCB'S WERE NOT KNOWN
(23) CURRENTLY OR IN CURRENT USAGE; IS THAT CORRECT?
(24) A THAT IS RIGHT.
(25) Q IN FACT, THAT SWEDISH LANGUAGE NEWSPAPER
(26) ARTICLE THAT MR. PALME WAS TELLING YOU ABOUT IN
THAT
(27) LETTER WAS PRETTY BIG NEWS TO YOU, WASN'T IT?
(28) A IT WAS A COMPLETE SURPRISE TO ME.

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(1) MY FEELINGS ON RECEIVING AND THINKING
(2) THROUGH THE REPORT, THE LETTER FROM OLA PALME,
WAS
(3) ONE OF SOME CONFUSION.
(4) IT RELATED TO A HIGHLY CHLORINATED
(5) INDUSTRIAL CHEMICAL MATERIAL TURNING UP IN THE
(6) ENVIRONMENT, A MATERIAL WHICH WAS NOT WIDELY USED
IN
(7) SWEDEN, DETECTED BY SOME VERY INNOVATIVE NEW
(8) EQUIPMENT.
(9) AND I WANTED TO TRY TO GAIN SOME
(10) UNDERSTANDING OF WHAT, INDEED, THE RESEARCHERS IN
(11) SWEDEN WERE FINDING AS AN INTERFERENCE WITH THEIR
(12) SEARCH FOR MATERIALS THAT WERE PESTICIDES OR
(13) HERBICIDES WHICH WERE INTENTIONALLY BEING
INTRODUCED
(14) INTO THE ENVIRONMENT.
(15) SO MY SENSE WAS ONE OF - THERE IS
(16) SOMETHING THAT WE NEED TO DO TO FIND OUT WHAT THE
(17) SWEDISH RESEARCHERS ARE FINDING HERE.
(18) Q YOU SAID YOU FELT SOME CONFUSION WHEN YOU
(19) LEARNED THAT AN INDUSTRIAL CHLORINATED
CHEMICAL WAS
(20) BEING FOUND IN THIS SWEDISH RESEARCH.
(21) IN FACT, WEREN'T YOU PRETTY HORRIFIED
(22) WHEN YOU FOUND OUT THAT A CHLORINATED
INDUSTRIAL
(23) CHEMICAL WAS BEING FOUND IN FISH AND BIRDS AND
INFANT
(24) HAIR IN A COUNTRY WHERE IT REALLY WASN'T USED
THAT
(25) MUCH?
(26) A CONFUSION, SURPRISE, PUZZLEMENT.
(27) THERE IS A CREDIBILITY ISSUE HERE.
(28) WHAT, INDEED, ARE THEY SEEING?

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(1) I MENTIONED SOME CONFUSION IN THE
(2) LANGUAGE AT THAT TIME BETWEEN CHLORINATED
BIPHENYL
(3) AND BIPHENYLS AND PHENOLS.
(4) I THINK WE ARE ALL AWARE THAT SWEDEN HAS
(5) A FAIRLY SUBSTANTIAL TIMBER INDUSTRY, FOREST
INDUSTRY
(6) AND PAPER INDUSTRY.
(7) HIGHLY CHLORINATED PHENOLS WERE USED IN
(8) THOSE INDUSTRIES.
(9) SO I COULD VISUALIZE CONCEPTUALLY HOW
(10) THERE COULD BE A TRANSFER IN THE ENVIRONMENT OF
SOME
(11) OF THOSE TYPES OF MATERIALS.
(12) PARTICULARLY LKB PRODUCTOR PRESS RELEASE
(13) RELATED TO EIGHT CHLORINE-CONTAINING MATERIALS.
(14) IF, INDEED, IT WAS CHLORINATED BIPHENYLS

(15) THEY WERE SAYING AND THEY WERE SEEING THOSE WITH
(16) EIGHT CHLORINES IN THE MOLECULE, THOSE WEREN'T
(17) LIQUIDS. THOSE WERE SOLIDS AND NOT WIDELY USED IN
(18) SWEDEN.
(19) Q WHEN YOU WROTE TO MR. BUCHANAN ON
(20) JANUARY 26, 1967 THAT THERE WAS NO DOUBT WHAT
WAS
(21) BEING FOUND WAS CHLORINATED BIPHENYL, I.E.
AROCLOR.
(22) YOU THOUGHT THAT WAS PRETTY BAD NEWS, RIGHT?
(23) A IT RAISED SOME ISSUES THAT MONSANTO WAS
(24) GOING TO HAVE TO THINK ABOUT AND DECIDE WHAT WAS
(25) APPROPRIATE ACTION ON MONSANTO'S PART.
(26) Q YOU DIDN'T THINK IT WAS BAD NEWS THAT
(27) CHLORINATED BIPHENYL, I.E. AROCLOR, WAS FOUND IN
(28) SAMPLES OF FISH AND BIRDS AND TREES AND INFANT
HAIR?

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(1) A AT THAT POINT IN TIME I DIDN'T KNOW THAT
(2) THEY WERE, INDEED, FINDING CHLORINATED BIPHENYL.
(3) WHEN I SAID THERE WAS NO DOUBT, I WAS
(4) ALLUDING TO THE FACT THAT IN WIDMARK AND JENSEN'S
(5) MIND THERE WAS NO DOUBT THAT THEY WERE SEEING A
(6) HIGHLY CHLORINATED ORGANIC COMPOUND AND THE
CENTER OF
(7) THAT CHLORINE FITTED THEIR HYPOTHESIS THAT IT HAD A
(8) MOLECULAR WEIGHT SIMILAR TO THAT OF THE BIPHENYL
(9) RING.
(10) I STILL HAD DOUBT IN MY MIND AS TO
(11) WHETHER THEY WERE FINDING CHLORINATED BIPHENYL
OR
(12) NOT.
(13) Q WHEN YOU WERE - ACTUALLY, WHEN DR. KELLY
(14) WAS CORRESPONDING WITH YOU IN EXHIBIT 37, WHICH
YOU
(15) WERE LOOKING AT A MOMENT AGO, ONE OF THE NOTICE
(16) DOCUMENTS, ONE OF THE THINGS THAT DR. KELLY SAID
TO
(17) YOU WAS, "WE HAVE BEEN RECEIVING QUITE A FEW
(18) COMMUNICATIONS FROM OUR CUSTOMERS, BUT THE
MOST
(19) CRITICAL ONE IS NCR WHO WERE VERY MUCH INVOLVED
WITH
(20) THEIR CARBONLESS CARBON PAPER," RIGHT?
(21) A THAT IS IN THAT LETTER ON PAGE 1 OF
(22) EXHIBIT 37.
(23) Q OKAY. AND YOU ACTUALLY - PARDON ME.
(24) YOU ACTUALLY KNEW ABOUT THE BUSINESS OF
(25) NCR FROM CONTACTS YOU HAD HAD WITH THEM?
(26) A I HAD NO CONTACT WITH NCR.
(27) I HAD CONTACT WITH A EUROPEAN PRODUCER OF
(28) CARBONLESS PAPER.

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(1) Q A EUROPEAN PRODUCER OF CARBONLESS CARBON
(2) PAPER AND THAT IS WHAT NCR MADE, RIGHT?
(3) A NCR MADE THAT TYPE OF PRODUCT IN THE
(4) UNITED STATES.
(5) Q NOW, CARBONLESS CARBON PAPER WAS
(6) BASICALLY A COUPLE OF PIECES OF PAPER LIKE IN
CREDIT
(7) CARD RECEIPTS WHERE YOU COULD SIGN YOUR NAME
AND THE
(8) IMPRESSION WOULD COME THROUGH WITHOUT THE
CARBONS IN
(9) BETWEEN, RIGHT?
(10) A WE USE IT A GREAT DEAL TODAY.
(11) Q OKAY. AND AT THAT TIME NCR USED AROCLOR
(12) 1242 TO MAKE CARBONLESS CARBON PAPER, RIGHT?
(13) A I BELIEVE THEY DID.
(14) Q SO ONE OF THE THINGS THAT DR. KELLY WAS
(15) WRITING YOU ABOUT WAS THE CUSTOMER, NCR, WHO
WAS
(16) USING AROCLOR 1242 IN THEIR CARBONLESS CARBON
PAPER,
(17) IN HIS MEMO OF FEBRUARY 10, 1967, RIGHT?
(18) A YES.

(19) Q AND HE DESCRIBED THEM AS A CRITICAL
(20) CUSTOMER, RIGHT?
(21) A HE REFERS TO THEM AS A CRITICAL ONE AND
(22) THAT IS NOT CLEAR TO MY MIND - CRITICAL IN WHAT
(23) SENSE?
(24) Q IN FACT, NCR WAS A VERY BIG BUYER OF
(25) AROCLOR 1242, RIGHT?
(26) A THEY WERE LARGE, NOT THE LARGEST.
(27) Q BUT PRETTY LARGE?
(28) A PRETTY LARGE.

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(1) Q LOTS OF 1242 WAS BEING USED OVERSEAS IN
(2) EUROPE AND IN THE UK TO MAKE CARBONLESS CARBON
(3) PAPER,
(4) RIGHT?
(5) A NO.
(6) THE DEVELOPMENT OF CARBONLESS COPY PAPER
(7) SYSTEMS IN EUROPE WAS SUBSTANTIALLY BEHIND THAT IN
(8) NORTH AMERICA.
(9) THE VOLUMES WERE NOT LARGE AT THAT POINT
(10) IN TIME.
(11) THE DIELECTRIC BUSINESS WAS THE LARGEST
(12) AROCLOR, CHLORINATED BIPHENYL BUSINESS.
(13) Q SO THE DIELECTRIC BUSINESS WAS BIGGER
(14) THAN THE CARBONLESS CARBON PAPER IN EUROPE?
(15) A IT WAS.
(16) Q IN DR. KELLY'S MEMO TO YOU, MR. WOOD, ON
(17) PAGE 2 OF THAT FEBRUARY 10, 1967 MEMO, TOWARDS
(18) THE
(19) BOTTOM OF THE SECOND PAGE, ONE OF THE THINGS
(20) THAT
(21) DR. KELLY TOLD YOU IN THAT MEMO WAS THAT "THE
(22) CONSENSUS IN ST. LOUIS IS THAT WHILE MONSANTO
(23) WOULD
(24) LIKE TO KEEP IN THE BACKGROUND IN THIS PROBLEM,
(25) WE
(26) DON'T SEE HOW WE WOULD BE ABLE TO IN THE UNITED
(27) STATES," RIGHT?
(28) A HE STATES THAT, YES.
(29) Q AND HE TOLD YOU THAT "WE FEEL OUR
(30) CUSTOMERS, ESPECIALLY NCR, MAY ASK US FOR SOME
(31) SORT
(32) OF DATA CONCERNING THE SAFETY OF THESE RESIDUES
(33) IN
(34) HUMANS," RIGHT? THAT IS WHAT HE WROTE TO YOU?
(35) A THAT IS WHAT HE WROTE.

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(1) Q AND HE FURTHER WROTE THAT "THIS OBVIOUSLY
(2) MIGHT BE OPENING THE DOOR TO AN EXTENSIVE AND
(3) QUITE
(4) EXPENSIVE TOXICOLOGICAL, PHARMACOLOGICAL
(5) INVESTIGATION," RIGHT?
(6) A IF WE ARE GOING TO DO IT, IT WOULD NEED
(7) TO BE DONE WELL AND IT WAS GOING TO BE COSTLY.
(8) Q NOW, AS YOU KNOW, D. V. N. HARDY
(9) CONTINUED TO COMMUNICATE WITH SHELL ABOUT THE
(10) PCB
(11) ISSUE, RIGHT?
(12) A I BELIEVE HE DID.
(13) Q AND YOU ARE AWARE, ARE YOU NOT, MR. WOOD,
(14) THAT ON THE 3RD OF NOVEMBER, 1967, D. V. N. HARDY
(15) WROTE TO SHELL AND SAID, "NOW THAT IT SEEMS
(16) CERTAIN
(17) THAT CONTAMINATION BY CHLORINATED BIPHENYLS" -
(18) A EXCUSE ME, MR. TALLON.
(19) DO I HAVE A COPY OF THAT?
(20) Q QUITE RIGHT.
(21) WHY DON'T YOU TURN TO EXHIBIT 43, WHICH
(22) IS NOT ONE OF THE NOTICE DOCUMENTS.
(23) IS IT STILL IN THAT BINDER?
(24) A YES, IT IS.
(25) THE THIRD OF NOVEMBER?
(26) Q YES.
(27) MY QUESTION WAS, YOU WERE AWARE, WEREN'T
(28) YOU, MR. WOOD, THAT ON THE THIRD OF NOVEMBER,
(29) 1967,

(26) D. V. N. HARDY WROTE TO SHELL AND SAID, "NOW THAT
(27) IT
(28) SEEMS CERTAIN THAT CONTAMINATION BY
(29) CHLORINATED
(30) BIPHENYLS IS TAKING PLACE, WE ARE KEEN TO FOLLOW
(31) UP

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(1) AND DETERMINE JUST HOW AND WHERE THE
(2) CONTAMINATION IS
(3) TAKING PLACE," RIGHT?
(4) A I DON'T RECOLLECT THIS PARTICULAR LETTER.
(5) AND I SEE THAT I'M NOT - I'M NOT NOTED
(6) AS A COPYEE ON THIS PARTICULAR LETTER.
(7) Q BUT YOU WERE AWARE?
(8) A I WAS GENERALLY AWARE THAT HARDY WAS
(9) CONTINUING A DIALOGUE WITH RICHARDSON, BUT I CAN'T
(10) RECALL 25 YEARS ON THE PARTICULAR CONTENTS OF THIS
(11) PARTICULAR.
(12) Q OKAY. MR. WOOD, AFTER THE INITIAL WORK
(13) THAT YOU HAD DONE VISITING SWEDEN AND SO FORTH
(14) AND
(15) COMMUNICATING WITH DR. KELLY AND OTHERS IN ST.
(16) LOUIS,
(17) YOU CORRESPONDED WITH SCOTT TUCKER A NUMBER
(18) OF YEARS
(19) LATER, IN 1969, RIGHT?
(20) A YES, I DID, EVEN THOUGH I WAS NOT
(21) DIRECTLY INVOLVED WITH DIELECTRIC FLUIDS AT THAT
(22) POINT IN TIME.
(23) MY JOB, AS WE DISCUSSED IN MY DEPOSITION,
(24) CHANGED IN 1968.
(25) Q RIGHT.
(26) YOU CHANGED JOBS OUT OF THE DIELECTRIC
(27) BUSINESS IN 1968 BUT YOU WERE STILL WORKING FOR
(28) MONSANTO?
(29) A I WAS STILL WORKING FOR MONSANTO.
(30) Q AND SCOTT TUCKER WHO WAS WORKING FOR
(31) MONSANTO IN ST. LOUIS CONTACTED YOU FOR SOME
(32) INFORMATION, RIGHT?

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(1) A YES.
(2) HE WANTED TO USE MY MEMORY TO CLARIFY
(3) SOME INFORMATION.
(4) Q HE WANTED TO PROBE YOUR MEMORY OF THE
(5) INITIAL TIME PERIOD AFTER MONSANTO LEARNED
(6) ABOUT WHAT
(7) THE SWEDES WERE DOING, RIGHT?
(8) A IT WAS A LOT EASIER TO DO IT THEN THAN IT
(9) IS TODAY.
(10) Q AND, IN PARTICULAR, MR. WOOD, WHY DON'T
(11) YOU LOOK AT TRANSWESTERN'S 69.
(12) YOU PROBABLY NEED ANOTHER BINDER IN ORDER
(13) TO LOOK AT THAT ONE.
(14) A I WILL BE FINISHED WITH THIS ONE,
(15) MR. TALLON?
(16) Q WE ARE, YES.
(17) A WHICH NUMBER?
(18) Q YOU SHOULD LOOK AT THE BINDER THAT
(19) INCLUDES EXHIBIT 69.
(20) THAT SHOULD BE VOLUME 2 OF THE BLUE
(21) BOOKS.
(22) A 69?
(23) Q 69.
(24) A I HAVE IT.
(25) Q ALL RIGHT. THAT EXHIBIT, TRANSWESTERN'S
(26) 69, IS A COPY OF A MEMO THAT YOU WROTE TO SCOTT
(27) TUCKER FROM BRUSSELS DATED 4TH FEBRUARY, 1969,
(28) RIGHT?
(29) A YES.
(30) Q AND WHAT YOU ARE DOING IN THIS IS THAT

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(1) YOU ARE RESPONDING TO A QUESTION THAT MR.
(2) TUCKER HAS
(3) ASKED YOU, RIGHT?
(4) A I'M SORRY.
(5) I WAS JUST REVIEWING THE LETTER.

(5) Q WHAT YOU WERE DOING IN YOUR MEMO OF THE
 (6) 4TH OF FEBRUARY, 1969 WAS, YOU WERE RESPONDING
 TO A
 (7) QUESTION THAT SCOTT TUCKER HAD ASKED YOU?
 (8) A YES, I WAS.
 (9) Q AND YOU SENT COPIES OF YOUR MEMO TO
 (10) DR. KELLER IN ST. LOUIS?
 (11) A WHO WAS SCOTT TUCKER'S BOSS, I THINK, I
 (12) RECALL AT THAT POINT IN TIME.
 (13) Q AND YOU SENT IT ALSO TO DR. RICHARD WHO
 (14) WAS IN ST. LOUIS?
 (15) A DR. RICHARD WAS THE DIRECTOR OF RESEARCH
 (16) AT THAT TIME FOR THE FLUIDS BUSINESS.
 (17) Q YOU ALSO SENT A COPY TO ELMER WHEELER WHO
 (18) WORKED FOR DR. KELLY IN THE MEDICAL DEPARTMENT?
 (19) A YES.
 (20) Q AND IN THE TEXT OF YOUR MEMO TO SCOTT
 (21) TUCKER WHAT YOU SAID WAS, THIS IS RIGHT IN THE
 MIDDLE
 (22) OF THE PARAGRAPH NOW, MR. WOOD, "I DON'T THINK AT
 (23) THAT TIME WE QUESTIONED THAT HE HAD IN ACTUAL
 FACT
 (24) FOUND CHLORINATED BIPHENYL IN THE SEA EAGLES'
 LIVERS
 (25) BUT QUESTIONED HIS INCORRECT QUOTATION OF
 CERTAIN
 (26) MEDICAL INFORMATION."
 (27) THAT IS WHAT YOU WROTE TO SCOTT TUCKER,
 (28) RIGHT?

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(1) A YES.
 (2) I WOULD LIKE TO - THE WORDING ON THIS
 (3) ONE HAS TROUBLED ME FROM TIME TO TIME.
 (4) Q LET'S SAVE THAT FOR JUST A SECOND.
 (5) A WELL, NO.
 (6) YOU HAVE RAISED THE ISSUE ABOUT - YOU
 (7) QUOTED I DON'T THINK AT THAT TIME THAT HE HAD, IN
 (8) FACT, HAD ACTUALLY FOUND CHLORINATED BIPHENYL.
 (9) Q UH-HUH.
 (10) A WHAT I WAS SAYING IN THIS MEMO IS WHEN WE
 (11) HAD THE MEETINGS WITH JENSEN WE DID NOT GET INTO A
 (12) LOT OF CONFRONTATIONAL ARGUMENT ABOUT WAS HE OR
 WAS
 (13) HE NOT FINDING CHLORINATED BIPHENYL.
 (14) THE MAJOR COMPONENT OF THE DISCUSSION WAS
 (15) OUR CONCERN THAT IF HE HAD FOUND CHLORINATED
 (16) BIPHENYL, THEN WHERE WOULD, BY EXTENSION, SOME OF
 THE
 (17) OTHER CONSEQUENTIAL HAZARDS THAT HAD BEEN
 PUBLISHED
 (18) ALLIED TO HIS NAME AND HIS PROFESSIONAL
 REPUTATION.
 (19) SO THE FACT WE QUESTIONED - WHAT WE ARE
 (20) SAYING IN THIS MEMO, WE DIDN'T GET INTO A LONG THING
 (21) OF SAYING, THERE IS NO WAY YOU COULD HAVE FOUND
 (22) CHLORINATED BIPHENYLS.
 (23) Q YOU DIDN'T CHALLENGE THAT?
 (24) A DIDN'T CHALLENGE IT BECAUSE WE DIDN'T
 (25) HAVE THE DATA AT MONSANTO AT THAT POINT TO
 CHALLENGE
 (26) IT OR NOT TO CHALLENGE IT.
 (27) WE HAD TO PUT TOGETHER OUR OWN PROGRAM TO
 (28) TRY TO FIND OUT COULD WE REPRODUCE AND - COULD
 WE

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(1) REPRODUCE AND FIND PCB'S IN THE ENVIRONMENT
 (2) OURSELVES.
 (3) Q WHEN YOU WROTE THIS SENTENCE, "I DON'T
 (4) THINK THAT AT THE TIME WE QUESTIONED THAT HE HAD
 IN
 (5) ACTUAL FACT FOUND CHLORINATED BIPHENYL IN THE
 SEA
 (6) EAGLES' LIVERS," THE "HE" REFERRED TO IS JENSEN,
 (7) RIGHT?
 (8) A YES.
 (9) Q AND WHAT YOU WROTE TO SCOTT TUCKER AT

(10) THAT TIME WAS, "SINCE HE APPRECIATED, AT THIS
 POINT,"
 (11) AND AGAIN YOU ARE REFERRING TO JENSEN, CORRECT?
 (12) A YES, I AM.
 (13) Q AND WHAT YOU SAID WAS, "SINCE JENSEN HAD
 (14) APPRECIATED THIS POINT, WE THEN LET THE MATTER
 REST,
 (15) NOT WANTING TO STIR UP FURTHER AGITATION IN
 OTHER
 (16) COUNTRIES," RIGHT?
 (17) A WHAT I WAS STATING THERE IS THAT UNTIL WE
 (18) HAD CONCLUSIVELY FOUND THAT WE WERE DEALING WITH
 (19) CHLORINATED BIPHENYLS OR CHLORINATED PHENOLS,
 THERE
 (20) WAS NO POINT IN OPENING A WIDE-SCALE PUBLIC DEBATE
 (21) ABOUT THE CONSEQUENCES, THAT THERE WAS A
 POSITION
 (22) HERE WHERE MONSANTO NEEDED TO DO SOMETHING AND
 IT
 (23) NEEDED TO GET ON AND DO SOMETHING TO ELUCIDATE
 AND
 (24) ESTABLISH A FACTUAL DATA BASE AS TO HOW WERE
 (25) INDUSTRIAL CHEMICALS GETTING WIDESPREAD
 CURRENCY IN
 (26) THE ENVIRONMENT, IF, INDEED, THEY WERE.
 (27) IF THEY WEREN'T, TO BE ABLE TO SAY, "NO
 (28) THEY ARE NOT AND HERE IS THE EVIDENCE THEY ARE NOT."

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(1) Q MR. WOOD, IT IS FACT THAT YOU DIDN'T WANT
 (2) TO STIR UP AGITATION IN OTHER COUNTRIES, RIGHT?
 (3) A PUT SIMPLISTICALLY AS YOU PUT IT, YES.
 (4) IT WAS TO NOBODY'S BENEFIT TO.
 (5) Q AND SINCE THE TIME THAT YOU HAD MET WITH
 (6) JENSEN, WHAT YOU TOLD MR. TUCKER WAS, "THERE HAS
 BEEN
 (7) LITTLE MORE HAPPENING IN EUROPE UNTIL ABOUT A
 MONTH
 (8) AGO WHEN AN ARTICLE APPEARED IN A DANISH
 NEWSPAPER
 (9) DISCUSSING JENSEN'S WORK," AND THIS WAS AROUND
 (10) JANUARY OF '69, RIGHT?
 (11) A YES.
 (12) Q SO BETWEEN LATE '66 AND EARLY '69 THERE
 (13) WASN'T A LOT OF ACTIVITY IN THE PUBLIC PRESS OVER
 IN
 (14) EUROPE ABOUT THE REPORTS OF THE RESEARCH OF
 WIDMARK
 (15) AND JENSEN?
 (16) A I WAS NOT FOLLOWING THE WORK DIRECTLY, AS
 (17) I TOLD YOU.
 (18) I HAD MOVED TO A DIFFERENT AREA OF
 (19) PRODUCT ACTIVITY DURING THIS PERIOD, PURELY
 BECAUSE I
 (20) WAS INTERESTED, PERSONALLY, BY THIS DEVELOPMENT
 LATE
 (21) IN MY ASSOCIATION WITH DIELECTRICS.
 (22) I TRIED TO KEEP MYSELF AWARE OF WHAT WAS
 (23) HAPPENING IN THE TECHNOLOGY PRESS.
 (24) BUT IT WAS NOT PART OF MY
 (25) RESPONSIBILITIES WITHIN MONSANTO AT THAT POINT IN
 TIME.
 (27) Q I WANT TO JUST TURN BACK TO EARLY '67,
 (28) MR. WOOD..

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(1) WHEN YOU WERE COMMUNICATING WITH
 (2) DR. KELLY, I TAKE IT YOU DID THAT AT LEAST INITIALLY
 (3) MOSTLY BY PHONE, RIGHT?
 (4) A PHONE AND LETTER.
 (5) Q OKAY. AND YOU HAD A PHONE CALL WITH
 (6) DR. KELLY ON FEBRUARY 21ST, 1967, RIGHT?
 (7) A IF THERE IS REFERENCE TO IT, I PROBABLY
 (8) DID.
 (9) Q ALL RIGHT. WELL, I WAS ACTUALLY WRONG.
 (10) YOU DO NEED TO TAKE OUT BINDER NUMBER ONE
 (11) AGAIN.
 (12) SORRY.

(13) WHY DON'T YOU LOOK AT TRANSWESTERN 39
 (14) WHICH IS NOT A NOTICE DOCUMENT AND NOT IN THE JURY
 (15) NOTEBOOK.
 (16) IN THAT PHONE CONVERSATION YOU HAD WITH
 (17) DR. KELLY, YOU AND DR. KELLY AGREED THAT IN FEBRUARY,
 (18) 1967 THERE WAS NO NECESSITY AT PRESENT FOR ANYONE
 (19) FROM ST. LOUIS TO CONTACT SWEDISH PEOPLE, IN FACT IT
 (20) WOULD BE UNWISE, RIGHT?
 (21) YOU REFERRED TO THE THIRD PARAGRAPH,
 (22) MR. WOOD.
 (23) A AGAIN, I - THIS IS NOT - I'M NOT
 (24) COPIED.
 (25) THIS IS AN INTERNAL MEMO TO ST. LOUIS
 (26) WHICH SEEMS TO BE, AS I SAY, AN INTERNAL U.S.
 (27) DISTRIBUTION, NO COPIES TO EUROPE.
 (28) DR. KELLY SEEMS TO BE REPORTING A

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(1) TELEPHONE CONVERSATION WITH ME IN BRUSSELS.
 (2) AND UNDER POINT THREE THE POINT IS MADE
 (3) THAT HE, KELLY, SEEMS TO BE ASSESSING THE CONCLUSION
 (4) THAT THERE IS NO NEED AT THAT POINT IN TIME FOR
 (5) ANYONE FROM OUR ST. LOUIS STAFF TO - THAT THEY WERE
 (6) ABLE TO RELY ON ANY CONTACTS THAT WE WERE MAKING IN
 (7) SWEDEN.
 (8) AND THERE WAS NO NEED TO MAKE A DIRECT
 (9) CONTACT AT THAT TIME.
 (10) Q NO NEED AND IN FACT UNWISE, RIGHT? THAT
 (11) IS WHAT HE SAYS IN THE MEMO ABOUT YOUR PHONE
 (12) CONVERSATION?
 (13) A UNWISE TO THE EXTENT WE WOULD HAVE VERY
 (14) LITTLE TO CONTRIBUTE AT THAT POINT IN TIME.
 (15) MR. TALLON: NOTHING FURTHER AT THAT TIME.
 (16) THE COURT: MR. PREUSS, MR. ZIMMER. CROSS?
 (17)
 (18) CROSS EXAMINATION
 (19) BY MR. ZIMMER:
 (20) Q GOOD MORNING, MR. WOOD.
 (21) A GOOD MORNING.
 (22) Q I WANT TO TOUCH ON A FEW THINGS THAT
 (23) MR. TALLON - WELL, I WANT TO ASK YOU FIRST OF ALL
 (24) WHEN WERE YOU FIRST EMPLOYED BY MONSANTO?
 (25) A STRAIGHT FROM - IT WAS AFTER I GRADUATED
 (26) FROM CAMBRIDGE, LATE 1959.
 (27) IT WAS EITHER 1959 EARLY 1960.
 (28) Q WHAT WAS YOUR POSITION AT THAT TIME?

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(1) A I JOINED THEM THROUGH AN INDOCTRINATION
 (2) PHASE, AN ORIENTATION PHASE AND THEN SHORTLY
 (3) THEREAFTER I BECAME A TECHNICAL SALESMAN.
 (4) Q WAS THAT YOUR FIRST JOB OUT OF COLLEGE?
 (5) A YES, IT WAS.
 (6) Q AND, SIR, HAVE YOU EVER HAD ANY TRAINING
 (7) OR EXPERIENCE WITH THE OPERATION OF NATURAL GAS
 (8) TURBINES OR COMPRESSORS?
 (9) A NO, I HAVEN'T.
 (10) Q AND HAVE ANY OF YOUR JOBS AT MONSANTO
 (11) EVER MADE YOU RESPONSIBLE FOR SELLING TURBINOL?
 (12) A NO.
 (13) Q NOW, LET'S TALK A LITTLE BIT ABOUT 1966.
 (14) WHAT WAS YOUR POSITION, AGAIN, IN 1966?
 (15) A IN 1966 I WAS IN THE BRUSSELS
 (16) HEADQUARTERS, NEWLY FORMED, OF MONSANTO EUROPE.
 (17) MY ROLE WAS THAT OF PRODUCT SUPERVISOR
 (18) FOR THE DIELECTRIC FLUIDS THAT MONSANTO SOLD
 (19) ACROSS EUROPE.
 (20) Q AND WERE FUNCTIONAL FLUIDS WITHIN YOUR
 (21) GROUP AT THAT TIME?

(22) A FUNCTIONAL FLUIDS DESCRIBED A BROAD RANGE
 (23) OF FLUIDS INCLUDING DIELECTRIC FLUIDS.
 (24) OTHER EXAMPLES OF FUNCTIONAL FLUIDS WERE
 (25) THINGS LIKE AVIATION SAFETY HYDRAULIC FLUIDS WHERE
 (26) MONSANTO SUPPLIED FIRE-RESISTANT FLUIDS TO
 (27) PROTECT
 (28) AGAINST FIRES WHEN PLANES LANDED AND HAD HOT
 BRAKE
 (29) DRUMS.

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(1) Q DURING THAT TIME PERIOD, WAS TURBINOL ONE
 (2) OF THE PRODUCTS FOR WHICH YOU WERE RESPONSIBLE?
 (3) A NO, I WAS NOT RESPONSIBLE FOR TURBINOL.
 (4) Q WHAT DID YOUR JOB ENTAIL AS PRODUCT
 (5) SUPERVISOR FOR DIELECTRICS IN EUROPE?
 (6) A THE DIELECTRIC FLUIDS THAT MONSANTO MADE
 (7) WERE SOLD INTO THE DISTRIBUTION TRANSFORMING
 (8) INDUSTRY, REDUCING ELECTRICAL VOLTAGE FROM THE HIGH
 (9) LEVELS AT WHICH IT'S DISTRIBUTED ALONG POWER LINES
 TO
 (10) THE LOWER VOLTAGES WHICH IT IS CONSUMED.
 (11) THE FLUIDS WERE ALSO SOLD INTO THE POWER
 (12) CAPACITOR INDUSTRY WHICH WERE DEVICES TO OPTIMIZE THE
 (13) CAPACITY UTILIZATION OF ELECTRICAL DISTRIBUTION
 (14) SYSTEMS.
 (15) THE FLUIDS WE USED IN BALANCE AS
 (16) CAPACITORS, WHICH ARE THE CAPACITORS WHICH PROVIDE
 (17) THE JUMP START TO STRIKE A LIGHT AGAINST A
 (18) FLUORESCENT LIGHT TUBE, ALL OF WHICH NEEDED TO BE
 (19) FIRE RETARDANT MATERIALS TO SECURE PROPERTY AND LIFE
 (20) AGAINST POTENTIAL IGNITION OF A FLAMMABLE-OIL-BASED
 (21) SYSTEM BY A SPARK OR AN ELECTRICAL ARC.
 (22) MY JOB IMPLIED TALKING TO PEOPLE WHO
 (23) MANUFACTURED THESE DEVICES IN EUROPE, PERSUADING THEM
 (24) THAT THE EUROPEAN DISTRIBUTION SYSTEMS COULD BENEFIT
 (25) FROM THE USE OF THESE SAFER MATERIALS, AND TO WORK
 (26) WITH THEM IN TERMS OF DESIGNING SUCH EQUIPMENT THAT
 (27) THEY ACCUMULATED IN THEIR DESIGNS COMPATIBLE ALUMINUM
 (28) AND OTHER INSULATING MATERIALS TO GIVE LONGEVITY TO

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(1) THE LIFE OF THE EQUIPMENT.
 (2) IT WAS IMPORTANT TO MAKE MARKET
 (3) EVALUATIONS, TO OBTAIN COMPETITIVE DATA, TO MAKE
 (4) PROMOTIONAL CAMPAIGNS REGARDING OUR MATERIAL, TO MAKE
 (5) SURE THAT OUR TECHNICAL BULLETINS WHICH SUPPORTED THE
 (6) USE OF OUR MATERIALS INFORMED OUR CUSTOMERS HOW THEY
 (7) HANDLED WITH ADEQUATE INDUSTRIAL HYGIENE TO PREVENT
 (8) ANY INJURY TO THEIR WORKING STAFF IN USING AND
 (9) WORKING WITH THE CHEMICALS TO BE PRODUCED.
 (10) IT WAS A MANAGEMENT OF A PRODUCTION
 (11) DELIVERY AND SELLING SYSTEM FOR THE FLUIDS.
 (12) Q IT SOUNDS LIKE YOU WERE A BUSY MAN.
 (13) A YES, I WAS.
 (14) Q LET'S MOVE FORWARD A BIT IN YOUR
 (15) EMPLOYMENT HISTORY WITH MONSANTO.
 (16) WHAT WAS THE NEXT POSITION YOU ASSUMED?
 (17) A WHEN I MOVED AWAY FROM THE FUNCTIONAL
 (18) FLUIDS AREA I WAS INVOLVED WITH THE FINE CHEMICALS
 (19) AREA.
 (20) FINE CHEMICALS, LOWER VOLUME, SPECIALITY

(21) TYPE CHEMICAL MATERIALS.
(22) THE MAIN PRODUCT THAT I WAS DEALING WITH
(23) AT THAT TIME WAS ASPIRIN.
(24) IT'S LITTLE KNOWN THAT MONSANTO WAS
(25) THE - ALTHOUGH PEOPLE DID NOT BUY A TABLET MARKED
(26) MONSANTO, MONSANTO WAS THE WORLD'S LARGEST
(27) PRODUCER
(28) OF ASPIRIN.
(28) SO I SPENT SOME YEARS INVOLVED WITH THAT

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(1) PARTICULAR MARKETPLACE IN EUROPE.
(2) AND IN 1974 I MOVED TO THE UNITED
(3) STATES.
(4) Q WHEN YOU WERE INVOLVED WITH FOOD AND FINE
(5) CHEMICALS, DID ANY OF THOSE PRODUCTS INCLUDE
PCB'S?
(6) A NO, THEY DIDN'T.
(7) Q AND WHAT WERE THE YEARS THAT YOU WERE
(8) INVOLVED WITH THE FOOD AND FINE CHEMICALS?
(9) A FROM LATE IN 1967 - EARLIER, I WAS
(10) TRANSITIONING EARLIER IN 1968 UNTIL 1974.
(11) Q AND THEN IN 1974 YOU CAME TO THE UNITED
(12) STATES; IS THAT CORRECT?
(13) A YES, I DID.
(14) Q OKAY. AND I KNOW YOU HAVE EXPLAINED TO
(15) THE JURY WHAT A DIELECTRIC FLUID IS AS PART OF
YOUR
(16) DESCRIPTION OF YOUR JOB RESPONSIBILITIES.
(17) CAN YOU GIVE US A LITTLE BETTER
(18) UNDERSTANDING OF THE TYPES OF APPLICATIONS THAT
(19) DIELECTRIC FLUIDS WERE PUT TO?
(20) A IN TRANSFORMERS PART OF A TRANSFORMER
(21) OPERATION IS THE GENERATION OF HEAT INSIDE THE
(22) TRANSFORMER AS IT STEPS DOWN THE VOLTAGE FROM A
HIGH
(23) VOLTAGE TO A LOW VOLTAGE.
(24) THEREFORE, YOU NEEDED A LIQUID THAT WOULD
(25) DISSIPATE THE HEAT AWAY FROM THE COIL.
(26) I'M SURE YOU ARE ALL FAMILIAR WITH THE
(27) HALL-MOUNTED TRANSFORMERS, LITTLE CANS WITH FINS
ON
(28) THE SIDE THAT WE SEE ON THE STREET WHERE A LIQUID

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(1) INSULATING MATERIAL IS TAKING HEAT AWAY AND AT THE
(2) SAME TIME PREVENTING DISCHARGE OF ELECTRICAL
CURRENT
(3) BETWEEN THE CONDUCTORS WITHIN THE TRANSFORMER.
(4) A CAPACITOR IS RATHER LIKE A CHILD'S
(5) SWING SET THAT - TO MAKE A SWING SET MOVE MOST
(6) EFFECTIVELY, YOU NEED TO GIVE IT A SMALL PUSH AT
(7) EXACTLY THE RIGHT TIME.
(8) AND A CAPACITOR IS A DEVICE WHICH
(9) ESSENTIALLY STORES ELECTRICITY AND THEN GIVES THE
(10) WORKING POWER CURRENT A PUSH AT EXACTLY THE
RIGHT
(11) MOMENT SO THAT - IT ENABLES LARGE UTILITIES TO GET
(12) THE MAXIMUM, MOST COST-EFFECTIVE UTILIZATION FROM
(13) THEIR ELECTRICAL DISTRIBUTION SYSTEMS.
(14) Q NOW, AFTER YOU STOPPED YOUR INVOLVEMENT
(15) WITH DIELECTRIC FLUIDS IN THE UNITED STATES, WHAT
(16) OTHER POSITIONS, IF ANY, DID YOU TAKE WITHIN
(17) MONSANTO?
(18) A WHEN I LEFT THE DIELECTRICS AREA IN THE
(19) UNITED STATES, I WAS INVOLVED WITH THE PURCHASING
(20) DEPARTMENT.
(21) MONSANTO WANTED ME TO STAY IN THE UNITED
(22) STATES, RATHER THAN RETURN TO EUROPE AT THAT POINT
OF
(23) MY CAREER, AND TO GAIN A BROADER KNOWLEDGE OF THE
(24) U.S. CHEMICAL INDUSTRY I SPENT A NUMBER OF YEARS IN
(25) THE PURCHASING DEPARTMENT WORKING WITH
SUPPLIERS OF
(26) CHEMICAL RAW MATERIALS TO MONSANTO.
(27) I MANAGED MONSANTO'S OPERATIONS IN BRAZIL
(28) FOR SIX YEARS.

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(1) WHEN I RETURNED FROM BRAZIL I RAN A
(2) BUSINESS THAT WE CALLED POLYMER MODIFICATION,
POLYMER
(3) MODIFIERS, WHICH ADDED AND ENHANCED THE
PROPERTIES OF
(4) PLASTIC MATERIALS TO MAKE THEM MORE USEFUL TO
(5) SOCIETY.
(6) THE LAST JOB I HAD WITH MONSANTO PRIOR TO
(7) MY RECENT RETIREMENT WAS TO HANDLE A PRODUCT
CALLED
(8) SAFEPLEX, SAFEPLEX NOT SOUTHPLEX, MR. TALLON,
WHICH
(9) IS THE PLASTIC SHEET WHICH IS INTRODUCED BETWEEN
(10) SHEETS OF GLASS IN ALL THE SAFETY WINDSHIELDS IN ALL
(11) OF OUR CARS, A MATERIAL THAT MONSANTO HAS MADE
FOR
(12) MANY YEARS AND SAVED A LOT OF LIVES AND A LOT OF -
(13) PREVENT A LOT OF DAMAGE BY HAVING A WINDSHIELD
WHICH
(14) PRECLUDES PEOPLE BEING EVICTED FROM - EJECTED
FROM A
(15) CAR THROUGH THE WINDSHIELD OR BREAKING INTO
SMALL
(16) SLIVERS OF GLASS WHICH WILL CUT PEOPLE SEVERELY.
(17) Q SIR, YOU DISCUSSED WITH MR. TALLON THE
(18) TERMS BIPHENOL, O-L AND BIPHENYL, Y-L.
(19) AND I WONDER IF YOU COULD TELL US A
(20) LITTLE BIT MORE ABOUT THE DISTINCTION BETWEEN
THOSE
(21) TWO COMPOUNDS.
(22) A I AM A CHEMIST. AND THEREFORE, I CAN
(23) READILY UNDERSTAND - IS IT POSSIBLE THAT I CAN -
(24) THIS MAY BE A CASE WHERE ONE PICTURE COULD BE
WORTH A
(25) THOUSAND WORDS.
(26) IS THERE ANY WAY I COULD DRAW A DIAGRAM
(27) FOR SOMEBODY?
(28) Q SURE. I CAN ASK YOU TO SKETCH SOMETHING.

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(1) WE CAN SHOW IT ON THIS MACHINE HERE, IF
(2) YOU WOULD LIKE.
(3) DO YOU HAVE A PEN?
(4) A YES, I DO.
(5) IF I CAN SHOW THAT AND THEN TALK TO THAT
(6) DIAGRAM, I THINK I CAN MAKE MY POINTS CLEAR.
(7) Q WE WILL BE FOLLOWING ALONG TOGETHER.
(8) I WILL PUT IT ON THE SCREEN HERE.
(9) THE COURT: LET'S ASSIGN A NUMBER TO THIS
(10) EXHIBIT, MR. ZIMMER.
(11) UNLESS YOU HAVE SOMETHING ELSE ALREADY
(12) RESERVED, I WOULD EXPECT THAT NUMBER TO BE 809.
(13) MR. ZIMMER: 809 OR 810, I BELIEVE, WOULD BE
(14) SAFER.
(15) THE COURT: IS THERE AN 809?
(16) MR. ZIMMER: I CAN'T RECALL FROM YESTERDAY'S
(17) DISCUSSION.
(18) THE COURT: WE WILL GO WITH 810.
(19) Q BY MR. ZIMMER: CAN YOU EXPAND THAT?
(20) A OKAY. WE HAVE GOT WHAT I NEED RIGHT
(21) HERE.
(22) Q WHAT HAVE YOU ILLUSTRATED FOR US HERE?
(23) A IS THERE A POINTER?
(24) Q I BELIEVE THERE IS UP THERE.
(25) THE COURT: WE HAVE ONE OF EVERYTHING,
(26) MR. WOOD.
(27) THE WITNESS: THANK YOU.
(28) THIS SIMPLE SIX RING, IF YOU CAN IMAGINE

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(1) A CARBON AT EACH OF THESE POINTS AND A HYDROGEN
(2) ATTACHED TO EACH THOSE CARBONS IN A RING, WE ARE
(3) TALKING AN ORGANIC RINGED COMPOUND.
(4) THIS IS KNOWN AS THE PHENYL RING.
(5) THERE IS ONLY CARBON AND HYDROGEN IN THIS
(6) RING.
(7) IF YOU JOIN TWO OF THESE RINGS WHICH IN
(8) ITS SIMPLE FORM IS A BENZENE. IT'S CALLED THE BENYL

(9) RADICAL, IF YOU JOIN TWO OF THESE TOGETHER SO NOW YOU
(10) HAVE TWO PHENYLS LINKED TOGETHER, SO YOU HAVE
(11) BIPHENYL AS IT WAS REFERRED TO HERE IN THE UNITED
(12) STATES.
(13) THE EUROPEAN MANUFACTURER CALLED IT
(14) DIPHENYL.
(15) SO TWO BY TWO, DIPHENYLS.
(16) THIS IS BIPHENYLS.
(17) NOW, PHENOL, THE THING THAT SOMETIMES
(18) WHEN WE HAVE A SORE THROAT WE TAKE OR GARGLE
WITH
(19) DILUTED PHENOL SOLUTIONS AS A GERMICIDE, THAT IS
THE
(20) SAME PHENOL RING EXCEPT WE HAVE SUBSTITUTED ONE
OF
(21) THE HYDROGENS HERE WITH WHAT WE CALL THE
HYDROXYL
(22) GROUP.
(23) SO THAT IS AN ALCOHOL GROUP.
(24) SO THAT BECOMES NOT A PHENYL ANYMORE, IT
(25) IS NOW A PHENOL.
(26) NOW, IF YOU WERE TO PUT CHLORINES INTO
(27) EACH OF THESE FIVE POSITIONS, THEN YOU HAD A
MATERIAL
(28) CALLED PENTA, FIVE, CHLORINATED PHENOL WHICH WAS

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(1) WIDELY USED FOR TIMBER TREATMENT AND IN THE
(2) PRODUCTION OF PAPER IN SWEDEN.
(3) SO THERE WERE REASONS TO SUSPECT YOU
(4) WOULD FIND THESE TYPE OF MATERIALS IN THE SWEDISH
(5) ENVIRONMENT. BIPHENYLS WOULD AGAIN BE TWO
PHENOLS
(6) LINKED TOGETHER.
(7) THIS WAS NEVER USED WIDELY, COMMERCIALY.
(8) BUT THERE WAS SUFFICIENT NOMENCLATURE
(9) CONFUSION AT THAT POINT IN TIME, THERE WAS A REAL
(10) ISSUE ABOUT DECIDING WHAT NEEDED TO BE DONE TO
MAKE
(11) SURE THAT AN APPROPRIATE STUDY OF ENVIRONMENTAL
(12) PRESENCE AND ENVIRONMENTAL IMPACT COULD BE
INSTITUTED
(13) SO THAT APPROPRIATE SAFEGUARDS COULD BE MADE TO
THE
(14) ENVIRONMENT.
(15) SO IT WAS IMPORTANT AT THAT FIRST STAGE
(16) THAT WE ELIMINATED ANY POTENTIAL ERRORS THAT
COULD
(17) HAVE BEEN INVOLVED BY - I MADE A POINT EARLIER IN MY
(18) TESTIMONY ABOUT THE PAPERS THAT WERE TRANSLATED
FOR
(19) ME, SENT TO BRUSSELS FOR TWO DAILY NEWSPAPERS.
(20) THEY WERE NOT TECHNICAL JOURNALS.
(21) SO THERE WAS A QUESTION ABOUT THE
(22) ACCURACY AND RELIABILITY OF THE REPORTING.
(23) SO THERE WERE SOME REAL ISSUES THERE IN
(24) MY MIND AT THAT POINT IN TIME.
(25) BUT THINGS HAD TO BE SORTED OUT AS TO
(26) WHAT WERE GOOD SCIENTISTS DOING IN SWEDEN AND
NOT
(27) ALLOW THEIR VIEWS TO BE DISTORTED BY POOR
REPORTING.
(28) I HOPE THAT HELPS CLARIFY SOME OF THE

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(1) POTENTIALS FOR CONFUSION THAT EXISTED.
(2) Q I THINK I UNDERSTAND BETTER NOW.
(3) LET ME JUST MAKE SURE THE CONFUSION YOU
(4) DISCUSSED WITH MR. TALLON IS ILLUSTRATED BY THE
(5) PHENYL OR BI OR DIPHENYL GROUPS THAT YOU HAVE
(6) ILLUSTRATED AT THE TOP OF THIS DRAWING AND THEN
SHOWS
(7) AT THE BOTTOM, PHENOL AND BIPHENOL.
(8) A CHLORINATED BI OR DIPHENYL WOULD BE THIS
(9) MODEL UP HERE WITH DIFFERENT NUMBERS OF
CHLORINES
(10) ATTACHED.

(11) YOU CAN SEE THAT MAXIMUM THERE OF 10
(12) SITES AVAILABLE THERE FOR CHLORINES TO BE
ATTACHED.
(13) WHAT THEY REPORTED AS SEEING IN SWEDEN
(14) WERE EIGHT.
(15) SO THEY GOT THIS PRETTY WELL, IF IT WERE
(16) A BIPHENYL CENTER THEY WERE TALKING ABOUT, IT WAS
(17) VERY HIGHLY CHLORINATED.
(18) AND THAT PARTICULAR TYPE OF MATERIAL, AS
(19) A CHLORINATED BIPHENYL, WOULD HAVE BEEN A VERY
DENSE
(20) SOLID MATERIAL.
(21) IT WOULD NOT HAVE BEEN A LIQUID.
(22) SO IT WOULD NOT HAVE BEEN VERY MOBIL.
(23) THIS TYPE OF MATERIAL HERE - WHAT WAS
(24) REPORTED WAS A CHLORINATED BIPHENOL, THAT WOULD
BE
(25) THIS MATERIAL WITH CHLORINES ATTACHED TO IT.
(26) AND YOU SEE THAT THERE WOULD HAVE BEEN
(27) EIGHT POSITIONS INDEED AVAILABLE FOR CHLORINATION
AS
(28) THEY DESCRIBED.

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(1) Q TO YOUR KNOWLEDGE -
(2) A BUT THAT MATERIAL IS NOT ONE THAT I WAS
(3) FAMILIAR WITH AS BEING WIDELY USED IN COMMERCE IN
ANY
(4) APPLICATION AT THAT POINT IN TIME.
(5) BUT I DID NOT PRETEND TO BE - HAVE
(6) UNIVERSAL KNOWLEDGE OF ALL CHEMICALS USED IN ALL
(7) INDUSTRIES.
(8) Q THAT ONE YOU HAVE BEEN POINTING TO AT THE
(9) BOTTOM, TO YOUR KNOWLEDGE DID MONSANTO
PRODUCE A
(10) CHLORINATED BIPHENOL?
(11) A NO, WE DID NOT.
(12) Q SIR, LET ME MOVE AHEAD THEN TO THE
(13) MEETING THAT YOU HAD WITH MR. JENSEN AND
PROFESSOR
(14) WIDMARK.
(15) HOW DID THAT COME ABOUT?
(16) A AT THE BEGINNING OF THE YEAR.
(17) AT THE END OF A YEAR OR THE BEGINNING OF
(18) A YEAR I WOULD NORMALLY ROUTINELY HAVE
DISCUSSIONS
(19) WITH GROUPS SUCH AS RISING AND STRAND, OUR AGENCY
IN
(20) STOCKHOLM TO TALK ABOUT THE WORK PROGRAMS FOR
THE
(21) COMING YEAR TO REVIEW THE SUCCESSES AND FAILURES
OF
(22) THE PREVIOUS YEARS.
(23) AND SO IN JANUARY IT WOULD BE QUITE USUAL
(24) FOR ME TO TRAVEL TO SWEDEN AND IN THIS PARTICULAR
(25) CASE, HAVING SPENT SOME TIME IN DECEMBER,
REPORTING
(26) BACK TO MY COLLEAGUES IN ST. LOUIS THE EVENTS IN
(27) STOCKHOLM.
(28) I WANTED TO MAKE A POINT OF MAKING A

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(1) MEETING WITH JENSEN AND WIDMARK PART OF MY VISIT
TO
(2) SWEDEN AT THAT POINT IN TIME.
(3) Q AND YOU MET, I BELIEVE YOU TOLD US, WITH
(4) BOTH JENSEN AND WIDMARK?
(5) A YES, I DID.
(6) Q HOW MUCH TIME DID YOU SPEND WITH THEM?
(7) A IT WAS PROBABLY AN AFTERNOON.
(8) IT WAS SEVERAL HOURS.
(9) IT WAS LESS THAN A FULL DAY.
(10) Q WHAT DID YOU LEARN DURING THAT VISIT
(11) ABOUT THE FOCUS OF THEIR RESEARCH?
(12) A I LEARNED THAT THE FOCUS OF THEIR WORK,
(13) AS I REPORTED EARLIER, WAS THE IDENTIFICATION OF THE
(14) PRESENCE AND FATE OF PESTICIDE RESIDUES IN THE
(15) ENVIRONMENT.

(16) THEY WERE TRYING TO ADVANCE ANALYTICAL
(17) TECHNOLOGY AND TECHNIQUES TO BE ABLE TO MORE
(18) SPECIFICALLY BE ABLE TO IDENTIFY PRESENCE IN THE
(19) ENVIRONMENT AND THEN MODIFICATION OF PESTICIDE
(20) RESIDUES IN THE ENVIRONMENT AS THEY DID OR DID NOT
(21) BIODEGRADE OVER TIME.
(22) AND AS PART OF - ALMOST PERIPHERALLY TO
(23) THAT MAJOR WORK THEY HAD COME ACROSS SOME
MATERIALS
(24) IN THEIR SAMPLES WHICH APPEARED AS AN
INTERFERENCE,
(25) PEAKS WHICH WERE UNEXPLAINED BY THE PESTICIDES
THEY
(26) WERE MAJORLY WORKING WITH AND SO THEY TRIED TO
DRAW
(27) SOME CONCLUSIONS AS TO WHAT TYPE OF MOLECULAR
(28) STRUCTURE MIGHT GIVE RISE TO PEAKS ON THEIR

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(1) SPECTROGRAPHIC CHARTS.
(2) **Q DID YOU LEARN WHAT EQUIPMENT THEY WERE
(3) USING IN THEIR WORK?**
(4) A THEY DESCRIBED TO ME THAT THEY WERE USING
(5) SOME VERY NEW, UNIQUE SWEDISH EQUIPMENT AND
MADE BY
(6) THE COMPANY THAT PUBLISHED THE PRESS RELEASE, LDK
(7) PRODUCTOR, WHICH WAS VERY CREATIVE AND ORIGINAL
IN
(8) THE WAY IT BROUGHT TOGETHER SOME EXISTING PIECES
OF
(9) ANALYTICAL TECHNOLOGY, BUT ALLOWED THEM TO BE
(10) ESSENTIALLY INTEGRATED WITH EACH OTHER AND USED
MORE
(11) POWER THAN ANY THAT COULD BE USED SEPARATELY.
(12) THE COURT: MR. ZIMMER, WE WILL STOP FOR THE
(13) MORNING AT THIS POINT.
(14) LADIES AND GENTLEMEN, WE WILL RESUME THIS
(15) AFTERNOON AT 1:30.
(16) SO I WILL ASK YOU TO RETURN JUST BEFORE
(17) THEN SO WE CAN RESUME AT 1:30.
(18)
(19) (AT 12:00 NOON, A RECESS WAS TAKEN
(20) UNTIL 1:30 P.M. OF THE SAME DAY.)
(21)
(22)
(23)
(24)
(25)
(26)
(27)
(28)

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(1) LOS ANGELES, CALIFORNIA; FRIDAY, DECEMBER 3, 1993
(2) 1:30 P.M.
(3) DEPARTMENT NO. 31 G. KEITH WISOT, JUDGE
(4) ---0---
(5) (APPEARANCES AS HERETOFORE NOTED.)
(6) (DAVID A. SALTER, OFFICIAL REPORTER.)
(7)
(8) THE COURT: AND RESUMING.
(9) GO AHEAD, MR. ZIMMER.
(10) MR. ZIMMER: THANK YOU, YOUR HONOR.
(11)
(12) DAVID WOOD,
(13) CALLED AS A WITNESS BY THE PLAINTIFF, TRANSWESTERN,
(14) UNDER THE PROVISIONS OF EVIDENCE CODE 776, HAVING
(15) BEEN PREVIOUSLY SWORN TESTIFIED AS FOLLOWS:
(16)
(17)
(18)
(19) CROSS EXAMINATION (CONTINUED.)
(20) BY MR. ZIMMER:
(21) **Q MR. WOOD, BEFORE WE TOOK THE LUNCH BREAK
(22) I THINK WE WERE TALKING ABOUT EQUIPMENT THAT
JENSEN
(23) AND WIDMARK USED IN THEIR WORK.
(24) I WOULD LIKE YOU TO REFRESH MY MEMORY**

(25) **AGAIN ABOUT WHAT YOUR UNDERSTANDING OF WHAT IT
WAS**

(26) **THEY WERE LOOKING FOR WAS.**

(27) A IT WAS CLEAR TO ME THAT THE CENTRAL WORK
(28) THAT WAS BEING DONE BY SOREN JENSEN WAS TO

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(1) INVESTIGATE WHEN PESTICIDES HAD BEEN RELEASED
INTO
(2) THE SWEDISH ENVIRONMENT TO KILL PESTS, THEN WHERE
(3) WERE RESIDUES OF THOSE PESTICIDES BEING CARRIED
(4) WITHIN THE ENVIRONMENT AND WHAT LEVELS WERE
PRESENT
(5) IN THE ENVIRONMENT.
(6) IT WAS WORK COMMITTED TO DETERMINING
(7) PESTICIDE LEVELS AT VERY LOW CONCENTRATIONS IN THE
(8) ENVIRONMENT.
(9) **Q NOW, ARE AROCLORS PESTICIDES?**
(10) A NO, THEY ARE NOT.
(11) **Q LET'S GO BACK TO THE EQUIPMENT THAT YOU
(12) MENTIONED TO US BEFORE LUNCH AGAIN.**
(13) **I BELIEVE YOU SAID THEY WERE USING GAS
(14) CHROMATOGRAPHY AND A MASS SPECTROMETER; AM I
CORRECT?**
(15) A THAT IS CORRECT.
(16) BOTH OF THOSE PIECES OF EQUIPMENT
(17) ESSENTIALLY HAD BEEN KNOWN, BUT THIS PARTICULAR
(18) COMPANY WAS USING THEM IN A VERY NOVEL AND NEW
WAY IN
(19) TERMS OF COMBINING THE POWERS OF THOSE
TECHNIQUES IN
(20) A WAY THAT THEY COULD THEN REFLECT THE PRESENCE
AND
(21) DETERMINE THE FINGERPRINT OF MATERIALS AT MUCH
LOWER
(22) CONCENTRATIONS THAN HAD BEEN HITHERTO POSSIBLE.
(23) **Q WHAT SORT OF CONCENTRATIONS ARE WE
(24) TALKING ABOUT?**
(25) A FOR THE FIRST TIME YOU WERE GETTING DOWN
(26) INTO MEASURING ENVIRONMENTAL SAMPLES IN THE LOW
(27) PART-PER-MILLION-TYPE OF LEVELS.
(28) I TEND TO PUT THAT INTO PERSPECTIVE

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(1) MYSELF AND HAVE, SINCE I HAD SOME DIFFICULTY
(2) INITIALLY FOCUSING ON WHAT THOSE MEANT.
(3) IT IS SOMEWHAT LIKE A DROP OF COCA-COLA
(4) IN A LARGE SWIMMING POOL.
(5) **Q THAT WOULD BE A PART PER MILLION?**
(6) A YES, UH-HUH.
(7) **Q NOW, AS FAR AS YOU KNEW, DID MONSANTO
(8) POSSESS THE EQUIPMENT THAT JENSEN AND WIDMARK
WERE
(9) USING?**
(10) A AS I TALKED TO MY COLLEAGUES IN ST. LOUIS
(11) ABOUT THE EVENTS IN SWEDEN, IT WAS CLEAR THAT WE
DID
(12) NOT HAVE THAT CAPABILITY WITHIN MONSANTO IN
EUROPE AT
(13) THAT TIME, NOR IN THE UNITED STATES.
(14) **Q ALL RIGHT. NOW, FOLLOWING YOUR MEETING
(15) WITH JENSEN AND WIDMARK DID YOU COME AWAY WITH
THE
(16) IMPRESSION THAT THEIR WORK HAD BEEN ACCURATELY
(17) PORTRAYED BY THE SWEDISH MEDIA?**
(18) A I FELT THAT THE HANDLING BY THE PRESS IN
(19) SWEDEN HAD TRIED TO ACCURATELY PORTRAY THE
ANALYTICAL
(20) WORK THAT SOREN JENSEN HAD DONE IN TERMS OF
(21) IDENTIFYING A STRANGE SERIES OF MYSTERY PEAKS IN
(22) CONFLICT AND INTERFERING WITH HIS DOT DETECTION.
(23) BUT THAT THE EQUIPMENT MANUFACTURERS, I
(24) THINK MORE THAN ANYTHING, IN TERMS OF THEIR DESIRE
TO
(25) PUBLICIZE THE AVAILABILITY OF THIS NEW EQUIPMENT,
(26) WERE EXAGGERATING THE POTENTIAL CONSEQUENCES
OF THE
(27) PRESENCE OF MATERIAL IN THE ENVIRONMENT.

(28) Q ALL RIGHT.

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(1) THANK YOU, MR. WOOD.
 (2) LET'S TURN, IF WE COULD, TO SOME OF THE
 (3) EXHIBITS THAT MR. TALLON SHOWED YOU.
 (4) I WOULD FIRST LIKE YOU TO LOOK AT EXHIBIT
 (5) 31.
 (6) A I'M SORRY, THAT WOULD BE IN THIS FIRST?
 (7) Q ONE OF THOSE BLUE BINDERS BEHIND YOU.
 (8) A 31?
 (9) Q YES, SIR. COULD YOU TELL US AGAIN WHAT
 (10) THIS LETTER IS?
 (11) A THIS WAS A STARTING POINT.
 (12) THIS WAS THE LETTER FROM OUR AGENT IN
 (13) SWEDEN, RISING AND STRAND, WRITTEN BY OLA PALME
 (14) WHO
 (15) HANDLED THE PARTICULAR PRODUCTS IN SWEDEN FOR
 (16) WHICH I
 (17) WAS RESPONSIBLE IN EUROPE.
 (18) IT REPORTED SOME PUBLICATIONS IN THE
 (19) NATIONAL SWEDISH PRESS ABOUT A PESTICIDE
 (20) CONFERENCE.
 (21) THERE WAS SOME COMPLICITY HE WANTED ME TO
 (22) BE MADE AWARE OF.
 (23) IN FACT, HE HAD A CONCERN THAT A PRODUCT
 (24) HE WAS SELLING MIGHT BE THE SUBJECT OF THIS
 (25) RELEASE.
 (26) Q ALL RIGHT. NOW, YOU EXPLAINED TO US
 (27) EARLIER A BIT ABOUT THE CONFUSION YOU HAD WITH
 (28) BIPHENOLS VERSUS BIPHENYLS AND/OR DIPHENYLS.
 (29) THE PASSAGE I HAVE HIGHLIGHTED HERE, DOES
 (30) THAT RELATE TO THAT?
 (31) IT SAYS, "THESE HAVE REVEALED THAT THE
 (32) GROUP OF PRODUCTS CALLED POLYCHLORINATED
 (33) BIPHENOLS,

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(1) PCB FOR SHORT, ACCUMULATED IN CERTAIN ORGANS
 (2) OF
 (3) ANIMALS."
 (4) A THIS, INDEED, WAS ONE OF THE POINTS THAT
 (5) HAD ME CONFUSED FROM THE OUTSET.
 (6) BECAUSE HERE WE ARE TALKING SPECIFICALLY
 (7) ABOUT BIPHENOLS, O-L-S, AND NOT BIPHENYLS WHICH
 (8) WAS A
 (9) PRODUCT MY COMPANY PRODUCED.
 (10) THERE WAS DEFINITELY THIS LEVEL OF
 (11) CONFUSION AS TO WHAT WAS THE SUBJECT OF THE
 (12) SWEDISH
 (13) WORK AT THAT POINT IN TIME.
 (14) Q SIR, WHAT DID YOU DO AFTER RECEIVING THIS
 (15) MEMO OR LETTER FROM MR. PALME?
 (16) A WELL, THIS LETTER WHICH WAS DATED
 (17) NOVEMBER 28TH ARRIVED IN MY OFFICE, ESSENTIALLY,
 (18) THE
 (19) BEGINNING OF DECEMBER.
 (20) I IMMEDIATELY REPORTED THIS EVENT, SERIES
 (21) OF EVENTS IN SWEDEN TO MY COLLEAGUES IN ST. LOUIS.
 (22) MISSOURI.
 (23) Q LET ME ASK YOU TO MOVE FORWARD, IF YOU
 (24) WOULD, TO THE NEXT EXHIBIT IN ORDER, NUMBER 32.
 (25) AGAIN, SOMETHING YOU REVIEWED WITH
 (26) MR. TALLON.
 (27) THIS IS YOUR MEMO, I BELIEVE, TO
 (28) MR. BUCHANAN IN ST. LOUIS?
 (29) A YES, IT IS.
 (30) Q WHY IS IT THAT YOU SENT THIS MEMO TO
 (31) MR. BUCHANAN?
 (32) A MR. BUCHANAN WAS RESPONSIBLE AND

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(1) ACCOUNTABLE WITHIN THE MONSANTO ORGANIZATION
 (2) FOR THE
 (3) OVERALL FUNCTIONAL FLUID BUSINESS OF WHICH THE
 (4) DIELECTRIC FLUIDS WERE A COMPONENT.
 (5) I WANTED TO MAKE SURE HE WAS AWARE THAT
 (6) THERE WAS A SITUATION IN EUROPE WHERE A PRODUCT
 (7) OF

(8) MONSANTO'S MIGHT BE ASSOCIATED WITH
 (9) ENVIRONMENTAL
 (10) PRESENCE, WHICH WAS A CONCERN TO ME.
 (11) Q NOW, THE FIRST PARAGRAPH OF THIS MEMO, IT
 (12) IS A DIFFICULT ONE TO READ, CORRECT ME IF I FOUL
 (13) THIS
 (14) UP AT ALL, IT SAYS, "ATTACHED IS A COPY OF A LETTER
 (15) RECEIVED FROM OLA PALME IN STOCKHOLM. I HAVE
 (16) SENT
 (17) COPIES OF THIS LETTER ALSO TO THE APPROPRIATE
 (18) DEPARTMENTS WITHIN OUR OWN ORGANIZATION."
 (19) WHAT WAS THE PURPOSE OF SENDING THIS MEMO
 (20) TO OTHER DEPARTMENTS, SIR?
 (21) A I WAS RESPONSIBLE FOR THE MARKETING AND
 (22) THE PRODUCT MANAGEMENT OF THIS PRODUCT.
 (23) IF THERE WAS A REPORT FROM THE
 (24) MARKETPLACE WHICH SUGGESTED THAT WE NEEDED TO
 (25) RESCRUTINIZE OR CHECK DATA, AND IT WAS IN ANY WAY
 (26) RELATED TO AN ENVIRONMENTAL OR HEALTH MATTER,
 (27) THEN I
 (28) WOULD AUTOMATICALLY BRING THIS TO THE NOTICE OF
 (29) OUR
 (30) MEDICAL DEPARTMENT.
 (31) IN THIS CASE WHAT I'M TALKING ABOUT, THE
 (32) LOCAL - OUR OWN ORGANIZATION, I'M TALKING ABOUT
 (33) DR. D. V. N. HARDY IN LONDON, DOUG HARDY.
 (34) Q ALL RIGHT. LET ME ASK YOU TO SKIP DOWN
 (35) TO THE POSTSCRIPT, THE PS PORTION OF THIS.

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(1) BECAUSE THAT IS SO DIFFICULT TO READ,
 (2) COULD I HAVE YOU READ THAT IN FOR ME, PLEASE,
 (3) FROM
 (4) YOUR MEMO.
 (5) A IF I CAN.
 (6) IT IS VERY UNCLEAR.
 (7) *PS, THINKING OF THE TOTAL QUANTITIES OF
 (8) AROCLOR USED IN SWEDEN COMPARED WITH THE MUCH
 (9) LARGER
 (10) VOLUMES OF PENTACHLOROPHENOL AND SODIUM
 (11) PENTACHLOROPHOSPHATE FOR WATER TREATMENT IN THE
 (12) PAPER
 (13) INDUSTRY AND CERTAIN STAIN CONTROL IN THE TIMBER
 (14) INDUSTRY.
 (15) *IT'S LIKELY THAT - IS IT LIKELY THAT
 (16) THE CHLORINATED PHENOLS SHOW SIMILAR
 (17) CHROMATOGRAPHIC
 (18) TRACES TO THE CHLORINATED BIPHENOLS?
 (19) Q WHAT DID YOU MEAN BY THAT, SIR?
 (20) A AS I THINK I ALLUDED TO THIS MORNING, WHY
 (21) IS IT POSSIBLE THAT IS TURNING UP IN SWEDEN IN TRACE
 (22) QUANTITIES IN CONNECTION IN THE SAME PLACES AS
 (23) PESTICIDE RESIDUES.
 (24) IT SEEMED MORE LIKELY TO ME, AT THAT
 (25) POINT IN TIME, THAT SOMETHING WHICH HAD THE
 (26) APPLICATION MENTIONED HERE OF THE CHLORINATED
 (27) PHENOLS
 (28) IN THE TIMBER INDUSTRY AND PAPER INDUSTRY WAS
 (29) MUCH
 (30) MORE LIKELY TO BE LOCATED IN THE GEOGRAPHIC
 (31) ENVIRONMENTAL SITUATIONS THAT WERE BEING
 (32) DESCRIBED
 (33) THAN AN INDUSTRIAL MATERIAL THAT WAS USED LARGELY
 (34) IN
 (35) SWEDEN IN THE CAPACITOR INDUSTRY.
 (36) Q ALL RIGHT. LET ME ASK YOU AGAIN, SIR, TO

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(1) SKIP FORWARD TO EXHIBIT 36.
 (2) A 36?
 (3) Q ANOTHER ONE THAT MR. TALLON DISCUSSED
 (4) WITH YOU EARLIER TODAY.
 (5) LET ME ASK YOU, FIRST OF ALL, WHAT WAS
 (6) YOUR PURPOSE IN PREPARING THIS MEMO?
 (7) A THIS WAS AN UPDATE.
 (8) I HAD RECEIVED THE EARLIER INFORMATION
 (9) FROM STOCKHOLM IN THE BEGINNING OF DECEMBER,
 (10) LATE

(10) NOVEMBER, BEGINNING OF DECEMBER OF 1966.
(11) WE HAD HAD A NUMBER OF CONVERSATIONS
(12) GOING ON WITHIN MONSANTO ABOUT THAT SERIES OF
(13) EVENTS.
(14) AND I HAD VISITED SWEDEN AND TALKED AT
(15) THAT POINT IN TIME TO SOREN JENSEN.
(16) THIS WAS TO BRING EVERYBODY IN THE
(17) MONSANTO NETWORK TO A POINT OF UNDERSTANDING OF
WHAT
(18) WERE EVENTS AT THAT POINT IN TIME, WHAT DID WE HAVE.
(19) Q MR. TALLON, DISCUSSED THE SECOND
(20) PARAGRAPH WITH YOU.
(21) I HAVE JUST ONE QUESTION ABOUT THAT.
(22) IS THAT YOUR UNDERLINING?
(23) A NO, IT'S NOT.
(24) Q ALL RIGHT. LET'S SKIP DOWN TO THE FOURTH
(25) PARAGRAPH WHICH I BELIEVE YOU ADDRESSED, AT
LEAST IN
(26) PART, WITH MR. TALLON.
(27) TRY TO BLOW THAT ONE UP A BIT ON THE
(28) SCREEN.

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(1) THAT ONE, IN YOUR MEMO, SIR, READS,
(2) "JENSEN'S ONLY AIM IN LIFE AS AN ANALYTICAL
CHEMIST
(3) WAS TO IDENTIFY THE SUBSTANCES FOUND IN HIS
RESEARCH
(4) WORK ON THE OCCURRENCE OF INSECTICIDES IN
NATURE.
(5) "THE UNFORTUNATE ASPECT OF THE SITUATION
(6) IS THE COMMENTS WHICH HAVE BEEN ADDED TO
JENSEN'S
(7) WORK.
(8) "HE SHOWED WHAT WAS PRESENT AND
(9) UNQUALIFIED PEOPLE HAVE MADE STATEMENTS AS TO
THE
(10) POSSIBLE EFFECT OF WHAT HE HAS FOUND."
(11) WHAT DID YOU MEAN BY THAT, SIR?
(12) A WE WERE CONSCIOUS IN DEALING WITH THE USE
(13) OF CHLORINATED BIPHENYLS AS FIRE-RESISTANT
DIELECTRIC
(14) FLUIDS THAT IN THE PRODUCTION OF CAPACITORS, I HAVE
(15) DESCRIBED THAT APPLICATION THIS MORNING, AND OF
(16) TRANSFORMERS THERE WERE SENSIBLE INDUSTRIAL
HYGIENE
(17) PRECAUTIONS TO BE TAKEN BY WORKERS WHO MIGHT BE
(18) EXPOSED IN THOSE MANUFACTURING PLANTS TO LIQUID
OR
(19) VAPOR-PHASE CHLORINATED BIPHENYL.
(20) BUT CHLORINATED BIPHENYLS WERE NOT AN
(21) EXTREMELY TOXIC MATERIAL.
(22) BUT THEY WERE NOT AN ACUTELY TOXIC
(23) SUBSTANCE.
(24) ONE WAS TRYING TO PRECLUDE SKIN CONTACT.
(25) THEY HAD A SOLVENCY ACTION ON THE SKIN.
(26) AND SO HERE WE HAD A SITUATION WHERE
(27) ENVIRONMENTAL PRESENCE WAS CLAIMED AT EXTREMELY
LOW
(28) LEVELS BECAUSE THEY WANTED TO EXPLORE HOW
SENSITIVE

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(1) THE EQUIPMENT WAS IN DETECTING THESE MATERIALS AT
(2) VERY LOW LEVELS.
(3) AND THEN IN TERMS OF THE RELEASES TO THE
(4) PRESS, ALLEGATIONS WERE, BY IMPLICATION, MADE, THAT
(5) THE POPULATION OF SWEDEN WERE BEING EXPOSED TO
(6) ENORMOUS AND ACUTELY TOXIC MATERIALS.
(7) AND THAT WAS NOT THE CASE.
(8) Q LET ME ASK YOU, SIR, TO SKIP TO THE
(9) SECOND PAGE OF YOUR MEMO OF JANUARY 26TH, 1967.
(10) A WHICH ONE?
(11) Q THE SAME ONE THAT YOU ARE LOOKING AT,
(12) EXHIBIT 36.
(13) A UH-HUH.
(14) Q THE PORTION OF THAT PARAGRAPH UNDER
(15) FUTURE RESEARCH READS, "WE WERE ASKED BY

JENSEN IF IT
(16) WAS POSSIBLE FOR MONSANTO TO SUPPLY ANY
SAMPLES OF
(17) THE PURE ISOMERS OF CHLORINATED DIPHENYL SINCE
HIS
(18) WORK INDICATED AT THE MOMENT THAT THE LOWER
(19) CHLORINATED ISOMERS ARE FAIRLY EASILY
METABOLIZED AND
(20) THE POTENTIALLY MORE DANGEROUS CONSTITUENTS
ARE THE
(21) MORE HIGHLY CHLORINATED MEMBERS."
(22) WHAT DID YOU MEAN BY "FAIRLY EASILY
(23) METABOLIZED"?
(24) A METABOLIZATION IS A TERM WHICH IS USED IN
(25) RELATIONSHIP TO THE INTAKE BY A LIVING SPECIES, BE IT
(26) BIRD, FISH, ANIMAL, HUMAN.
(27) AND IT IS THE - ESSENTIALLY IT'S THE
(28) BODY'S CAPABILITY TO BREAK DOWN A COMPLEX
MOLECULE

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(1) INTO SMALLER COMPONENTS AND ULTIMATELY TO
DEGRADE IT
(2) TO WATER AND CARBON DIOXIDE.
(3) IN THAT TIME OF BREAKDOWN OCCURRING
(4) WITHIN THE ENVIRONMENT WE WOULD USE A TERM
(5) "BIODEGRADATION," BUT IN TERMS OF THAT BREAKDOWN
(6) OCCURRING IN THE LIVING SYSTEM, THEN METABOLISM
AND
(7) THE BODY'S CAPABILITY TO METABOLIZE WOULD BE AN
(8) INDICATION OF HOW QUICKLY AND HOW CAPABLE THE
BODY
(9) WAS OF BREAKING DOWN MATERIALS.
(10) Q AND WHAT WERE YOU INTENDING BY THE
(11) REMAINDER OF THAT SENTENCE WHICH DISCUSSES THE
(12) POTENTIALLY MORE DANGEROUS CONSTITUENTS BEING
THE
(13) MORE HIGHLY CHLORINATED MEMBERS?
(14) A THERE WAS GROWING CONCERN, APPROPRIATELY,
(15) THAT HIGHLY CHLORINATED MATERIALS WOULD BE VERY
(16) DIFFICULT TO METABOLIZE AND BREAK DOWN, WOULD BE
(17) ABSORBED BY TISSUES AND REMAIN PRESENT IN TISSUES
FOR
(18) PERIODS.
(19) THIS WAS THE WHOLE THRUST OF A LOT OF THE
(20) PESTICIDE RESEARCH GOING ON AT THAT POINT IN
(21) HISTORY.
(22) AND ESSENTIALLY MORE LIKELY CHLORINATED
(23) MATERIALS WERE HYPOTHESIZED WOULD BE MORE
CAPABLE OF
(24) BREAKING DOWN AND VANISHING MORE RAPIDLY.
(25) AND, THEREFORE, IT WAS SIGNIFICANT THAT
(26) THE MATERIALS THEY WERE FINDING AND REPORTING IN
(27) SWEDEN WERE THE, AGAIN, THE HIGHER CHLORINATED
(28) MATERIALS.

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(1) THE PRESS RELEASE DESCRIBED EIGHT
(2) CHLORINES IN THE MOLECULE.
(3) THAT IS A HIGHLY - AS I TRIED TO SHOW ON
(4) THAT DIAGRAM, THERE WERE NOT MORE THAN EIGHT
SPACES
(5) AVAILABLE FOR CHLORINATION. THAT WAS ALMOST A
FULLY
(6) CHLORINATED MATERIAL.
(7) Q AND THAT WOULD MAKE THE MATERIAL SOLID;
(8) IS THAT CORRECT?
(9) A THOSE HIGHLY CHLORINATED MATERIALS WERE
(10) SOLIDS.
(11) Q WHAT IS AROCLOR 1242, BY THE WAY? IS
(12) THAT A SOLID?
(13) A NO.
(14) THAT IS A LIQUID.
(15) Q NOW, SKIPPING DOWN TO THIS NEXT
(16) HIGHLIGHTED PARAGRAPH, IT SAYS, "JENSEN IS
FORWARDING
(17) ME COPIES OF HIS MASS SPECTROGRAPHS AND DETAILS
OF

(18) **SAMPLE PREPARATION SO WE HAVE ALL THE DETAILS OF HIS RESEARCH WORK."**
 (19) **HAD YOU MADE THAT REQUEST OF MR. JENSEN?**
 (20) **A YES, I HAD.**
 (21) **BECAUSE IN THAT WE DID NOT HAVE THIS PARTICULAR TECHNOLOGY AVAILABLE INSIDE MONSANTO ANYWHERE IN THE WORLD AT THAT TIME, IT WAS IMPORTANT THAT WE UNDERSTOOD FULLY EXACTLY HOW THIS TECHNIQUE WAS USED AND EQUIP OURSELVES TO BE ABLE TO INDEPENDENTLY STUDY WHAT WAS BEING ALLEGED.**
 (27) **Q SKIPPING TO THE FINAL PAGE OF THIS MEMO,**

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(1) **SIR, I WOULD ASK YOU TO LOOK AT THE MIDDLE PARAGRAPH**
 (2) **THERE THAT READS, "SINCE WE ARE NOT ALONE IN SUPPLYING POLYCHLORINATED DIPHENYLS TO THE SCANDINAVIAN MARKET, I HAVE DRAWN THIS MATTER TO THE ATTENTION OF THE OTHER ASKERAL MANUFACTURERS IN EUROPE."**
 (7) **LET ME ASK YOU, FIRST, WHAT IS AN ASKERAL, A-S-K-E-R-A-L?**
 (9) **A AN ASKERAL IS AN ELECTRICAL INDUSTRY TERM TO DESIGNATE A FIRE-RESISTANT FLUID WHICH WILL NOT, ITSELF, COMBUST NOR WILL THE GASES FORMED WHEN IT IS DECOMPOSED BY BEING OVER STRESSED BY ELECTRICITY, BE INFLAMMABLE OR COMBUST.**
 (14) **THE CHLORINATED BIPHENYLS, AS DIELECTRICS, WERE ASKERALS.**
 (16) **THERE WERE SOME OTHER SULPHINATED TERMS THAT EQUALLY WERE ASKERALS, BUT IN THIS PARTICULAR SENTENCE I WAS JUST MAKING PEOPLE AWARE THAT I HAD DISCUSSED THE PUBLICATION IN SWEDEN WITH A BUYER IN GERMANY WHO PRODUCED A MATERIAL CALLED CHLOPAN (PH)**
 (21) **AND A COMPANY CALLED PRODECHEK (PH) IN FRANCE THAT MADE A MATERIAL CALLED PRUDELANE (PH) SINCE BOTH OF THOSE COMPANIES WERE MAJOR SUPPLIERS OF DIELECTRICS TO THE SWEDISH MARKETPLACE IN COMPETITION WITH MONSANTO.**
 (26) **AND I WANTED THEM TO BE IN A SPIRIT OF OPENESS AWARE THAT CERTAIN CONJECTURES ABOUT THE PRESENCE OF CHLORINATED BIPHENYLS WHICH THEY WERE**

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(1) **ALSO PRODUCING WERE BEING MADE IN THE SWEDISH ENVIRONMENT.**
 (3) **Q LET'S SKIM OVER TO THE FIRST PAGE OF THE PRESS RELEASE THAT IS ATTACHED.**
 (5) **LET ME ASK YOU, SIR, WHAT IS YOUR UNDERSTANDING OF WHO AUTHORED THIS PRESS RELEASE?**
 (7) **A IT IS IDENTIFIED ON THE FINAL PAGE OF THIS PRESS RELEASE THAT IT WAS PREPARED BY THE PUBLICITY DEPARTMENT OF LKB INSTRUMENTS.**
 (10) **Q AND THAT IS THE COMPANY THAT MANUFACTURED THE EQUIPMENT USED BY JENSEN WIDMARK?**
 (12) **A USED BY JENSEN.**
 (13) **I KEEP COMING BACK, WIDMARK AT THAT POINT IN TIME WAS AN OLDER SCIENTIST, A MORE EMINENT SCIENTIST, A DEPARTMENT HEAD AT A PRESTIGIOUS AND GOOD INSTITUTION.**
 (17) **SO HE WAS THE SUPERVISOR OF JENSEN'S WORK.**
 (18) **WORK.**
 (19) **HE WAS NOT ACTUALLY DOING THE WORK.**

(20) **Q MY MISTAKE.**
 (21) **THANKS FOR CORRECTING ME.**
 (22) **THE SECTION THAT I HAVE HIGHLIGHTED THERE SAYS, "A HITHERTO UNOBSERVED CHLORINATED HYDROCARBON HAVING EIGHT CHLORINES IN THE MOLECULE IS THAT WHICH HAS BEEN ISOLATED, APPARENTLY."**
 (26) **IS THAT WHAT YOU REFERRED TO A MOMENT AGO AS "A VERY HIGHLY CHLORINATED MATERIAL"?**
 (28) **A YES, IT WAS.**

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(1) **THAT IS A SOLID MATERIAL OF THE HIGHER END OF THE CHLORINATION RANGE.**
 (3) **Q WHAT WOULD THAT TRANSLATE TO IN TERMS OF AROCLOR, ONE WITH EIGHT CHLORINES?**
 (5) **A THE AROCLORS, AT THAT POINT IN TIME, WERE DESIGNATED WITH NUMBERS LIKE 1242, 1248, 1254.**
 (7) **THE 12 DESIGNATION SAID THAT THERE WERE TWO RINGS.**
 (9) **THE PICTURE I DREW FOR YOU SHOWED THAT THERE WERE TWO PHENYL RINGS GOING TOGETHER.**
 (11) **SO THE 12 SET, THE CHLORINE WAS ATTACHED TO BOTH OF THOSE RINGS.**
 (13) **THE 42, 48 OR 54 WAS THE AVERAGE PERCENTAGE OF CHLORINE IN THE MOLECULE SO THAT A 42-PERCENT CHLORINATED MATERIAL WAS A MIXTURE OF CHLORINATIONS, BUT ESSENTIALLY IT WAS MAINLY TRICHLOROBIPHENYL.**
 (18) **1248 WAS BASICALLY FOUR CHLORINE OR TETRACHLOROBIPHENYL.**
 (20) **54 WAS ESSENTIALLY 54 PERCENT CHLORINE WHICH WOULD BE A FIVE OR PENTACHLOROBIPHENYL.**
 (22) **THE EIGHT CHLORINES, WHICH I SAID WERE A HIGHER END, WOULD HAVE BEEN AN AROCLOR - A 1268 OR AN AROCLOR 1260 WOULD CONTAIN SOME MATERIAL CHLORINATED AT THE EIGHT LEVEL.**
 (26) **Q WOULD AROCLOR 1242 CONTAIN ANY MATERIAL CHLORINATED AT THE EIGHT LEVEL?**
 (28) **A I DON'T BELIEVE SO.**

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(1) **Q WERE AROCLORS WITH EIGHT CHLORINES SOLD BY MONSANTO IN EUROPE AT THIS POINT IN TIME?**
 (3) **A AROCLOR 1260 WAS SOLD.**
 (4) **Q AND FOR WHAT APPLICATIONS?**
 (5) **A AROCLOR 1260 WAS COMBINED WITH TRICHLORO BENZENE.**
 (7) **BECAUSE 1260 BY ITSELF WAS SUCH A CLOSE TO SOLID MATERIAL YOU NEEDED TO REDUCE ITS VISCOSITY**
 (9) **SO IT WOULD FLOW THROUGH EQUIPMENT.**
 (10) **THAT WOULD CONTAIN SOME EIGHTS.**
 (11) **THAT WAS USED AS TRANSFORMER COOLANT IN SOREN EUROPE, NOT IN NORTHERN EUROPE.**
 (13) **IT WOULD BE SOLD IN SOME POTENTIALLY -**
 (14) **IN SOME MINOR APPLICATIONS IN THE ADHESIVES AREA, ADHESIVES, GLUES.**
 (16) **THE HIGHER CHLORINATED MATERIALS WERE NOT WIDELY SOLD IN COMMERCE.**
 (18) **Q SIR, IF I COULD GET YOU TO TURN TO JUST A COUPLE OF OTHER EXHIBITS, THE NEXT ONE WILL BE 37.**
 (19) **THIS IS DR. KELLY'S MEMO OF FEBRUARY 10, 1967 WHICH READS, IN PART, "THE DECISION WAS THAT MORE INFORMATION HAD TO BE GAINED. AND WHETHER THIS WOULD NECESSITATE A TRIP FROM SOMEONE IN THE MEDICAL DEPARTMENT TO THE VARIOUS AGENCIES WORKING ON THIS PROBLEM IN EUROPE WOULD DEPEND UPON HOW EASILY OBTAINABLE THESE GAPS IN OUR KNOWLEDGE ARE BY OTHER MEANS THAN PERSONAL COMMUNICATION."**
 (28) **SIR, DID YOU HAVE AN UNDERSTANDING AFTER**

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(1) RECEIVING THIS MEMO THAT THE MEDICAL
DEPARTMENT OF
(2) MONSANTO WAS PLANNING SUCH A VISIT?
(3) MR. TALLON: OBJECTION, LEADING.
(4) THE COURT: SUSTAINED.
(5) Q BY MR. ZIMMER: SIR, WHAT WAS YOUR
(6) IMPRESSION OF WHAT DR. KELLY MEANT BY THE
STATEMENT
(7) THAT I JUST READ TO YOU FROM THIS MEMO?
(8) A MY UNDERSTANDING OF THIS MEMO WAS THAT
(9) THE WORDS THAT I HAD SENT FROM BRUSSELS TO ST.
LOUIS,
(10) SAYING HERE IS A SITUATION THAT NEEDS TO BE
(11) ADDRESSED, WAS, INDEED, BEING ADDRESSED.
(12) IT WAS BEING ADDRESSED BY THE APPROPRIATE
(13) DEPARTMENTS AND THAT THEY FELT THAT THERE WOULD
HAVE
(14) TO BE INFORMATION GATHERING SO THAT THEY COULD
(15) ESTABLISH AN APPROPRIATELY VALID BASELINE FROM
WHICH
(16) TO DESIGN ACTION.
(17) Q NOW, THIS MEMO WHICH YOU REVIEWED IN PART
(18) WITH MR. TALLON INCLUDES A VARIETY OF REQUESTS
FOR
(19) FURTHER INFORMATION FROM DR. KELLY, WHICH I
WON'T
(20) ELABORATE ON.
(21) I'M JUST CURIOUS AS TO WHAT YOU DID WITH
(22) DR. KELLY'S LIST OF REQUESTS?
(23) A THROUGH COMMUNICATIONS WITH OLA PALME IN
(24) SWEDEN, THROUGH SOME CONTACTS THAT WERE MADE
BY DOUG
(25) HARDY, WE WERE ABLE TO RESPOND TO THIS LIST FOR
(26) INFORMATION.
(27) Q DO YOU RECALL FROM THAT EXHIBIT ANY OF
(28) THE INFORMATION THAT YOU MIGHT HAVE RELAYED TO

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(1) DR. KELLY?
(2) A NOT SPECIFICALLY, NO.
(3) Q LET ME HAVE YOU LOOK AT ANOTHER EXHIBIT.
(4) I THINK THIS ONE MIGHT BE IN A DIFFERENT
(5) BINDER, NUMBER 69.
(6) AND THIS, AS YOU DISCUSSED WITH
(7) MR. TALLON, IS YOUR MEMO OF FEBRUARY 4, 1969 TO
(8) DR. TUCKER; IS THAT CORRECT?
(9) A YES, IT IS.
(10) Q ALL RIGHT. SIR, I HIGHLIGHTED A LITTLE
(11) BIT DIFFERENT PORTION THAN MR. TALLON DID,
BEGINNING
(12) WITH, "AS A RESULT OF THESE DISCUSSIONS HE
ADMITTED
(13) THAT POSSIBLY SOME OF HIS CONCLUSIONS
REGARDING THE
(14) HAZARDS ASSOCIATED WITH THE CHLORINATED
BIPHENYL THAT
(15) HE HAD FOUND WERE PUBLICIZED OUT OF
PROPORTION."
(16) WHAT DID YOU MEAN BY THAT COMMENT, SIR?
(17) A WHEN I MET WITH SOREN JENSEN IN STOCKHOLM
(18) AND HE UNDERSTOOD MORE ABOUT THE USE OF
CHLORINATED
(19) BIPHENYLS IN THE INDUSTRY, THEN HE WAS LESS
CONCERNED
(20) HIMSELF THAT THESE WERE AN ACUTE AND PRESENT
HAZARD
(21) TO HEALTH AND TO THE ENVIRONMENT AND SHARED SOME
OF
(22) MY OWN CONCERNS ABOUT, WELL, WHAT IS THE
MECHANISM BY
(23) WHICH THESE MATERIALS, IF INDEED THEY ARE
CHLORINATED
(24) BIPHENYLS, APPEAR IN THE ENVIRONMENT?
(25) SO HE FELT - SOREN JENSEN FELT THAT -
(26) MR. TALLON: OBJECTION, FOUNDATION.
(27) THE COURT: SUSTAINED.
(28) Q BY MR. ZIMMER: SIR, LET ME ASK YOU

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(1) ANOTHER QUESTION.
(2) NEAR THE BOTTOM OF YOUR MEMO HERE, IT
(3) SAYS, "AT SUCH TIME AS WE GET ANY FURTHER DATA WE
(4) SHALL CERTAINLY LET YOU HAVE THIS."
(5) MY QUESTION IS, DO YOU KNOW -
(6) A WHERE?
(7) Q RIGHT AT THE BOTTOM OF THE PAGE THERE.
(8) THE VERY LAST SENTENCE OF YOUR MEMO.
(9) A YES, UH-HUH.
(10) Q MY QUESTION IS, DO YOU KNOW WHETHER, AT
(11) THIS POINT IN TIME, FEBRUARY OF 1969, THERE WAS
ANY
(12) ONGOING INVESTIGATION WITHIN MONSANTO INTO THE
WORK
(13) OF JENSEN?
(14) A THERE WAS CERTAINLY WORK GOING ON AT THAT
(15) TIME WITHIN MONSANTO, BOTH IN EUROPE AND IN THE
(16) UNITED STATES, REGARDING ANALYTICAL TECHNIQUES
FOR
(17) DETECTING AND DETERMINING THE PRESENCE AND
TRANSPORT
(18) OF CHLORINATED BIPHENYLS IN THE ENVIRONMENT.
(19) I WAS NOT DIRECTLY INVOLVED WITH THAT
(20) WORK AT THAT TIME SINCE I HAD MOVED TO A DIFFERENT
(21) AREA OF RESPONSIBILITY WITHIN MONSANTO.
(22) BUT I WAS GENERALLY AWARE THAT WORK WAS
(23) GOING ON.
(24) Q I THINK YOU TOLD US EARLIER THAT YOU
(25) ADDRESSED THIS MEMO TO DR. TUCKER IN RESPONSE
TO AN
(26) INQUIRY HE MADE TO YOU; IS THAT CORRECT?
(27) A YES, UH-HUH.
(28) Q DID YOU DO ANY FURTHER INVESTIGATION OR

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(1) WORK AT ALL ON PCB'S BEFORE YOU RESPONDED TO
DR. TUCKER'S REQUEST?
(2) A NO, I DIDN'T.
(3) Q WHAT WAS YOUR JOB, AGAIN, AT THE TIME?
(4) A AT THAT STAGE I WAS THE PRODUCT MANAGER
(5) FOR THE FOOD AND FINE CHEMICAL BUSINESS.
(6) Q WERE ANY PCB'S INVOLVED IN YOUR WORK AT
(7) THAT TIME?
(8) A NO, THEY WERE NOT.
(9) MR. ZIMMER: THANK YOU, SIR.
(10) THE COURT: REDIRECT, MR. TALLON?
(11) MR. TALLON: THANK YOU, YOUR HONOR.
(12)
(13) REDIRECT EXAMINATION
(14) BY MR. TALLON:
(15) Q MR. WOOD, YOU UNDERSTAND THAT THIS CASE
(16) RELATES TO TURBINOL, RIGHT?
(17) A THAT I HAVE BEEN TOLD, YES.
(18) Q AND TURBINOL WASN'T THE DIELECTRIC FLUID,
(19) RIGHT?
(20) A TURBINOL WAS NOT A DIELECTRIC FLUID.
(21) Q AND TURBINOL WASN'T USED IN TRANSFORMERS,
(22) RIGHT?
(23) A NO, IT WAS NOT.
(24) Q OKAY. SO TRANSFORMERS AND THEIR
(25) APPLICATION AND WHAT PEOPLE DID WITH THEM HAVE
(26) NOTHING TO DO WITH THIS CASE, RIGHT?
(27) A WHICH MAKES ME WONDER WHY I'M HERE.
(28)

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(1) BUT, NO.
(2) Q OKAY. IN FACT, WHEN YOU WERE IN EUROPE,
(3) MONSANTO SOLD A LOT OF HIGH-PRESSURE
LUBRICANTS,
(4) RIGHT?
(5) A I DIDN'T.
(6) Q MONSANTO SOLD A LOT OF HIGH-PRESSURE
(7) LUBRICANTS IN EUROPE WHEN YOU WERE WORKING
FOR
(8) MONSANTO?
(9) A MONSANTO SOLD SOME HYDRAULIC FLUIDS.
(10) THEY NEVER SOLD A LOT OF HIGH-PRESSURE

(11) LUBRICANTS.
 (12) Q MONSANTO WAS SUPPLYING GOODS, AROCLORS,
 (13) TO BE USED IN MANUFACTURING CARBONLESS CARBON
 (14) PAPER,
 (15) RIGHT?
 (16) A NOT AS A LUBRICANT.
 (17) WE DID SUPPLY AROCLOR IN CARBONLESS
 (18) CARBON PAPER.
 (19) Q AND CARBONLESS CARBON PAPER WAS
 (20) EVERYWHERE, RIGHT, LANDFILLS, PEOPLE'S WASTE
 (21) BASKETS
 (22) AND ALL OVER THE PLACE?
 (23) A MOST OF IT WAS IN FILES.
 (24) Q FILES?
 (25) A FOR A LONG TIME MOST OF IT WAS IN FILES.
 (26) Q WHAT DO YOU DO WITH THE CARBON THAT YOU
 (27) RIP OFF AFTER YOU WRITE ON YOUR CREDIT CARD?
 (28) DO YOU PUT IT IN A FILE OR THROW IT AWAY?
 (29) A IN MANY CASES I THROW IT AWAY.
 (30) Q AND THOSE GO TO LANDFILLS, JUST LIKE THE

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(1) CARBONLESS CARBON PAPER THAT WAS BEING USED IN
 (2) EUROPE, THEN, RIGHT?
 (3) A AROCLOR 1242, A LIQUID, WAS USED IN
 (4) CARBONLESS CARBON PAPER.
 (5) Q THAT WASN'T MY QUESTION, WAS IT,
 (6) MR. WOODS?
 (7) A PERHAPS IT SHOULD HAVE BEEN. I'M NOT
 (8) TRYING TO BE CONTENTIOUS.
 (9) Q WHY DON'T YOU ANSWER THIS QUESTION.
 (10) THE CARBONLESS CARBON PAPER THAT WAS USED
 (11) IN EUROPE WAS GOING INTO LANDFILLS, WASN'T IT?
 (12) A SOME OF IT, YES.
 (13) Q AND IT CONTAINED AROCLOR 1242, DIDN'T IT?
 (14) A YES, IT DID.
 (15) Q AND AROCLOR 1242 HAD MORE HIGHLY
 (16) CHLORINATED MOLECULES IN IT THAN JUST THE THREE
 (17) CHLORINE MOLECULES, RIGHT?
 (18) A I DESCRIBED THAT THE AVERAGE
 (19) CONCENTRATION OF CHLORINATION WAS 42 PERCENT.
 (20) AND THE MAJOR FORM WAS THREE CHLORINES.
 (21) THERE WOULD BE FOUR CHLORINATED
 (22) MATERIALS, FIVE.
 (23) THERE WOULD CERTAINLY NOT BE EIGHT
 (24) CHLORINE MATERIALS IN 1242.
 (25) I DON'T BELIEVE THERE WOULD HAVE BEEN.
 (26) Q AROCLOR 1242 HAD FOUR CHLORINE ATOMS AND
 (27) FIVE CHLORINE ATOMS IN IT - EXCUSE ME, MOLECULES,
 (28) RIGHT?

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(1) A YES.
 (2) Q AND THAT WAS WHAT WAS USED IN THE
 (3) CARBONLESS COPY PAPER?
 (4) A YES.
 (5) Q AND IN TURBINOL?
 (6) MR. ZIMMER: OBJECTION, NO FOUNDATION.
 (7) THE COURT: OVERRULED.
 (8) YOU MAY ANSWER.
 (9) THE WITNESS: AROCLOR 1242 WAS USED IN
 (10) CARBONLESS COPY PAPER.
 (11) Q BY MR. TALLON: NOW, YOU WERE THE FIRST
 (12) MONSANTO PERSON, MONSANTO EMPLOYEE TO GET
 (13) THE NEWS
 (14) FROM OLA PALME ABOUT WHAT THE SWEDISH
 (15) SCIENTISTS HAD
 (16) FOUND, WEREN'T YOU?
 (17) A I BELIEVE I WAS, YES.
 (18) Q LET'S TAKE JUST A SECOND LOOK AT THAT
 (19) LETTER THAT YOU GOT FROM OLA PALME IN LATE
 (20) NOVEMBER,
 (21) EARLY DECEMBER OF 1966.
 (22) AND YOU WERE TALKING TO MR. ZIMMER -
 (23) A EXCUSE ME, CAN YOU -
 (24) Q YES, EXHIBIT 31 IS IN THE BOOK.
 (25) DO YOU HAVE IT?
 (26) A YES, THE RISING AND STRAND LETTER.

(24) Q RIGHT THERE IN THE FIRST PARAGRAPH,
 (25) MR. ZIMMER POINTED OUT TO YOU THAT OLA PALME
 (26) USED THE
 (27) TERM "POLYCHLORINATED BIPHENOLS," P-H-E-N-O-L-S,
 (28) RIGHT?
 (29) A YES.

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(1) Q AND ON THE LAST PAGE HE USED THE TERM
 (2) "POLYCHLORINATED BIPHENYLS," RIGHT?
 (3) A YES, HE DID.
 (4) Q AND HE SAID IN THAT LETTER TO YOU THAT IT
 (5) WAS EQUAL TO AROCLOR, RIGHT?
 (6) A THAT IS WHAT HE SAYS.
 (7) LET'S BE QUITE CLEAR.
 (8) IN THE FIRST PARAGRAPH OF HIS LETTER OLA
 (9) PALME IS REPORTING THAT THERE WAS A PUBLICATION IN
 (10) SWEDEN THAT POLYCHLORINATED BIPHENOLS HAD BEEN
 (11) IDENTIFIED AS PART OF SOME SWEDISH ANALYTICAL
 (12) WORK.
 (13) IN THE FINAL PARAGRAPH OF THIS LETTER HE
 (14) IS QUESTIONING, HE, OLA PALME, IS SORT OF SAYING,
 (15) COULD THESE BE OUR CHLORINATED BIPHENYLS.
 (16) SO THERE IS A DISCONNECT BETWEEN WHAT IS
 (17) BEING PUBLISHED AND HIM MAKING A LEAP AND SAYING
 (18) SHOULD I, OLA PALME, BE CONCERNED ABOUT THIS.
 (19) IS THIS OUR POLYCHLORINATED BIPHENYL?
 (20) IS IT SOMETHING ELSE?
 (21) I NEED, AS THE MANAGER OF THE EUROPEAN
 (22) BRANCH, I NEED YOUR HELP, PROBABLY, TO GIVE ME
 (23) GUIDANCE AS TO WHAT DO I DO WITH THIS.
 (24) Q TURN TO PAGE 2 OF THE LETTER, PLEASE,
 (25) MR. WOOD.
 (26) ONE OF THE THINGS THAT MR. PALME WAS
 (27) TELLING YOU IN THIS LETTER, BASED ON THE REPORTS
 (28) IN
 (29) THE SWEDISH PRESS, WAS THAT SOREN JENSEN, IT
 (30) SAYS
 (31) "HAR," AND YOU READ THAT TO MEAN "HAD," DIDN'T
 (32) YOU?

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(1) SEE WHERE I AM, IN THE ONE, TWO, THREE,
 (2) FOUR, 5TH PARAGRAPH DOWN FROM THE TOP?
 (3) A MR. JENSEN HAS OR HAD -
 (4) Q BUT YOU DIDN'T READ THAT, WHEN YOU READ
 (5) H-A-R, YOU DIDN'T THINK THAT MEANT HAR?
 (6) A NO.
 (7) Q YOU TOOK IT AS EITHER "HAS" OR "HAD"?
 (8) A UH-HUH.
 (9) Q OKAY. SO YOU READ THAT, "MR. JENSEN HAD
 (10) ALSO EXAMINED THE HAIR OF HIS FAMILY AND HIMSELF
 (11) AND
 (12) HAS FOUND PCB ON ALL SAMPLES.
 (13) "MOST PCB WAS FOUND IN THE HAIR OF HIS
 (14) WIFE BUT MOST SENSATIONAL WAS THE GIRL AGED FIVE
 (15) MONTHS WHO HAD MORE PCB IN HER HAIR THAN HER
 (16) BROTHERS
 (17) AND SISTERS OF THREE AND SIX YEARS.
 (18) "PROBABLY THE GIRL HAD GOTTEN THE POISON
 (19) VIA THE MOTHER'S MILK."
 (20) WHEN YOU READ THAT, DID YOU THINK, "GEE,
 (21) IF THIS IS BIPHENOL, WE ARE OFF THE HOOK"?
 (22) A NO.
 (23) IN FACT, IT SORT OF SPURRED ME ON TO
 (24) START RAISING THE QUESTIONS, SAYING, "IF, BY ANY
 (25) CHANCE, THIS IS POLYCHLORINATED BIPHENYLS, THEN
 (26) THERE
 (27) ARE SOME THINGS THAT MONSANTO NEEDS TO BE
 (28) ADDRESSING."
 (29) Q WHEN YOU READ THIS AND YOU THOUGHT THERE
 (30) WAS A POSSIBILITY THAT THIS WAS REFERRING TO
 (31) MONSANTO'S POLYCHLORINATED BIPHENYL, DIDN'T
 (32) THAT MAKE

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(1) YOUR BLOOD RUN COLD?
 (2) A NO.
 (3) I WOULDN'T SAY THAT THAT WAS MY

(4) REACTION.
(5) Q WELL, YOU SAID YOU HAD SOME CONFUSION
(6) OVER WHETHER IT WAS POLYCHLORINATED BIPHENOL
OR
(7) BIPHENYL, RIGHT?
(8) A YES.
(9) Q SO YOU WENT UP TO SWEDEN AND YOU TALKED
(10) TO SOREN JENSEN?
(11) A YES, I DID.
(12) Q AND HE TOLD YOU WHAT HE WAS FINDING WAS
(13) POLYCHLORINATED BIPHENYL, RIGHT?
(14) A NO.
(15) HE TOLD ME, WHEN I WAS IN SWEDEN, THAT HE
(16) WAS FINDING A SERIES OF CHLORINATED MATERIALS AND
(17) THAT ONE PARTICULAR MODEL THAT WOULD BE
CONSISTENT
(18) WITH WHAT HE WOULD BE SEEING WOULD BE SOMETHING
THAT
(19) HAD A CONFIGURATION LIKE A CHLORINATED BIPHENYL.
(20) UNTIL HE - HE, HIMSELF, WAS THE FIRST TO
(21) SORT OF SAY THAT THE WORK WAS NOT COMPLETE AND
THE
(22) POSITIVE IDENTIFICATION OF THE MATERIALS THAT HE
WAS
(23) FINDING WOULD BE MUCH ASSISTED IF HE COULD MANAGE
TO
(24) GET SOME PURE ISOMERS OF CHLORINATED BIPHENYLS
WHICH
(25) WOULD HELP HIM CONFIRM WHETHER, IN ACTUAL FACT,
WAS
(26) HE SEEING SPECIFICALLY A CHLORINATED BIPHENYL AND
(27) WHAT TYPE OF CHLORINATED BIPHENYL.
(28) Q OKAY. SO YOU STILL WEREN'T SURE, WHEN

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(1) YOU WERE TALKING TO JENSEN ABOUT WHETHER IT
WAS
(2) POLYCHLORINATED BIPHENYL OR NOT?
(3) A STILL NOT TOTALLY SURE.
(4) Q WHEN YOU WROTE TO ST. LOUIS IN YOUR MEMO
(5) OF FEBRUARY 12TH AND YOU SAID THAT THIS PRESS
RELEASE
(6) FROM LKB ACCURATELY DESCRIBED THE RESEARCH,
YOU MEANT
(7) THAT THIS ACCURATELY DESCRIBED THE RESEARCH,
DIDN'T
(8) YOU?
(9) A I MEANT IT ACCURATELY DESCRIBED THE
(10) PROCEDURES WHICH SOREN JENSEN HAD FOLLOWED
USING THE
(11) LKB PRODUCOR EQUIPMENT AND WHICH HAD PRODUCED
SOME
(12) PEAKS WHICH - OF A HITHERTO UNOBSERVED COMPETING
(13) MATERIAL IN THE ENVIRONMENT.
(14) Q AND THERE WAS NO CONFUSION IN THE LKB
(15) PRESS RELEASE ABOUT WHAT THEY WERE SAYING
BECAUSE IT
(16) USES, ON PAGE 1, THE TERM "POLYCHLORINATED
BIPHENYL,"
(17) DOESN'T IT?
(18) A THE -
(19) Q MR. WOOD, CAN YOU ANSWER THAT QUESTION
(20) YES OR NO, PLEASE?
(21) MR. ZIMMER: YOUR HONOR, IT'S A NOTICE
(22) DOCUMENT.
(23) THE COURT: ANSWER THE QUESTION YES OR NO,
(24) PLEASE.
(25) THE WITNESS: CAN YOU ASK THAT QUESTION AGAIN?
(26) THE COURT: AND THE QUESTION WAS, AND THERE WAS
(27) NO CONFUSION IN THE LKB PRESS RELEASE ABOUT WHAT
THEY
(28) WERE SAYING BECAUSE IT USES, ON PAGE 1, THE TERM

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(1) "POLYCHLORINATED BIPHENYL," DOESN'T IT?
(2) THE QUESTION ASKS YOU TO LOOK AT THAT
(3) PAGE AND SEE.
(4) THE WITNESS: THE DOCUMENT IS WHICH?

(5) Q BY MR. TALLON: EXHIBIT 36.
(6) IT SHOULD BE THE PRESS RELEASE WHICH IS
(7) ATTACHED TO THAT.
(8) A THIS PRESS RELEASE DOES USE THE TERM
(9) 'POLYCHLORINATED BIPHENYL.'
(10) Q OKAY. SO YOU STILL HAD SOME CONFUSION AT
(11) THAT POINT AS TO WHETHER OR NOT WHAT JENSEN
WAS
(12) SAYING WAS POLYCHLORINATED BIPHENYL OR
BIPHENOL?
(13) A YES, I HAD.
(14) Q SO THE FIRST THING YOU DID WAS WENT TO
(15) LKB AND BOUGHT ONE OF THEIR MACHINES TO TEST IT
OUT,
(16) RIGHT?
(17) A NO.
(18) I WAS NOT IN THE BUSINESS OF PURCHASING
(19) EQUIPMENT.
(20) I REPORTED TO MY PROFESSIONAL COLLEAGUES
(21) IN ST. LOUIS THAT THEY NEEDED TO BUY THIS TYPE OF
(22) EQUIPMENT.
(23) I'M NOT SURE, TODAY, WHETHER THEY BOUGHT
(24) THE LKB EQUIPMENT OR FOUND AN ALTERNATIVE
COMBINATION
(25) OF SPECTROMETERS AND GAS CHROMATOGRAPHS.
(26) WE DID EQUIP OURSELVES TO CARRY ON THE
(27) PARALLEL WORK.
(28) Q ISN'T IT A FACT, MR. WOOD, THAT MONSANTO

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(1) DID NOT PURCHASE A GAS SPECTROMETER AND MASS
(2) CHROMATOGRAPH FOR OVER TWO YEARS FROM THE
TIME THAT
(3) YOU LEARNED ABOUT THE RESEARCH IN SWEDEN?
(4) A I DON'T KNOW WHEN IT WAS PURCHASED.
(5) I KNOW THAT WHEN I RETURNED TO THE
(6) CHLORINATED BIPHENYL AREA LATER IN MY AREA WE HAD
(7) ACCUMULATED AN ENORMOUS AMOUNT OF
SPECTROMETER WORK.
(8) Q SO I TAKE IT WHAT YOU DID, THEN, IS YOU
(9) WENT TO LKB AND SAID, "I'M NOT GOING TO BUY YOUR
(10) EQUIPMENT BUT HERE IS A SAMPLE OF OUR PCB.
(11) "WHY DON'T YOU RUN IT AND SEE IF IT
(12) LOOKS ANYTHING LIKE WHAT THE SWEDES FOUND?"
(13) A WE WERE TALKING TO SOREN JENSEN AND
(14) GUNNAR WIDMARK.
(15) I WAS NOT TALKING DIRECTLY TO LKB
(16) PRODUCOR.
(17) Q SO YOU DIDN'T GO TO THEM AND ASK THEM TO
(18) RUN ANY SAMPLES FOR YOU, RIGHT?
(19) A I DIDN'T, NO.
(20) Q NO ONE FROM MONSANTO DID?
(21) A I DON'T KNOW.
(22) Q WELL, TAKE A LOOK AT THE PRESS RELEASE ON
(23) PAGE 2 ON THE BOTTOM, MR. WOOD.
(24) THIS IS A PRESS RELEASE THAT YOU SENT TO
(25) ST. LOUIS, CORRECT?
(26) A YES, IT IS.
(27) Q AND IN THE PRESS RELEASE THE COMPANY THAT
(28) MADE THIS EQUIPMENT WAS REPORTING AND YOU READ
THAT

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(1) ONCE THIS FACT HAD BEEN ESTABLISHED AN
APPROACH TO
(2) THE INDUSTRY ELICITED THE ANSWER THAT PCB WAS
FAIRLY
(3) EXTENSIVELY USED.
(4) AND WHEN A SAMPLE WAS OBTAINED AND RUN
(5) THROUGH THE LKB COMBINED GAS EQUIPMENT IT WAS
FOUND
(6) THAT THE GAS CHROMATOGRAPH GAVE THE SAME
RETENTION
(7) TIME FOR BOTH THE EAGLE SAMPLE AND THE
INDUSTRIAL
(8) SAMPLE, RIGHT?
(9) THAT WASN'T TOO CONFUSING, WAS IT?
(10) A YES, IT WAS.

(11) Q SO YOU MENTIONED THAT THE PART PER
 (12) MILLION WOULD BE LIKE A DROP OF COKE IN A POOL, IS
 (13) THAT WHAT YOU SAID?
 (14) A UH-HUH, YES.
 (15) Q YOU ARE AWARE, AREN'T YOU, THAT THE
 (16) UNITED STATES GOVERNMENT REGULATES PCB'S TO
 (17) THE POINT
 (18) OF 50 PARTS PER MILLION, RIGHT?
 (19) A TODAY, YES.
 (20) Q AND YOU ARE AWARE THAT THE STATE OF
 (21) CALIFORNIA REGULATES PCB'S TO THE LEVEL OF FIVE
 (22) PARTS
 (23) PER MILLION?
 (24) A YES, TODAY.
 (25) THEY WOULD NOT HAVE BEEN ABLE TO DO THAT
 (26) WITHOUT AN ENORMOUS AMOUNT OF ADVANCED
 (27) ANALYTIC
 (28) TECHNOLOGY.
 (29) Q LET'S TAKE ANOTHER LOOK AT THE LETTER TO
 (30) SCOTT TUCKER THAT YOU AUTHORED AND MR. ZIMMER
 (31) WAS
 (32) QUESTIONING YOU ABOUT.

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(1) THAT IS DATED IN FEBRUARY, 1969, RIGHT?
 (2) A YES.
 (3) THE COURT: DIRECT HIM TO AN EXHIBIT NUMBER,
 (4) MR. TALLON.
 (5) MR. TALLON: THAT WAS EXHIBIT 69, YOUR HONOR.
 (6) Q NOW, YOU KNOW THAT FEBRUARY OF 1969 WAS
 (7) THE FIRST TIME THAT THE NEWS OF PCB
 (8) ENVIRONMENTAL
 (9) CONTAMINATION BROKE IN THE POPULAR PRESS IN THE
 (10) UNITED STATES, DON'T YOU?
 (11) A NO.
 (12) Q WELL, YOU DO KNOW THAT BY FEBRUARY, 1969
 (13) MONSANTO HAD YET TO BEGIN TO PUT ENVIRONMENTAL
 (14) WARNING LABELS ON ANY OF ITS PC PRODUCTS, DON'T
 (15) YOU?
 (16) A NO, I DON'T.
 (17) AGAIN, I DO WANT TO REEMPHASIZE TO YOU
 (18) FROM 1968 OR THAT PERIOD I WAS WORKING IN AN AREA
 (19) TOTALLY DIVORCED FROM PCB'S.
 (20) Q ISN'T IT A FACT, MR. WOOD, THAT MONSANTO
 (21) DIDN'T BEGIN TO PUT AN ENVIRONMENTAL WARNING
 (22) LABEL ON
 (23) PRODUCTS UNTIL THE SPRING OR SUMMER OF 1970?
 (24) A I DO NOT KNOW AT WHAT DATE WE STARTED TO
 (25) USE THOSE LABELS.
 (26) Q YOU ARE FAMILIAR WITH THE LABEL I'M
 (27) REFERRING TO?
 (28) A I'M FAMILIAR WITH THE LABEL THAT WAS
 (29) BEING USED WHEN I NEXT BECAME INVOLVED WITH PCB'S
 (30) IN
 (31) 1974.
 (32) Q BUT BY THIS TIME, FEBRUARY OF 1969,

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(1) MR. TUCKER IS STILL ASKING YOU FOR INFORMATION
 (2) ABOUT
 (3) WHAT HAPPENED TO YOU TWO YEARS PRIOR, RIGHT?
 (4) A MR. TUCKER HAD - IT WAS MY
 (5) UNDERSTANDING, BEEN BROUGHT INTO THE AREA
 (6) ASSIGNED TO
 (7) WORK IN THIS AREA AND HAD BEEN WORKING - WORKING
 (8) UP
 (9) DESIGNS OF EXPERIMENTS TO BE ABLE TO PROBABLY
 (10) ADDRESS
 (11) THE PRESENCE OF PCB IN THE ENVIRONMENT AND IN
 (12) TISSUE
 (13) SAMPLES.
 (14) Q WHEN YOU MET WITH SOREN JENSEN DID YOU
 (15) CONSIDER WHETHER ANY OF THE PCB'S BEING
 (16) REFLECTED IN
 (17) THE SAMPLES OF INFANT HAIR WERE COMING FROM THE
 (18) CARBONLESS CARBON PAPER ALL OVER THE LANDFILLS
 (19) IN
 (20) EUROPE?

(14) A NO, I DIDN'T.
 (15) Q DID YOU CONSIDER WHETHER ANY OF THE PCB'S
 (16) WERE COMING FROM THE LUBRICATING OILS THAT
 (17) MONSANTO
 (18) SOLD IN EUROPE?
 (19) A THE LUBRICATING OILS WERE GENERALLY IN,
 (20) AGAIN, NON-OPEN SYSTEMS AND I DID NOT CONSIDER
 (21) THAT
 (22) THAT WOULD BE AN EASY PATHWAY TO THE
 (23) ENVIRONMENT.
 (24) Q DID YOU CONSIDER WHETHER THE PCB'S IN
 (25) THOSE SAMPLES OF INFANT HAIR THAT HE WAS SEEING
 (26) CAME
 (27) FROM HYDRAULIC OILS?
 (28) YOU MENTIONED PCB HYDRAULIC OILS SOLD BY
 (29) MONSANTO, DID YOU CONSIDER THAT?
 (30) A IT WAS A POSSIBILITY.
 (31) THEY WERE NOT WIDELY USED IN SWEDEN.
 (32) Q AND HYDRAULIC OILS ARE USED IN SYSTEMS

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(1) THAT CAN BREAK OPEN AND SPILL ALL OVER THE PLACE,
 (2) RIGHT?
 (3) A THEY CAN BREAK OPEN.
 (4) THAT IS WHY YOU NEEDED A FIRE-RESISTANT
 (5) FLUID TO STOP HIGH-PRESSURE FLUID IGNITING AND
 (6) BURNING PEOPLE.
 (7) Q AND LUBRICATING OILS ARE USED IN SYSTEMS
 (8) WHERE HOSES CAN BREAK AND THEY CAN BE LOST TO
 (9) THE
 (10) ENVIRONMENT; ISN'T THAT RIGHT?
 (11) A I AM TOTALLY UNFAMILIAR WITH LUBRICATING
 (12) SYSTEMS.
 (13) Q ISN'T IT A FACT, MR. WOOD, THAT JENSEN
 (14) AND WIDMARK WERE EXACTLY RIGHT IN THEIR WORK?
 (15) A NO, THEY WEREN'T.
 (16) CERTAINLY LATER WHEN I BECAME RE-INVOLVED
 (17) WITH PCB'S, AFTER I HAD MOVED TO THE UNITED STATES, I
 (18) THINK THAT FINE, BROADER FINDINGS SUPPORTED THAT
 (19) PCB'S WAS PRESENT IN THE ENVIRONMENT.
 (20) I THINK CERTAINLY THE TYPES OF PCB'S THAT
 (21) WIDMARK AND JENSEN HAD DESCRIBED BACK IN '67 WERE
 (22) NOT
 (23) EXACT IDENTIFICATIONS OF WHAT THEY HAD FOUND IN
 (24) SWEDEN.
 (25) I THINK THE LEVELS WHICH THEY HAD
 (26) DETERMINED TO BE PRESENT IN THE ENVIRONMENT
 (27) WOULD BE
 (28) DEMONSTRATED TO BE INCORRECT.
 (29) THE TECHNOLOGY CERTAINLY NEEDED
 (30) CONSIDERABLE MORE REFINEMENT UNTIL THEY WERE
 (31) ABLE
 (32) TO.

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(1) SO LATER I FOUND OUT THAT PCB'S WERE
 (2) PRESENT IN THE ENVIRONMENT IN SWEDEN IN 1967.
 (3) Q AND YOU FOUND OUT THAT USING THE
 (4) EQUIPMENT THAT THEY HAD, SOREN JENSEN AND
 (5) GUNNAR
 (6) WIDMARK, ESTABLISHED THAT THERE WERE PCB'S IN
 (7) THE
 (8) ENVIRONMENT, RIGHT?
 (9) A LATER I DID.
 (10) MR. TALLON: NOTHING FURTHER, YOUR HONOR.
 (11) THE COURT: SOMETHING FURTHER, MR. ZIMMER?
 (12) MR. ZIMMER: JUST A FEW, YOUR HONOR.
 (13)
 (14) RECROSS EXAMINATION
 (15) BY MR. ZIMMER:
 (16) Q IF I CAN REFER YOU BACK TO EXHIBIT 36.
 (17) SORRY TO MAKE YOU KEEP CHANGING BOOKS.
 (18) SPECIFICALLY, THE SECOND PAGE OF THE
 (19) PRESS RELEASE NEAR THE BOTTOM WHERE YOU TOLD
 (20) MR. TALLON THAT PART OF WHAT IS INDICATED THERE
 (21) WAS
 (22) STILL CONFUSING TO YOU.
 (23) MY QUESTION WAS, WHY WAS THAT, SIR?

(21) A I'M SORRY, WHICH PARAGRAPH?
(22) **Q THE ONE AT THE BOTTOM OF THE PAGE THAT**
(23) **BEGINS "ONCE THIS FACT HAD BEEN ESTABLISHED."**
(24) **IT DOES DIS -**
(25) THE COURT: IS THIS EXHIBIT NUMBER 36,
(26) MR. ZIMMER?
(27) MR. ZIMMER: YES, YOUR HONOR, THE SECOND PAGE
(28) OF THE PRESS RELEASE DISCUSSING THE RUNNING OF

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(1) SAMPLES THROUGH THE CHROMATOGRAPH AND THE
MASS
(2) SPECTROMETER.
(3) THE WITNESS: THE MAIN REASON FOR MY CONTINUED
(4) CONFUSION WAS THAT WHEN THEY RAN SAMPLES AND
GOT
(5) CLOSELY LOCATED PEAKS TO THAT WHICH THEY HAD SEEN
IN
(6) THE ENVIRONMENT, IT STILL DID NOT SATISFACTORILY
(7) EXPLAIN THE TRANSPORT OF HOW PCB'S, WHICH WERE AN
(8) INDUSTRIAL PRODUCT, WERE FINDING THEIR WAY AT THE
(9) CHLORINATION LEVELS THAT WERE BEING REPORTED INTO
THE
(10) ENVIRONMENT.
(11) **Q DO YOU KNOW, SIR, HOW MR. JENSEN OR ANY**
(12) **MEMBERS OF HIS FAMILY CAME INTO CONTACT WITH**
(13) **HIGHLY**
(14) **CHLORINATED MOLECULES?**
(15) A NO, I DON'T.
(16) **Q DID YOU EVER LEARN THAT MR. JENSEN OR ANY**
(17) **MEMBERS OF HIS FAMILY SUFFERED ANY ADVERSE**
(18) **HEALTH**
(19) **EFFECTS DUE TO THE TRACE AMOUNTS OF BIPHENOL OR**
(20) **BIPHENYL THAT WERE APPARENTLY FOUND IN THEIR**
(21) **HAIR?**
(22) A NO, THEY DID NOT.
(23) MR. ZIMMER: THANK YOU, SIR.
(24) FURTHER REDIRECT EXAMINATION
(25) BY MR. TALLON:
(26) **Q SO WHAT YOU ARE SAYING IS YOU DIDN'T KNOW**
(27) **HOW IT GOT THERE BUT YOU KNEW THAT WHAT WAS**
(28) **BEING**
(29) **FOUND WITH THAT LKB MACHINE WAS PCB, RIGHT?**
(30) A I KNEW WHAT WAS BEING FOUND WAS BEING
(31) DESCRIBED AS PCB.

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(1) THE QUESTION ON WHETHER THAT WAS A
(2) BIPHENYL OR BIPHENOL REMAINED A QUESTION, IN MY
MIND,
(3) FOR SOME TIME.
(4) **Q OKAY. SO WHY DIDN'T YOU BRING THEM A**
(5) **SAMPLE OF ONE OF YOUR LUBRICATING OILS AND SAY**
(6) **"TEST**
(7) **THIS"**
(8) A BECAUSE THAT WOULD NOT NECESSARILY HAVE
(9) CONFIRMED EITHER WAY THAT - THAT WOULD NOT HAVE
(10) HELPED, NECESSARILY.
(11) MR. TALLON: NOTHING FURTHER.
(12) THE COURT: MAY THIS WITNESS NOW BE EXCUSED,
(13) MR. TALLON?
(14) MR. TALLON: YES, YOUR HONOR.
(15) THE COURT: AND MR. ZIMMER?
(16) MR. ZIMMER: YES.
(17) THE COURT: THANK YOU, MR. WOOD, FOR YOUR
(18) ATTENDANCE AT THIS TRIAL.
(19) YOU ARE EXCUSED FROM FURTHER ATTENDANCE.
(20) THE COURT: MR. TALLON, WE ARE GOING TO HEAR
(21) READING FROM A DEPOSITION?
(22) MR. TALLON: YES, YOUR HONOR.
(23) THE COURT: LADIES AND GENTLEMEN, BECAUSE OF
(24) SOME OTHER WORK THAT I NEED TO DO WITH THE
LAWYERS
(25) THIS AFTERNOON, I WILL ALTER OUR SCHEDULE A LITTLE
(26) BIT.
(27) WE WILL GO NOW UNTIL 10 MINUTES BEFORE
(28) THREE, AND WE WILL STOP WITH THE JURORS AT THAT

(28) POINT, MR. TALLON.

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(1) MR. TALLON: OKAY.
(2) THANK YOU, YOUR HONOR.
(3) YOUR HONOR, WE WILL NOW BE READING FROM
(4) THE DEPOSITION OF R. EMMET KELLY, M.D., VOLUME ONE,
(5) APRIL 30, 1992.
(6) THE COURT: GO AHEAD.
(7) **Q PLEASE STATE YOUR NAME AND**
(8) **ADDRESS FOR THE RECORD.**
(9) A ROBERT EMMET, E-M-M-E-T, KELLY,
(10) K-E-L-L-Y.
(11) **Q WHAT IS YOUR ADDRESS?**
(12) A 665 SOUTH SKINKER, S-K-I-N-K-E-R,
(13) ST. LOUIS, MISSOURI.
(14) **Q DOCTOR, YOU ARE RETIRED AS A**
(15) **MEDICAL DIRECTOR FROM MONSANTO**
(16) **COMPANY?**
(17) A YES, SIR.
(18) **Q YOU RETIRED IN 1974?**
(19) A NOVEMBER 30TH, 1974.
(20) **Q WHEN DID YOU BEGIN YOUR CAREER**
(21) **WITH MONSANTO?**
(22) A JANUARY 15, 1936.
(23) **Q WHEN DID YOU ASSUME THE POSITION**
(24) **AS MEDICAL DIRECTOR?**
(25) A SOMETIME IN MARCH OF 1945.
(26) **Q AND BEFORE MARCH OF 1945 WHAT**
(27) **POSITION OR POSITIONS DID YOU**
(28) **HOLD?**

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(1) A WELL, I STARTED WITH THE COMPANY
(2) AS A PLANT PHYSICIAN AT THEIR
(3) LARGE PLANT IN ST. LOUIS.
(4) I STAYED THERE UNTIL I WENT INTO
(5) THE SERVICE IN 1942.
(6) ALONG ABOUT THE END OF 1937 OR
(7) 1938 I HAD OTHER RESPONSIBILITIES
(8) AT THE REST OF THEIR PLANTS.
(9) I WAS SORT OF A MEDICAL DIRECTOR
(10) WITHOUT PORTFOLIO, AS IT WERE.
(11) AND THEN I WAS IN THE SERVICE
(12) FROM, AS I SAID, FROM 1942 TO
(13) 1945.
(14) AND I DON'T KNOW WHETHER IT WAS
(15) '45 OR '46.
(16) '46, I THINK.
(17) ANYWAY SO WE ORGANIZED A NEW
(18) STAFF DEPARTMENT CALLED A CENTRAL
(19) MEDICAL DEPARTMENT AND I WAS MADE
(20) MEDICAL DIRECTOR AND I REMAINED
(21) IN THAT POSITION UNTIL I RETIRED.
(22) **Q ARE YOU A LICENSED PHYSICIAN?**
(23) A YES.
(24) **Q AND WERE YOU A LICENSED PHYSICIAN**
(25) **THROUGHOUT THE PERIOD THAT YOU**
(26) **WERE EMPLOYED BY MONSANTO?**
(27) A YES, SIR.
(28) **Q AND IN HOW MANY INSTANCES HAVE**

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(1) **YOU GIVEN DEPOSITION TESTIMONY AS**
(2) **AN EXPERT FOR MONSANTO?**
(3) A WELL, IT WASN'T ONLY MONSANTO.
(4) YOU WERE ASKING JUST ABOUT
(5) MONSANTO?
(6) I HAVE GIVEN THEM FOR OTHER
(7) COMPANIES, ALSO.
(8) **Q I'M ASKING JUST ABOUT MONSANTO**
(9) **RIGHT NOW.**
(10) A I THINK IT'S GOING TO BE A GUESS
(11) ON THAT, PROBABLY 20.
(12) **Q IN THE CASES WHERE YOU GAVE**
(13) **DEPOSITION TESTIMONY AS AN EXPERT**
(14) **WHERE YOUR CLIENT WAS MONSANTO,**
(15) **WERE YOU COMPENSATED?**
(16) A YES.

(17) Q AND DID YOU ESTABLISH A REGULAR
(18) RATE OF COMPENSATION?
(19) A YES, I DID.
(20) Q WHAT WAS THAT?
(21) A IT VARIED, OBVIOUSLY, OVER THE
(22) YEARS.
(23) IT WAS \$2,000 A DAY OR \$200 AN
(24) HOUR.
(25) Q DOES THAT FIGURE COVER
(26) PREPARATION TIME AS WELL AS
(27) DEPOSITION TIME?
(28) A IF THERE WERE PREPARATION TIME

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(1) WITH A LAWYER, IT DOES NOT COVER
(2) IT.
(3) IT WAS PREPARATION BY MYSELF,
(4) READING THE RECORDS, IT DID COVER
(5) IT.
(6) Q CAN YOU ESTIMATE THE AMOUNT OF
(7) MONEY THAT YOU HAVE EARNED AS AN
(8) EXPERT GIVING DEPOSITION
(9) TESTIMONY FOR MONSANTO?
(10) A WELL, I WILL TELL YOU IN 1992 IT
(11) WAS \$1,000.
(12) Q ARE YOU BEING COMPENSATED FOR
(13) YOUR APPEARANCE HERE TODAY?
(14) A I WILL BE, I HOPE.
(15) Q DO YOU ANTICIPATE RECEIVING
(16) COMPENSATION?
(17) A YES.
(18) Q FOR THE PREPARATION TIME AND FOR
(19) THE DEPOSITION TIME?
(20) A THAT'S CORRECT.
(21) Q AND AT WHAT RATE DO YOU
(22) ANTICIPATE BEING COMPENSATED?
(23) A THE EXPERT WITNESS RATE OF \$200
(24) AN HOUR.
(25) Q JUST FOR A POINT OF
(26) CLARIFICATION, DOCTOR, WHEN YOU
(27) HAVE APPEARED AS AN EXPERT
(28) WITNESS, WHAT HAS BEEN YOUR AREA

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(1) OF EXPERTISE, IF IT'S BEEN ONE
(2) AREA OR IS IT MORE THAN ONE AREA?
(3) A WELL, IT'S OCCUPATIONAL
(4) ILLNESSES.
(5) Q ALL RIGHT. DOCTOR, YOU SERVED AS
(6) MEDICAL DIRECTOR OF MONSANTO FOR
(7) A NUMBER OF YEARS.
(8) I'M INTERESTED IN LEARNING FROM
(9) YOU YOUR RESPONSIBILITIES WHILE
(10) YOU HELD THAT POSITION.
(11) AND I UNDERSTAND THAT THE
(12) POSITION COVERED A SIGNIFICANT
(13) NUMBER OF YEARS.
(14) BUT COULD YOU DESCRIBE FOR ME
(15) YOUR RESPONSIBILITIES AS MEDICAL
(16) DIRECTOR DURING THE PERIOD YOU
(17) HELD THAT JOB?
(18) A YES.
(19) THE PRIMARY DUTY WAS TO SEE THAT
(20) OUR PLANTS WERE OPERATED IN SUCH
(21) A MANNER THAT NO ILLNESSES,
(22) OCCUPATIONAL ILLNESSES, WOULD
(23) OCCUR IN OUR WORK FORCE.
(24) NUMBER TWO, I HAD THE
(25) RESPONSIBILITY OF ASCERTAINING
(26) TOXICOLOGICAL INFORMATION ON OUR
(27) RAW MATERIALS AND FINISHED
(28) PRODUCTS.

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(1) THREE, I WAS RESPONSIBLE FOR
(2) SETTING UP AN INDUSTRIAL HYGIENE
(3) PROGRAM IN OUR PLANTS.
(4) FOUR, I WAS RESPONSIBLE FOR THE
(5) SAFE HANDLING DATA, TOXICOLOGICAL

(6) DATA, THAT WOULD BE LISTED IN OUR
(7) BULLETINS OR LABELS.
(8) FIVE, I WAS RESPONSIBLE FOR
(9) ANSWERING ANY QUESTIONS THAT CAME
(10) TO MONSANTO CONCERNING THE HEALTH
(11) EFFECTS OF ANY OF OUR CHEMICALS,
(12) WHETHER THESE WERE FROM A WORKER,
(13) OTHER COMPANY OR A PRIVATE
(14) PHYSICIAN.
(15) Q YOU MENTIONED, DR. KELLY, THAT
(16) ONE OF YOUR RESPONSIBILITIES AS
(17) MEDICAL DIRECTOR WAS TO HAVE
(18) RESPONSIBILITY FOR A
(19) TOXICOLOGICAL INFORMATION ON RAW
(20) MATERIALS AND FINISHED PRODUCTS.
(21) COULD YOU EXPLAIN, PLEASE, HOW
(22) YOU DISCHARGED THAT
(23) RESPONSIBILITY?
(24) A YES.
(25) LET'S START WITH RAW MATERIALS.
(26) OBVIOUSLY WE WOULD ASK THE
(27) SUPPLIER WHAT HE KNEW ABOUT IT.
(28) IF HE DIDN'T HAVE IT, WE WOULD

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(1) LOOK IT UP OURSELVES IN THE
(2) VARIOUS PUBLICATIONS THAT MAY OR
(3) MAY NOT LIST THE MATERIAL.
(4) IF THAT PROVED NEGATIVE, IF WE
(5) DIDN'T FIND ANYTHING OUT, I WOULD
(6) TALK TO THE CONFRERES THAT I KNEW
(7) IN THE CHEMICAL BUSINESS AND ASK
(8) THEM WHAT THEY KNOW ABOUT IT, IF
(9) THEY HAVE BEEN USING IT AND WHAT
(10) THEY KNOW ABOUT IT.
(11) AND THEN FINALLY, IN A FEW RARE
(12) CASES, WE MAY DO SOME
(13) TOXICOLOGICAL WORK OF OUR OWN ON
(14) IT, NOT VERY OFTEN.
(15) MOST OF THE TIME WE DID IT ON OUR
(16) OWN PRODUCTS, RATHER THAN
(17) PRODUCTS FROM THE SUPPLIER.
(18) AS FAR AS THE FINISHED
(19) INFORMATION IS CONCERNED,
(20) INFORMATION ON THE FINISHED
(21) GOODS, IT DEPENDS ON THE PRODUCT.
(22) IF THE PRODUCT WERE A ME-TOO
(23) PRODUCT, IN OTHER WORDS IT WAS
(24) MADE BY DUPONT FOR FIVE YEARS AND
(25) WE STARTED MAKING THE SAME
(26) PRODUCT, I WOULD FIRST SEE IF
(27) THERE WERE ANY INFORMATION IN THE
(28) PUBLISHED LITERATURE, WHETHER THE

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(1) GOVERNMENT KNEW ANYTHING ABOUT
(2) IT.
(3) THEN I WOULD CALL THE MEDICAL
(4) DIRECTOR OF DUPONT AND
(5) SAY, 'GEORGE, WE ARE GOING TO
(6) MAKE THIS. WHAT DO YOU KNOW
(7) ABOUT IT?
(8) 'HAVE YOU HAD ANY TROUBLE WITH
(9) IT?'
(10) HE WOULD - THAT FLOW OF
(11) INFORMATION WAS QUITE FREE.
(12) THERE WAS NO COMPETITION AS FAR
(13) AS THE HEALTH ASPECTS OF MATERIAL
(14) WAS CONCERNED.
(15) BECAUSE IF THE SITUATION WERE
(16) REVERSED AND HE WAS GOING TO -
(17) IF DUPONT WAS GOING TO MAKE A
(18) PRODUCT THAT MONSANTO HAD MADE
(19) FOR FIVE YEARS, AND HE WOULD CALL
(20) ME, I WOULD TELL HIM WHAT I KNEW
(21) ABOUT IT.
(22) IF THERE WERE NO INFORMATION
(23) OBTAINED BY THOSE ROUTES, WE

(24) WOULD RETURN AN AMOUNT OF
(25) TOXICOLOGICAL INFORMATION. THAT
(26) VARIED IN EXTENT, DEPENDING ON
(27) THE USE OF THE PRODUCT TO WHICH
(28) IT COULD BE PUT.

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(1) **Q CAN YOU EXPLAIN, DOCTOR, HOW THE**
(2) **USE TO WHICH A PRODUCT WAS TO BE**
(3) **PUT WAS A VARIABLE IN**
(4) **ASCERTAINING TOXICOLOGICAL**
(5) **INFORMATION?**
(6) A SURE.
(7) IF IT WERE GOING TO BE A FOOD
(8) PRODUCT OR AN INGREDIENT OF A
(9) FOOD WRAPPER, YOU HAD TO DO QUITE
(10) CONSIDERABLE WORK.
(11) IF THE MATERIAL WERE AN
(12) INDUSTRIAL CHEMICAL THAT WE WERE
(13) GOING TO BE USING, SAY, IN A
(14) PAINT, YOU WOULD ONLY HAVE TO
(15) HAVE A MINIMAL AMOUNT OF
(16) INFORMATION ON IT BECAUSE THE
(17) PAINT IS NOT SUPPOSED TO BE USED
(18) AT AN ELEVATED TEMPERATURE.
(19) IT'S NOT SUPPOSED TO BE INGESTED.
(20) IF THE MATERIAL WERE A PRODUCT TO
(21) BE USED AT ELEVATED TEMPERATURE
(22) AND THERE IS A CHANCE THAT A
(23) WORKER WOULD OR A CUSTOMER'S
(24) WORKER WOULD INHALE THE FUMES AT
(25) ELEVATED TEMPERATURES, WE WOULD
(26) RUN TESTS ON VENTILATION TESTS ON
(27) THE MATERIAL AT ELEVATED
(28) TEMPERATURES.

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(1) **Q IN THE PAST COUPLE OF ANSWERS YOU**
(2) **HAVE USED TERMS LIKE THE ONE YOU**
(3) **JUST USED NOW, "WE WOULD RUN**
(4) **TESTS."**
(5) **ARE YOU DESCRIBING A SITUATION**
(6) **WHERE MONSANTO DOES TOXICOLOGICAL**
(7) **TESTING AT ITS OWN LABORATORIES?**
(8) A THEY DO NOW.
(9) BUT THAT LABORATORY STARTED ABOUT
(10) 1975.
(11) AND I'M NOT SURE HOW MUCH TESTING
(12) THEY DO THERE.
(13) WE USE TWO LOCAL LABORATORIES FOR
(14) THE ROUTINE TESTING OF THE
(15) MATERIAL, NON-EXTENSIVE TESTING.
(16) WE USED OUTSIDE LABORATORIES,
(17) SOME UNIVERSITY LABORATORIES AND
(18) SOME INDUSTRIAL LABORATORIES FOR
(19) THE MORE ADVANCED TESTS.
(20) WE DID NOT HAVE OUR OWN TESTING
(21) LABORATORY.
(22) **Q BEFORE 1975 TOXICOLOGICAL TESTING**
(23) **WAS DONE BY VENDORS TO MONSANTO,**
(24) **INDEPENDENT LABS?**
(25) A VENDORS?
(26) I DON'T -
(27) **Q INDEPENDENT LABS?**
(28) A YES.

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(1) **Q WERE YOU PERSONALLY RESPONSIBLE**
(2) **FOR ORDERING TOXICOLOGICAL**
(3) **STUDIES OR REPORTS ON EITHER RAW**
(4) **MATERIALS OR FINISHED PRODUCT AT**
(5) **MONSANTO?**
(6) A YES.
(7) **Q AND UNDER WHAT CIRCUMSTANCES**
(8) **WOULD YOU ORDER SUCH A STUDY?**
(9) A WELL, IF I SAW THE NEED FOR IT -
(10) WHAT WE TRIED TO DO WAS HAVE A
(11) MINIMUM OF TOXICOLOGY WORK
(12) CARRIED OUT ON EVERY PRODUCT THAT

(13) WE ADVERTISED OR MENTIONED IN A
(14) DEVELOPMENT BULLETIN.
(15) WE MIGHT SAY WE HAVE PRODUCT X
(16) HERE. THESE ARE ITS PHYSICAL AND
(17) CHEMICAL CHARACTERISTICS. MAYBE
(18) YOU CAN USE IT IN YOUR BUSINESS.
(19) I MEAN, I'M SIMPLIFYING THE
(20) FOUR-PAGE BULLETIN.
(21) THEN WE WOULD RUN A MINIMUM OF
(22) TOXICOLOGY ON THAT AND THAT WOULD
(23) INCLUDE EYE IRRITATION TO SEE IF
(24) IT COULD BE ABSORBED THROUGH THE
(25) SKIN, THE MINIMUM LETHAL LD 50,
(26) WHICH IS A STANDARD TEST FOR ORAL
(27) TOXICITY AND THEN INHALATION OF
(28) MATERIAL AT SATURATED ROOM

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(1) TEMPERATURE.
(2) THAT WAS A MINIMUM.
(3) **Q AND WHAT DOES THE TERM "LD 50"**
(4) **SIGNIFY?**
(5) A YOU GIVE THE MATERIAL ORALLY TO
(6) TWO SPECIES OF - ONE OR TWO
(7) SPECIES OF RODENTS, ONE A RODENT,
(8) USUALLY, AND THE OTHER A RABBIT,
(9) AND CALCULATE WHAT DOSE KILLS
(10) HALF OF THEM.
(11) THAT IS THE LETHAL DOSE FOR 50
(12) PERCENT OF THE ANIMALS.
(13) **Q AND WHAT FACTORS DID YOU USE TO**
(14) **DETERMINE WHETHER A MINIMUM OF**
(15) **THE TOXICOLOGICAL WORK SHOULD BE**
(16) **DONE ON A NEW PRODUCT?**
(17) A THE USE TO WHICH IT WAS GOING TO
(18) BE PUT AS WELL AS THE POTENTIAL
(19) EXPOSURE TO COMMERCIAL CUSTOMER'S
(20) WORKERS.
(21) IF IT WERE GOING TO BE USED IN A
(22) CLOSED SYSTEM WHERE THE ONLY
(23) EXPOSURE WOULD BE IF THERE WERE
(24) LEAKS OR HOLES, THAT WAS A LOT
(25) DIFFERENT THAN THE OPEN
(26) OPERATION.
(27) **Q IN ORDER TO - FOR YOU TO MAKE A**
(28) **JUDGMENT AS TO WHETHER OR NOT TO**

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(1) **CONDUCT MINIMUM TOXICOLOGICAL**
(2) **WORK OR MORE THAN MINIMUM**
(3) **TOXICOLOGICAL WORK, DID YOU**
(4) **SOLICIT AN EXPLANATION FROM**
(5) **BUSINESSMEN AT MONSANTO AS TO THE**
(6) **PROPOSED USE OF A PRODUCT?**
(7) A OH, YES.
(8) **Q WAS THERE A FORMAL SYSTEM FOR**
(9) **SOLICITING THAT INFORMATION IN**
(10) **PLACE DURING YOUR SERVICE?**
(11) A YES.
(12) IT WENT IN PLACE FORMALLY, I
(13) GUESS, SOMETIME IN THE LATE 50'S
(14) OR EARLY 1960'S.
(15) BEFORE THAT IT WAS SORT OF
(16) INFORMAL, I GUESS INFORMAL BASIS.
(17) BUT WE WERE VERY - WE WERE ON
(18) THE SAME CAMPUS AS OUR RESEARCH
(19) DEPARTMENT. AND AS OUR
(20) DEVELOPMENT PEOPLE.
(21) WE SAW THESE PEOPLE ALL THE
(22) TIME.
(23) WE WERE ON TOP OF IT PRETTY
(24) MUCH.
(25) I DON'T THINK ANY WENT BY IN THE
(26) INFORMAL SYSTEM - WENT BY
(27) UNNOTICED.
(28) **Q WHEN THE FORMAL SYSTEM WAS**

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(1) **ESTABLISHED IN EITHER THE LATE**

(2) 50'S OR EARLY 60'S, WERE ANY
(3) PROTOCOLS OR GUIDELINES WRITTEN
(4) IN ORDER TO DESCRIBE THE SYSTEM?
(5) A WELL, WE HAD WHAT WE CALLED A
(6) FORM 201 AND 202.
(7) AND THAT REALLY DESCRIBED WHAT WE
(8) NEEDED TO GET FROM THE - THAT
(9) WAS DISTRIBUTED WHEN WE PUT THAT
(10) IN.
(11) AND I DON'T AT PRESENT REMEMBER
(12) WHAT THE DIFFERENCE BETWEEN 201
(13) AND 202 WAS.
(14) WHEN WE PUT THAT IN, WE SENT IT
(15) AROUND TO ALL THE RESEARCH
(16) LABORATORIES, ALL THE LAB
(17) DEVELOPMENT GROUPS IN THE COMPANY
(18) AND SAID, "THIS IS WHAT WE ARE
(19) DOING."
(20) Q AND WHAT, IN GENERAL, DID FORM
(21) 201 AND 202 DO WITHOUT REGARD TO
(22) ANY DISTINCTION BETWEEN THOSE TWO
(23) FORMS?
(24) A YOU MEAN WHAT DID IT DO? WHAT
(25) DID IT ASK FOR?
(26) Q WHAT WERE THOSE FORMS INTENDED TO
(27) ACCOMPLISH?
(28) A WHAT THEY WERE INTENDED TO

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(1) ACCOMPLISH WERE TO GIVE US THE
(2) PHYSICAL CHARACTERISTICS OF THE
(3) MATERIAL, WHAT THE ESTIMATE OF
(4) POTENTIAL USE WAS AND THE MANNER
(5) IN WHICH THE MATERIAL SHOULD BE
(6) USED, COULD BE USED, WHAT THEY
(7) KNEW ABOUT IT.
(8) Q WAS IT COMPLETED, FORM 201 OR
(9) 202, TO BE RETURNED TO THE
(10) MEDICAL DEPARTMENT?
(11) A WELL, THEY COMPLETED THE FIRST
(12) PART.
(13) IN OTHER WORDS, WE WOULD SEND
(14) THEM THE BLANK 201 AND 202.
(15) THEY WOULD FILL IN THE STUFF THEY
(16) WERE SUPPOSED TO PUT IN, PHYSICAL
(17) CHARACTERISTICS, SOLID,
(18) TEMPERATURE, VOLATILITY, VAPOR
(19) PRESSURE, ALL OF THAT STUFF.
(20) THERE WAS A SPACE FOR POTENTIAL
(21) OR ESTIMATED USE.
(22) THEN WE WOULD HAVE A SECTION ON
(23) TOXICOLOGY THAT AFTER WE RAN IT
(24) WE WOULD SEND IT BACK TO THEM FOR
(25) INCLUSION IN ANY BULLETIN THAT
(26) MIGHT - THAT THEY MIGHT BE
(27) WRITING.
(28) Q WAS THE COMPLETED FORM 201 OR 202

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(1) REQUIRED ON ANY PRODUCT THAT
(2) APPEARED IN THE DEVELOPMENT
(3) BULLETIN?
(4) A YES.
(5) Q WAS A COMPLETED FORM 201 OR 202
(6) REQUIRED ON ANY OTHER PRODUCT?
(7) A WELL, WE MAY - YES, I THINK IT
(8) WAS.
(9) I MEAN, IF WE STARTED
(10) MANUFACTURING A PRODUCT THAT
(11) SOMEBODY ELSE HAD MADE BUT WAS
(12) NEW TO MONSANTO, AND IT WASN'T
(13) GOING TO BE IN A DEVELOPMENT
(14) BULLETIN, GO RIGHT INTO A SALES
(15) BULLETIN, A 201 AND 202 WOULD
(16) HAVE TO BE FILLED OUT ON THAT
(17) ONE.
(18) Q IS THIS CATEGORY OF PRODUCTS YOU
(19) JUST DESCRIBED, WHICH YOU EARLIER

(20) REFERRED TO AS A "ME-TO PRODUCT"?
(21) A THE ONE MANUFACTURED BY SOMEBODY
(22) ELSE BEFORE? YES.
(23) Q YES.
(24) WAS THE COMPLETION OF A FORM 201
(25) OR 202 REQUIRED FOR ANY MONSANTO
(26) PRODUCT, OTHER THAN ONE APPEARING
(27) IN THE DEVELOPMENT BULLETIN OR A
(28) ME-TOO PRODUCT?

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(1) A GOSH, I DON'T KNOW HOW.
(2) WELL, CERTAINLY IF WE WERE MAKING
(3) AN INSECTICIDE IT WOULDN'T BE OR
(4) A HERBICIDE, HERBICIDE, IT WOULD
(5) NOT BE IN A DEVELOPMENT BULLETIN
(6) UNTIL WE HAD ALL THE INFORMATION
(7) ABOUT IT.
(8) I MEAN, WE WOULD KNOW HOW GOOD IT
(9) WAS AS AN INSECTICIDE, WHAT CROPS
(10) IT SHOULD BE USED ON.
(11) AND NONE OF THAT WAS PUT IN A
(12) DEVELOPMENT BULLETIN BECAUSE WE
(13) KNEW THE MARKETING TIME FOR THAT
(14) MIGHT BE ONE OR TWO YEARS DOWN
(15) THE ROAD OR EVEN LONGER THAN
(16) THAT.
(17) SO IT WOULD BE REQUIRED ON THAT.
(18) THAT WOULD NOT BE IN A
(19) DEVELOPMENT BULLETIN.
(20) THERE MAY BE OTHER ONES, BUT I'M
(21) NOT SURE.
(22) Q DO YOU KNOW, DR. KELLY, WHETHER
(23) THERE WAS ANY INSTRUCTIONS
(24) ACCOMPANYING THE FORM 201 OR 202
(25) AS TO THEIR USE?
(26) A WELL, SURE.
(27) I MEAN, I THINK WE HAD A LETTER
(28) THAT EXPLAINED THE USE OF IT.

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(1) WE JUST WOULDN'T PUT ONE IN THE
(2) MAIL AND SEND IT OUT TO THIS
(3) DEVELOPMENT MAN.
(4) WE WOULD TELL THEM WHAT THE
(5) PURPOSE OF IT WAS AND HOW HE
(6) SHOULD FILL IT OUT AND TO WHOM HE
(7) SHOULD SEND IT BACK AND WHEN HE
(8) COULD EXPECT AN ANSWER.
(9) I'M SURE THERE WAS A LETTER OF
(10) THAT TYPE.
(11) Q DO YOU KNOW, DR. KELLY, WHETHER
(12) THERE WERE ANY INTERNAL
(13) GUIDELINES OR PROTOCOLS WITHIN
(14) THE MEDICAL DEPARTMENT TO ASSIST
(15) IN EVALUATION OF A FORM 201 OR
(16) 202 COMPLETED BY A DEVELOPMENT
(17) EMPLOYEE OF MONSANTO?
(18) A NO.
(19) EITHER OUR TOXICOLOGIST OR MYSELF
(20) LOOKED AT THE FORM.
(21) IT WASN'T STRUCTURED ANY MORE
(22) THAN THAT.
(23) Q ARE YOU AWARE THAT MONSANTO SOLD
(24) A PRODUCT KNOWN AS TURBINOL-153?
(25) A YES.
(26) Q DO YOU RECALL HAVING EVER SEEN A
(27) COMPLETED FORM 201 OR 202 THAT
(28) RELATED TO TURBINOL-153?

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(1) A NO, I DO NOT RECALL.
(2) Q DO YOU RECALL HAVING EVER SEEN
(3) EITHER OF THOSE TWO FORMS
(4) COMPLETED FOR A PRODUCT KNOWN AS
(5) OS-81?
(6) A I KNOW WE HAD TOXICOLOGICAL
(7) INFORMATION ON OS-81 BUT I DO NOT
(8) RECALL AT THIS TIME WHETHER WE

(9) HAD A FORM.
(10) I DON'T KNOW WHETHER OS-81 WAS
(11) DEVELOPED BEFORE OUR 201, 202
(12) PROGRAM STARTED.
(13) Q DO YOU RECOLLECT, DR. KELLY, EVER
(14) HAVING SEEN A FORM 201 OR 202
(15) COMPLETED WITH RESPECT TO A
(16) PRODUCT KNOWN AS MCS-153?
(17) A I DON'T KNOW.
(18) Q DR. KELLY, IF A FORM 201 OR FORM
(19) 202 HAD BEEN COMPLETED WITH
(20) RESPECT TO A PRODUCT, THE NAME OF
(21) WHICH LATER CHANGED, WOULD AN
(22) ADDITIONAL FORM 201 OR 202 BE
(23) REQUIRED?
(24) A NO.
(25) IF THE ONLY CHANGE WAS THE NAME,
(26) NO.
(27) Q WITHIN THE FIRST YEAR OF YOUR
(28) SERVICE AT MONSANTO, DID YOU

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(1) BECOME AWARE OF ANY TOXICOLOGICAL
(2) STUDIES IN EXISTENCE AT THAT TIME
(3) THAT RELATED TO PCB-BASED
(4) PRODUCTS?
(5) A AT SOME TIME TOXICOLOGICAL
(6) STUDIES WERE CARRIED OUT AT
(7) HARVARD UNIVERSITY, BUT I DO NOT
(8) KNOW IF THAT WAS IN THE FIRST
(9) YEAR OR NOT.
(10) I THOUGHT THAT WAS IN 1937 OR
(11) 1938.
(12) SO I DO NOT BELIEVE THOSE STUDIES
(13) WERE CARRIED OUT BY JANUARY OF
(14) 1937, WHICH WOULD BE THE YEAR
(15) FOLLOWING MY ARRIVAL AT MONSANTO.
(16) Q BY THE TIME YOU BECAME THE
(17) MEDICAL DIRECTOR OF MONSANTO, DID
(18) YOU BECOME AWARE OF ANY
(19) TOXICOLOGICAL STUDIES ADDRESSING
(20) PCB-BASED PRODUCTS?
(21) A YES.
(22) Q WHICH?
(23) A WHICH STUDIES?
(24) Q YES.
(25) A HARVARD STUDIES.
(26) Q ANY OTHERS?
(27) A I DON'T RECALL.
(28) THERE MAY HAVE BEEN SOME ACUTE

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(1) ORAL STUDIES BY SOME LABORATORY
(2) OR OTHER.
(3) I'M SURE WE ALSO DID SOME ACUTE
(4) ORAL STUDIES, ACUTE TOXICITY
(5) STUDIES, ON THE TERM DURING THE
(6) LATE 30'S, THE FIRST COUPLE OF
(7) YEARS OF THE 40'S.
(8) Q IN GENERAL TERMS, DOCTOR, WHAT IS
(9) AN ACUTE ORAL STUDY DESIGNED TO
(10) TELL YOU?
(11) A TO GIVE YOU SORT OF A BENCHMARK
(12) OF THE TOXICITY OF MATERIAL.
(13) WELL, THIS IS AN ACUTE POISON,
(14) WHAT IF YOU ACCIDENTALLY SWALLOW,
(15) YOU KNOW, A WHISKEY JIGGER OF THE
(16) MATERIAL, WHAT HARM ARE YOU
(17) LIABLE TO GET?
(18) IT ISN'T A COMPLETE EVALUATION OF
(19) IT BUT IT IS A BENCHMARK AND
(20) HELPS TO DEFINE IT IN
(21) RELATIONSHIP TO OTHER COMPOUNDS.
(22) Q DO YOU RECOLLECT THE RESULTS OF
(23) ANY STUDIES IN EXISTENCE BY THE
(24) TIME YOU BECAME MEDICAL DIRECTOR
(25) OF MONSANTO THAT WERE ACUTE ORAL
(26) STUDIES OF TOXICITY FOR PCB-BASED

(27) PRODUCTS?
(28) A WELL, AS I SAID, HARVARD -

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(1) DRINKER AT HARVARD DID SOME WORK
(2) ON A COUPLE OF PCB'S.
(3) HE ALSO DID SOME WORK ON A
(4) COMPOUND THAT WAS MISLABELED.
(5) IT WAS CHLORINATED BIPHENYL
(6) BENZENE.
(7) HE DID SOME WORK ON, I THINK,
(8) 1254.
(9) Q ARE THERE ANY OTHER STUDIES OF
(10) WHICH YOU ARE AWARE THAT EXISTED
(11) BY THE TIME YOU BECAME MEDICAL
(12) DIRECTOR OF MONSANTO?
(13) A I DON'T RECALL THEM.
(14) I MEAN, THERE MAY HAVE BEEN, BUT
(15) I DON'T RECALL THEM.
(16) Q WHEN YOU REFERRED A MOMENT AGO TO
(17) WORK DONE BY PROFESSOR DRINKER ON
(18) 1254, WERE YOU REFERRING TO
(19) AROCLOR 1254?
(20) A YES.
(21) Q IS THAT A TRADE NAME USED BY
(22) MONSANTO TO DESCRIBE A PARTICULAR
(23) TYPE OF PRODUCT?
(24) A YES, IT IS.
(25) Q AND DOES THAT 54 IN THE
(26) NOMENCLATURE 1254 INDICATE THAT
(27) THE PRODUCT IS CHLORINATED TO THE
(28) EXTENT OF 54 PERCENT BY WEIGHT?

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(1) A THAT IS THE AVERAGE CHLORINATION.
(2) IT MAY BE CHLORINATED.
(3) THEY HAVE ISOMERS THAT ARE
(4) HIGHER, SOME LOWER, BUT THE
(5) AVERAGE CHLORINATION IS 54
(6) PERCENT.
(7) Q I WANT TO REFER BACK TO AN ANSWER
(8) YOU GAVE A FEW MOMENTS AGO,
(9) DR. KELLY.
(10) YOU HAVE USED THE TERM "CLOSED
(11) SYSTEM" IN RESPONDING TO ONE OF
(12) MY QUESTIONS.
(13) WOULD YOU PLEASE STATE FOR THE
(14) RECORD WHAT YOU MEAN WHEN YOU USE
(15) THE TERM "CLOSED SYSTEM"?
(16) A YES.
(17) THE INGREDIENTS OR THE CHEMICALS
(18) ARE INSIDE PIPES, INSIDE
(19) REACTORS, INSIDE KETTLES, AND
(20) THAT THERE WAS SUPPOSED TO BE NO
(21) CONTACT WITH THE OUTSIDE
(22) ENVIRONMENT FROM THE TIME THE RAW
(23) MATERIALS ARE PUT IN UNTIL THE
(24) FINISHED PRODUCT IS PUT INTO
(25) DRUMS, TANK CARS OR WHATEVER TYPE
(26) OF CONTAINER THEY ARE GOING TO
(27) USE FOR ULTIMATE DELIVERY TO THE
(28) CUSTOMER.

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(1) Q IN YOUR ANSWER YOU USED THE TERM
(2) THAT THERE WAS SUPPOSED TO BE NO
(3) CONTACT.
(4) ARE YOU INDICATING THAT THERE
(5) WERE CIRCUMSTANCES UNDER WHICH
(6) CONTACT WITH THE CHEMICALS COULD
(7) OCCUR?
(8) A WELL, THERE IS ALSO THE POTENTIAL
(9) FOR LEAKS IN A SYSTEM.
(10) IF YOU HAVE A PUMP, THE PACK
(11) COULD LEAK WHETHER YOU ARE
(12) FILLING THE MATERIAL OR DRANK THE
(13) MATERIAL, IT COULD LEAK, YOU
(14) COULD SPILL OVER.
(15) YOU HAVE CERTAIN CLEAN-UP

(16) OPERATIONS IN WHICH YOU TAKE THE
(17) SYSTEM OUT OF OPERATION AND CLEAN
(18) IT UP.
(19) SO THERE ARE POSSIBILITIES, YES.
(20) **Q WAS THE TERM "CLOSED SYSTEM" IN**
(21) **USE AT MONSANTO DURING THE PERIOD**
(22) **YOU WERE MEDICAL DIRECTOR?**
(23) A OH, YES.
(24) **Q YOU ALSO, IN AN ANSWER THAT YOU**
(25) **GAVE EARLIER, REFERRED TO AN OPEN**
(26) **SYSTEM.**
(27) **COULD YOU DESCRIBE WHAT YOU MEANT**
(28) **WHEN YOU USED THE TERM "OPEN**

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(1) **SYSTEM"?**
(2) A WELL, AN OPEN SYSTEM REFERS TO AN
(3) OPERATION NOT CARRIED OUT
(4) ENTIRELY WITHIN KETTLES OR PIPES.
(5) YOU MAY HAVE TRACE.
(6) YOU MAY HAVE FILTERING
(7) OPERATIONS.
(8) YOU MAY HAVE DRYING OPERATIONS.
(9) AND IN ANOTHER SENSE IT REFERS TO
(10) THE USE OF THE PRODUCT.
(11) AND I DIDN'T MENTION THE USE WHEN
(12) IT TALKED ABOUT CLOSED SYSTEM.
(13) I ONLY TALKED ABOUT
(14) MANUFACTURING.
(15) IF YOU HAVE A TRANSFORMER THAT IS
(16) FILLED WITH PCB, THAT IS A CLOSED
(17) SYSTEM.
(18) IF YOU HAVE A CAPACITOR FILLED
(19) WITH PCB'S, THAT IS A CLOSED
(20) SYSTEM.
(21) NOW, ON THE CONTRARY IF YOU HAVE
(22) A PLASTICIZER PAINT THAT HAS PCB
(23) IN IT, WHEN THAT IS INCORPORATED
(24) IN A PLASTIC DURING THE OPERATION
(25) IT IS OPEN.
(26) IT MAY BE IN BALL MILLS. IT MAY
(27) BE IN ROLLERS. IT MAY BE IN
(28) SHEETING OR RAILINGS.

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(1) WHEN IT IS USED, IT IS NOT - BY
(2) THE CUSTOMER, HERE IS A PRODUCT
(3) THAT IS OUT IN THE OPEN. THAT'S
(4) AN OPEN OPERATION.
(5) IT MAY BE OPEN - CLOSED OPERATION
(6) MIGHT BE THE BETTER TERM FOR THE
(7) USE OF IT. BUT THAT IS WHAT I
(8) MEAN BY AN OPEN SYSTEM.
(9) **Q YOU MENTIONED THAT ONE OF THE**
(10) **RESPONSIBILITIES YOU HAD AS A**
(11) **MEDICAL DIRECTOR WAS TO ESTABLISH**
(12) **AN INDUSTRIAL HYGIENE PROGRAM?**
(13) A THAT IS CORRECT.
(14) **Q WOULD YOU BRIEFLY DESCRIBE WHAT**
(15) **YOU DID TO INSTITUTE THAT PROGRAM**
(16) **AT MONSANTO?**
(17) A I HIRED. AND I HIRED AN
(18) INDUSTRIAL HYGIENE ENGINEER IN
(19) 1947. AND I HIRED THREE MORE
(20) BEFORE I LEFT IN '74.
(21) **Q YOU INDICATED THAT ANOTHER**
(22) **RESPONSIBILITY YOU HAD,**
(23) **DR. KELLY, WAS TO BE RESPONSIBLE**
(24) **FOR SAFE HANDLING DATA AND**
(25) **TOXICOLOGICAL DATA ON LABELS.**
(26) **TO WHAT DO YOU REFER BY THE TERM**
(27) **"SAFE HANDLING DATA"?**
(28) A FIRST, I WOULD LIKE TO ANSWER

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(1) THAT - I WANT TO CLARIFY THAT WE
(2) DID NOT PUT TOXICOLOGICAL DATA ON
(3) A LABEL.
(4) **Q OKAY.**

(5) A I THINK I CLARIFIED THAT BY
(6) SAYING IT WAS IN BULLETINS.
(7) BUT "SAFE HANDLING" MEANS THE
(8) MINIMUM AMOUNT OF INFORMATION YOU
(9) COULD PUT ON A LABEL TO PROTECT
(10) THE MAN OR THE USER FROM GETTING
(11) ANY HARM FROM THE CHEMICAL.
(12) YOU TELL THEM WHAT THE PROPER -
(13) WHAT THE PROPER WAY IS TO AVOID
(14) ANY ILL EFFECTS FROM USING THE
(15) CHEMICALS.
(16) THAT IS THE SAFE HANDLING DATA.
(17) **Q WHEN DID YOU ASSUME THAT**
(18) **RESPONSIBILITY WITH RESPECT TO**
(19) **SAFE HANDLING DATA?**
(20) A I WOULD SAY IT WAS INFORMAL
(21) AROUND 1938.
(22) IT WAS CERTAINLY FORMAL WHEN I
(23) CAME BACK FROM THE SERVICE.
(24) **Q 1945?**
(25) A THAT'S CORRECT.
(26) **Q WHAT RESPONSIBILITY DID YOU HAVE**
(27) **WITH RESPECT TO TOXICOLOGICAL**
(28) **DATA IN BULLETINS?**

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(1) A ANY TOXICOLOGICAL DATA WOULD BE
(2) OBTAINED THAT WOULD GO INTO
(3) THE - ANY BULLETINS OR ANY PRINT
(4) MATERIAL FROM MONSANTO, WOULD BE
(5) THE RESPONSIBILITY OF THE MEDICAL
(6) DEPARTMENT.
(7) THEY HAD TO PUT IT IN OR THEY HAD
(8) TO APPROVE - MAYBE NOT THE
(9) EDITORIAL WRITING OF IT, BUT THEY
(10) HAD TO APPROVE THE FACTS.
(11) **Q YOU MENTIONED, DR. KELLY, THAT**
(12) **ONE OF YOUR RESPONSIBILITIES WAS**
(13) **ANSWERING QUESTIONS THAT CAME TO**
(14) **MONSANTO REGARDING PRODUCTS; IS**
(15) **THAT CORRECT?**
(16) A THAT'S CORRECT.
(17) **Q WAS THERE A FORMAL SYSTEM FOR**
(18) **ROUTING OF INQUIRIES TO YOU WHEN**
(19) **YOU ASSUMED YOUR POSITION AS**
(20) **MEDICAL DIRECTOR?**
(21) A YES.
(22) **Q CAN YOU DESCRIBE THE FORMAL**
(23) **SYSTEM?**
(24) A THE FORMAL SYSTEM WAS THAT ANY
(25) INQUIRY BY LETTER OR TELEPHONE OR
(26) PERSON TO - MONSANTO PRODUCT
(27) MADE TO ANYBODY IN MONSANTO WOULD
(28) BE REFERRED TO THE MEDICAL

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(1) DEPARTMENT FOR ANSWERING.
(2) **Q WAS THAT POLICY MEMORIALIZED IN A**
(3) **WRITING, IF YOU RECALL?**
(4) A YES, IT WAS.
(5) **Q I WILL ASK YOU, THOUGH, WHETHER**
(6) **YOU ARE FAMILIAR WITH A CUSTOMER**
(7) **INCIDENT DATING TO 1950 INVOLVING**
(8) **A CUSTOMER LOCATED IN BRAZIL,**
(9) **INDIANA.**
(10) A I'M FAMILIAR WITH THE INCIDENT,
(11) YES.
(12) **Q AND WOULD YOU PLEASE DESCRIBE**
(13) **WHAT YOU RECALL ABOUT THE**
(14) **INCIDENT TO WHICH I HAVE**
(15) **REFERRED?**
(16) A YES.
(17) I RECALL THAT I RECEIVED A LETTER
(18) OR A TELEPHONE CALL, I DON'T KNOW
(19) WHICH, BY DR. SPOLYER WHO WAS AN
(20) OFFICIAL OF THE STATE OF INDIANA
(21) SAYING HE HAD A GERRYRIGGED -
(22) SOMEBODY HAD GERRYRIGGED A HEAT

(23) TRANSFER UNIT THAT WAS LEAKING
(24) AND WORKERS HAD WORKED IN IT FOR
(25) ABOUT THREE DAYS, INHALING THE
(26) MATERIAL AND HAD SOME
(27) GASTROINTESTINAL COMPLAINTS.
(28) I TALKED TO DR. SPOLYER ABOUT IT.

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(1) I SAID, WELL, WATCH THEM FOR THE
(2) POSSIBILITY OF LIVER DAMAGE.
(3) TO THE BEST OF MY RECOLLECTION,
(4) DR. SPOLYER WROTE A PAPER ON IT,
(5) BUT THEY HAVE SEEN IT. BUT I WAS
(6) UNABLE TO FIND IT SEVERAL YEARS
(7) AGO.
(8) THE PEOPLE GOT WELL.
(9) THERE WERE TWO OR THREE PEOPLE
(10) INVOLVED.

(11) Q WHEN YOU USED THE TERM
(12) "GERRYRIGGED," HEAT TRANSFER
(13) UNIT, WHAT ARE YOU REFERRING TO?
(14) A YES.

(15) A TEMPORARY TYPE OF - THOSE ARE
(16) THE WORDS HE USED.

(17) I DIDN'T SEE THE INSTALLATION,
(18) BUT A TEMPORARY TYPE OF HEAT
(19) TRANSFER SYSTEM.

(20) Q WAS THE MONSANTO PRODUCT BEING
(21) USED IN THAT HEAT TRANSFER

(22) SYSTEM, TO YOUR KNOWLEDGE?
(23) A THAT IS WHAT HE TOLD ME, IT WAS.

(24) Q DID YOU IDENTIFY FROM HIM THE
(25) PRODUCT OR THE NATURE OF THE
(26) PRODUCT?

(27) A I DID AT THE TIME.

(28) AND IT SAYS HERE AROCLOR 1248.

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(1) I DON'T KNOW IF THAT IS WHAT HE
(2) TOLD ME, BUT HE TOLD HE IT WAS A
(3) MONSANTO PRODUCT.

(4) Q DO YOU RECOLLECT THAT AN AROCLOR
(5) WAS INVOLVED IN THAT PARTICULAR
(6) DISCUSSION BETWEEN YOU AND
(7) DR. SPOLYER?

(8) A YES, IT WAS.

(9) Q YOU DON'T REMEMBER ONE WAY OR THE
(10) OTHER AS TO WHETHER IT WAS 1248
(11) OR A DIFFERENT AROCLOR?

(12) A NO, I DON'T.

(13) Q YOU INDICATED IN YOUR RESPONSE OF
(14) A MOMENT AGO - EXCUSE ME.

(15) YOU INDICATED IN YOUR RESPONSE OF
(16) A MOMENT AGO THAT THE EMPLOYEES

(17) INVOLVED IN THIS INCIDENT HAD
(18) SOME - OR AT LEAST DR. SPOLYER

(19) INDICATED TO YOU THAT THE

(20) EMPLOYEES HAD SOME

(21) GASTROINTESTINAL COMPLAINTS.

(22) I'M NOT SURE I GOT YOUR ANSWER

(23) CORRECTLY.

(24) DID YOU TELL HIM TO WATCH FOR
(25) LIVER DAMAGE OR DID HE SAY THAT

(26) HE WAS WATCHING FOR LIVER DAMAGE?

(27) A I THINK I TOLD HIM.

(28) Q AND CAN YOU STATE THE REASON WHY

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(1) YOU TOLD HIM?

(2) A YES.

(3) OUR TOXICOLOGICAL WORK SHOWED
(4) THAT THE LIVER IS THE TARGET
(5) ORGAN IN ACUTE EXPOSURES.

(6) THE COURT: MR. TALLON, WE WILL TAKE THE
(7) AFTERNOON AND THE WEEKEND BREAK AT THIS POINT.

(8) LADIES AND GENTLEMEN, LET ME REMIND YOU

(9) NOT TO FORM ANY IMPRESSION IN YOUR OWN MIND, NOT
(10) TO

(10) THINK ABOUT THE CASE, NOT TO SAY ANYTHING TO

ANYBODY

(11) ELSE ABOUT ANYTHING HAVING TO DO WITH THE CASE
AND

(12) HAVE A NICE WEEKEND.

(13) WE WILL RESUME ON MONDAY MORNING, 9:30.

(14) PLEASE RETURN JUST BEFORE THEN SO WE CAN
COMMENCE AT

(15) THAT TIME.

(16) WE ARE IN RECESS SO FAR AS YOU ARE

(17) CONCERNED.

(18) (THE PROCEEDINGS WERE RESUMED IN OPEN

(19) COURT OUTSIDE THE PRESENCE OF THE JURY.)

(20)

(21) THE COURT: I WAS GOING TO GO AHEAD WITH OUR

(22) 402 UNLESS THERE IS SOMETHING ELSE TO PROCEED
WITH.

(23) THEN WITH THE JURORS HAVING BEEN EXCUSED,

(24) THIS IS THE OPPORTUNITY TO HEAR TRANSWESTERN'S

(25) EVIDENCE IN CONNECTION WITH THE SIMILARITY OF

(26) COMPRESSORS USED IN THE COLUMBIA GULF
TRANSMISSION

(27) SYSTEM AND THAT USED AT CORONA, NEW MEXICO. IS
THAT

(28) YOUR UNDERSTANDING OF WHAT WE ARE ABOUT TO DO?

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(1) MR. TALLON: THAT IS MY UNDERSTANDING OF WHAT
(2) WE ARE ABOUT TO START.

(3) WE INTENDED THIS TO OFFER THE TESTIMONY

(4) OF FRANKLIN PARKER WHO YOU HAVE ALREADY HEARD
FROM

(5) THIS AFTERNOON AND MR. GILMORE, HE WILL HAVE
(6) ADDITIONAL TESTIMONY, BUT THIS IS AT LEAST ONE

(7) WITNESS.

(8) THE COURT: AND WHEN CAN I ANTICIPATE HEARING
(9) THE MONSANTO EVIDENCE OF SIMILARITY?

(10) MR. PREUSS: WELL, YOUR HONOR, I THOUGHT WE

(11) WERE GOING TO DO IT A WEEK FROM MONDAY WHEN

(12) MR. GILMORE WAS SLATED.

(13) WE JUST GOT THE SCHEDULE THIS MORNING.

(14) NOW THEY HAVE MOVED HIM TO FRIDAY.

(15) I MADE MY PLANS TO HAVE MY EXPERT HERE

(16) THAT MONDAY.

(17) NOW THEY HAVE CHANGED THE SCHEDULE TO

(18) HAVE HIM BACK ON THE FRIDAY PREVIOUS.

(19) THE COURT: LET'S LOOK AT SCHEDULING AS THE

(20) LAST THING WE DO TODAY.

(21) BUT YOU ANTICIPATE THAT NOT BEFORE THE

(22) END OF NEXT WEEK AT LEAST?

(23) MR. PREUSS: THAT'S CORRECT.

(24) THE COURT: I JUST WANT TO KNOW - I WANT TO

(25) KNOW WHAT PACKAGE OF MY BRAIN I SHOULD FILE THIS
AWAY

(26) UNDER SO IT WILL COME BACK AT A CERTAIN POINT IN THE
(27) FUTURE.

(28) MR. PREUSS: MR. BAYLEY IS ONE OF OUR FIRST AND

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(1) MR. GILMORE ONE OF THE LAST.

(2) THE COURT: KNOWING THE 402 FOUNDATIONAL

(3) CONCERN IS BEING PASSED OUT WITH DIFFERENT
WITNESSES

(4) AT DIFFERENT TIMES, WE WILL HEAR NOW THE TESTIMONY
OF

(5) MR. PARKER.

(6) MR. TALLON: THANK YOU.

(7) WE WOULD LIKE TO CALL MR. PARKER.

(8)

(9) ROBERT FRANKLIN PARKER,

(10) CALLED AS A WITNESS BY THE PLAINTIFF, TRANSWESTERN,

(11) HAVING BEEN PREVIOUSLY SWORN TESTIFIED AS
FOLLOWS:

(12)

(13) THE COURT: MR. PARKER, YOU HAVE PREVIOUSLY

(14) SWORN TO TELL THE TRUTH IN CONNECTION WITH THIS
(15) ACTION.

(16) YOU ARE STILL UNDER THAT OATH.

(17) WOULD YOU STATE YOUR NAME AGAIN.

(18) THE WITNESS: MY NAME IS ROBERT FRANKLIN
 (19) PARKER, P-A-R-K-E-R.
 (20) THE COURT: MR. TALLON.
 (21)
 (22) DIRECT EXAMINATION
 (23) BY MR. TALLON:
 (24) Q MR. PARKER, YOU HAVE TESTIFIED PREVIOUSLY
 (25) ABOUT THE CONFIGURATION OF A COOPER-BESSEMER
 (26) CENTRIFUGAL COMPRESSOR OF THE TYPE USED IN
 CORONA,
 (27) NEW MEXICO BY TRANSWESTERN, CORRECT?
 (28) A YES, SIR.

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(1) Q AND FOR PURPOSES OF ILLUSTRATION, LET ME
 (2) SHOW YOU, AGAIN, TRANSWESTERN EXHIBIT 365, WHICH
 (3) WILL PUT UP.
 (4) AS I UNDERSTOOD YOUR TESTIMONY, THE
 (5) COOPER-BESSEMER CENTRIFUGAL COMPRESSOR USED
 BY
 (6) TRANSWESTERN IN CORONA, NEW MEXICO WAS A
 TWO-STAGE
 (7) COMPRESSOR, RIGHT?
 (8) A YES, SIR.
 (9) Q WHICH MEANT THAT IT HAD TWO IMPELLERS OR
 (10) WHEELS, THE ACTION OF WHICH ACTUALLY
 COMPRESSED THE
 (11) GAS, CORRECT?
 (12) A THAT'S CORRECT.
 (13) Q COOPER-BESSEMER COMPRESSORS ARE ALSO MADE
 (14) IN A SINGLE STAGE OR SINGLE IMPELLER MODEL,
 CORRECT?
 (15) A YES.
 (16) Q WHEN YOU DESCRIBED THE OTHER DAY FOR THE
 (17) JURORS AND THE COURT THE LUBRICATION AND SEAL
 OIL
 (18) SYSTEM OF THE COOPER-BESSEMER CENTRIFUGAL
 COMPRESSOR
 (19) AT CORONA, YOU USED TRANSWESTERN EXHIBIT 365 TO
 (20) ASSIST IN THAT PROCESS, RIGHT?
 (21) A YES.
 (22) Q AND TRANSWESTERN EXHIBIT 365 DEPICTS A
 (23) CUT-AWAY VIEW OF THE BARREL ASSEMBLY OF THE
 (24) COOPER-BESSEMER CENTRIFUGAL COMPRESSOR AT
 CORONA,
 (25) RIGHT?
 (26) A THAT'S CORRECT.
 (27) Q THE BARREL ASSEMBLY IS THE PORTION OF THE
 (28) COOPER-BESSEMER COMPRESSOR WHICH INCLUDES
 THE CEILING

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(1) SYSTEM, CORRECT?
 (2) A YES.
 (3) Q AND BRIEFLY, COULD YOU PLEASE IDENTIFY
 (4) THE PARTS ON THE EXHIBIT 365 AS I POINT THEM OUT TO
 (5) YOU?
 (6) A THAT'S ALL RIGHT.
 (7) Q NOW, THIS IS WHAT?
 (8) A THAT IS A BEARING.
 (9) Q AND THE RED INDICATES WHAT?
 (10) A THE SHAFT SEAL, THE LOW PRESSURE SHAFT
 (11) SEAL.
 (12) THE RED REPRESENTS THE OIL, LEAKING OIL
 (13) SEAL.
 (14) Q AND THE GRAY REPRESENTS?
 (15) A THAT IS THE SHAFT.
 (16) Q THE DIRECTION OF TRAVEL OF THE OIL WHILE
 (17) THE MACHINE IS IN OPERATION IS IN THE PORTION WE
 CAN
 (18) SEE WHICH WAY?
 (19) A TOWARD THE IMPELLER.
 (20) ON THAT END IT GOES THAT WAY.
 (21) THE COURT: TOWARDS THE RIGHT ON THE DIAGRAM?
 (22) THE WITNESS: TOWARDS THE RIGHT ON THE DIAGRAM.
 (23) Q BY MR. TALLON: THE RED IS THE IMPELLER?
 (24) A THE IMPELLER, THE ORANGE.

(25) Q AND SORT OF THE MIDDLE OF THE DIAGRAM
 (26) THERE IS A PORTION WHICH IS BLUE AND CONTAINS
 MANY
 (27) RED DOTS.
 (28) WHAT, SIR, DOES THAT DEFINE?

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(1) A THAT IS THE SEAL OIL CHAMBER SOMETIMES
 (2) CALLED A REFERENCE GAS CHAMBER.
 (3) Q WHAT HAPPENS IN THERE WHILE THAT
 (4) COOPER-BESSEMER CENTRIFUGAL COMPRESSOR IS IN
 (5) OPERATION?
 (6) A THE SEAL OIL COMES OUT BETWEEN THE SHAFT
 (7) AND THE SEAL AND IT COMES INTO THAT GAS CHAMBER
 WHERE
 (8) THE SHAFT IS TURNING AT A HIGH VELOCITY.
 (9) SOME OF THE OIL COLLECTS IN THE BOTTOM OF
 (10) THE CHAMBER AND IS DRAINED INTO - DRAINS OUT INTO A
 (11) FLOAT-OPERATED DRAIN TRAP WHICH IS ALSO
 CONNECTED,
 (12) EQUALIZED - THE PRESSURE IN THE TRAP IS EQUALIZED
 TO
 (13) THE REFERENCE GAS CHAMBER BY AN EXTERNAL LINE
 WHICH
 (14) TIES BACK INTO THIS SPACE, NOT DIRECTLY INTO HERE
 BUT
 (15) INTO THE PIPING THAT GOES INTO THAT SPACE.
 (16) Q IN THE SEAL OIL DRAIN CAVITY OR REFERENCE
 (17) GAS CHAMBER AFFIXED TO THE ROTOR OR SHAFT IS A
 PIECE
 (18) OF EQUIPMENT WHICH, IN THIS DIAGRAM, IS DEPICTED
 IN
 (19) DARK GREEN.
 (20) WHAT IS THAT?
 (21) A THAT IS CALLED A SPACER OR SOMETIMES
 (22) CALLED A SLINGER RING.
 (23) IT SERVES BOTH FUNCTIONS.
 (24) Q IN THIS DIAGRAM WE ARE SEEING A
 (25) CROSS-SECTION, CORRECT?
 (26) A BEG PARDON?
 (27) Q IN THIS DIAGRAM WE ARE SEEING A
 (28) CROSS-SECTION?

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(1) A YES, A CROSS-SECTION.
 (2) Q IN ACTUAL FACT THAT IS A RING THAT IS
 (3) ATTACHED TO THE ROTOR?
 (4) A YES.
 (5) Q OKAY.
 (6) THE YELLOW YOU IDENTIFIED IN YOUR
 (7) TESTIMONY THE OTHER DAY AS AN IMPELLER - EXCUSE
 ME,
 (8) AS LABYRINTH PACKING, DIRECT?
 (9) A YES.
 (10) Q SOMETIMES REFERRED TO AS A LABYRINTH
 (11) SEAL, CORRECT?
 (12) A CORRECT.
 (13) Q NOW, THE ACTION OF THAT LABYRINTH SEAL IS
 (14) WHAT?
 (15) A IT'S TO INTRODUCE RESTRICTION TO ANY FLOW
 (16) BACK AND FORTH ALONG THE SHAFT, IN EITHER
 DIRECTION.
 (17) Q IN THE ABSENCE OF MS. GRADY, I NEED TO
 (18) PREVAIL UPON MR. ZIMMER OR MR. PREUSS TO
 PERHAPS TELL
 (19) ME WHAT THE NEXT NUMBER OF THE TRANSWESTERN
 EXHIBITS
 (20) MIGHT BE.
 (21) THE COURT: YOU MEAN AN UNNUMBERED?
 (22) MR. TALLON: YES.
 (23) THE COURT: YOUR NEXT AVAILABLE NUMBER,
 (24) MR. TALLON, IS 388 UNLESS YOU HAVE RESERVED IT FOR
 (25) SOMETHING ELSE.
 (26) MR. TALLON: IF WE HAVE, WE WILL JUST RE-NUMBER
 (27) THAT ONE.
 (28) THE COURT: 388.

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(1) WHAT IS IT YOU'RE MARKING?

(2) MR. TALLON: YOUR HONOR, I WAS GOING TO ASK THE
 (3) WITNESS TO TELL US THAT.
 (4) Q MR. PARKER, I HAVE JUST MARKED AS EXHIBIT
 (5) 388 A SINGLE-PAGE DRAWING.
 (6) COULD YOU IDENTIFY THAT, PLEASE?
 (7) A THAT IS A CROSS-SECTION OF AN INGERSOLL
 (8) RAND COMPRESSOR OF THE TYPE THAT WAS ORIGINALLY
 (9) INSTALLED AT STANTON, KENTUCKY..
 (10) Q HOW DO YOU KNOW THAT?
 (11) A I HAVE TALKED TO THE PEOPLE AT STANTON
 (12) AND ALSO WITH THE STATION OPERATOR, WHERE IT IS
 NOW
 (13) IN WEST VIRGINIA.
 (14) Q OKAY.
 (15) PEOPLE AT STANTON, KENTUCKY ARE EMPLOYED
 (16) BY WHAT COMPANY?
 (17) A COLUMBIA GULF.
 (18) Q AND YOU SAID THAT THAT PARTICULAR MACHINE
 (19) IS NOW WHERE?
 (20) A IN WEST VIRGINIA ON COLUMBIA GAS SYSTEM,
 (21) A DIFFERENT PIPELINE SYSTEM.
 (22) Q BASED ON YOUR CONVERSATIONS WITH
 (23) REPRESENTATIVES OF THE COLUMBIA GULF, DO YOU
 HAVE AN
 (24) UNDERSTANDING AS TO THE HISTORY OF THE UNIT USED
 BY
 (25) GULF IN STANTON, KENTUCKY THAT AT ONE POINT USED
 (26) TURBINOL?
 (27) A YES, THAT'S CORRECT.
 (28) Q AND DESCRIBE BRIEFLY, PLEASE, WHERE IT

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(1) WAS AND WHERE IT IS.
 (2) A YOU MEAN THE COMPRESSOR?
 (3) Q YES.
 (4) A IT WAS IN THE COLUMBIA PIPELINE SYSTEM AT
 (5) STANTON, KENTUCKY.
 (6) THEY LATER SOLD THE MACHINE TO COLUMBIA
 (7) GULF - I MEAN TO COLUMBIA GAS COMPANY, GAS PIPELINE
 (8) COMPANY AND SHIPPED IT TO, I BELIEVE THE NAME OF THE
 (9) STATION IS SENECA IN WEST VIRGINIA.
 (10) Q SO THE ACTUAL MACHINE THAT USED THAT IS
 (11) NO LONGER IN USE BY THE GULF?
 (12) A THAT'S CORRECT.
 (13) Q CAN YOU TELL US WHAT THAT DEPICTS IN
 (14) GENERAL TERMS WITHOUT IDENTIFYING EACH PIECE,
 WHAT IS
 (15) THAT OVERALL A PICTURE OF?
 (16) A A CROSS-SECTION OF THE ENTIRE COMPRESSOR,
 (17) PARTICULARLY THE BEARING AND SEAL AREA.
 (18) MR. TALLON: OKAY. I'M GOING TO APPROACH, YOUR
 (19) HONOR, AND ASK THE WITNESS TO IDENTIFY THE PORTION
 ON
 (20) THE RIGHT HAND - THE LEFT-HAND SIDE OF THE SCREEN.
 (21) Q I'M POINTING NOW TO THE CROSS-HATCH
 (22) MATERIAL AND ASK WHAT IS THIS?
 (23) A THAT IS THE COVER PLATE, OUTSIDE COVER
 (24) PLATE.
 (25) Q OKAY. AND WHAT IS REPRESENTED BY THE
 (26) AREA IMMEDIATELY BEHIND THAT ON THE RIGHT?
 (27) A THAT IS THE CAVITY IN WHICH ONE OR MORE
 (28) IMPELLERS COULD BE PLACED.

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(1) AT ONE TIME THE MACHINE HAD TWO
 (2) IMPELLERS.
 (3) YOU CAN SEE THE PAIRING HERE AND THE
 (4) SHAPE OF THE CHAMBER.
 (5) IT'S DESIGNED TO BRING THE GAS FROM THE
 (6) FIRST STAGE TO THE SECOND TANK.
 (7) Q HOW DO YOU KNOW WHETHER OR NOT THIS
 (8) MACHINE ORIGINALLY HAD TWO IMPELLERS RATHER
 THAN ONE?
 (9) A THEY TOLD ME THAT AT THE STANTON STATION
 (10) AND ALSO THE DIAGRAM OF THE LUBE OIL SEAL SYSTEM
 (11) SHOWS IT AS A TWO-STAGE MACHINE.
 (12) Q OKAY. MOVING RIGHT, IN THE RIGHT-HAND
 (13) DIRECTION ALONG THIS, THIS IS THE SHAFT, CORRECT?

(14) A THAT IS THE SHAFT, YES.
 (15) Q MOVING ON THE RIGHT ALONG THE SHAFT, WE
 (16) COME TO THE RIGHT-HAND SIDE OF THIS SCREEN, TO
 THE
 (17) RIGHT OF THE BLACK LINE GOING DOWN THE CENTER OF
 (18) EXHIBIT 388.
 (19) WHAT AM I POINTING TO NOW?
 (20) A THAT IS THE IMPELLER.
 (21) Q OKAY. AND THIS IS, I WILL TRY TO GET A
 (22) BETTER RESOLUTION ON THIS, BUT WHAT DOES THIS
 AREA
 (23) DEPICT?
 (24) A THAT IS THE BEARING SEAL OIL AND SEAL
 (25) CHAMBER.
 (26) THE COURT: MR. TALLON, JUST FOR CLARITY,
 (27) BECAUSE FOR ANY APPELLATE RECORD, THEY WON'T
 HAVE THE
 (28) SCENE AS YOU DO.

Page 1628

(1) WOULD YOU MARK THAT DIAGRAM 388 LEFT AND
 (2) RIGHT.
 (3) SO THERE IS NO CONFUSION.
 (4) MR. TALLON: UNDERSTOOD.
 (5) I HAVE NOW MARKED 388 LEFT AND RIGHT.
 (6) I WILL TRY TO GET A CLOSER RESOLUTION.
 (7) OF THIS AREA.
 (8) NOW, MR. PARKER, I HAVE NOW USED OUR ELMO
 (9) SYSTEM TO HAVE A BETTER RESOLUTION OF A PORTION OF
 (10) EXHIBIT 388 TO THE RIGHT-HAND SIDE OF ITS CENTER.
 (11) WHAT IS DEPICTED NOW?
 (12) A THIS IS THE MAIN BEARING AND THE SEAL
 (13) ASSEMBLY AND THE REFERENCE GAS CHAMBER.
 (14) Q SHOW THE COURT, PLEASE, ON THIS EXHIBIT
 (15) WHAT - WHERE THE REFERENCE GAS CHAMBER IS.
 (16) A THE REFERENCE GAS CHAMBER IS IN THE
 (17) CHAMBER RIGHT HERE, THE LARGE CHAMBER BETWEEN
 THE
 (18) IMPELLER AND THIS DIAPHRAGM.
 (19) Q LET ME BACK THAT UP A LITTLE BIT.
 (20) A THAT IS THIS SPACE HERE.
 (21) Q OKAY. AND PLEASE DESCRIBE FOR THE
 (22) COURT - I'M NOT SURE HOW TO SHOW THIS FOR THE
 (23) RECORD.
 (24) WHAT IS THIS ITEM ON THE DIAGRAM WHICH
 (25) APPEARS TO - ABOVE THE WRITING ON THE ROTOR
 WHICH
 (26) APPEARS TO SAY RADCL7
 (27) A WELL, THE ARROW ON THE DIMENSION POINTS
 (28) TO THE SEAL RING.

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(1) BUT THE POINT THAT YOU WERE POINTING AT,
 (2) THE THING YOU WERE POINTING AT WAS THE LABYRINTH
 (3) PACKING AROUND THE SHAFT.
 (4) Q IS IT YOUR UNDERSTANDING BASED ON YOUR
 (5) REVIEW OF THIS EXHIBIT THAT THE INGERSOLL RAND
 (6) COMPRESSOR USED AT THE STANTON, KENTUCKY USED
 A
 (7) LABYRINTH SEAL?
 (8) A YES.
 (9) Q FOR WHAT?
 (10) A TO SEPARATE THE REFERENCE GAS CHAMBER
 (11) FROM THE SEAL OIL CHAMBER AND TO DISCHARGE FLOW
 BACK
 (12) AND FORTH ACROSS THE SHAFT.
 (13) Q CAN YOU PLEASE DESCRIBE TO THE COURT YOUR
 (14) UNDERSTANDING OF THE SEAL OIL AND DRAIN SYSTEM
 IN
 (15) THIS COMPRESSOR AND, MR. PARKER, BEFORE I ASK
 YOU
 (16) THAT, WOULD IT BE HELPFUL FOR YOU, AT THIS TIME, TO
 (17) REFER TO THE LUBE AND SEAL OIL DIAGRAM?
 (18) A WELL, I CAN DO IT ON HERE FIRST.
 (19) Q PLEASE DO SO.
 (20) A IT'S RATHER INDISTINCT ON THIS DRAWING
 (21) BECAUSE THIS WAS REDUCED DOWN FROM A LARGER
 DRAWING

(22) AND NOW IT HAS BEEN BLOWN BACK UP IT LOST A LOT OF
(23) DETAIL.
(24) THERE ARE THREE SEAL RINGS.
(25) OIL ENTERS BETWEEN THE FIRST AND SECOND
(26) SEAL RING.
(27) THE SEAL RING THAT PREVENTS THE GAS FROM
(28) ESCAPING FROM THE MACHINE IS THE FIRST ONE.

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(1) THE OTHER TWO ARE THE LOW PRESSURE SEAL
(2) RINGS.
(3) Q STOP THERE.
(4) WE HAVE BEEN TALKING ABOUT THE
(5) HIGH-PRESSURE SEAL RING A GREAT DEAL IN
TESTIMONY IN
(6) THIS CASE.
(7) THERE IS A HIGH-PRESSURE SEAL RING IN THE
(8) COOPER-BESSEMER COMPRESSOR, CORRECT?
(9) A THAT'S CORRECT.
(10) Q IF A TRANSWESTERN EXHIBIT 365 DEPICTED A
(11) LARGER PORTION OF THE BARREL ASSEMBLY, WOULD
THERE BE
(12) SHOWN A LOW-PRESSURE SEAL RING?
(13) A NO.
(14) THE LOW-PRESSURE SEAL RING IS OFF OF THE
(15) DIAGRAM TO THE LEFT.
(16) Q NOT SHOWN ON THE TRANSWESTERN EXHIBIT?
(17) A NO, IT IS NOT.
(18) Q PERHAPS MR. PREUSS AND MR. ZIMMER WOULD
(19) BE KIND ENOUGH TO LET ME USE THEIR EXHIBIT
NUMBER
(20) 784.
(21) USING THAT, PLEASE, WOULD YOU POINT TO
(22) THE LOW-PRESSURE SEAL?
(23) A THIS IS THE HIGH-PRESSURE SEAL RING.
(24) THIS IS THE LOW-PRESSURE SEAL RING.
(25) Q AND WHERE ON THE INGERSOLL RAND
(26) COMPRESSOR IS THE LOW-PRESSURE SEAL RING?
(27) A THERE ARE THREE SEAL RINGS.
(28) ONE IS A HIGH-PRESSURE AND THE OTHER TWO

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(1) ARE STATIONED ON THE LOW-PRESSURE SEAL RING.
(2) Q ON THE INGERSOLL RAND COMPRESSOR WHAT IS
(3) THE DIRECTION OF THE OIL FLOW ACROSS THE
(4) HIGH-PRESSURE SEAL RING?
(5) A TO THE LEFT ALONG THE SHAFT.
(6) Q IS THAT INTO THE REFERENCE GAS CHAMBER?
(7) A INTO THE SEAL OIL CHAMBER.
(8) Q OKAY. AND WHAT OCCURS IN THE SEAL OIL
(9) CHAMBER IN THE INGERSOLL RAND COMPRESSOR?
(10) A THE OIL FLOWS DOWN TO THE BOTTOM OF THE
(11) SHAFT AFTER BEING THOROUGHLY AGITATED BY THE
ROTATION
(12) OF THE SHAFT, FLOWS DOWN INTO THE BOTTOM OF THE
SEAL
(13) OIL CHAMBER AND OUT THROUGH A FLOAT-OPERATED
TRAP.
(14) VERY MUCH LIKE THE ONE ON THE COOPER-BESSEMER.
(15) Q LET'S NOW MARK AS 389 A DOCUMENT ENTITLED
(16) "INGERSOLL RAND COMPANY DIAGRAM, LUBE AND SEAL
(17) OIL."
(18) MR. PARKER, CAN YOU IDENTIFY THIS EXHIBIT
(19) 389 FOR THE RECORD?
(20) A YES.
(21) THIS IS A DIAGRAM OF THE LUBE AND SEAL
(22) OIL SYSTEM ON THE INGERSOLL RAND COMPRESSOR IN
(23) QUESTION.
(24) Q HOW DO YOU KNOW THAT?
(25) A I HAVE VERIFIED IT WITH BOTH THE
(26) OPERATORS AT THE STANTON, KENTUCKY AND ALSO WITH
(27) INGERSOLL RAND.
(28) THE TWO GO TOGETHER.

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(1) THE COURT: IN THIS DRAWING IN THE CENTER
(2) THERE - WELL, IN THE CENTER OF THIS DRAWING THERE
(3) ARE TWO RECTANGLES OVER WHICH IS WRITTEN OR
PRINTED

(4) THE WORD 'IMPELLERS, FIRST AND SECOND.'
(5) DO YOU SEE THAT?
(6) A YES.
(7) Q WHAT WERE YOU TOLD BY COLUMBIA GULF
(8) PERSONNEL REGARDING THE NUMBER OF IMPELLERS
ON THE
(9) COMPRESSOR THAT WAS IN USE AT STANTON,
KENTUCKY?
(10) A IT WAS ORIGINALLY INSTALLED WITH TWO
(11) STAGES, TWO IMPELLERS.
(12) Q WERE YOU TOLD WHETHER OR NOT THAT EVER
(13) CHANGED?
(14) A BEG PARDON?
(15) Q WERE YOU TOLD WHETHER OR NOT THAT EVER
(16) CHANGED?
(17) A AT STANTON IT DID NOT.
(18) WHEN THEY MOVED IT FROM KENTUCKY, TO WEST
(19) VIRGINIA, THE COLUMBIA SYSTEM, THEY TOOK OUT ONE
OF
(20) THE IMPELLERS.
(21) THEY MAY HAVE PUT IN A DIFFERENT IMPELLER
(22) BUT THEY MADE IT A SINGLE-STAGE MACHINE.
(23) Q YOU WERE TOLD WHEN COLUMBIA GULF USED
(24) THIS MACHINE IT WAS A TWO-STAGE MACHINE?
(25) A YES.
(26) Q USING THE EXHIBIT 389 DIAGRAM OF THE LUBE
(27) AND SEAL OIL SYSTEM, COULD YOU PLEASE DESCRIBE
FOR
(28) THE COURT THE FUNCTIONALITY OF THE LUBE AND SEAL
OIL

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(1) SYSTEM ON THE INGERSOLL RAND COMPRESSOR?
(2) A YES.
(3) THE SEAL OIL COMES INTO THE SEAL OIL
(4) CHAMBER BUT BETWEEN THE FIRST AND SECOND OF THE
THREE
(5) SEAL RINGS.
(6) THERE ARE THREE SEAL RINGS.
(7) THE FIRST SEAL RING IS THE HIGH-PRESSURE
(8) SEAL RING.
(9) THE SEAL OIL FLOWS BETWEEN THE SHAFT AND
(10) THAT SEAL RING OUT INTO THIS SEAL GAS CHAMBER.
(11) IT FLOWS BETWEEN THESE OTHER TWO SEAL
(12) RINGS AND THE SHAFT AND OUT INTO THE LOW PRESSURE
(13) CHAMBER.
(14) THE BEARING IN THIS MACHINE IS OUTSIDE
(15) THE SEAL RINGS.
(16) IN THE COOPER MACHINE THAT IS BETWEEN
(17) THEM BUT IT HAS NO SIGNIFICANCE ON THE OPERATION.
(18) Q IN THE LUBE AND SEAL OIL DIAGRAM,
(19) MR. PARKER, AS YOU HAVE JUST DESCRIBED IT, OIL
ENTERS
(20) THE SPACE BETWEEN THE HIGH-PRESSURE SEAL RING
AND THE
(21) LOW-PRESSURE SEAL RING AND FLOWS IN BOTH
DIRECTIONS
(22) ALONG THE ROTOR?
(23) A RIGHT.
(24) Q HOW DOES THAT COMPARE TO THE
(25) COOPER-BESSEMER COMPRESSOR?
(26) A IT'S THE SAME.
(27) Q AS THE OIL ENTERS THE AREA - ENTERS THE
(28) AREA BETWEEN HIGH-PRESSURE SEAL AND THE
LOW-PRESSURE

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(1) SEAL, WHAT DIRECTION DOES IT TAKE RELATIVE TO THE
(2) HIGH-PRESSURE SEAL AND THE LABYRINTH?
(3) A IT FLOWS TOWARD THE LABYRINTH UNDER THE
(4) HIGH-PRESSURE SEAL RING.
(5) Q WHAT MAKES IT DO THAT?
(6) A THE PRESSURE IN THIS CHAMBER IS
(7) MAINTAINED AT SOME CONSIDERABLE AMOUNT HIGHER
THAN
(8) THE PRESSURE IN THE SEAL OIL CHAMBER, IN THE CASE
OF
(9) INGERSOLL RAND ABOUT 50 POUNDS.

(10) Q OKAY. ON THE LUBE AND SEAL OIL DIAGRAM,
 (11) THERE ARE TWO RECTANGLES ABOVE AND BELOW THE
 ROTOR OR
 (12) SHAFT THAT APPEAR TO HAVE JAGGED EDGES.
 (13) WHAT DOES THAT REPRESENT?
 (14) A THAT IS THE LABYRINTH PACKING.
 (15) Q OKAY. AND BASED ON YOUR REVIEW OF THIS
 (16) DIAGRAM, MR. PARKER, DO YOU HAVE AN
 UNDERSTANDING AS
 (17) TO HOW OIL EXITS THE REFERENCE GAS CHAMBER OR
 SEAL
 (18) OIL DRAIN CAVITY?
 (19) A IT CAN GO IN THE SAME MANNER, BY
 (20) MIGRATION OR SOME SMALL CHANGES IN FLOW BACK AND
 (21) FORTH ACROSS THAT SHAFT.
 (22) Q IS THERE A DRAIN OUT OF THE REFERENCE GAS
 (23) CHAMBER OR SEAL OIL DRAIN CAVITY ON THE
 INGERSOLL
 (24) RAND COMPRESSOR?
 (25) A OUT OF THE SEAL OIL CHAMBER, YES, THE
 (26) DRAIN.
 (27) Q AND WHERE DOES IT GO INTO?
 (28) A IT GOES INTO A FLOAT-OPERATED TRAP.

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(1) Q THE INGERSOLL RAND COMPRESSOR HAS ANOTHER
 (2) BEARING, DOES IT NOT?
 (3) A IT - YES.
 (4) IT'S A BEAN-TYPE MACHINE.
 (5) IT HAS IDENTICAL FITTINGS ON BOTH ENDS.
 (6) Q AND IN THE INGERSOLL RAND COMPRESSOR ONE
 (7) OF THE BEARINGS IS TOWARDS THE FRONT OF THE
 MACHINE;
 (8) IS THAT RIGHT?
 (9) A YES, TOWARDS THE COVER PLATE OUT HERE.
 (10) Q OKAY. AND IN YOUR OPINION HOW DOES THAT
 (11) AFFECT OIL FLOW OR GAS FLOW ACROSS THE
 LABYRINTH
 (12) SEAL?
 (13) A I DON'T THINK IT WOULD HAVE A SIGNIFICANT
 (14) EFFECT.
 (15) YOU HAVE TWO SEALS INSTEAD OF ONE.
 (16) MR. TALLON: OKAY. I HAVE NOTHING FURTHER.
 (17) THE COURT: MR. PREUSS?
 (18)
 (19) CROSS EXAMINATION
 (20) BY MR. PREUSS:
 (21) Q HAVE YOU SEEN THE UNIT ITSELF, SIR?
 (22) A I BEG YOUR PARDON?
 (23) Q HAVE YOU SEEN THE INGERSOLL - FIRST OF
 (24) ALL, WHEN DID YOU UNDERSTAND THIS INGERSOLL
 RAND
 (25) COMPRESSOR AT STANTON WAS IN USE AT THE TIME
 THAT
 (26) THERE WAS SOME DIFFICULTY WITH THE OPERATION OF
 THAT
 (27) UNIT?
 (28) A YES.

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(1) Q WHEN WAS IT?
 (2) A THAT WAS IN 1968 TO '71, SOMETIME IN
 (3) THERE.
 (4) I DON'T REMEMBER THE EXACT DATE BUT IT
 (5) WAS - PERHAPS A LITTLE BIT, '69, '70, '71.
 (6) Q WHEN WAS THAT UNIT INSTALLED?
 (7) A ABOUT THAT TIME, I THINK.
 (8) Q YOU DON'T KNOW WHEN BETWEEN '68 AND '71?
 (9) A NO, I DON'T KNOW EXACTLY.
 (10) Q HAVE YOU EVER PERSONALLY SEEN THE UNIT
 (11) THAT WAS INSTALLED AT STANTON?
 (12) A NO, I HAVE NOT.
 (13) Q AND THE MANUFACTURER OF THAT COMPRESSOR
 (14) UNIT IS INGERSOLL RAND; IS THAT CORRECT?
 (15) A IT WAS AT THE TIME.
 (16) IT IS NOW DRESSER RAND.
 (17) Q AND THE COMPRESSOR AT CORONA IS
 (18) MANUFACTURED BY COOPER-BESSEMER?

(19) A THAT'S CORRECT.
 (20) Q IS IT YOUR UNDERSTANDING THAT
 (21) COOPER-BESSEMER HAS PATENTS ON THE DESIGN
 FEATURE OF
 (22) ITS UNIT?
 (23) A THERE MAY BE SOME PATENTS.
 (24) I'M NOT AWARE OF WHAT ITEMS ARE PATENTED
 (25) AND WHAT ARE NOT.
 (26) Q ISN'T IT CUSTOMARY IN THE COMPRESSOR
 (27) INDUSTRY, IN THE TURBINE INDUSTRY, FOR
 MANUFACTURERS
 (28) TO PROTECT THE DESIGNS OF THEIR PRODUCTS BY
 PATENTS?

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(1) A IF THEY HAVE SOMETHING THAT IS
 (2) SIGNIFICANTLY DIFFERENT, YES.
 (3) Q DO YOU HAVE ANY KNOWLEDGE AS TO WHAT
 (4) ASPECT OF COOPER-BESSEMER IS PATENTED?
 (5) A NO, I DO NOT.
 (6) Q DO YOU KNOW WHAT INGERSOLL RAND PATENTS
 (7) IN TERMS OF THEIR EQUIPMENT?
 (8) A NO, I DO NOT.
 (9) Q HAVE YOU EVER REVIEWED ANY OPERATIONAL
 (10) DATA ON THE INGERSOLL RAND COMPRESSOR UNIT
 THAT WE
 (11) ARE TALKING ABOUT IN STANTON, KENTUCKY?
 (12) A NO, I HAVE NOT.
 (13) Q DO YOU KNOW WHEN THAT UNIT WAS
 (14) MANUFACTURED?
 (15) A NO, NOT THE EXACT DATE.
 (16) I DO NOT.
 (17) Q DO YOU KNOW WHEN THE COOPER-BESSEMER AT
 (18) CORONA WAS MANUFACTURED?
 (19) A ABOUT 1965 OR '66.
 (20) Q HOW DID YOU GET THAT INFORMATION?
 (21) A I HAVE READ SOME OF THE CORRESPONDENCE
 (22) BACK AND FORTH BETWEEN TEXAS EASTERN AND
 (23) COOPER-BESSEMER.
 (24) TEXAS EASTERN BOUGHT THE MACHINE
 (25) ORIGINALLY.
 (26) Q OKAY.
 (27) HOW ABOUT THE INGERSOLL RAND UNIT.
 (28) WHEN WAS THAT?

Page 1638

(1) A I DON'T KNOW.
 (2) Q IS THE TWO DIAGRAMS THAT HAVE BEEN MARKED
 (3) AS EXHIBITS JUST SHORTLY BEFORE YOU AND I STARTED
 (4) TALKING, ARE THOSE THE ONLY TWO WRITTEN
 DOCUMENTS YOU
 (5) HAVE THAT YOU BELIEVE ESTABLISH THE SIMILARITY OF
 THE
 (6) TWO UNITS?
 (7) A OH, I HAVE A WRITTEN DESCRIPTION OF THE
 (8) OPERATION OF THE LUBE AND SEAL OIL SYSTEM, A FEW
 (9) PAGES.
 (10) Q AND WHERE DID YOU GET THAT?
 (11) A I THINK WE GOT IT - I THINK IT CAME FROM
 (12) COLUMBIA GULF.
 (13) Q YOU THINK OR DID IT?
 (14) A IT DID.
 (15) I GOT IT FROM COLUMBIA GULF.
 (16) Q FROM WHOM DID YOU GET IT?
 (17) A A MR. BECKETT.
 (18) Q AND WHAT IS MR. BECKETT'S FIRST NAME?
 (19) A LEE, LEE BECKETT.
 (20) Q AND WHAT IS LEE BECKETT'S JOB TITLE?
 (21) A I DON'T KNOW EXACTLY.
 (22) HE IS AN ATTORNEY.
 (23) Q HE IS AN ATTORNEY?
 (24) A YES.
 (25) Q AND DID HE GIVE YOU THE INFORMATION ON
 (26) THE UNIT?
 (27) A ALL I KNOW - HE GOT THE DRAWINGS AND THE
 (28) WRITEUP FOR ME.

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(1) THAT'S ALL.

(2) I GOT THE INFORMATION ON THE UNITS FROM
 (3) THE OPERATORS AT ONE - ONE OF THE OPERATORS AT
 (4) STANTON WHO WAS THERE AT THE TIME THE MACHINE
 WAS IN
 (5) USE AND ALSO FROM AN OPERATOR WHO IS NOW AT THE
 (6) SENECA PLANT IN WEST VIRGINIA.
 (7) Q WHAT IS THE NAME OF THE INDIVIDUAL THAT
 (8) WAS AT STANTON AT THE TIME THE UNIT WAS
 OPERATING,
 (9) THAT YOU TALKED TO, SIR?
 (10) A I'M TERRIBLE WITH NAMES.
 (11) I'M NOT - I TALKED TO HIM TODAY.
 (12) Q IS THAT THE FIRST TIME YOU TALKED TO HIM?
 (13) A THAT IS THE FIRST TIME I HAD TALKED TO
 (14) HIM.
 (15) Q IS HIS NAME WILL GILMORE?
 (16) A NO.
 (17) Q IS HIS NAME DON GILMORE?
 (18) A NO.
 (19) Q YOU DON'T KNOW HIS NAME?
 (20) A I KNOW HIS NAME.
 (21) I KNOW IT IF YOU CALLED IT.
 (22) Q HOW LONG DID YOU TALK TO HIM ABOUT THE
 (23) UNIT?
 (24) A OH, PROBABLY 20, 30 MINUTES.
 (25) Q WHAT WAS HIS JOB TITLE AT THE TIME?
 (26) A I'M NOT SURE OF THAT.
 (27) Q YOU DON'T KNOW WHAT HIS JOB TITLE WAS?
 (28) A NO.

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(1) Q DO YOU KNOW WHETHER HE WAS AN ENGINEER?
 (2) A I THINK HE IS AN OPERATING-TYPE PERSON.
 (3) WHETHER HE IS AN ENGINEER OR NOT I DON'T
 (4) KNOW.
 (5) Q WHEN YOU REFER TO AN OPERATING-TYPE
 (6) PERSON, WHAT ARE YOU TALKING ABOUT?
 (7) A HE IS FAMILIAR WITH THE OPERATIONS OF THE
 (8) MACHINE AND ITS CONSTRUCTION.
 (9) Q AND YOUR UNDERSTANDING IS THAT HIS
 (10) FAMILIARITY IS BASED UPON THE FACT THAT HE WAS AT
 THE
 (11) UNIT SOMETIME BETWEEN '68 AND '71?
 (12) A YES.
 (13) HE IS STILL THERE AT THE STATION.
 (14) Q AT STANTON, KENTUCKY?
 (15) A YES.
 (16) Q BUT THE UNIT IS NOT THERE ANYMORE?
 (17) A THE UNIT IS NOT.
 (18) Q WHEN DID THE UNIT LEAVE?
 (19) A I DON'T KNOW THE EXACT DATE.
 (20) Q WELL, CAN YOU GIVE ME A BALLPARK FIGURE?
 (21) A AFTER 1971.
 (22) THAT IS AS MUCH AS I COULD TELL YOU.
 (23) Q SO THIS INDIVIDUAL WHOSE NAME YOU CAN'T
 (24) RECALL IS GIVING YOU INFORMATION AS HE CAN
 RECALL IT,
 (25) EVEN THOUGH THE UNIT IS NOT THERE; IS THAT RIGHT?
 (26) A THAT'S CORRECT.
 (27) Q NOW, YOU SAID YOU SPOKE TO SOMEBODY ELSE
 (28) IN WEST VIRGINIA ABOUT THIS PARTICULAR UNIT?

Page 1641

(1) A YES, WHERE IT IS NOW.
 (2) Q AND WHOM DID YOU SPEAK TO FROM WEST
 (3) VIRGINIA, SIR?
 (4) A I DON'T HAVE HIS NAME EITHER. I DON'T
 (5) RECALL IT.
 (6) I SPOKE TO HIM TODAY.
 (7) Q IS THAT THE ONLY TIME YOU TALKED TO HIM?
 (8) A YES.
 (9) Q AND DID HE HAVE ANY INVOLVEMENT, AT ALL,
 (10) WITH THE UNIT AT THE TIME IT WAS OPERATIONAL IN
 (11) STANTON, KENTUCKY, SOMETIME BETWEEN '68 AND '71?
 (12) A NO, HE DID NOT, JUST SINCE IT'S BEEN IN
 (13) WEST VIRGINIA.
 (14) Q AND DOES IT HAVE TWO IMPELLERS NOW?
 (15) A NO, IT ONLY HAS ONE.

(16) Q HAS IT HAD ANY MODIFICATIONS TO IT, AT
 (17) LEAST AS FAR AS HE BELIEVES?
 (18) A HE DOESN'T KNOW OF ANY.
 (19) HE THINKS THE SEAL OIL SYSTEM IS THE
 (20) SAME.
 (21) Q ALL RIGHT. WHAT IS YOUR UNDERSTANDING OF
 (22) THE PURPOSE OF THE UNIT AT STANTON WHEN IT WAS
 AT USE
 (23) SOMETIME BETWEEN '68 AND '71?
 (24) A THE PURPOSE OF THE UNIT?
 (25) Q YES. WHY WAS IT INSTALLED?
 (26) WHAT WERE THEY TRYING TO ACCOMPLISH?
 (27) A COMPRESS GAS, PIPELINE GAS FROM 600 TO -
 (28) THEY MENTIONED A SUCTION PRESSURE OF 600 AND 750

Page 1642

(1) POUNDS. IT BOOSTED THE PRESSURE ABOUT 150
 POUNDS.
 (2) Q TO WHAT?
 (3) A WELL, IT WOULD BE FROM 750 TO 900.
 (4) Q ALL RIGHT. AND WHAT IS THE HORSEPOWER OF
 (5) THE UNIT?
 (6) A I THINK IT'S 20,000.
 (7) IT'S A LITTLE BIGGER, LITTLE HEAVIER
 (8) HORSEPOWER.
 (9) Q AND IS THE INPUT PRESSURE THE SAME AT
 (10) STANTON AS IT IS IN CORONA FOR THE UNIT?
 (11) A IT PROBABLY AT TIMES IS THE SAME.
 (12) SOMETIMES HIGHER, SOMETIMES LOWER.
 (13) THE PRESSURES ON PIPELINES VARY
 (14) CONSTANTLY.
 (15) Q DOES IT HAVE A MAXIMUM DISCHARGE PRESSURE
 (16) AT THE STANTON UNIT THAT IS DIFFERENT OR THE SAME
 AS
 (17) THE ONE IN CORONA?
 (18) A I DON'T KNOW.
 (19) Q YOU DON'T KNOW THAT.
 (20) WHAT IS THE - DOES THE UNIT OPERATE
 (21) AT - WITHDRAW THAT.
 (22) AT THE SEAL OIL DRAIN CAVITY, IS THAT AT
 (23) REFERENCE PRESSURE?
 (24) A YES.
 (25) Q ALL RIGHT.
 (26) WHAT IS THE REFERENCE PRESSURE IN THE
 (27) STANTON UNIT?
 (28) A IT'S THE SUCTION PRESSURE OF THE

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(1) MACHINE.
 (2) Q SAME AS THE SUCTION?
 (3) A SUCTION PRESSURE, YES.
 (4) Q IS THAT THE SAME AS THE SETUP IN CORONA?
 (5) A NO.
 (6) IN CORONA IT'S THE PRESSURE BEHIND THE
 (7) IMPELLER WHICH IS BETWEEN SUCTION AND DISCHARGE
 (8) PRESSURE, A LITTLE LOWER THAN DISCHARGE PRESSURE.
 (9) Q SO YOU HAVE A DIFFERENT PRESSURE SET-UP
 (10) IN THE TWO UNITS, CORRECT?
 (11) A YES, YES.
 (12) Q NOW, IN THIS EXHIBIT 389, SIR, ONE
 (13) SIGNIFICANT DIFFERENCE IN THE UNIT IS THAT YOU
 HAVE
 (14) SEALS ON BOTH SIDES OF THE IMPELLERS, CORRECT?
 (15) A THAT'S CORRECT.
 (16) Q YOU DON'T HAVE THAT IN CORONA, DO YOU?
 (17) A NO, IT'S SINGLE-STAGE MACHINE IN AN
 (18) OVERHUNG SHAFT.
 (19) Q SO YOU HAVE TWO LABYRINTH SEALS INSTEAD
 (20) OF ONE, RIGHT?
 (21) A THAT IS CORRECT.
 (22) Q ONE AT EITHER SIDE?
 (23) A YES.
 (24) Q AND THAT IS A SIGNIFICANT DESIGN
 (25) DIFFERENCE BETWEEN THE TWO UNITS, IS IT NOT?
 (26) A YES, THAT'S A DIFFERENCE.
 (27) Q NOW, WHAT IS THE - IN THIS PARTICULAR
 (28) UNIT AT STANTON YOU HAVE THREE SEALS, DO YOU
 NOT?

Page 1644

- (1) A YES.
 (2) Q ON EITHER SIDE OF THE IMPELLERS?
 (3) A YES.
 (4) Q IN CORONA YOU JUST HAVE TWO SEALS,
 (5) CORRECT?
 (6) A YES.
 (7) Q WHAT IS THE - YOU HAVE TWO HIGH-PRESSURE
 (8) SEALS ON ONE SIDE AND - EXCUSE ME.
 (9) YOU HAVE ONE HIGH-PRESSURE SEAL AND TWO
 (10) LOW-PRESSURE SEALS ON EITHER SIDE?
 (11) A THAT'S CORRECT.
 (12) Q AND WHAT IS THE CLEARANCE BETWEEN THE
 (13) HIGH-PRESSURE SEAL AND THE ROTOR ON THE
 STANTON
 (14) UNIT?
 (15) WHAT IS THE DIMENSION?
 (16) A I THINK HE SAID THREE TO FOUR
 (17) THOUSANDTHS.
 (18) Q WHAT IS IT AT CORONA ABOUT SIX
 (19) THOUSANDTHS?
 (20) SO THERE IS A DIFFERENCE THERE?
 (21) A YES.
 (22) Q AND A SMALLER CLEARANCE MEANS THAT YOU
 (23) HAVE TO HAVE MORE PRESSURE TO GET THE OIL
 THROUGH?
 (24) A THAT'S CORRECT.
 (25) Q A HIGHER PRESSURE DIFFERENTIAL?
 (26) A YES.
 (27) Q AND WHAT IS THE PRESSURE DIFFERENTIAL AT
 (28) THE STANTON UNIT?

Page 1645

- (1) A 50 POUNDS PER SQUARE INCH.
 (2) Q AND WHAT IS THE DIFFERENTIAL AT THE
 CORONA UNIT?
 (3) THE COURT: LET'S GO BACK TO THE QUESTION.
 (4) WHAT IS THE PRESSURE DIFFERENTIAL AT THE
 CORONA UNIT.
 (5) THE WITNESS: 13 POUNDS.
 (6) Q BY MR. PREUSS: ALL RIGHT. SO YOU HAVE A
 (7) DIFFERENCE OF 37 PSI IN THE DIFFERENTIALS BETWEEN
 THE
 (8) TWO UNITS; ISN'T THAT CORRECT?
 (9) A YES.
 (10) Q DID YOU ANSWER THAT?
 (11) A YES.
 (12) Q OKAY. THANK YOU.
 (13) AND ONE OF THE ISSUES - WHAT DID YOU
 (14) UNDERSTAND HAPPENED AT THE STANTON UNIT?
 (15) A I UNDERSTAND THAT THEY USED A SIGNIFICANT
 (16) AMOUNT OF OIL WHEN IT ENTERED THE PIPELINE.
 (17) I DON'T KNOW THE EXACT OPERATING PROBLEMS
 (18) THEY HAD.
 (19) THEY HAD SOME, I KNOW.
 (20) Q OKAY. AND A PRESSURE DIFFERENTIAL OF 50
 (21) IS GOING TO BE PUSHING THAT OIL TOWARD THE
 LABYRINTH
 (22) SEAL AT 37 PSI GREATER THAN IT'S BEING PUSHED AT
 THE
 (23) CORONA UNIT; ISN'T THAT CORRECT?
 (24) A YES. THROUGH A MUCH-NARROWER OPENING.
 (25) Q AND WHAT IS THE CLEARANCE BETWEEN THE
 LABYRINTH SEAL AND THE ROTOR AT THE STANTON
 UNIT?

Page 1646

- (1) A I THINK IT'S EIGHT TO 10 THOUSANDTHS.
 (2) Q AND WHAT IS IT AT CORONA?
 (3) A NINE TO 11 THOUSANDTHS.
 (4) Q SO WE HAVE A DIFFERENCE THERE AS WELL, DO
 WE NOT?
 (5) A A SLIGHT DIFFERENCE.
 (6) Q AND YOUR HONOR, PERHAPS WE COULD MARK
 THIS INGERSOLL RAND COMPANY OPERATION AND
 MAINTENANCE
 (7) OF THE LUBE AND SEAL OIL SYSTEM AS AN EXHIBIT
 SINCE

- (10) THAT IS SOMETHING UPON WHICH APPARENTLY THE
 WITNESS
 (11) HAS BEEN RELYING UPON?
 (12) THE COURT: LET'S JUST USE THE NEXT
 (13) TRANSWESTERN NUMBER, 390.
 (14) PUT THE NUMBER 390 ON IT, PLEASE.
 (15) MR. PREUSS: EXCUSE ME?
 (16) THE COURT: 390.
 (17) Q BY MR. PREUSS: NOW, DO YOU KNOW WHAT I'M
 (18) REFERRING TO HERE, SIR?
 (19) A I THINK SO.
 (20) LABELED INGERSOLL RAND COMPANY OPERATION
 (21) AND MAINTENANCE FOR THE LUBE OIL AND SEAL OIL
 SYSTEM.
 (22) Q ON PAGE 2 AT THE BOTTOM, SIR, IT SAYS THE
 (23) SYSTEM IS ALSO PROVIDED WITH THE SEAL OIL
 REGULATING
 (24) VALVE TO MAINTAIN SEAL OIL PRESSURE OF 50 PSI
 HIGHER
 (25) THAN THE GAS PRESSURE IN THE SEAL CHAMBER?
 (26) A THAT'S CORRECT.
 (27) Q THAT IS WHAT WE WERE JUST TALKING ABOUT?
 (28) A YES.

Page 1647

- (1) Q SO 50 INSTEAD OF 10 TO 15 OR 13 I GUESS
 (2) YOU SAID AT CORONA, RIGHT?
 (3) A 13, YES.
 (4) Q NOW, HAVING A HIGHER PRESSURE
 (5) DIFFERENTIAL IN YOUR OPINION WOULD INCREASE THE
 (6) LIKELIHOOD OF OIL ESCAPING, WOULD IT NOT?
 (7) A NOT NECESSARILY.
 (8) IT WOULD INCREASE THE PRESSURE FORCING
 (9) THE OIL THROUGH THE SEAL, INTO THE SEAL OIL
 CHAMBER.
 (10) ONCE IT GETS INTO THE SEAL OIL CHAMBER
 (11) THE PRESSURE THE OIL CAME IN DOESN'T MATTER TOO
 MUCH.
 (12) Q ONCE IT GETS IN THERE - BY THE WAY, IS
 (13) THERE A SLINGER ON THIS UNIT?
 (14) A NOT AS SUCH.
 (15) THERE IS A SHOULDER ON THE SHAFT OF ABOUT
 (16) A QUARTER OF AN INCH.
 (17) Q BUT A SHOULDER IS DIFFERENT FROM A
 (18) SLINGER.
 (19) A SLINGER HAS A LIP, DOES IT NOT?
 (20) A THE SLINGER ON THE COOPER MACHINE HAS A
 (21) LIP.
 (22) THIS IS JUST A MERE SHOULDER OF ABOUT A
 (23) QUARTER OF AN INCH.
 (24) Q SO THAT IS A DIFFERENT DESIGN FEATURE?
 (25) A SLIGHTLY DIFFERENT, YES.
 (26) Q I WOULD LIKE TO SHOW YOU 792, PLEASE.
 (27) AGAIN, YOU WANT TO POINT OUT THE SLINGER
 (28) FOR US?

Page 1648

- (1) A THIS IS THE SLINGER ON THE
 (2) COOPER-BESSEMER MACHINE.
 (3) Q ALL RIGHT. AND THEN THE GREEN IS THE
 (4) LABYRINTH SEAL AGAIN?
 (5) A THE GREEN IS THE LABYRINTH.
 (6) Q THEN YOU SEE ON THE SEAL DRAIN CAVITY
 (7) THAT THERE IS A LITTLE LIP THERE?
 (8) A YES.
 (9) Q THAT IS RIGHT AT THE FLAIR OUT OF THE
 (10) SLINGER?
 (11) A YES.
 (12) Q IS THERE A SIMILAR GROOVE IN THE CASING
 (13) ON THE INGERSOLL RAND?
 (14) A NO.
 (15) Q THERE IS NOT?
 (16) A SIMPLY AN INCREASE IN THE SHAFT
 (17) DIAMETER.
 (18) WELL, THIS CLEARANCE IS A LITTLE LARGER
 (19) ON IT.
 (20) THERE IS A SHOULDER ON THE SHAFT.
 (21) Q ALL RIGHT. SO THAT IS ANOTHER DIFFERENCE

(22) BETWEEN THE UNITS, IS IT NOT?
 (23) A YES.
 (24) Q HAVE YOU EVER HAVE ANY DISCUSSION WITH
 (25) THIS INDIVIDUAL WHOSE NAME YOU CANNOT RECALL AS
 TO
 (26) WHAT THE NATURE OF THE PROBLEM WAS AS
 DIAGNOSED BY
 (27) THE PEOPLE AT STANTON AT THE TIME IT WAS
 OCCURRING
 (28) BETWEEN '68 AND '71?

Page 1649

(1) A NO, I DIDN'T TALK TO HIM ABOUT THAT.
 (2) I MERELY TALKED TO HIM ABOUT THE MACHINE
 (3) AND HOW IT WAS CONSTRUCTED.
 (4) Q NOW, IN THE INGERSOLL RAND UNIT, DO YOU
 (5) KNOW HOW MANY STARTUPS AND SHUTDOWNS THAT
 THAT UNIT
 (6) HAD OVER A MONTH PERIOD, FOR EXAMPLE?
 (7) A NO, I DO NOT.
 (8) Q DO YOU KNOW WHETHER THAT UNIT WAS TO BE
 (9) OPERATIONAL ON A 24-HOUR BASIS, CONTINUOUS
 BASIS, AS
 (10) OPPOSED TO BEING STARTED PERIODICALLY AS A
 THROUGHPUT
 (11) NEED INCREASED?
 (12) A I DON'T KNOW, NO. I DON'T KNOW.
 (13) Q WHAT TYPE OF PRESSURE DIFFERENTIAL
 (14) REGULATOR WAS INSTALLED AT THE STANTON UNIT,
 SIR?
 (15) A I DON'T KNOW THE EXACT TYPE. BUT IT WAS
 (16) A PRESSURE REGULATOR ON THE DRAIN LINE FROM THE
 OIL
 (17) CHAMBER THAT MAINTAINED THE BACK PRESSURE OF 50
 (18) POUNDS IN EXCESS OF THE SUCTION PRESSURE ON THE
 (19) REFERENCE GAS PRESSURE.
 (20) Q ALL RIGHT.
 (21) TELL US, AGAIN, WHAT THE FUNCTION OF A
 (22) PRESSURE REGULATOR IS.
 (23) A TO MAINTAIN A CONSTANT - I'M SORRY, IT
 (24) REGULATES THE FLOW, THE ESCAPE OF OIL FROM THE OIL
 (25) CHAMBER AND MAINTAINS THE CONSTANT, SO THAT THE
 (26) PRESSURE IN THE REFERENCE GAS CHAMBER GOES UP
 AND
 (27) DOWN, THE OIL PRESSURE WILL GO UP AND DOWN
 (28) CORRESPONDINGLY.

Page 1650

(1) Q AND DO YOU KNOW WHETHER THE SAME PRESSURE
 (2) DIFFERENTIAL REGULATOR WAS USED IN THE
 INGERSOLL RAND
 (3) UNIT AS WAS USED IN THE CORONA STATION?
 (4) A I'M QUITE SURE IT WAS NOT BECAUSE COOPER
 (5) HAS - MANUFACTURERS THEIR OWN PRESSURE
 REGULATOR.
 (6) I'M SURE INGERSOLL DOESN'T USE THAT ONE.
 (7) Q ALL RIGHT. AND THE PRESSURE DIFFERENTIAL
 (8) REGULATOR IS AN EXTREMELY IMPORTANT DEVICE IN
 TERMS
 (9) OF WHETHER OR NOT YOU ARE GOING TO GET OIL
 LEAKING
 (10) THROUGH THE LABYRINTH SEAL, ISN'T THAT CORRECT?
 (11) A IT IS AN IMPORTANT DEVICE IN MAINTAINING
 (12) THE STEADY FLOW OF OIL THROUGH THE SEALS.
 (13) IT'S A VERY SIMPLE DEVICE, INCIDENTALLY.
 (14) Q AND SOME SIMPLE DEVICES WORK BETTER THAN
 (15) OTHERS?
 (16) A SOME SIMPLE DEVICES WORK BETTER THAN
 (17) OTHERS.
 (18) Q ALL RIGHT. NOW, ON THE STANTON UNIT
 (19) THERE IS A SEAL OIL TRAP ON WHICH THE OIL DRAINS?
 (20) A YES, TWO OF THEM.
 (21) Q ALL RIGHT.
 (22) A HERE AND HERE.
 (23) Q IT HAS TWO, ONE FOR EITHER SIDE, RIGHT?
 (24) A ONE FOR EACH SEAL, YES.
 (25) Q AND ARE THOSE TRAPS THE SAME?
 (26) DO THEY HAVE FLOATS IN THEM?

(27) A THEY HAVE FLOATS IN THEM.
 (28) THEY APPEAR TO BE THE SAME DESIGN AS THE

Page 1651

(1) ONE ON THE COOPER MACHINE.
 (2) I DON'T KNOW WHETHER THEY ARE THE SAME
 (3) MANUFACTURER OR NOT, BUT THEY APPEAR TO BE THE
 SAME
 (4) TYPE OF FLOAT.
 (5) Q THEY HAVE FLOATS BUT YOU ARE NOT SURE IF
 (6) THEY ARE MANUFACTURED BY THE SAME COMPANY,
 RIGHT?
 (7) A NO, I'M NOT SURE.
 (8) Q NOW, ARE THE SEAL OIL TRAPS IN STANTON
 (9) VENTED TO WHAT, TEMPERATURE, REFERENCE GAS,
 (10) ATMOSPHERE OR SOMETHING ELSE?
 (11) A REFERENCE GAS.
 (12) Q ALL RIGHT. AND WHAT IS THE CORONA UNIT
 (13) VENTED TO OR WHAT WAS IT VENTED TO IN THE '68-'72
 (14) TIME FRAME?
 (15) A IN THE REFERENCE GAS.
 (16) Q NOW, IS THE - WHAT IS THE CIRCULATION
 (17) RATE, IN OTHER WORDS - WITHDRAW THAT.
 (18) FIRST OF ALL, HOW MANY GALLONS FLOW
 (19) THROUGH THE SEAL SYSTEM ON A PERMANENT BASIS
 ON THE
 (20) STANTON UNIT?
 (21) A I THINK THEY SAY 10 GALLONS PER MINUTE.
 (22) Q ALL RIGHT.
 (23) 10 GALLON ONLY. IS THAT WHAT THE
 (24) INDIVIDUAL TOLD YOU?
 (25) A THAT IS WHAT IS ON THE DIAGRAM SOMEWHERE,
 (26) 10 GALLONS PER MINUTE.
 (27) Q AND WHAT ABOUT THE CORONA UNIT?
 (28) A 13 GALLONS PER MINUTE, I THINK.

Page 1652

(1) Q WHAT IS THE CIRCULATION RATE FOR THE
 (2) ENTIRE LUBRICATION SYSTEM ON THE STANTON UNIT?
 (3) A I THINK 380 GALLONS A MINUTE.
 (4) Q ALL RIGHT. AND HOW ABOUT CORONA?
 (5) A I DON'T KNOW THE EXACT NUMBER BUT IT'S
 (6) PROBABLY IN THAT SAME ORDER.
 (7) Q WELL, DO YOU KNOW WHETHER IT'S 380?
 (8) A NO, I DON'T.
 (9) I DON'T KNOW THE NUMBER.
 (10) Q WHAT IS THE TEMPERATURE OF THE OIL AS IT
 (11) GOES TO THE BEARINGS IN THE STANTON UNIT?
 (12) A I'M SURE IT IS WHATEVER THE OIL SUPPLIER
 (13) RECOMMENDED.
 (14) I THINK IT'S ABOUT 130 DEGREES, 135
 (15) DEGREES, BUT I'M NOT SURE.
 (16) Q WHAT IS IT IN CORONA AGAIN?
 (17) A IT WOULD BE WHATEVER IS DIRECTED BY THE
 (18) OIL MANUFACTURER.
 (19) THEY VARY THAT WITH DIFFERENT LUBRICATING
 (20) OILS.
 (21) Q AND WHAT IS THE RESERVOIR TEMPERATURE IN
 (22) THE STANTON UNIT?
 (23) A IT'S ABOUT 150 DEGREES.
 (24) Q WHAT IS IT IN CORONA?
 (25) A I DON'T KNOW.
 (26) Q WHO IS THE MANUFACTURER OF THE MAIN LUBE
 (27) OIL PUMP AT THE STANTON UNIT AS INSTALLED
 BETWEEN '68
 (28) AND '71?

Page 1653

(1) A I DON'T KNOW THE MAIN OIL PUMP.
 (2) THE SEAL OIL PUMP IS AMO, A-M-O,
 (3) MANUFACTURED BY -
 (4) Q YOU DON'T KNOW WHO MANUFACTURED THE MAIN
 (5) LUBE OIL PUMP?
 (6) A NO, I DO NOT.
 (7) Q AND THE FUNCTION OF THE MAIN LUBE OIL
 (8) PUMP IS WHAT, SIR?
 (9) A THAT IS TO SUPPLY THE OIL TO THE BEARINGS
 (10) ON THE TURBINE AND THE BEARINGS ON THE
 COMPRESSOR AT

(11) STANTON.
 (12) AND SUPPLY THE SUCTION TO THIS SEAL OIL
 (13) PUMP WHICH BOOSTS THE PRESSURE UP TO THE SEAL OIL
 (14) PRESSURE.
 (15) Q AND IS - I TAKE IT YOU DON'T KNOW
 (16) WHETHER THE MANUFACTURER OF THE MAIN LUBE OIL
 PUMP AT
 (17) CORONA ON THE CORONA UNIT IS THE SAME AS THE
 ONE AT
 (18) STANTON?
 (19) A NO, I DO NOT KNOW.
 (20) THE HIGH PRESSURE POINT IS AN AMO PUMP, A
 (21) SEAL OIL PUMP.
 (22) Q IS THE UNIT AT STANTON DIRECT DRIVE ON
 (23) THE COMPRESSOR TO THE TURBINE UNIT?
 (24) A OH, YES.
 (25) Q IS IT THE SAME IN CORONA?
 (26) A OH, YES.
 (27) Q WHAT IS THE MAXIMUM RPM ON THE STANTON
 (28) UNIT?

Page 1654

(1) A 5,000, I BELIEVE. 5,000 RPM'S, I
 (2) BELIEVE.
 (3) Q WHAT IS IT ON CORONA?
 (4) A 6,000.
 (5) MR. PREUSS: THAT IS ALL THE QUESTIONS I HAVE.
 (6) THE COURT: ANYTHING FURTHER, MR. TALLON?
 (7) MR. TALLON: JUST, I THINK, FOUR, YOUR HONOR.
 (8)
 (9) REDIRECT EXAMINATION
 (10) BY MR. TALLON:
 (11) Q WHAT WAS THE FUNCTION OF THE SHOULDER ON
 (12) THE INGERSOLL RAND COMPRESSOR?
 (13) A THE SHOULDER.
 (14) IT ACTS AS A SLINGER TO KEEP THE OIL
 (15) MIGRATING ALONG THE SHAFT TO FLING IT OUT.
 (16) Q HOW DOES IT DO THAT?
 (17) A BY THE VELOCITY.
 (18) AS THE OIL HITS THE SHAFT IT IS ROTATED
 (19) AT A VERY HIGH SPEED. IT THROWS IT OUT INTO THE
 (20) CHAMBER.
 (21) Q MR. PREUSS INDICATED HOW THE INGERSOLL
 (22) RAND COMPRESSOR HAS LABYRINTHS ON BOTH SIDES
 OF THE
 (23) COMPRESSOR CASE WHERE THE IMPELLERS ARE.
 (24) A YES.
 (25) Q HOW DO THEY COMPARE?
 (26) A WHAT DO YOU MEAN, HOW DO THEY COMPARE,
 (27) WITH EACH OTHER?
 (28) Q YES.

Page 1655

(1) A THEY WOULD BE IDENTICAL.
 (2) Q IS ONE SIDE A MIRROR IMAGE OF THE OTHER
 (3) SIDE?
 (4) A APPROXIMATELY, YES.
 (5) Q IF YOU CUT IT IN HALF AND ONLY SAW ONE
 (6) SIDE, HOW WOULD THAT COMPARE WITH THE CORONA
 (7) COMPRESSOR?
 (8) A IT WOULD BE VERY SIMILAR.
 (9) Q IF YOU CUT THE OTHER SIDE, HOW WOULD THAT
 (10) COMPARE?
 (11) A VERY SIMILAR.
 (12) Q DOES THE MANUFACTURER - IS THERE A
 (13) DIFFERENCE IN HOW A PRESSURE REGULATOR
 OPERATES BASED
 (14) ON WHO MANUFACTURES IT?
 (15) A NOT A SIGNIFICANT DIFFERENCE.
 (16) Q WHY NOT?
 (17) A BECAUSE YOU HAVE A SIMPLE JOB TO DO.
 (18) YOU BRING THE PRESSURE THAT YOU WANT TO
 (19) CONTROL THROUGH A VALVE AND MODULATE THAT VALVE
 BY
 (20) THE OTHER PRESSURE.
 (21) YOU HAVE A SPRING THAT GIVES YOU THE 10
 (22) POUNDS DIFFERENTIAL. THAT IS ADJUSTABLE, 50
 POUNDS.

(23) WHATEVER YOU WANT.
 (24) SO IT WOULD MAINTAIN THE SAME PRESSURE ON
 (25) BOTH SIDES OF THAT DIAPHRAGM PLUS WHATEVER YOU
 PUT ON
 (26) THE SPRING.
 (27) Q DOES IT MAKE A DIFFERENCE WHO
 (28) MANUFACTURERS IT FOR ITS FUNCTIONALITY?

Page 1656

(1) A I DON'T THINK SO.
 (2) THEY ALL WORK PRETTY WELL.
 (3) Q DOES THE FUNCTIONALITY OF A FLOAT IN A
 (4) SEAL OIL DRAIN TRAP VARY DEPENDING ON WHO MAKES
 IT?
 (5) A NO.
 (6) Q DID YOU HEAR THAT?
 (7) A NO.
 (8) THE COURT: YOUR ANSWER PLEASE?
 (9) THE WITNESS: NO, IT DOES NOT.
 (10) MR. TALLON: NOTHING FURTHER.
 (11) THE COURT: MR. PARKER, I HAVE TWO QUESTIONS.
 (12) THE WITNESS: YES, SIR.
 (13) THE COURT: IN THE PROBLEMS THAT CAN OCCUR TO
 (14) THE SEAL SYSTEM, I WOULD THINK THAT THE
 DIFFERENTIAL
 (15) IN THE OIL PRESSURE BETWEEN 37 POUND DIFFERENTIAL
 (16) WOULD CAUSE A SIGNIFICANT DIFFERENCE IN THE KINDS
 OF
 (17) PROBLEMS EXPERIENCED BY A SEAL SYSTEM.
 (18) IS THAT A CORRECT CONCLUSION BY ME?
 (19) THE WITNESS: WELL, ACTUALLY 37 POUNDS, 13
 (20) POUNDS, 100 POUNDS, THEY ARE ALL RELATIVELY LOW
 (21) PRESSURES COMPARES TO THE SEVEN OR 800 POUNDS OF
 GAS
 (22) PRESSURE YOU ARE DEALING WITH.
 (23) THE COURT: ARE YOU SAYING THE SEAL SYSTEMS ARE
 (24) NOT LIKELY TO REACT DIFFERENTLY IN A 50-POUND
 (25) PRESSURE SYSTEM AS DISTINGUISHED FROM A
 THREE-POUND
 (26) PRESSURE SYSTEM?
 (27) THE WITNESS: POSSIBLY A LITTLE DIFFERENTLY.
 (28) THE CLEARANCE BETWEEN THE SEAL RING AND

Page 1657

(1) THE SEAL RING IS SMALLER WHERE THEY HAVE THE
 HIGHER
 (2) PRESSURE DIFFERENTIAL.
 (3) THAT WOULD TEND TO MAKE THE FLOW SOMEWHAT
 (4) THE SAME.
 (5) THE COURT: MY QUESTION AND THE LAST QUESTION
 (6) TO BE ASKED OF YOU IS HOW COME YOU WORE A VERY
 SPORTY
 (7) COWBOY CUT COAT IN FRONT OF THE JURY BUT YOU WEAR
 (8) THIS PLAIN BROWN SUIT FOR ME?
 (9) THE WITNESS: I'M SORRY.
 (10) THE COURT: NOTHING FURTHER, MR. TALLON.
 (11) MAY HE NOW BE EXCUSED?
 (12) MR. TALLON: YES.
 (13) MR. PREUSS: NO. I WOULD LIKE A COUPLE MORE
 (14) QUESTIONS. IT WILL JUST BE A COUPLE.
 (15)
 (16) RECROSS EXAMINATION
 (17) BY MR. PREUSS:
 (18) Q JUST SO I UNDERSTAND, MR. PARKER, YOU
 (19) HAVE NOT REVIEWED ANY OF THE OPERATIONAL
 RECORDS, THE
 (20) DAILY LOGS, THE MAINTENANCE LOGS, ANY REPAIR
 LOGS
 (21) FROM THE STANTON UNIT?
 (22) A NO.
 (23) MR. TALLON: STIPULATED.
 (24) Q BY MR. PREUSS: YOU HAVE NO UNDERSTANDING
 (25) OF THE NATURE OF THE PROBLEM AT THE STANTON
 UNIT THAT
 (26) INVOLVED THE USE OR THE TIME THAT TECHNOLOGY
 WAS
 (27) BEING USED, RIGHT?
 (28) A I HAVE READ ONE OR TWO ITEMS OF

Page 1658

(1) CORRESPONDENCE THAT INDICATED THERE WAS A FOAMING
 (2) PROBLEM, BUT I KNOW NOTHING ABOUT IT BEYOND THAT.
 (3) Q YOU ARE TALKING ABOUT A MONSANTO CALL
 (4) REPORT GIVEN TO YOU BY COUNSEL?
 (5) A I BELIEVE THAT WAS THE SOURCE OF THE
 (6) REPORT.
 (7) Q WHAT I'M INTERESTED IN, HAVE YOU SEEN
 (8) ANYTHING THAT CAME FROM THE STANTON UNIT, FROM
 (9) THE
 (10) STANTON INGERSOLL RAND, COLUMBIA AREA
 (11) INVOLVING THE
 (12) NATURE OF A PROBLEM AND ANY CONCLUSIONS FROM
 (13) ANY
 (14) INVESTIGATION AS TO WHETHER IT WAS RELATED IN
 (15) ANY WAY
 (16) TO OIL OR NOT OR SOMETHING ELSE?
 (17) A NO, I HAVE NOT.
 (18) Q SIR, IN YOUR EYES IS A CHRYSLER THE SAME
 (19) AS A FORD?
 (20) A VERY SIMILAR IN MANY WAYS.
 (21) MR. PREUSS: THANK YOU, SIR.
 (22) MR. TALLON: ARE THEY BOTH CARS?
 (23) THE COURT: ON THAT PHILOSOPHICAL NOTE MAY HE
 (24) BE EXCUSED?
 (25) MR. PREUSS: YES.
 (26) THE COURT: THEN WE THANK YOU FOR YOUR
 (27) ATTENDANCE AT THIS TRIAL AND YOU ARE EXCUSED FROM
 (28) FURTHER ATTENDANCE.
 (29) THE WITNESS: I WILL WEAR A BETTER SUIT NEXT
 (30) TIME.
 (31) THE COURT: ANYTHING FURTHER BEFORE WE GO OFF
 (32) THE RECORD?

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(1) MR. TALLON: NO.
 (2) THE COURT: MR. PREUSS?
 (3) MR. PREUSS: NO.
 (4) THE COURT: THEN WE ARE OFF THE RECORD.
 (5)
 (6) (AT 4:30 P.M., THE PROCEEDINGS WERE ADJOURNED
 (7) UNTIL MONDAY, DECEMBER 6, 1993 AT 9:30 A.M.
 (8)
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 (2)
 (3)
 (4) DECEMBER 3, 1993 A.M. 1493
 (5) P.M. 1551
 (6)
 (7)
 (8) PLF'S WITNESSES DIRECT CROSS REDIRECT RECROSS
 (9)
 (10) WOOD, DAVID 1494 1537 1570/1585 1584
 (11) DEPO READ
 (12) KELLY, EMMET 1587

(13) PARKER, ROBERT 1620 1635
 (14) (402 HEARING.)
 (15)
 (16) EXHIBITS FOR IDENTIFICATION IN EVIDENCE
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 (18) 32 -MEMO 1504
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(1) SUPERIOR COURT OF THE STATE OF CALIFORNIA
 (2) FOR THE COUNTY OF LOS ANGELES
 (3) DEPARTMENT NO. 31 HON. G. KEITH WISOT, JUDGE
 (4)
 (5) TRANSWESTERN PIPELINE COMPANY,)
 (6) A DELAWARE CORPORATION,)
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Look-See Concordance Report

UNIQUE WORDS: **2,332**
 TOTAL OCCURRENCES: **9,745**
 NOISE WORDS: **385**
 TOTAL WORDS IN FILE: **29,083**

SINGLE FILE CONCORDANCE

CASE SENSITIVE

PHRASE WORD LIST(S):

NOISE WORD LIST(S): **NOISE.NOI**

INCLUDES ONLY TEXT OF:

QUESTIONS
 ANSWERS
 COLLOQUY
 PARENTHETICALS
 EXHIBITS

DATES OFF

IGNORES PURE NUMBERS

POSSESSIVE FORMS OFF

MAXIMUM TRACKED OCCURRENCE
 THRESHOLD: **50**

NUMBER OF WORDS SURPASSING
 OCCURRENCE THRESHOLD: **16**

LIST OF THRESHOLD WORDS:

CHLORINATED [80]

COURT [72]

JENSEN [76]

LETTER [59]

MONSANTO [126]

OIL [79]

PCB [52]

POINT [60]

PRESSURE [53]

PRODUCT [52]

RIGHT [172]

SEAL [98]

SWEDEN [61]

TALLON [78]

UNIT [59]

WORK [66]

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