

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

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

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

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

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

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

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

(1) TANK TO ANOTHER, THAT KIND OF THING.
(2) Q WELL, THE PCB FLUIDS AT QUEENY WERE USED
(3) IN SOME AIR COMPRESSORS WHERE THE FLUID WAS
USED AS A
(4) LUBRICANT?
(5) A YES.
(6) Q AND YOU RECALL ON OCCASION WHEN YOU WERE
(7) AT THE QUEENY PLANT WHERE ONE OF THOSE
COMPRESSORS
(8) WOULD HAVE A LEAK AND SPRAY THE PCB FLUID
AROUND?
(9) A WELL, IT WOULD LEAK OUT OF THE SYSTEM.
(10) I DON'T KNOW ABOUT SPRAY.
(11) Q YOU DON'T RECALL ANY PCB'S SPRAYING OUT
(12) OF PUMPS?
(13) A I DON'T RECALL THAT, NO.
(14) Q DO YOU REMEMBER PCB FLUIDS LEAKING OUT OF
(15) FLANGED CONNECTIONS AND PIPES?
(16) A OH, ON OCCASIONS, YES.
(17) Q WHEN YOU LEFT THE QUEENY PLANT YOU TOOK
(18) OVER A JOB AS THE PLANT MANAGER AT MONSANTO'S
(19) ANNISTON PLANT, RIGHT?
(20) A NO.
(21) I WAS TRANSFERRED TO THE SAUJET, ILLINOIS
(22) PLANT OF MONSANTO FOR ABOUT A YEAR.
(23) Q AND THEN YOU BECAME ANNISTON PLANT
(24) MANAGER?
(25) A THAT'S CORRECT.
(26) Q AND THIS WAS IN 1965?
(27) A CORRECT.
(28) Q THAT WAS A JOB THAT YOU HELD UNTIL THE

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(1) END OF '69?
(2) A YES.
(3) Q NOW, AT ANNISTON PCB'S WERE ACTUALLY
(4) MADE?
(5) A YES.
(6) Q IN FACT, AT ANNISTON MONSANTO MADE
(7) AROCLOR 1242?
(8) A YES.
(9) Q NOW, AT THE TIME THAT YOU WERE AT
(10) ANNISTON YOU WERE AWARE THAT AROCLOR 1242 WAS
WIDELY
(11) USED?
(12) A YES.
(13) Q AND, IN FACT, AROCLOR 1242 COULD BE
(14) BLENDED BY MONSANTO TO MAKE A PRODUCT WITH
SOME OTHER
(15) ELEMENTS, CORRECT?
(16) A CERTAINLY.
(17) Q FOR EXAMPLE, THE PRODUCT AT ISSUE IN THIS
(18) CASE IS TURBINOL, RIGHT?
(19) A YES.
(20) Q AND IT IS A BLEND OF AROCLOR 1242 AND
(21) SOME OTHER THINGS, CORRECT?
(22) A THAT IS CORRECT.
(23) Q IT HAS AROCLOR 1232 IN IT?
(24) A WELL, AT WHAT POINT IN TIME?
(25) AT ONE POINT IN TIME IT DID HAVE 1232,
(26) YES, SIR.
(27) Q CUSTOMERS COULD ALSO PURCHASE AROCLOR
(28) 1242 FROM MONSANTO, RIGHT?

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(1) A YES.
(2) Q YOU COULD BUY A DRUM OF AROCLOR 1242?
(3) A CORRECT.
(4) Q AND, IN FACT, MONSANTO MADE AVAILABLE FOR
(5) SALE TO CUSTOMERS ALL OF THE AROCLORS AS
AROCLORS?
(6) A YES.
(7) Q SO MONSANTO SOLD TO CUSTOMERS AROCLOR
(8) 1242?
(9) A YES.
(10) Q 1248?
(11) A CORRECT.
(12) Q 1254?

(13) A RIGHT.
(14) Q 1260?
(15) A YES.
(16) Q AND A CUSTOMER COULD COME TO MONSANTO AND
(17) SAY, "I WOULD LIKE TO BUY 10 55- GALLON DRUMS OF
(18) 1242"?
(19) A THEY COULD, YES.
(20) Q AND DID?
(21) A AND DID.
(22) Q NOW, YOU WERE AWARE FROM YOUR WORK AT
(23) QUEENY AND ANNISTON AND, IN FACT, FROM
MONSANTO
(24) GENERALLY THAT 1242 WAS USED IN A VARIETY OF
WAYS?
(25) A I WAS AWARE, YES, SIR.
(26) Q ONE OF THE WAYS THAT IT WAS USED WAS BY
(27) NATIONAL CASH REGISTER COMPANY TO MAKE
CARBONLESS
(28) CARBON PAPER, RIGHT?

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(1) A YES.
(2) Q AND IF I REFER TO NATIONAL CASH REGISTER
(3) AS NCR, YOU WILL KNOW I'M REFERRING TO THE SAME
(4) COMPANY, RIGHT?
(5) A YES.
(6) Q NCR BOUGHT A LOT OF 1242 FROM MONSANTO?
(7) A WELL, THE FORMULATION USED BY NCR OF
(8) COURSE INCLUDED, HAD IN IT, 1242.
(9) I, AT THE MOMENT, DON'T RECALL WHO
(10) ACTUALLY PURCHASED THE MATERIAL AND PREPARED A
(11) FORMULATION THAT, IN TURN, WENT TO THE NCR PAPER
(12) APPLICATION.
(13) Q I SEE.
(14) SO WHAT YOU ARE SAYING IS THAT THE 1242
(15) WAS PURCHASED FROM MONSANTO. SOMEBODY ELSE
MAY HAVE
(16) MIXED IT UP WITH OTHER THINGS AND EVENTUALLY
THAT
(17) BECAME NCR CARBONLESS COPY PAPER?
(18) A YES.
(19) Q BUT I TAKE IT YOU WOULD AGREE WITH ME
(20) THAT LOTS OF POUNDS OF 1242 WAS PURCHASED FOR
GOING
(21) INTO MAKING NCR CARBONLESS COPY PAPER OVER THE
TIME
(22) THAT IT WAS MADE WITH 1242?
(23) A I DON'T KNOW WHAT IS 'LOTS.'
(24) MANY POUNDS, YES.
(25) Q OKAY. NOW, ONE OF THE THINGS YOU LEARNED
(26) ABOUT WHEN YOU WERE AT ANNISTON WAS THE ACTUAL
(27) PROCESS THAT MONSANTO USED TO MAKE AROCLORS,
RIGHT?
(28) A CERTAINLY.

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(1) Q AND YOU KNOW THAT IN ORDER TO MAKE AN
(2) AROCLOR WHAT YOU DO IS YOU START WITH BIPHENYL?
(3) A YES.
(4) Q OKAY. AND AT ROOM TEMPERATURE BIPHENYL
(5) IS A WAXY SUBSTANCE, RIGHT?
(6) A IT REMINDS ME OF WHITE CANDLE WAX.
(7) Q RIGHT.
(8) AND WHAT MONSANTO WOULD DO TO MAKE PCB'S
(9) WHEN IT MADE THEM, WAS IT WOULD PUT SOME
BIPHENYL IN
(10) A VESSEL AND IN THE PRESENCE OF IRON, LIKE IRON
(11) FILINGS, IT WOULD HEAT UP AND AGITATE THE
BIPHENYL,
(12) RIGHT?
(13) A THAT WOULD BE THE BEGINNING OF THE
(14) PROCESS.
(15) Q AND THEN MONSANTO WOULD INTRODUCE
(16) CHLORINE GAS INTO THE BIPHENYL WHICH WAS BEING
(17) CHURNED UP AT AN ELEVATED TEMPERATURE?
(18) A CORRECT.
(19) Q AND DEPENDING UPON THE LENGTH OF TIME
(20) THAT YOU BUBBLED THE CHLORINE GAS INTO THAT

CHLORINE

- (21) MIXTURE, YOU WOULD GET DIFFERENT AROCLORS, RIGHT?
(22) A YES.
(23) Q OKAY. SO LET'S SAY AROCLOR 1242 COULD BE MADE BY BUBBLING CHLORINE GAS THROUGH THE BIPHENYL
(24) FOR THREE HOURS IN ORDER TO MAKE 1254, WOULD YOU HAVE
(25) TO BUBBLE THE CHLORINE GAS FOR A LONGER PERIOD OF
(26) TIME?
(27) A YES.

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- (1) I DON'T KNOW ABOUT THAT THREE HOURS
(2) ANYMORE.
(3) IT HAS BEEN A WHILE.
(4) BUT THERE IS A DIFFERENCE IN TIME BETWEEN
(5) THE MAKING OF 1242 AND 1254.
(6) Q IN FACT, THERE WAS BASICALLY, TO USE A COMMON TERM, A RECIPE BOOK THAT SAID, "TO MAKE AROCLOR 1242 BUBBLE THE CHLORINE GAS FOR THIS LONG.
(7) "TO MAKE AROCLOR 1254 BUBBLE IT FOR THIS LONG."
(8) A "AT THIS RATE FOR THIS SIZE POT AND SO ON," YES.
(9) Q OKAY. GOOD.
(10) NOW, IN THE PROCESS OF MAKING AROCLOR 1242, WASN'T IT UNAVOIDABLE THAT SOME OF THE BIPHENYLS WOULD GET FOUR OR FIVE CHLORINES HOOKED TO
(11) THEM?
(12) A CERTAINLY.
(13) Q BECAUSE THE PROCESS OF BUBBLING THE CHLORINE GAS INTO THAT MIXTURE MADE IT VERY DIFFICULT
(14) AND RANDOM TO AVOID?
(15) A CORRECT.
(16) Q SO ALL THE AROCLORS WERE A MIXTURE OF DIFFERENTLY CHLORINATED MOLECULES?
(17) A THAT IS CORRECT.
(18) Q AND SOMETIMES YOU REFERRED TO THE MOLECULES THAT HAD FOUR OR FIVE OR SIX CHLORINES ON
(19) THEM AS THE "HIGHLY CHLORINATED MOLECULES," RIGHT?

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- (1) A YES, TO HELP DISTINGUISH FROM THOSE THAT HAD LESS THAN THAT.
(2) Q RIGHT.
(3) AND IN TALKING AT MONSANTO, BACK IN THE DAYS WHEN MONSANTO MADE PCB'S, YOU WOULD REFER TO THE
(4) PCB'S THAT HAD FEWER CHLORINES IN THEM AS THE LOWER
(5) CHLORINATED AND THE ONES THAT HAD THE FOUR, FIVE, SIX
(6) CHLORINE MOLECULES IN IT AS THE HIGHER CHLORINATED?
(7) A YES, THOSE EXPRESSIONS WERE COMMONLY USED.
(8) Q AND AS I THINK YOU SAID, AROCLOR 1242 CONTAINED SOME OF THE HIGHER- CHLORINATED MATERIALS?
(9) A SOME, YES, SIR.
(10) Q OKAY. NOW, WHEN YOU WERE AT QUEENY AND ANNISTON, YOU CAME TO KNOW DR. EMMET KELLY AS THE
(11) MEDICAL DIRECTOR OF MONSANTO?
(12) A YES, I DID.
(13) Q AND AS PART OF YOUR JOB, PARTICULARLY AT ANNISTON, YOU WOULD COMMUNICATE WITH HIM ABOUT THE
(14) TOXICITY OF PCB'S?
(15) A CERTAINLY.

- (22) Q AND IN THE 60'S DR. KELLY TAUGHT YOU
(23) ABOUT THE EARLY WARNING SYMPTOMS OR EARLY WARNING
(24) SIGNS FOR AROCLOR OR PCB TOXICITY?
(25) A YES, HE DID.
(26) Q DR. KELLY TOLD YOU THAT WITH RESPECT TO
(27) YOUR PEOPLE, THE PEOPLE IN YOUR PLANT AT ANNISTON,
(28) THAT YOU SHOULD WATCH FOR EARLY WARNING SIGNS LIKE A

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- (1) SEVERE CHEST COLD?
(2) A OR THE SYMPTOMS SIMILAR TO A SEVERE CHEST
(3) COLD.
(4) Q OR DISCOMFORT IN BREATHING?
(5) A YES.
(6) Q OR RAWNESS IN THE UPPER CHEST?
(7) A YES.
(8) Q IN FACT, DR. KELLY ADVISED THAT IF YOUR
(9) WORKERS WERE GOING TO BE AROUND CONCENTRATED PCB
(10) FUMES THEY SHOULD WEAR RESPIRATORS, RIGHT?
(11) A IF THEY ARE GOING TO BE THERE FOR ANY
(12) PERIOD OF TIME, TO THE POINT WHERE THEY NOTICED THE
(13) IRRITATION.
(14) IT WAS THEIR JUDGMENT, THEN, TO GO GET
(15) THEIR RESPIRATOR, PUT IT ON AND RETURN TO THE JOB.
(16) Q DR. KELLY ALSO TOLD YOU THAT IF THE
(17) WORKERS' HANDS OR SKIN CAME IN CONTACT WITH THE PCB'S
(18) IT COULD CAUSE DRYING OUT OF THE SKIN, TO THE POINT
(19) WHERE THE SKIN WOULD ACTUALLY CRACK OPEN, RIGHT?
(20) A IF THE HANDS WERE NOT WASHED WITHIN A
(21) REASONABLE TIME, YES.
(22) Q ONE OF THE THINGS THAT YOU LEARNED FROM
(23) DR. KELLY WAS THAT PCB'S COULD CAUSE SYSTEMIC
(24) EFFECTS, RIGHT?
(25) A YES.
(26) Q AND BY "SYSTEMIC" YOU UNDERSTOOD
(27) DR. KELLY TO MEAN THAT IN ADDITION TO THE AREA WHERE
(28) THE PCB MIGHT TOUCH, THERE WOULD BE SOME OTHER EFFECT

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- (1) ON THE BODY, RIGHT?
(2) A YES.
(3) Q SO, FOR EXAMPLE, ONE OF THE SYSTEMIC EFFECTS COULD BE, IF YOU TOUCHED PCB'S WITH YOUR SKIN
(4) IT COULD GET INTO YOUR SYSTEMS, LIKE YOUR FAT SYSTEM,
(5) YOUR BLOOD SYSTEM, RIGHT?
(6) A WELL, PRESENCE IS NOT, IN MY THINKING,
(7) ASSOCIATED WITH A SYSTEMIC EFFECT, OTHER THAN IT'S
(8) THERE. IT CAN BE DETECTED IF YOU LOOK FOR IT, YES.
(9) Q YOU WERE AWARE FROM TALKING TO DR. KELLY
(10) THAT IF YOU GOT PCB - IF A WORKER IN YOUR PLANT GOT
(11) PCB ON THEIR HANDS THE EXPOSURE COULD RESULT IN
(12) ACTUALLY GETTING CHLORACNE BEHIND THEIR EARS, RIGHT?
(13) A WELL, YES.
(14) THAT IS DEPENDENT ON HOW OFTEN THE
(15) EXPOSURE TOOK PLACE, HOW MUCH EACH TIME, WHETHER THE
(16) PERSON WASHED HIS HANDS QUICKLY AND SO ON.
(17) IT VARIED.
(18) BUT IF IT'S OVERDONE, IT COULD RESULT IN
(19) A SYMPTOM AWAY FROM THE SPOT WHERE THE ENTRY WAS
(20) MADE.
(21) Q RIGHT.
(22) THAT IS NOT BECAUSE SOMEBODY WHO HAD
(23) PCB'S ON THEIR HANDS WOULD BE RUBBING BEHIND
(24)

THEIR

(25) EARS.

(26) THAT IS BECAUSE WHATEVER BODY SYSTEM WAS
(27) CARRYING IT, PCB WOULD SEND IT, SO TO SPEAK, TO
(28) BEHIND THE EARS?

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(1) A THAT IS MY UNDERSTANDING, YES, SIR.
(2) Q OKAY. NOW, YOU WERE AT THE ANNISTON
(3) PLANT UNTIL THE END OF '69?
(4) A YES.
(5) Q AND TOWARDS THE END OF 1969 YOUR BOSS WAS
(6) MR. STRATMEYER?
(7) A YES.
(8) Q AND MR. STRATMEYER CONTACTED YOU IN THE
(9) LAST COUPLE OF MONTHS OF '69, RIGHT?
(10) A MANY TIMES.
(11) Q MANY TIMES.
(12) A RIGHT.
(13) Q AND ON ONE PARTICULAR OCCASION HE
(14) CONTACTED YOU TO TELL YOU THAT THERE WAS AN
(15) ENVIRONMENTAL PROBLEM WITH PCB'S?
(16) A YES, HE HAD INFORMED ME THAT THERE WAS
(17) SOMETHING REGARDING THE ENVIRONMENT AND
(18) REGARDING
(19) PCB'S, UH-HUH.
(20) Q AND AFTER YOU TALKED TO MR. STRATMEYER
(21) YOU TRAVELED TO ST. LOUIS WHERE MONSANTO'S
(22) HEADQUARTERS WERE THEN AND NOW, RIGHT?
(23) A I DON'T WANT TO CONFUSE THE TIMING HERE.
(24) MR. STRATMEYER INFORMED ME OF THE
(25) ENVIRONMENTAL SITUATION THAT WAS EVOLVING IN THE
(26) SUMMER OF '69.
(27) LATER ON, IN ABOUT NOVEMBER IS WHEN HE
(28) TOLD ME THAT THE SITUATION IS BECOMING MORE
URGENT
(29) AND THEY ARE LOOKING FOR SOMEBODY TO GO HELP
WITH

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(1) THIS SITUATION, WOULD I BE INTERESTED.
(2) Q AND I TAKE IT YOU WERE INTERESTED BECAUSE
(3) YOU DID TRAVEL TO ST. LOUIS AND MET WITH HOWARD
(4) BERGEN?
(5) A I DID.
(6) Q OKAY. WHAT WAS MR. BERGEN'S JOB AT THAT
(7) TIME?
(8) A HE WAS THE BUSINESS DIRECTOR OF THE
(9) FUNCTIONAL FLUIDS BUSINESS GROUP.
(10) Q AMONG THE PRODUCTS SOLD BY THE FUNCTIONAL
(11) FLUIDS BUSINESS GROUP AT THE END OF 1969 WERE
(12) THE PCB
(13) FLUIDS, RIGHT?
(14) A YES.
(15) Q AND THAT INCLUDED THE PYDRAULS THAT YOU
(16) HAD BECOME FAMILIAR WITH AS A RESULT OF THE TIME
(17) YOU
(18) WORKED AT THE QUEENY PLANT?
(19) A AMONG OTHER TYPES, YES.
(20) Q OKAY. WHEN YOU INTERVIEWED WITH
(21) MR. BERGEN, THAT WAS IN DECEMBER OF 1969?
(22) A YES.
(23) Q AND WHEN YOU HAD THAT INTERVIEW WITH
(24) MR. BERGEN HE TOLD YOU ABOUT SOME WORK THAT
(25) HAD BEEN
(26) DONE BY TWO SWEDISH RESEARCHERS, JENSEN AND
(27) WIDMARK,
(28) CORRECT?
(29) A HE DID.
(30) Q AND HE TOLD YOU THAT JENSEN AND WIDMARK
(31) HAD REPORTED IN LATE 1966 THAT THEY HAD FOUND
(32) PCB'S
(33) IN SAMPLES TAKEN FROM THE ENVIRONMENT,
(34) CORRECT?

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(1) A THAT IS CORRECT.
(2) Q AND AT THE TIME OF THAT INTERVIEW
(3) MR. BERGEN ALSO TOLD YOU ABOUT THE WORK OF A

(4) DR. ROBERT RISEBROUGH?

(5) A YES.

(6) Q THE INTERVIEW WENT WELL ENOUGH THAT YOU
(7) ACTUALLY WERE OFFERED THE JOB, CORRECT?

(8) A YES.

(9) Q AND AT THE END OF 1969 YOU TOOK ON THE
(10) JOB OF MANAGER ENVIRONMENTAL CONTROL?

(11) A YES.

(12) Q YOU MOVED TO ST. LOUIS?

(13) A YES.

(14) Q NOW, AT THAT TIME, MR. PAPAGEORGE,
(15) MONSANTO WAS THE ONLY COMPANY IN THE UNITED
STATES

(16) THAT MADE PCB'S, RIGHT?

(17) A FOR ALL PRACTICAL PURPOSES, YES.

(18) Q AND YOU KNEW WHEN YOU TOOK ON THAT JOB
(19) THAT PCB'S WERE NOT NATURAL SUBSTANCES? THEY
WERE

(20) MAN-MADE?

(21) A I CERTAINLY KNEW THEY WERE MAN-MADE.

(22) I HAD NO REASON TO EVEN CONSIDER WHETHER

(23) THEY WERE PRODUCED NATURALLY.

(24) Q AND THEY ARE NOT PRODUCED NATURALLY?

(25) A TO MY KNOWLEDGE, NO.

(26) Q WHEN YOU GOT THE JOB AS ENVIRONMENTAL OR
(27) MANAGER ENVIRONMENTAL CONTROL IN DECEMBER,
1969, THE

(28) AROCLOR BUSINESS, THE PCB BUSINESS, WAS A
PROFITABLE

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(1) BUSINESS FOR MONSANTO, WAS IT NOT?

(2) A RESPECTFULLY SO, YES.

(3) Q WHEN YOU TOOK ON THAT JOB YOU HAD A LOT
(4) OF WORK AHEAD OF YOU, RIGHT?

(5) A MORE THAN I EXPECTED.

(6) Q AND ONE OF THE FIRST THINGS THAT YOU DID

(7) TO GET UP TO SPEED FOR ALL THE THINGS THAT YOU
WERE

(8) GOING TO HAVE TO DO WAS TO REVIEW THE FILES THAT
HAD

(9) BEEN COLLECTED ABOUT THE PCB PROBLEM THAT YOU
WERE

(10) THERE TO ADDRESS?

(11) A I STARTED ON THAT, YES.

(12) IT TOOK A WHILE TO GO THROUGH THEM ALL.

(13) Q OKAY. AND ONE OF THE THINGS THAT YOU DID
(14) WAS THAT YOU MET WITH ELMER WHEELER?

(15) A YES.

(16) Q AND YOU AND MR. WHEELER HAD A SERIES OF
(17) DISCUSSIONS ADDRESSING THE PCB PROBLEM THAT
YOU WERE

(18) THERE TO WORK ON?

(19) A YES.

(20) Q NOW, AT THAT TIME MR. WHEELER WAS IN THE
(21) MEDICAL DEPARTMENT AT MONSANTO?

(22) A HE WAS.

(23) Q AND HE REPORTED TO DR. KELLY?

(24) A YES.

(25) Q YOU LEARNED WHEN YOU ARRIVED IN ST. LOUIS
(26) AND TOOK ON YOUR NEW JOB RESPONSIBILITIES THAT
ELMER

(27) WHEELER HAD, IN FACT, BEEN THE CHAIRMAN OF
SOMETHING

(28) CALLED THE PCB AD HOC COMMITTEE?

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(1) A I DID.

(2) Q AND AD HOC, THAT IS A PHRASE THAT MEANS
(3) "FOR THIS"?

(4) A YES.

(5) IT HAS A SPECIFIC ASSIGNMENT AND WHEN

(6) THAT ASSIGNMENT IS COMPLETED, THE COMMITTEE
(7) DISBANDS.

(8) Q IN ADDITION WITH MEETING WITH ELMER

(9) WHEELER YOU ALSO MET WITH SCOTT TUCKER?

(10) A YES.

(11) Q AND SCOTT TUCKER WAS A RESEARCH SCIENTIST

(12) AT MONSANTO AT THAT TIME?
 (13) A YES.
 (14) Q AND YOU TALKED TO HIM ABOUT THE THINGS HE
 (15) HAD BEEN DOING ON THE PCB PROBLEM?
 (16) A CERTAINLY.
 (17) Q YOU REVIEWED FILES THAT MR. WHEELER GAVE
 (18) YOU, HIS FILES?
 (19) A YES.
 (20) Q AND YOU REVIEWED FILES FROM DR. KELLER?
 (21) A YES.
 (22) Q AND DR. RICHARD?
 (23) A YES.
 (24) Q WHAT WERE THEIR JOBS?
 (25) A DR. RICHARD WAS THE RESEARCH DIRECTOR FOR
 (26) THE RESEARCH WORK BEING CONDUCTED FOR THE
 (27) FLUIDS BUSINESS GROUP.
 (28) DR. KELLER WAS IN CHARGE OF THE

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(1) ANALYTICAL LABORATORY THAT PROVIDED SERVICE FOR
 ALL
 (2) OF MONSANTO'S RESEARCH ACTIVITIES.
 (3) DR. SCOTT TUCKER REPORTED TO DR. KELLER.
 (4) Q YOU ALSO REVIEWED, IN ADDITION TO THE
 (5) FILES THAT WHEELER AND KELLER AND RICHARD GAVE
 YOU,
 (6) FILES FROM HOWARD BERGEN, RIGHT?
 (7) A YES.
 (8) Q AND HIS FILE WAS CALLED AROCLOR TOXICITY,
 (9) RIGHT?
 (10) A YES.
 (11) HE USED THAT DESIGNATION.
 (12) Q OKAY. AND IN ADDITION TO ALL OF THAT
 (13) STUFF, YOU ALSO REVIEWED THE MATERIALS THAT HAD
 BEEN
 (14) DEVELOPED AND PULLED TOGETHER BY THE AD HOC
 (15) COMMITTEE?
 (16) A OH, YES.
 (17) Q THAT WAS THE COMMITTEE THAT ELMER WHEELER
 (18) HAD CHAIRED?
 (19) A YES.
 (20) Q NOW, WHEN YOU TOOK ON THIS NEW JOB, YOU
 (21) WERE ACTUALLY STARTING EFFECTIVELY AT THE
 BEGINNING
 (22) OF JANUARY, 1970; IS THAT CORRECT?
 (23) A I WAS.
 (24) Q NOW, WHEN YOU GOT THAT JOB, YOU THOUGHT
 (25) THAT THE WORK THAT THE TWO SWEDISH
 RESEARCHERS HAD
 (26) DONE, JENSEN AND WIDMARK, WAS BELIEVABLE, RIGHT?
 (27) A AT THAT POINT IN TIME?
 (28) Q YES.

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(1) A YES, SIR.
 (2) Q WHEN YOU TOOK ON YOUR JOB AT THE
 (3) BEGINNING OF JANUARY, 1970, YOUR INITIAL
 ASSUMPTION
 (4) WAS THAT EVENTUALLY THERE WOULD BE A
 GOVERNMENTAL BAN
 (5) ON PCB'S?
 (6) A I DON'T KNOW THAT I WOULD CALL IT SO MUCH
 (7) A BAN AS SOME REGULATION OF THE USE AND
 MANUFACTURE
 (8) OF PCB'S.
 (9) Q OKAY. BUT YOU THOUGHT THERE WOULD BE
 (10) GOVERNMENT REGULATION?
 (11) A THAT IS WHAT I SUSPECTED, YES.
 (12) Q WHEN YOU TOOK ON YOUR JOB IN JANUARY,
 (13) 1970, DR. RICHARD TOLD YOU THAT HE BELIEVED THAT
 (14) PCB'S WOULD BE BANNED, CORRECT?
 (15) A DR. RICHARD HAD THAT BELIEF, YES.
 (16) Q AND HE TOLD YOU THAT, HE TOLD YOU THAT HE
 (17) THOUGHT THAT PCB'S WOULD BE BANNED BY
 GOVERNMENT
 (18) ACTION IN - WHEN YOU ARRIVED IN JANUARY OR EARLY
 (19) FEBRUARY OF '70?

(20) A ABOUT THAT TIME, YES, SIR.
 (21) Q OKAY. NOW, YOU REVIEWED A LOT OF
 (22) DOCUMENTS IN THE COURSE OF THE YOUR WORK,
 STARTING IN
 (23) JANUARY, 1970, RIGHT?
 (24) A I DID.
 (25) Q AND YOU LOOKED AT DOCUMENTS GOING BACK TO
 (26) THE VERY FIRST REPORTS OF THE FINDINGS OF PCB'S IN
 (27) THE ENVIRONMENT?
 (28) A YES.

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(1) Q MR. PAPAGEORGE, I WOULD LIKE YOU TO TURN
 (2) AROUND, IF YOU WOULD, PLEASE.
 (3) ON THE SECOND SHELF, THAT BOOK IS A
 (4) SERIES OF BLUE BINDERS.
 (5) YOU SHOULD TAKE OUT THE FIRST BINDER, THE
 (6) ONE THAT INCLUDES EXHIBIT NUMBER 31.
 (7) A I HAVE IT.
 (8) Q OKAY.
 (9) THIS IS TRANSWESTERN NUMBER 31, IT IS A
 (10) NOTICE DOCUMENT.
 (11) THE COURT: LADIES AND GENTLEMEN, YOU HAVE
 (12) ALREADY BEEN INSTRUCTED IN CONNECTION WITH THIS
 (13) DOCUMENT. ITS IMPORTANCE IS WHAT MONSANTO WAS
 TOLD
 (14) AND WHEN.
 (15) Q BY MR. TALLON: MR. PAPAGEORGE, THAT IS
 (16) THE LETTER FROM MONSANTO'S AGENT IN SWEDEN,
 RISING
 (17) AND STRAND, DATED IN LATE NOVEMBER, 1966 THAT
 DAVID
 (18) WOOD GOT, RIGHT?
 (19) A THAT'S CORRECT.
 (20) Q AND TO YOUR KNOWLEDGE, THAT WAS THE FIRST
 (21) REPORT TO MONSANTO OF WHAT DRS. JENSEN AND
 WIDMARK
 (22) WERE WORKING ON IN SWEDEN?
 (23) A THIS IS THE FIRST WRITTEN REPORT THAT I
 (24) AM AWARE OF, YES, SIR.
 (25) Q OKAY.
 (26) ARE YOU AWARE OF AN ORAL REPORT THAT
 (27) PRECEDED THIS?
 (28) A I DON'T RECALL.

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(1) AT THE MOMENT IT COULD BE - WELL, I'M
 (2) GUESSING.
 (3) THE INFORMATION COULD HAVE BEEN KNOWN VIA
 (4) THE PUBLIC KIND OF DOCUMENTS, LIKE JOURNALS AND SO
 (5) ON.
 (6) Q OKAY. AND YOU WERE - YOU LEARNED WHEN
 (7) YOU READ THIS LETTER ABOUT THE SPECIFICS THAT
 WERE
 (8) REPORTED TO DAVID WOOD IN NOVEMBER, 1966,
 CORRECT?
 (9) A YES.
 (10) Q AND YOU READ THE TRANSLATION OF THE
 (11) SWEDISH LANGUAGE NEWSPAPER THAT WAS GIVEN TO
 (12) MR. WOOD, RIGHT?
 (13) A YES.
 (14) Q AND YOU READ ABOUT THE IDENTIFICATION OF
 (15) PCB'S IN THE SAMPLES THAT ARE REFLECTED IN THAT
 FIRST
 (16) INDENTED PARAGRAPH ON PAGE 1 OF THAT LETTER,
 CORRECT?
 (17) A THIS WAS THE REPORTING OF AN
 (18) IDENTIFICATION OF A MATERIAL THAT WAS IDENTIFIED IN
 (19) TENTATIVE KIND OF WAY BY THE RESEARCHERS AS VERY
 (20) LIKELY BEING PCB'S.
 (21) Q AND BY THE TIME YOU GOT YOUR JOB IN
 (22) JANUARY OF 1970, YOU BELIEVED THEY WERE
 CORRECT?
 (23) A THAT IS TRUE.
 (24) Q NOW, YOU WILL WANT TO KEEP THAT BOOK IN
 (25) FRONT OF YOU, MR. PAPAGEORGE.
 (26) TAKE A LOOK, IF YOU WOULD, AT EXHIBIT
 (27) 32.

(28) A I HAVE IT.

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- (1) Q NOW, THAT, MR. PAPAGEORGE, IS A COPY OF
 (2) THE MEMO THAT DAVID WOOD SENT TO GEORGE
 BUCHANAN IN
 (3) ST. LOUIS ON THE FIRST OF DECEMBER, 1966, RIGHT?
 (4) A THAT IS CORRECT.
 (5) Q AND WITH THAT MEMO MR. WOODS SENT
 (6) MR. BUCHANAN AND THE OTHER PEOPLE WHO GOT THIS
 MEMO
 (7) COPIES OF THE LETTER THAT WE JUST LOOKED AT FROM
 (8) RISING AND STRAND?
 (9) A YES.
 (10) Q SO YOU ARE AWARE THAT THAT INFORMATION
 (11) WAS PASSED ON AND RECEIVED IN ST. LOUIS THE
 BEGINNING
 (12) OF DECEMBER, 1966?
 (13) A CORRECT.
 (14) MR. TALLON: YOUR HONOR, TRANSWESTERN 33 WHICH
 (15) WE ARE ABOUT TO LOOK AT IS ALSO A NOTICE DOCUMENT.
 (16) THE COURT: LADIES AND GENTLEMEN, THE SAME
 (17) INSTRUCTION APPLIES, WHAT MONSANTO KNEW AND
 WHEN.
 (18) Q BY MR. TALLON: LOOK AT THAT, IF YOU
 (19) WOULD, PLEASE, MR. PAPAGEORGE.
 (20) THAT IS A COPY OF A LETTER FROM GUNNAR
 (21) WIDMARK, ONE OF THE SWEDISH RESEARCHERS, SENT
 TO
 (22) MR. FORD AT MONSANTO AT THE END OF DECEMBER,
 1966,
 (23) CORRECT?
 (24) A CORRECT.
 (25) Q NOW, IN THAT LETTER MR. WIDMARK OR
 (26) DR. WIDMARK WAS COMMUNICATING DIRECTLY WITH
 MR. FORD.
 (27) WHAT WAS HIS TITLE AT THE TIME?
 (28) A MR. FORD IS ASSOCIATED WITH THE MARKETING

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- (1) FUNCTION.
 (2) HE COULD HAVE BEEN A PRODUCT MANAGER IN
 (3) THE ST. LOUIS OFFICE.
 (4) Q OKAY.
 (5) A HE WAS ASSOCIATED WITH PCB'S.
 (6) Q ALL RIGHT. AND DR. WIDMARK WAS WRITING
 (7) TO MR. FORD ABOUT THE WORK THAT HE HAD DONE
 WITH
 (8) JENSEN IN SWEDEN, RIGHT?
 (9) A YES.
 (10) Q AND ONE OF THE THINGS THAT YOU READ WHEN
 (11) YOU READ THIS LETTER IS THAT GUNNAR WIDMARK WAS
 (12) TELLING MR. FORD THAT A SAMPLE HE HAD FOUND WAS
 IN A
 (13) SEA EAGLE AND FURTHER THAT THE SAMPLE SHOWED
 80 PARTS
 (14) PER MILLION OF PCB, RIGHT?
 (15) A THAT IS WHAT IT SAYS, YES, SIR.
 (16) Q TURN, IF YOU WOULD, PLEASE,
 (17) MR. PAPAGEORGE, TO 34.
 (18) ACTUALLY, SKIP 34.
 (19) AND TURN, INSTEAD, TO 44.
 (20) I'M SORRY.
 (21) A I'M SORRY, 44?
 (22) Q 44.
 (23) THE COURT: THIS, AGAIN, LADIES AND GENTLEMEN,
 (24) GOES TO WHAT MONSANTO KNEW AND WHEN.
 (25) Q BY MR. TALLON: WHEN YOU READ THIS
 (26) DOCUMENT, YOU SAW THAT THE UNITED STATES
 DEPARTMENT
 (27) OF THE INTERIOR WAS WRITING TO MONSANTO IN
 JANUARY OF
 (28) 1968, CORRECT?

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- (1) A I DID.
 (2) Q AND WHAT THE DEPARTMENT OF THE INTERIOR
 (3) WAS SAYING TO MONSANTO IN JANUARY OF 1968 WAS
 THAT IT

- (4) HAD BEEN BROUGHT TO THE ATTENTION OF THE
 DEPARTMENT
 (5) OF THE INTERIOR THAT - EXCUSE ME.
 (6) PRESUMPTIVE EVIDENCE OF CHLORINATED
 (7) BIPHENYL AND CHLORINATED POLYCHLORINATED
 PHENYLS HAD
 (8) BEEN FOUND IN AVIAN AND ANIMAL TISSUES; IS THAT
 (9) RIGHT?
 (10) A THAT'S CORRECT.
 (11) Q AND "AVIAN," THAT REFERS TO BIRDS, RIGHT?
 (12) A YES.
 (13) Q AND THE DEPARTMENT OF THE INTERIOR TOLD
 (14) MONSANTO IN JANUARY OF 1968 THAT IT WAS IN THE
 (15) PROCESS OF FURTHER INVESTIGATING THE
 COMPOUNDS AND
 (16) ASKED MONSANTO TO PROVIDE SAMPLES OF AROCLORS
 1242,
 (17) 1254, 1260 AND 1268, RIGHT?
 (18) A YES.
 (19) Q TURN, IF YOU WOULD, PLEASE,
 (20) MR. PAPAGEORGE, TO EXHIBIT NUMBER 46 IN THAT
 BOOK.
 (21) NOW, MR. PAPAGEORGE, THE CORPORATE
 (22) DEVELOPMENT COMMITTEE WAS COMPRISED OF
 SENIOR MEMBERS
 (23) OF MONSANTO MANAGEMENT, RIGHT?
 (24) A THAT IS CORRECT.
 (25) Q AND AT SOME POINTS IN MONSANTO'S
 (26) CORPORATE HISTORY, IT WAS REFERRED TO AS THE
 (27) CORPORATE DEVELOPMENT COMMITTEE, RIGHT?
 (28) A YES.

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- (1) Q AND AT LATER POINTS IT WAS REFERRED TO AS
 (2) THE CORPORATE MANAGEMENT COMMITTEE?
 (3) A YES.
 (4) Q AND THE JOB OF THAT COMMITTEE, WHETHER IT
 (5) WAS CALLED THE CORPORATE DEVELOPMENT
 COMMITTEE OR THE
 (6) CORPORATE MANAGEMENT COMMITTEE, WAS TO STEER
 THE
 (7) BUSINESS OF MONSANTO?
 (8) A THAT'S A GOOD DESCRIPTION OF THEIR MAJOR
 (9) RESPONSIBILITY, YES, SIR.
 (10) Q NOW, WHEN YOU STARTED YOUR READING AFTER
 (11) YOU TOOK ON THE JOB IN JANUARY OF 1970, YOU SAW
 THAT
 (12) THE CORPORATE DEVELOPMENT COMMITTEE HAD MET
 IN APRIL
 (13) OF 1968, CORRECT?
 (14) A YES.
 (15) Q AND YOU SAW THAT THE CORPORATE
 (16) DEVELOPMENT COMMITTEE WAS CONSIDERING AT THAT
 TIME
 (17) HOW TO SIGNIFICANTLY INCREASE THE SALES GROWTH
 OF
 (18) PCB'S WHILE MAINTAINING THE DOMESTIC SUPPLY
 POSITION
 (19) AND PROFITABILITY, RIGHT?
 (20) A YES.
 (21) Q AND ONE OF THE THINGS YOU SAW IF YOU
 (22) WOULD TURN TO EXHIBIT NUMBER 48, WAS THIS MEMO
 FROM
 (23) CUMMING PATON DATED JUNE 18, 1968, CORRECT?
 (24) A THAT IS CORRECT.
 (25) Q AND WHAT WAS MR. PATON'S JOB AT THAT
 (26) TIME?
 (27) A AT THAT TIME DR. PATON WAS THE MANAGER OF
 (28) A - OF THE PCB PRODUCTS THAT WERE MARKETING BY THE

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- (1) PLASTICIZERS GROUP.
 (2) HE WAS A MEMBER OF THE MARKETING
 (3) DEPARTMENT.
 (4) Q AND TELL US HOW YOU ARE USING THE TERM
 (5) "PLASTICIZERS."
 (6) A AS IT RELATES TO PCB'S I THINK I COULD
 (7) MORE ACCURATELY DESCRIBE IT AS SORT OF A

(8) MISCELLANEOUS USE FOR PCB'S OTHER THAN USE AS A
(9) LIQUID IN A PIECE OF MACHINERY.
(10) Q OKAY. GIVE US SOME OF THE MISCELLANEOUS
(11) USES THAT PCB'S WERE PUT TO IN THE PLASTICIZER
(12) BUSINESS.
(13) A IT'S AN INGREDIENT IN VARNISHES AND
(14) PAINTS, FOR EXAMPLE, THE HIGHWAY TRAFFIC LINES USED
(15) TO CONTAIN PCB'S, USED IN ADHESIVES, USED IN THE NCR
(16) PAPER WE TALKED ABOUT, USED AS AN INGREDIENT IN
(17) CALKING MATERIAL AROUND THE WINDOWS OF
SKYSCRAPERS,
(18) USED AS AN INGREDIENT IN SOME PRINTING INKS, USED AS
(19) AN INGREDIENT TO ADD TO BRITTLE PLASTICS TO MAKE
THEM
(20) FLEXIBLE, ALSO IN RUBBER MATERIALS.
(21) THERE ARE MANY MORE.
(22) THAT IS ALL THAT COMES TO MIND RIGHT
(23) NOW.
(24) Q ALL RIGHT. AND WHAT YOU READ WHEN YOU
(25) LOOKED AT THIS JUNE 18, 1968 MEMO FROM CUMMING
PATON,
(26) THAT WAS ADDRESSED TO DR. RICHARD, RIGHT?
(27) A YES.
(28) Q WHAT YOU READ IS THAT DR. PATON HAD

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(1) GOTTEN A CALL FROM THE U.S. BUREAU OF
COMMERCIAL
(2) FISHERIES IN ANN ARBOR, MICHIGAN, RIGHT?
(3) A YES.
(4) Q AND THE U.S. BUREAU OF COMMERCIAL
(5) FISHERIES IN JUNE OF '68 WAS LOOKING AT
POLLUTANTS IN
(6) LAKE MICHIGAN AND THEY BELIEVED, ACCORDING TO
(7) DR. PATON, THAT THEY FOUND PCB'S, RIGHT?
(8) A YES.
(9) Q AND DR. PATON ASKED DR. RICHARD TO SEND
(10) THE U.S. BUREAU OF COMMERCIAL FISHERIES SAMPLES
OF
(11) AROCLOR 1221, 1232, 1242, 1254 AND 1260, RIGHT?
(12) A YEAH, THAT'S AN EXAMPLE OF THE
(13) COOPERATION WITH THE GOVERNMENT LABS.
(14) Q TOGETHER WITH A BULLETIN ADDRESSING THOSE
(15) PRODUCTS?
(16) A YES, UH-HUH.
(17) Q NOW, LAKE MICHIGAN, A LOT OF COHO SALMON
(18) FISHING IN LAKE MICHIGAN, RIGHT?
(19) A THAT IS MY UNDERSTANDING.
(20) Q THERE CAME A TIME FOLLOWING THIS MEMO
(21) WHERE THE GOVERNOR OF MICHIGAN PROHIBITED
COHO SALMON
(22) FISHING, RIGHT?
(23) A I HESITATE BECAUSE I DON'T KNOW IF IT WAS
(24) THE GOVERNOR'S RULING OR WHAT BASIS HE HAD TO
(25) ESTABLISH IT.
(26) BUT THERE WAS A RESTRICTION ON THE
(27) FISHING, YES.
(28) Q AND THAT WAS DUE TO THE PRESENCE OF PCB'S

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(1) IN THE COHO SALMON?
(2) A YES.
(3) Q YOU JUST DON'T REMEMBER IF IT WAS THE
(4) GOVERNOR OR NOT?
(5) A THAT'S CORRECT.
(6) Q OKAY. NOW, WHEN YOU WERE REVIEWING ALL
(7) OF THE STUFF THAT HAD BEEN PULLED TOGETHER BY
ELMER
(8) WHEELER AND DR. RICHARD AND DR. KELLER, YOU
LEARNED
(9) ABOUT AN ARTICLE IN THE SAN FRANCISCO CHRONICLE,
(10) RIGHT?
(11) A I DID.
(12) Q AND THIS WAS AN ARTICLE THAT APPEARED IN
(13) THE SAN FRANCISCO CHRONICLE IN FEBRUARY OF
1969?
(14) A YES.
(15) Q ACTUALLY, IT WAS FEBRUARY 24, 1969,

(16) CORRECT?
(17) A I DON'T RECALL THE EXACT DAY.
(18) Q OKAY. LET ME SEE IF I CAN REFRESH YOUR
(19) RECOLLECTION.
(20) A I RECALL THE ARTICLE AND THAT IS WHAT IT
(21) SAYS, THE 24TH.
(22) Q SO YOU FOUND OUT WHEN YOU WERE DOING YOUR
(23) WORK ABOUT THE SAN FRANCISCO CHRONICLE
ARTICLE OF
(24) FEBRUARY 24, 1969?
(25) A YES.
(26) Q AND YOU FOUND OUT THAT THAT WAS REALLY
(27) THE FIRST TIME THAT THE PCB ENVIRONMENTAL ISSUE
HAD
(28) BEEN PUBLICIZED IN THE POPULAR PRESS IN THE
UNITED

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(1) STATES?
(2) A YES.
(3) Q OKAY. AND THAT STORY, WHEN IT BROKE IN
(4) THE SAN FRANCISCO CHRONICLE, RESULTED IN A LOT
OF
(5) ACTIVITY OF MONSANTO?
(6) A THERE WAS SOME ACTIVITY.
(7) I DON'T KNOW WHETHER IT WAS AN AWFUL LOT,
(8) ANYMORE THAN WHAT WE WERE ALREADY DOING.
(9) Q THERE WAS A LOT OF MEMORANDUM WRITING
(10) ADDRESSED TO THAT ARTICLE, RIGHT?
(11) A YES. UH-HUH.
(12) Q AND THAT STORY IN THE SAN FRANCISCO
(13) CHRONICLE ARTICLE REFERRED TO DR. RISEBROUGH?
(14) A YES.
(15) Q AND DR. RISEBROUGH'S WORK?
(16) A YES.
(17) Q AND WHAT WAS DR. RISEBROUGH'S WORK AS YOU
(18) LEARNED ABOUT IT?
(19) A DR. RISEBROUGH HAD LOOKED AT SOME FISH
(20) AND SOME BIRDS.
(21) Q AND FOUND WHAT?
(22) A AND FOUND THAT IN THE TISSUES OF THESE
(23) SAMPLES, OF THESE WILDLIFE CREATURES, THERE WERE
SOME
(24) MATERIALS THAT HE IDENTIFIED AS PCB'S.
(25) Q AND THOSE WERE WHAT KIND OF BIRDS OR FISH
(26) WAS HE LOOKING AT, DO YOU REMEMBER?
(27) A I REMEMBER THE REFERENCE TO A PEREGRINE
(28) FALCON AND THE FISH I DON'T REMEMBER.

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(1) IT WAS A SPECIES OF FISH.
(2) THEY WERE, AS I REMEMBER, OCEAN FISH, NOT
(3) FRESHWATER FISH.
(4) Q WHERE IS SNOW CREEK?
(5) A SNOW CREEK?
(6) Q YEAH.
(7) A IT'S NEAR THE ANNISTON, ALABAMA PLANT.
(8) Q TAKE A LOOK, IF YOU WOULD,
(9) MR. PAPAGEORGE, AT TRANSWESTERN EXHIBIT NUMBER
71.
(10) A I HAVE IT.
(11) Q THAT IS A MEMO FROM DR. SCOTT TUCKER TO
(12) DR. RICHARD AND MR. WHEELER, RIGHT?
(13) A YES.
(14) Q AND IT IS DATED FEBRUARY 25, 1969?
(15) A CORRECT.
(16) Q AND IN THIS MEMO DR. TUCKER IS TELLING
(17) DR. RICHARD AND MR. WHEELER THAT SAMPLES OF
WATER IN
(18) SNOW CREEK HAD BEEN TESTED FOR THE PRESENCE OF
PCB'S,
(19) RIGHT?
(20) A CORRECT.
(21) Q AND, IN FACT, THE TESTS WERE POSITIVE FOR
(22) PCB'S, CORRECT?
(23) A CORRECT.
(24) Q AND THE KIND OF PCB FOUND WAS AROCLOR
(25) 1242?

(26) A YES.
(27) Q SO YOU KNEW WHEN YOU READ THIS MEMO THAT
(28) IN FEBRUARY OF 1969 DR. TUCKER, DR. RICHARD AND

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(1) MR. WHEELER WERE AWARE THAT AROCLOR 1242 WAS
SHOWING
(2) UP IN WATER SAMPLES NEAR YOUR ANNISTON PLANT,
RIGHT?
(3) A IN A WATER SAMPLE, YES, SIR.
(4) Q PLANT OUTFALL WATER SAMPLES?
(5) A WELL, NO.
(6) THIS IS NEAR THE PLANT OUTFALL.
(7) SNOW CREEK IS A DRY CREEK EXCEPT WHEN IT
(8) RAINS.
(9) Q RIGHT.
(10) A AND APPARENTLY THERE WAS SOME WATER THERE
(11) COLLECTED FROM A PREVIOUS RAIN.
(12) THAT IS THE SAMPLE THAT WAS TAKEN.
(13) Q AND THAT IS WHAT THEY TESTED FOR THE
(14) PRESENCE OF PCB'S?
(15) A YES, SIR.
(16) Q AND THE PCB THAT THEY FOUND WAS 1242?
(17) A YES.
(18) Q OKAY.
(19) MR. TALLON: YOUR HONOR, THIS IS A NATURAL
(20) BREAKING POINT.
(21) THE COURT: ALL RIGHT.
(22) THEN, LADIES AND GENTLEMEN, WE WILL TAKE
(23) THE NOON RECESS NOW AND RESUME AT 1:30.
(24) I WILL ASK YOU TO RETURN JUST BEFORE THEN
(25) SO WE CAN START AGAIN AT 1:30.
(26) WE ARE IN RECESS.
(27) (AT 12:00 NOON, A RECESS WAS TAKEN
(28) UNTIL 1:30 P.M. OF THE SAME DAY.)

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(1) LOS ANGELES, CALIFORNIA; MONDAY, DECEMBER 6, 1993
(2) 1:30 P.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 RESUMING.
(9) GO AHEAD, MR. TALLON.
(10) MR. TALLON: THANK YOU, YOUR HONOR.
(11)
(12) WILLIAM B. PAPAGEORGE,

(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) DIRECT EXAMINATION (CONTINUED.)
(18) BY MR. TALLON:
(19) Q MR. PAPAGEORGE, WHEN YOU TOOK OVER THE
(20) JOB AS MANAGER OF ENVIRONMENTAL CONTROL IN
JANUARY,
(21) 1970, YOU DID BECOME AWARE OF THE JENSEN AND
WIDMARK
(22) WORK IN SWEDEN, CORRECT?
(23) A I DID, YES, SIR.
(24) Q AND YOU ALSO LEARNED THAT THERE WERE A
(25) NUMBER OF OTHER STUDIES THAT CONFIRMED WHAT
JENSEN
(26) AND WIDMARK HAD DONE?
(27) A I NEED SOME HELP WITH THE WORD
(28) "CONFIRM."

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(1) THESE OTHER STUDIES WERE NOT DONE ON THE
(2) SAME SAMPLES.
(3) AND THAT IS THE WAY I ASSOCIATE
(4) "CONFIRM."
(5) NOW, IF YOU -
(6) Q SO WHEN YOU USE THE WORD "CONFIRM," YOU
(7) MEAN, FOR EXAMPLE, ANOTHER LABORATORY HAD
LOOKED AT
(8) EXACTLY THE SAME THING AS JENSEN AND WIDMARK
DID AND
(9) SAID, "YES, YOU'RE RIGHT, IT'S PCB." THAT IS HOW YOU
(10) WOULD USE "CONFIRMED"?
(11) A YES, SIR.
(12) Q BUT YOU ARE AWARE THAT OTHER SCIENTISTS
(13) HAD BEEN LOOKING AT THE ISSUE OF PCB'S IN THE
(14) ENVIRONMENT AFTER JENSEN AND WIDMARK'S OWN
REPORT HAD
(15) BEEN MADE PUBLICLY AVAILABLE IN SWEDEN?
(16) A I WAS AWARE, YES, SIR.
(17) Q AND YOU WERE AWARE FOR EXAMPLE THAT SOME
(18) BRITISH RESEARCHERS HAD COME TO THE SAME KIND
OF
(19) CONCLUSIONS THAT JENSEN AND WIDMARK HAD?
(20) A YES.
(21) Q AND THAT WAS SOME FELLOWS BY THE NAMES OF
(22) HOLMES, SIMMONS AND TATTON?
(23) A I RECALL THOSE NAMES, YES, SIR.
(24) Q AND THOSE THREE BRITISH SCIENTISTS
(25) ACTUALLY PUBLISHED A PAPER REPORTING THE WORK
THAT
(26) THEY HAD DONE FINDING PCB'S IN THE ENVIRONMENT,
(27) RIGHT?
(28) A THEY DID.

Page 1795

(1) Q LOOK AT EXHIBIT 42 FOR A SECOND,
(2) MR. PAPAGEORGE.
(3) IT'S IN THE FIRST BINDER.
(4) A I HAVE FOUND THE EXHIBIT.
(5) Q OKAY. HOLMES, SIMMONS AND TATTON
(6) PUBLISHED THE RESULTS OF THEIR RESEARCH WORK
FINDING
(7) PCB'S IN THE ENVIRONMENT ON OCTOBER 21, 1967 IN
THE
(8) BRITISH SCIENCE PUBLICATION NATURE, CORRECT?
(9) A YES.
(10) Q OKAY. AND WHAT THEY CONCLUDED WAS THAT
(11) THEY HAD ALSO FOUND PCB'S IN SAMPLES TAKEN FROM
THE
(12) ENVIRONMENT?
(13) A YES.
(14) Q SO BY THE TIME YOU GOT TO YOUR JOB IT
(15) WASN'T JUST THAT WIDMARK AND JENSEN HAD FOUND
IT,
(16) OTHERS HAD COME TO THE SAME CONCLUSION?
(17) A YES, IF WE ARE TALKING ABOUT A CERTAIN
(18) TYPE OF PCB, YES, SIR.

(19) Q TAKE A LOOK FOR A MOMENT, MR. PAPAGEORGE,
(20) AT EXHIBIT 110 WHICH IS THE LAST EXHIBIT IN BINDER
(21) TWO.
(22) I THINK YOU PROBABLY HAVE BINDER TWO OPEN
(23) THERE.
(24) A I HAVE IT.
(25) Q THAT IS A MEMO FROM SCOTT TUCKER, SORT OF
(26) RECAPING ALL OF THE STUDIES THAT HAD BEEN DONE
(27) THROUGH THE END OF 1969, RIGHT?
(28) A LET ME PERUSE IT A BIT.

Page 1796

(1) Q OKAY. AND MR. PAPAGEORGE, TAKE YOUR
(2) TIME.
(3) IF YOU ARE LOOKING FOR SOMETHING IN
(4) PARTICULAR, I COULD DIRECT YOU TO THE LAST FEW
PAGES
(5) OF THE EXHIBIT.
(6) A THANK YOU.
(7) I HAVE REVIEWED THE ARTICLE.
(8) Q LOOK ALL THE WAY TO THE BACK TO THE
(9) SECTION THAT HAS THE INFORMATION TURNED ON ITS
SIDE.
(10) A I FOUND IT.
(11) Q ALL RIGHT. AND IN THAT LIST OF STUDIES
(12) SCOTT TUCKER COMPILES ALL OF THE DIFFERENT
STUDIES
(13) THAT HAD BEEN DONE BY THE END OF 1969 DETECTING
PCB'S
(14) IN THE ENVIRONMENT, CORRECT?
(15) A IT APPEARS TO BE A LISTING OF THE STUDIES
(16) KNOWN TO DR. TUCKER.
(17) Q OKAY.
(18) A THERE MAY BE SOME THAT AREN'T INCLUDED.
(19) I DON'T KNOW.
(20) Q OKAY. WELL, LET ME DIRECT YOU TO THE
(21) PAGE THAT IS NUMBERED TRAN 023494 THAT IS NOW UP
ON
(22) THE SCREEN.
(23) DO YOU HAVE THAT BEFORE YOU?
(24) A YES, SIR.
(25) Q WELL, DR. TUCKER, IN LISTING ALL OF THE
(26) WORK BY SCIENTISTS LISTED, OF COURSE, THE
WIDMARK AND
(27) JENSEN STUFF THAT HAD BEEN DONE IN 1966, RIGHT?
(28) A YES.

Page 1797

(1) Q AND THOSE WERE FINDINGS OF PCB'S IN
(2) SAMPLES OF, IT SAYS HERE, 80 PARTS PER MILLION?
(3) A 80 PARTS PER MILLION IN THE SEA EAGLE.
(4) Q YES.
(5) AND THEN A LITTLE FURTHER DOWN THE PAGE
(6) THERE IS A PCB SAMPLE FOUND, NO AMOUNT SHOWN.
(7) BUT THAT IS BY HOLMES, SIMMONS AND TATTON
(8) IN LONDON, RIGHT?
(9) A WELL, I DO SEE AN AMOUNT, 89 PARTS PER
(10) MILLION OF AROCLOR, OF THE TYPE AROCLOR 1254 IN
(11) CHICKEN AND EGGS.
(12) THAT IS PART OF THAT GROUPING.
(13) Q OKAY. AND IMMEDIATELY ABOVE THAT
(14) REFERENCE TO 89 PARTS PER MILLION THERE IS A
SEPARATE
(15) INDICATION FOR PCB.
(16) AND THEN SOME DATA ABOUT THAT STUDY.
(17) A YES.
(18) Q AND THAT IS THE ONE THAT WE JUST LOOKED
(19) AT THAT WAS PRINTED IN THE BRITISH SCIENCE
JOURNAL
(20) NATURE IN OCTOBER, 1967, RIGHT?
(21) A YES. BUT THERE IS NO QUANTITY SHOWN.
(22) IT WAS DETECTED BUT NOT QUANTIFIED.
(23) Q OKAY. AND THEN YOU BECAME AWARE THAT
(24) DR. RICHARDSON AT SHELL CHEMICAL IN
SITTINGBOURNE AND
(25) KENT IN THE UK ALSO DID A STUDY IN '67 SHOWING
PCB'S
(26) IN HERON EGGS?

(27) A YES.
(28) Q AND HOLDEN AND MARSDEN PUBLISHED WORK IN

Page 1798

(1) NATURE IN DECEMBER, 1967 SHOWING PCB IN SEALS
AND
(2) PORPOISES?
(3) A YES.
(4) Q AND THEN THE DEPARTMENT OF AGRICULTURE
(5) AND ENVIRONMENTAL TOXICOLOGY DID A REPORT OF
MAY 3RD,
(6) 1968 SHOWING AROCLOR 1242 AT 39 TO 44 PARTS - 34
TO
(7) 99 PARTS PER MILLION IN GOLDFISH?
(8) A THAT IS WHAT IT SAYS.
(9) Q OKAY.
(10) THERE IS A STUDY REFERRED TO THERE THAT
(11) WAS DONE IN THE NETHERLANDS BY DR. KOEMAN, 1968,
(12) RIGHT AT THE BOTTOM OF THAT SAME PAGE,
(13) MR. PAPAGEORGE.
(14) A THERE IS NOTHING AT THE BOTTOM OF MY
(15) PAGE.
(16) Q IF YOU LOOK AT THE DATE COLUMN, THERE IS
(17) A REFERENCE TO 1968.
(18) IF YOU BACK OFF TO THE LEFT, IT SAYS
(19) UTRECHT, NETHERLANDS.
(20) A OH, YES, ABOVE RISEBROUGH. OKAY.
(21) Q OKAY. AND THAT WAS ANOTHER STUDY WHERE
(22) PCB WAS FOUND IN SAMPLES TAKEN FROM THE
ENVIRONMENT
(23) AND IN THAT CASE IT WAS, WHAT, A ROACH?
(24) A IT INDICATES A ROACH, YES.
(25) Q AND DR. RISEBROUGH WHO YOU MENTIONED DID
(26) WORK IN DECEMBER, 1968?
(27) A YES.
(28) Q FINDING PCB'S IN SEA BIRDS AND SEA BIRD

Page 1799

(1) EGGS?
(2) A YES.
(3) Q SO ALL OF THIS WORK WAS DONE - THAT IS
(4) NOW THROUGH 1968, CORRECT?
(5) A YES, SIR.
(6) Q AND THEN IF YOU TURN TO THE NEXT PAGE, WE
(7) TAKE A LOOK AT ALL THE STUDIES IN 1969.
(8) FOR EXAMPLE, RIGHT AT THE TOP, I GUESS
(9) DR. TUCKER WAS HIMSELF FINDING AROCLOR 1242 AT
THE
(10) LEVEL OF 58 PARTS PER BILLION IN WATER TAKEN FROM
(11) SNOW CREEK NEAR THE ANNISTON PLANT?
(12) A THAT IS THE STUDY WE SAW EARLIER.
(13) Q THAT IS THE DOCUMENT WE WERE LOOKING AT
(14) JUST A LITTLE WHILE AGO?
(15) A YES.
(16) Q AND THAT WAS PCB THAT HAD, I GUESS,
(17) GOTTEN OUT OF YOUR PLANT IN ANNISTON?
(18) A YES.
(19) Q 58 PARTS PER BILLION, HOW MANY PARTS PER
(20) MILLION IS THAT?
(21) A YOU MOVE IT OVER THREE POINTS.
(22) SO IT'S 0005.
(23) Q AND THEN DR. TUCKER IN THIS LIST OF
(24) STUDIES GOES ON TO LIST OTHER WORK THAT HE HAD
DONE
(25) IN MONSANTO'S R AND D LABS IN 1969, CORRECT?
(26) A YES, SIR.
(27) Q AND HE REFERS TO - LET'S SEE.
(28) ABOUT RIGHT IN THE MIDDLE OF THE PAGE

Page 1800

(1) DR. TUCKER IN MAY OF '69 IDENTIFIES AROCLOR 1242 AT
(2) THE LEVEL OF 16.4 PARTS PER MILLION IN SEDIMENT
FROM
(3) THE MISSISSIPPI RIVER?
(4) A YES.
(5) Q AND YOU CAN TELL FROM THIS THAT THAT
(6) SEDIMENT SAMPLE WAS TAKEN - WAS THAT 300 YARDS
(7) DOWNSTREAM FROM THE KRUMMRICH PLANT?
(8) A THAT IS 300 FEET.

(9) Q THREE.
(10) AND THE KRUMMRICH LOCATION WAS THE OTHER
(11) LOCATION WHERE MONSANTO ACTUALLY MADE THE
PCB'S?
(12) A YES.
(13) Q AND THEN AROCLOR 1242 WAS FOUND IN AIR
(14) SAMPLES TAKEN BY THE STATE HEALTH DEPARTMENT
OF THE
(15) STATE OF CONNECTICUT IN MAY OF 1969.
(16) THAT SHOWS HERE, ALSO?
(17) A IT DOES.
(18) Q OKAY. AND, AGAIN, DR. RICHARDSON,
(19) WORKING AT SHELL LABS IN ENGLAND, FINDS PCB'S IN
(20) HERON EGGS AND OIL IN 6-12-69?
(21) A YES.
(22) Q AND THERE IS A REFERENCE HERE TO 1254
(23) BEING FOUND IN HUMAN FAT IN AMERICA IN JUNE OF
'69?
(24) A YES.
(25) Q ACTUALLY, JUST FLIP THE PAGE THERE FOR A
(26) SECOND, MR. PAPAGEORGE.
(27) THE WHOLE NEXT PAGE LISTS DIFFERENT TESTS
(28) THAT WERE DONE, STARTING IN JULY OF '69 THROUGH

Page 1801

(1) SEPTEMBER OF '69.
(2) EACH ONE CONFIRMING THE RESINS OF PCB'S
(3) IN SAMPLES TAKEN FROM VARIOUS PLACES.
(4) A YES, SIR.
(5) Q FROM BLUE GILL AND TROUT TO FLOUNDER
(6) LIVER TO WATER SAMPLES?
(7) A YES.
(8) Q SO BY THE TIME YOU TOOK ON YOUR JOB AT
(9) THE BEGINNING OF 1970 IT WAS CERTAINLY WELL
(10) ESTABLISHED THAT PCB SAMPLES, PCB'S WERE
SHOWING UP
(11) IN SAMPLES TAKEN OUT OF THE ENVIRONMENT?
(12) A YES.
(13) Q IN FACT, I THINK YOU WOULD PROBABLY AGREE
(14) WITH ME THAT BY THE END OF 1968 IT WAS PRETTY WELL
(15) ESTABLISHED THAT PCB'S WERE SHOWING UP IN
SAMPLES
(16) TAKEN FROM A NUMBER OF PLACES IN THE
ENVIRONMENT?
(17) A YES.
(18) Q LET'S LOOK AT EXHIBIT 74.
(19) A I HAVE IT.
(20) Q OKAY.
(21) THAT IS A COPY OF A MONSANTO PRESS
(22) RELEASE THAT YOU SAW WHEN YOU TOOK ON YOUR JOB
THAT
(23) WAS ISSUED BY MONSANTO ON MARCH 3RD, 1969,
RIGHT?
(24) A IT APPEARS TO BE, YES, SIR.
(25) Q AND I HAD ASKED YOU BEFORE ABOUT THE SAN
(26) FRANCISCO CHRONICLE ARTICLE OF FEBRUARY 24,
1969.
(27) AND THIS PRESS RELEASE ISSUED BY MONSANTO
(28) ADDRESSES THAT ARTICLE?

Page 1802

(1) A IT DOES.
(2) Q OKAY. NOW, WE ARE IN MARCH OF 1969 WHEN
(3) THIS IS ISSUED.
(4) AND MONSANTO FIRST LEARNED ABOUT JENSEN
(5) AND WIDMARK'S WORK IN DECEMBER, 1966?
(6) A YES.
(7) Q SO THIS IS ROUGHLY - A LITTLE OVER TWO
(8) YEARS LATER?
(9) A YES.
(10) Q NOW, WHEN YOU READ THIS PRESS RELEASE ON
(11) TAKING YOUR JOB, YOU SAW THAT IN THIS PRESS
RELEASE
(12) IT WAS COMMENTING ON THE SAN FRANCISCO
CHRONICLE
(13) ARTICLE AND TALKING ABOUT THE JENSEN AND
WIDMARK
(14) STUDIES THEMSELVES?

(15) A I SAW THAT, YES.
(16) Q AS THE PRESS RELEASE SAYS, "THE WORK DONE
(17) BY DR. RISEBROUGH DATES BACK TO EARLIER
RESEARCH BY
(18) OTHER SCIENTISTS."
(19) THAT REFERS TO JENSEN AND WIDMARK?
(20) A YES.
(21) Q AND THE PRESS RELEASE SAYS, "THE INITIAL
(22) PESTICIDE RESEARCH WAS EXTREMELY DIFFICULT
SINCE ANY
(23) SEARCH TO DETECT MATERIALS IN THE PARTS PER
BILLION
(24) RANGE ALSO BRINGS OUT INTERFERING SUBSTANCES"?
(25) A IT DOES.
(26) Q IN FACT, THE RESULTS OF WHAT JENSEN AND
(27) WIDMARK DID WERE STATED IN PARTS PER MILLION,
RIGHT,
(28) NOT PARTS PER BILLION?

Page 1803

(1) A TRUE.
(2) Q TURN OVER TO PAGE 2 THERE FOR A SECOND,
(3) MR. PAPAGEORGE.
(4) THE TOP OF PAGE 2 OF MONSANTO'S PRESS
(5) RELEASE, THIS IS MARCH OF '69.
(6) SO A LITTLE OVER TWO YEARS AFTER THE
(7) JENSEN AND WIDMARK WORK THE PRESS RELEASE OF
MARCH
(8) '69 REFERS TO THE JENSEN AND WIDMARK WORK IN THE
(9) FIRST PARAGRAPH.
(10) IT SAYS, "THE AMOUNT THEY REPORTED WAS IN
(11) THE PARTS PER BILLION RANGE OR LESS."
(12) A I SEE THAT.
(13) Q ACTUALLY, IT WAS REPORTED IN THE PARTS
(14) PER MILLION RANGE?
(15) A THAT IS CORRECT.
(16) Q SO THAT STATEMENT WAS SOMEWHAT
(17) MISLEADING?
(18) A IT'S ERRONEOUS.
(19) Q IT'S WRONG?
(20) A WRONG.
(21) Q NOW, LET'S TAKE A LOOK AT JUST THE BOTTOM
(22) OF THAT PAGE 2 FOR A SECOND, MR. PAPAGEORGE.
(23) THE PRESS RELEASE REPORTS THAT A
(24) PRINCIPAL MARKET FOR PCB IS IN ELECTRICAL
(25) APPLICATIONS, RIGHT?
(26) A THAT'S CORRECT.
(27) Q AND THEN IT GOES ON, ON THE TOP OF PAGE
(28) 2, TO REFER TO THE FUNCTIONAL FLUIDS MARKET?

Page 1804

(1) A I SEE IT.
(2) Q AND THE FUNCTIONAL FLUIDS MARKET INCLUDED
(3) TURBINOL BY THIS TIME, RIGHT?
(4) A YES.
(5) Q LOOK AT THE BOTTOM OF THAT PAGE.
(6) NOW WE ARE ON PAGE 3, ARE YOU WITH ME?
(7) A YES.
(8) Q THE ONE THAT STARTS, "IN THE FUNCTIONAL
(9) FLUIDS MARKET"?
(10) A I SEE IT.
(11) Q OKAY. THAT LAST PARAGRAPH ON THAT PAGE
(12) STATES THAT, "TO OUR KNOWLEDGE POLYCHLORINATED
(13) BIPHENYLS ARE NOT SPRAYED OR DUSTED ON CROPS,
(14) WOODLANDS OR ANY OTHER AREAS AS PESTICIDES,"
RIGHT?
(15) A IT DOES.
(16) Q AND IT SAYS, "IT IS THEREFORE NOT ONLY
(17) PUZZLING BUT EXTREMELY DIFFICULT TO CONCEIVE
HOW
(18) COMMERCIALY PRODUCED PCB CAN SHOW UP IN
WILDLIFE IN
(19) THE QUANTITIES REPORTED," RIGHT?
(20) A YES.
(21) Q AND IT GOES ON TO SAY, "THIS RAISES THE
(22) QUESTION WHETHER THE SUBSTANCE IDENTIFIED IN
THE
(23) SWEDISH WORK AND NOW IN CALIFORNIA ARE

ACTUALLY

(24) **PCB'S?"**

(25) **A IT SAYS THAT, UH-HUH.**

(26) **Q WELL, DID YOU EVER TALK TO ANYBODY TO TRY**

(27) **TO FIGURE OUT WHAT WAS PUZZLING TWO YEARS AFTER**

THE

(28) **JENSEN AND WIDMARK WORK ABOUT PCB'S BEING**

FOUND IN

Page 1805

(1) **THE ENVIRONMENT?**

(2) **A AS I REMEMBER, SEVERAL THINGS.**

(3) **KNOWING THE TYPES OF PCB'S MONSANTO SOLD**

(4) **AND REVIEWING THE REPORTS OF THE KIND DETECTED IN**

THE

(5) **ENVIRONMENT, IT DIDN'T FIT AT ALL.**

(6) **WE SOLD MORE OF THE LOWER CHLORINATED AND**

(7) **THE REPORTS SEEMED TO INDICATE THE HIGHER**

CHLORINATED

(8) **ROUTE.**

(9) **WE DIDN'T KNOW ENOUGH TO PUT THE TWO**

(10) **THOUGHTS TOGETHER.**

(11) **ANOTHER THOUGHT, WITH THE DISTINCT**

(12) **UNDERSTANDING THAT PCB'S WERE VERY STABLE**

MATERIALS,

(13) **WE JUST DIDN'T KNOW AT THAT TIME HOW A PCB FROM A**

(14) **FACTORY WOULD END UP IN THE FOREST THOUSANDS OF**

MILES

(15) **AWAY AND FOUND IN PINE NEEDLES.**

(16) **IT'S THAT KIND OF THING THAT WAS PUZZLING**

(17) **TO US BECAUSE WE LACKED A LOT OF INFORMATION TO**

HELP

(18) **US UNDERSTAND THIS.**

(19) **THOSE ARE JUST A COUPLE OF EXAMPLES THAT**

(20) **COME TO MIND OF HOW FUZZY EVERYTHING APPEARED TO**

US,

(21) **BASED ON OUR UNDERSTANDING AT THAT TIME.**

(22) **Q WE JUST LOOKED AT SOME STUDIES SHOWING**

(23) **THAT AROCLOR 1242 WAS BEING FOUND IN SAMPLES**

TAKEN

(24) **FROM THE ENVIRONMENT THAT PREDATED THIS PRESS**

(25) **RELEASE, RIGHT?**

(26) **A YES, WE DID.**

(27) **Q OKAY. AND WE JUST LOOKED AT A DOCUMENT**

(28) **SHOWING THAT MONSANTO WAS LOSING PCB'S FROM**

ITS OWN

Page 1806

(1) **PLANTS INTO SNOW CREEK, RIGHT?**

(2) **A YES, IN EVERY CASE IT WAS NEAR THE POINT**

(3) **OF USE, NOT IN A PINE NEEDLE IN THE WOODS**

THOUSANDS

(4) **OF MILES AWAY.**

(5) **Q SO YOU ARE FAMILIAR WITH THE CONCEPT OF**

(6) **INDIRECT CONTAMINATION?**

(7) **A WELL, I HAVEN'T USED THAT EXPRESSION,**

(8) **BUT I THINK I UNDERSTAND IT.**

(9) **Q WELL, I THINK THAT INDIRECT**

(10) **CONTAMINATION, THAT WOULD OCCUR WHEN YOU**

BURN A PIECE

(11) **OF NCR CARBONLESS CARBON PAPER AND THE PCB'S**

ARE

(12) **AIRBORNE AND THEN SETTLE SOMEPLACE, RIGHT?**

(13) **A THAT IS AN EXAMPLE, YES, SIR.**

(14) **Q DID YOU EVER ASK ANYBODY, AFTER YOU SAW**

(15) **THIS PRESS RELEASE, WHETHER THEY HAD**

CONSIDERED THAT

(16) **BEFORE THEY ISSUED A PRESS RELEASE SAYING THAT IT**

WAS

(17) **PUZZLING HOW PCB'S COULD BE FOUND IN THE**

ENVIRONMENT?

(18) **A THE QUESTION WAS ASKED, BUT I DON'T, AT**

(19) **THE MOMENT, REMEMBER IF IT WAS ASKED IN**

CONNECTION

(20) **WITH THIS PARTICULAR PRESS RELEASE.**

(21) **Q HOW ABOUT THE QUESTION THAT IS RAISED OR**

(22) **THE ISSUE THAT IS RAISED BY THE PRESS RELEASE, AND**

IT

(23) **SAYS, QUOTE, "THIS RAISES THE QUESTION WHETHER**

THE

(24) **SUBSTANCES IDENTIFIED IN THE SWEDISH WORK AND**

NOW IN

(25) **CALIFORNIA ARE ACTUALLY PCB'S."**

(26) **WELL, ACTUALLY YOU KNEW THEY WERE PCB'S?**

(27) **A NOT REALLY.**

(28) **BECAUSE WE DIDN'T SEE THOSE SAMPLES.**

Page 1807

(1) **Q YOU DIDN'T SEE -**

(2) **A WE TOOK THE REPORT OF THE INVESTIGATORS.**

(3) **AND WE HAD NO WAY OF REALLY KNOWING IF THEY WERE**

(4) **PCB'S OR SOME OF THE MATERIAL THAT RESEMBLED**

PCB'S.

(5) **Q DID YOU REQUEST THE RESULTS OF ANY OF THE**

(6) **SURVEYS OR STUDIES THAT WE HAD JUST LOOKED AT IN**

THE

(7) **DOCUMENT THAT LISTED THEM ALL, WIDMARK AND**

JENSEN AND

(8) **HOLMES AND TATTON AND DR. TUCKER HIMSELF DID**

WORK BY

(9) **THIS TIME?**

(10) **A OH, YES.**

(11) **WE DID TALK TO SOME OF THE**

(12) **INVESTIGATORS -**

(13) **Q YES?**

(14) **A - AND DISCUSS THIS.**

(15) **THE DISCUSSION ALWAYS, AS I REMEMBER AT**

(16) **THAT POINT IN TIME, LEFT US WITH A - STILL SOME**

(17) **QUESTIONS.**

(18) **Q WHEN DR. TUCKER OF MONSANTO HIMSELF WAS**

(19) **DOING TESTS THAT PREDATED THIS PRESS RELEASE**

THAT

(20) **SHOWED PCB'S PRESENT IN WATER SAMPLES, YOU**

DIDN'T

(21) **QUESTION THAT, RIGHT?**

(22) **A WELL, WE DIDN'T QUESTION HIS IDENTITY OF**

(23) **THE MATERIAL.**

(24) **BUT HE HIMSELF, IF YOU NOTE THAT PREVIOUS**

(25) **MEMORANDUM, REFERRED TO THE FACT THAT**

DETERMINING THE

(26) **AMOUNT WAS STILL DIFFICULT AND MORE STUDY HAD TO**

BE

(27) **MADE.**

(28) **Q BUT IT WASN'T REALLY ANY QUESTION THAT**

Page 1808

(1) **WHAT WAS BEING FOUND WAS PCB?**

(2) **A NOT IN THE SAMPLES HE LOOKED AT.**

(3) **Q WHAT ABOUT THE HOLMES AND TATTON STUDY**

(4) **THAT HAD BEEN PUBLISHED IN THE BRITISH JOURNAL**

(5) **NATURE, WAS THAT REALLY IN?**

(6) **A THERE WAS DISCUSSIONS WITH DR. HOLMES AND**

(7) **DR. KELLER OF MONSANTO.**

(8) **AS I REMEMBER DR. HOLMES WAS QUITE**

(9) **CERTAIN OF WHAT HE WAS SEEING.**

(10) **DR. KELLER PERSONALLY MAINTAINED**

(11) **RESERVATIONS.**

(12) **Q AND YOU FOUND OUT THAT - ACTUALLY DAVID**

(13) **WOOD HAD GONE TO SWEDEN TO MEET WITH JENSEN**

AND

(14) **WIDMARK?**

(15) **A YES.**

(16) **Q AND THAT OTHERS HAD FOLLOWED HIM,**

(17) **EVENTUALLY ELMER WHEELER WENT UP TO MEET WITH**

JENSEN

(18) **AND WIDMARK?**

(19) **A YES.**

(20) **Q AND YOU KNEW THAT JENSEN AND WIDMARK WERE**

(21) **USING AN LKB 9000 TO DO THEIR WORK, RIGHT?**

(22) **A YES.**

(23) **Q SO YOU DIDN'T REALLY CALL INTO QUESTION**

(24) **THE RESULTS OF THEIR STUDY EITHER?**

(25) **A YES, THE QUANTIFICATION.**

(26) **Q NOT THAT IT WAS PCB'S, JUST THE AMOUNT?**

(27) **A YES, YES.**

(28) **Q SO WHEN THIS PRESS RELEASE SAYS, "THIS**

Page 1809

- (1) RAISES THE QUESTION WHETHER THE SUBSTANCES IDENTIFIED
- (2) IN THE SWEDISH WORK AND NOW IN CALIFORNIA ARE
- (3) ACTUALLY PCB'S," THAT WASN'T REALLY A QUESTION THAT
- (4) MONSANTO HAD?
- (5) A WELL, THE INTENT THERE WAS TO POINT OUT
- (6) THAT WE DIDN'T QUESTION THAT THE MATERIAL OBSERVED IS
- (7) A PCB BUT DID IT START OUT AS A PCB OR WAS IT
- (8) CHLORINATED SOMETHING ELSE THAT WAS METABOLIZED AND
- (9) THEN SHOWED UP AS A PCB.
- (10) THAT IS NOT CLEAR HERE, BUT THAT IS THE
- (11) INTENT.
- (12) Q NO.
- (13) A REPORTER WHO MIGHT GET THIS PRESS
- (14) RELEASE FROM MONSANTO COULD READ THAT AND THINK THAT
- (15) MONSANTO IS QUESTIONING WHETHER THE STUFF IS PCB AT
- (16) ALL?
- (17) A UH-HUH.
- (18) WELL, THAT'S POSSIBLE. YES.
- (19) Q THAT IS LIKELY, ISN'T IT?
- (20) A I HAVE NO MEASURE FOR THE LIKELIHOOD.
- (21) Q OKAY. TAKE A LOOK FOR A MINUTE,
- (22) MR. PAPAGEORGE, AT TRANSWESTERN NUMBER 83, WOULD YOU?
- (23) A YES.
- (24) Q I HAVE IT.
- (25) A I HAVE IT.
- (26) Q YOU HAVE SEEN THAT BEFORE, RIGHT?
- (27) A I HAVE, YES, SIR.
- (28) Q AND THAT IS A CHRONOLOGY OF EVENTS THAT

Page 1810

- (1) DR. KELLER PUT TOGETHER?
- (2) A YES.
- (3) Q RIGHT?
- (4) A YES, YES.
- (5) Q AND IN THE CHRONOLOGY WHAT HE TRIES TO DO
- (6) IS TO PULL TOGETHER THE SIGNIFICANT DATES AND THINGS
- (7) THAT HAPPENED ON EACH OF THOSE DATES?
- (8) A THAT IS WHAT HE ATTEMPTED TO DO, YES.
- (9) Q OKAY. SO THE VERY FIRST THING THAT IS
- (10) SHOWN UP HERE ACTUALLY HANDWRITTEN IS NOVEMBER 22,
- (11) 1966, JENSEN LECTURE.
- (12) THAT WAS JENSEN'S FIRST REPORT?
- (13) A YES.
- (14) Q AND THIS RUNS THROUGH '67, '68, ALL THE
- (15) WAY TO MARCH '69, RIGHT?
- (16) A THAT IS CORRECT.
- (17) Q NOW, THE PRESS RELEASE THAT MONSANTO
- (18) ISSUED ON THE SAN FRANCISCO CHRONICLE ARTICLE, THAT
- (19) IS THE FIRST PRESS RELEASE ON THE PCB ENVIRONMENTAL
- (20) PROBLEM THAT YOU HAVE SEEN?
- (21) A YES.
- (22) Q FLIP, IF YOU WOULD, PLEASE,
- (23) MR. PAPAGEORGE, TO TRANSWESTERN NUMBER 87.
- (24) A I HAVE IT.
- (25) Q THIS IS A DOCUMENT YOU SAW WHEN YOU TOOK
- (26) YOUR JOB, RIGHT?
- (27) A YES, SIR.
- (28) Q AND IT'S A REPORT BY D. V. N. HARDY, HE

Page 1811

- (1) WAS OVER AT THE LONDON OFFICE OF MONSANTO?
- (2) A YES, HE WAS.
- (3) Q WHAT HE IS REPORTING ON HERE IS - WHAT
- (4) DOES HE CALL IT?
- (5) HE CALLS IT "A REPORT SUMMARIZING PRESENT
- (6) KNOWLEDGE CONCERNING CHLORINE- CONTAINING

RESIDUES IN

- (7) WILDLIFE AND VISITS MADE TO ORGANIZATIONS IMPLICATED
- (8) THERewith DURING THE PERIOD APRIL 28TH TO MAY 1ST,
- (9) 1969," CORRECT?
- (10) A YES. THAT IS WHAT IT SAYS.
- (11) Q AND PEOPLE WHO GET THAT IN ST. LOUIS ARE
- (12) DR. KELLER, KELLY AND RICHARD AND MR. WHEELER AND
- (13) MR. BERGEN?
- (14) A YES.
- (15) Q AND WHAT YOU READ WHEN YOU READ THIS
- (16) DOCUMENT THAT D. V. N. HARDY PUT TOGETHER - THIS IS
- (17) NOW ON PAGE 2 UNDER THE CAPTION INTRODUCTION.
- (18) A UH-HUH. I SEE IT.
- (19) Q OKAY. AND I WILL REFER YOU TO THE THIRD
- (20) PARAGRAPH.
- (21) HARDY SAYS, "TOWARDS THE END OF 1965
- (22) THESE UNKNOWN SUBSTANCES WERE IDENTIFIED BY SOREN
- (23) JENSEN," RIGHT?
- (24) A YES.
- (25) Q AND THEN AT THE END OF THAT PARAGRAPH HE
- (26) SAYS, "THE EVIDENCE AND REASONING ARE AVAILABLE AND
- (27) THE CONCLUSION CAN HARDLY BE IN DOUBT"?
- (28) A IT DOES SAY THAT.

Page 1812

- (1) Q NOW, AT THE BOTTOM OF THE SECOND TO LAST
- (2) PARAGRAPH ON THE PAGE HARDY IS EXPLAINING TO THE
- (3) READERS OF THIS MEMO MORE ABOUT JENSEN AND WIDMARK,
- (4) RIGHT?
- (5) A HE DOES.
- (6) Q AND WHAT HE SAYS IS, "EXAMINATION OF
- (7) FEATHERS FROM MUSEUM SPECIMENS OF SEABIRDS SUGGESTED
- (8) THAT CONTAMINATION COMMENCED IN 1944"?
- (9) A IT SAYS THAT.
- (10) Q NOW, YOU FOUND OUT THAT ACTUALLY WHAT
- (11) JENSEN AND WIDMARK HAD DONE WAS TO GO TO A MUSEUM AND
- (12) CLIP BIRD FEATHERS THAT HAD BEEN THERE OVER A PERIOD
- (13) OF YEARS?
- (14) A THAT IS WHAT I UNDERSTOOD, YES, SIR.
- (15) Q AND THEY FOUND IN BIRD FEATHERS WHICH HAD
- (16) BEEN IN THE MUSEUM FOR A NUMBER OF DIFFERENT YEARS
- (17) THEY FOUND PCB'S IN BIRD FEATHERS THAT HAD BEEN THERE
- (18) AS FAR BACK 1944?
- (19) A YES.
- (20) Q NOW, RIGHT AT THE BOTTOM OF THAT PAGE -
- (21) ARE YOU WITH ME?
- (22) A I HAVE IT.
- (23) Q YOU READ, HARDY SAID, "THE ORIGINAL WORK
- (24) OF JENSEN AND WIDMARK HAS BEEN EXTENDED AND GENERALLY
- (25) CONFIRMED, NOTABLY BY WORKERS AT THE FOLLOWING
- (26) ESTABLISHMENTS AND MUCH OF THE DETAIL HAS BEEN
- (27) PUBLISHED"?
- (28) A I SEE THAT.

Page 1813

- (1) Q AND HARDY GOES ON TO LIST SOME LABS IN
- (2) GREAT BRITAIN, RIGHT?
- (3) A YES.
- (4) Q ACTUALLY FOUR LABS IN GREAT BRITAIN?
- (5) A THAT'S TRUE.
- (6) Q SO EACH OF THOSE LABS ARE LABS THAT DID
- (7) PCB RESEARCH AND CONFIRMED, FOUND THE SAME THING AS
- (8) JENSEN AND WIDMARK?

(9) A OR SIMILAR TO.
 (10) Q OKAY. SIMILAR TO, MEANING THESE FOUR
 (11) LABS IN LONDON, SCOTLAND, KENT AND
 (12) HUNTINGDONSHIRE,
 (13) ALL FOUND PCB'S IN SAMPLES TAKEN FROM THE
 (14) ENVIRONMENT?
 (15) A YES. CORRECT.
 (16) Q HE GOES ON TO LIST A UNIVERSITY IN THE
 (17) NETHERLANDS?
 (18) A HE DOES.
 (19) Q AS WELL AS THREE UNIVERSITIES, ACTUALLY
 (20) THE UNIVERSITY OF CALIFORNIA, CORNELL UNIVERSITY
 (21) AND
 (22) THE SAN DIEGO NATURAL HISTORY MUSEUM, CORRECT?
 (23) A CORRECT.
 (24) Q AND THOSE ARE PLACES THAT HAD CONFIRMED,
 (25) TO USE HARDY'S WORDS, "WHAT JENSEN AND WIDMARK
 (26) HAD
 (27) DONE?"
 (28) A YES.
 (29) Q AND THAT ALL OCCURRED BY THE TIME OF THIS
 (30) MEMO WHICH WAS SUMMARIZING A PERIOD - WELL,
 (31) WHICH
 (32) WAS REFERENCING A PERIOD ENDING IN MAY OF '69.

Page 1814

(1) THAT IS RIGHT ON THE FIRST PAGE THERE,
 (2) RIGHT?
 (3) A OH, THAT PERIOD THERE REFERS TO THE
 (4) VISITS THAT WERE MADE.
 (5) I AM LOOKING FOR THE DATE OF PUBLICATION
 (6) OF THIS REPORT.
 (7) Q THEY MIGHT BE ABLE TO HELP YOU THERE.
 (8) IF YOU GO RIGHT TO THE LAST PAGE, TOWARDS
 (9) THE BOTTOM -
 (10) A YES, I SEE IT.
 (11) Q - IT SAYS 6-5-69?
 (12) A MAY THE 6TH.
 (13) Q RIGHT. THAT IS BECAUSE IN ENGLAND THEY
 (14) PUT THE MONTH IN THE MIDDLE?
 (15) A CORRECT.
 (16) Q SO 6-5-69 WOULD BE MAY 6, 1969?
 (17) A CORRECT.
 (18) Q OKAY. NOW, WHEN YOU SAW THIS DATE GOING
 (19) FROM MAY OF '69, YOU READ HARDY'S VIEW THAT
 (20) "THERE
 (21) CAN BE NO DOUBT THAT TRACES OF PCB'S, AROCLORS,
 (22) ARE
 (23) TO BE FOUND IN WILDLIFE, FISH AND CERTAIN ITEMS OF
 (24) HUMAN DIET"?
 (25) A YES.
 (26) Q AND YOU READ HARDY SAYING IN THIS MEMO
 (27) THAT "A CONSIDERABLE MONSANTO EFFORT WILL BE
 (28) NECESSARY TO OBTAIN THE NECESSARY ANALYTICAL
 (29) AND
 (30) TOXICOLOGICAL INFORMATION FOR DEALING WITH THIS
 (31) THREAT TO OUR COMMERCIAL OPERATIONS"?

Page 1815

(1) A WILL YOU HELP ME FIND THAT?
 (2) Q YES.
 (3) LOOK AT THE NUMBERED PARAGRAPH 4 ON PAGE
 (4) 4.
 (5) IT'S INDENTED.
 (6) "A CONSIDERABLE MONSANTO EFFORT WILL BE
 (7) NECESSARY TO OBTAIN THE NECESSARY ANALYTICAL
 (8) AND
 (9) TOXICOLOGICAL INFORMATION FOR DEALING WITH THIS
 (10) THREAT TO OUR COMMERCIAL OPERATIONS."
 (11) A I SEE THAT, YES.
 (12) Q LOOK AT TRANSWESTERN 95, PLEASE,
 (13) MR. PAPAGEORGE.
 (14) A I SEE IT.
 (15) Q NOW, THAT IS A MEMORANDUM FROM
 (16) DR. RICHARD IN SEPTEMBER OF '69, RIGHT?
 (17) A YES.
 (18) Q AND HE SENDS IT TO ELMER WHEELER, RIGHT?
 (19) A HE DOES.

(19) Q AND BY THAT TIME WHEELER WAS THE CHAIRMAN
 (20) OF THE PCB AD HOC COMMITTEE?
 (21) A YES.
 (22) Q OKAY. AND WHAT DR. RICHARD IS PROPOSING
 (23) IS A GENERAL POLICY, RIGHT?
 (24) A YEAH, THE FIRST PART OF THIS DOCUMENT,
 (25) YES.
 (26) Q AND WHAT HE IS PROPOSING AS GENERAL
 (27) POLICY IS TO MAKE THE GOVERNMENT, STATES AND
 (28) UNIVERSITIES PROVE THEIR CASE BUT AVOID AS MUCH

Page 1816

(1) CONFRONTATION AS POSSIBLE, CORRECT?
 (2) A HE DOES SAY THAT.
 (3) Q AND HE SAYS, "PROVE BIOHARMFUL, LET
 (4) GOVERNMENT PROVE IT BASED ON A CASE- BY- CASE
 (5) BASIS."
 (6) LOOK RIGHT AT THE MIDDLE OF THE DOCUMENT
 (7) THERE.
 (8) "PROVE BIOHARMFUL"?
 (9) A YES, I SEE THAT.
 (10) Q AND THEN LOOK DOWN A LITTLE FURTHER.
 (11) WHAT HE IS SUGGESTING IS THAT MONSANTO
 (12) SHOULD PROVE BIOHARMLESS, RIGHT?
 (13) A IT DOES.
 (14) Q AND HE IS SAYING THAT ONE OF THE WAYS
 (15) MONSANTO SHOULD PROVE BIOHARMLESS IS TO
 (16) QUESTION THE
 (17) EVIDENCE AGAINST US, RIGHT THERE?
 (18) A I SEE IT.
 (19) YES, IT SAYS THAT.
 (20) Q AND HE SAYS, "PROBABLE OUTCOME IS WE CAN
 (21) PROVE SOME THINGS ARE OKAY AT LOW
 (22) CONCENTRATION.
 (23) GIVE MONSANTO SOME DEFENSE."
 (24) A IT SAYS THAT, UH-HUH.
 (25) Q NOW, EVENTUALLY THE AD HOC COMMITTEE
 (26) PULLED TOGETHER OR GATHERED ALL THE
 (27) INFORMATION THEY
 (28) COULD FIND, RIGHT?
 (29) A YES.
 (30) Q AND THEY WERE ASKED TO PREPARE A REPORT
 (31) AND THEY DID?

Page 1817

(1) A THEY DID.
 (2) Q AND WHAT THE AD HOC COMMITTEE DID WITH
 (3) THAT REPORT IS THEY ESSENTIALLY PRESENTED IT TO
 (4) THE
 (5) CORPORATE MANAGEMENT COMMITTEE?
 (6) A THAT'S NOT MY UNDERSTANDING.
 (7) Q OKAY. THE AD HOC COMMITTEE MEMBERS WENT
 (8) ON TO MAKE A PRESENTATION TO THE CORPORATE
 (9) MANAGEMENT
 (10) COMMITTEE?
 (11) A YES, SIR.
 (12) Q YOU GOT YOUR JOB AT A FALL, 1969
 (13) CORPORATE MANAGEMENT COMMITTEE MEETING?
 (14) A YES, YES.
 (15) Q AND PEOPLE WHO WERE MAKING THE
 (16) PRESENTATION TO THE CORPORATE MANAGEMENT
 (17) COMMITTEE
 (18) INCLUDED ELMER WHEELER?
 (19) A YES.
 (20) Q AND HE WAS THE CHAIRMAN OF THE AD HOC
 (21) COMMITTEE?
 (22) A YES.
 (23) Q OKAY. LET'S LOOK FOR A MOMENT AT
 (24) TRANSWESTERN 102, MR. PAPAGEORGE.
 (25) A I FOUND IT.
 (26) Q ALL RIGHT. THAT EXHIBIT, TRANSWESTERN
 (27) 102, IS A COPY OF THE REPORT OF THE AD HOC
 (28) COMMITTEE,
 (29) RIGHT?
 (30) A THAT IS THE TITLE, YES.
 (31) Q AND IT IS DATED OCTOBER 2, 1969?
 (32) A YES.

Page 1818

(1) Q AND IT IS SENT TO HOWARD BERGEN AND JAMES
(2) SPRINGGATE?
(3) A YES.
(4) Q WHAT WAS SPRINGGATE'S JOB?
(5) A HE WAS THE BUSINESS DIRECTOR OF THE
(6) PLASTICIZER'S BUSINESS GROUP.
(7) Q LOOK AT THE PAGE THAT IS TITLED
(8) "OBJECTIVES," WOULD YOU PLEASE, MR. PAPAGEORGE?
(9) A I HAVE IT.
(10) Q ALL RIGHT. WHEN YOU READ THE AD HOC
(11) COMMITTEE'S REPORT, YOU LEARNED THAT THE
OBJECTIVES
(12) THAT THE AD HOC COMMITTEE HAD SET WERE, ONE, TO
(13) PROTECT THE CONTINUED SALES AND PROFITS OF
AROCLORS?
(14) A I DID.
(15) Q TWO, TO PROMOTE THE CONTINUED DEVELOPMENT
(16) AND NEW USES AND SALES OF AROCLORS?
(17) A I READ THAT, YES.
(18) Q AND TO PROTECT THE IMAGE OF THE ORGANIC
(19) DIVISION AND THE CORPORATION AS MEMBERS OF THE
(20) BUSINESS COMMUNITY RECOGNIZING AND SO ON,
RIGHT?
(21) A I READ ALL OF THAT, YES, SIR.
(22) Q OKAY. DID YOU ACTUALLY UNDERLINE THE
(23) WORD "IMAGE" THERE OR DO YOU KNOW WHO DID THAT?
(24) A NO. I DON'T.
(25) Q DID YOU SEE THIS HANDWRITING AT THE
(26) BOTTOM OF THE PAGE THERE, MR. PAPAGEORGE?
(27) IT'S THE PAGE ENTITLED "PROBABILITY OF
(28) SUCCESS."

Page 1819

(1) A I DO SEE IT.
(2) Q AND IT SAYS, "THE IDENTIFICATION IS
(3) POSITIVE."
(4) A I SEE THAT.
(5) Q "AND TOXICITY TOWARDS CERTAIN SPECIES IS
(6) HIGH."
(7) A I SEE THAT, YES.
(8) Q "AND PERSISTENCE IS HIGH."
(9) A YES.
(10) Q AND THAT "LIKELIHOOD OF NATURAL ORIGIN OR
(11) DEGRADATION IS REMOTE"?
(12) A YES.
(13) Q NOW, WHEN YOU READ THIS, YOU SAW THAT THE
(14) COMMITTEE HAD STATED IN THEIR REPORT THAT THE
(15) COMMITTEE BELIEVED THERE WAS LITTLE PROBABILITY
THAT
(16) ANY ACTION THAT CAN BE TAKEN WILL PREVENT THE
GROWING
(17) INCRIMINATION OF SPECIFIC POLYCHLORINATED
BIPHENYLS,
(18) REFERRING TO THE HIGHER- CHLORINATED AROCLORS
1254
(19) AND 1260, RIGHT?
(20) A YES.
(21) Q LOOK OVER AT THE PAGE THAT HAS THE NUMBER
(22) ON THE BOTTOM, 24, 2557
(23) A I HAVE IT.
(24) Q AND ONE OF THE RECOMMENDATIONS MADE BY
(25) THE COMMITTEE WAS TO ASSIGN ONE DIVISION
FULL-TIME
(26) FOR THREE TO SIX MONTHS TO COORDINATE DIVISION
AND
(27) CORPORATE STAFF EFFORTS, RIGHT?
(28) A I THINK YOU SAID "ASSIGN ONE DIVISION."

Page 1820

(1) Q "ASSIGN ONE INDIVIDUAL FROM THE DIVISION
(2) FULL-TIME FOR THREE TO SIX MONTHS TO COORDINATE
(3) DIVISION AND CORPORATE STAFF DEPARTMENT
EFFORTS."
(4) A I SEE THAT, YES.
(5) Q AND THAT IS THE RECOMMENDATION THAT
(6) ULTIMATELY WOUND UP IN YOUR GETTING YOUR JOB AS
(7) MANAGER ENVIRONMENTAL CONTROL?
(8) A IT DID.

(9) Q THEN THE AD HOC COMMITTEE WENT ON TO
(10) OUTLINE THE REASON FOR THEIR RECOMMENDATIONS,
(11) CORRECT?
(12) A YES.
(13) YOU ARE TALKING ABOUT PAGE 5.
(14) Q RIGHT. THE BASIS FOR THE RECOMMENDATION
(15) STARTS ON THE PAGE NUMBERED 24256, CORRECT?
(16) A YES.
(17) Q OKAY. ONE OF THE THINGS THAT WAS STUDIED
(18) BY THE AD HOC COMMITTEE WAS LOSSES FROM
MONSANTO'S
(19) OWN PLANTS, RIGHT?
(20) A YES.
(21) Q AND THE REPORT REFERS TO THE SAMPLES
(22) FOUND BY TUCKER IN THE MISSISSIPPI RIVER.
(23) THAT IS ON PAGE 24259?
(24) A I HAVE THAT AND IT DOES REFER TO THAT.
(25) Q AND FLIP BACK, IF YOU WOULD, TO PAGE
(26) 24257.
(27) LOOK AT THE VERY BOTTOM OF THAT PAGE,
(28) MR. PAPAGEORGE.

Page 1821

(1) A I SEE IT.
(2) Q IN THE AD HOC COMMITTEE'S REPORT ONE OF
(3) THE THINGS THEY ARE ADVISING BERGEN AND
SPRINGGATE IS
(4) WHAT CUSTOMER APPLICATIONS WOULD BE SUSPECT,
RIGHT?
(5) A YES.
(6) Q COULD YOU ACTUALLY READ THAT PARAGRAPH
(7) THAT BEGINS "OTHER CUSTOMER APPLICATIONS" INTO
THE
(8) RECORD, RIGHT AT THE BOTTOM OF THE PAGE.
(9) A I WILL.
(10) "OTHER CUSTOMER APPLICATIONS OR USES
(11) WHICH COULD BE SUSPECT INCLUDE HIGHWAY- MARKING
(12) PAINTS, ANY OF THE OIL AND/OR GREASE LUBRICANT
(13) APPLICATIONS."
(14) Q AND THEN IT SEEMS TO END.
(15) A THAT IS THE END OF THAT SENTENCE.
(16) Q OKAY. JUST FLIP TO THE VERY NEXT ONE
(17) THERE, MR. PAPAGEORGE, NUMBER 103.
(18) A I HAVE IT.
(19) Q NOW, THIS DOCUMENT IS A REPORT FROM
(20) TUCKER TO VODDEN, RIGHT?
(21) A YES.
(22) Q DATED OCTOBER 8TH, 1969?
(23) A IT IS.
(24) Q AND VODDEN WAS IN RUABON, RIGHT?
(25) A YES.
(26) Q AND WHERE IS RUABON?
(27) A IN WALES AND THE UNITED KINGDOM, IN
(28) EUROPE.

Page 1822

(1) Q AND TUCKER WAS REPORTING THAT SAMPLES
(2) TAKEN AT RUABON SHOWED PCB'S, RIGHT?
(3) A YES.
(4) Q AND WHAT IS YOUR UNDERSTANDING OF WHAT HE
(5) WAS REPORTING HERE?
(6) A HE IS REPORTING THE AMOUNT OF PCB'S AND
(7) THE TYPE IDENTIFIED IN MUD SAMPLES THAT HE WAS SENT
(8) FROM RUABON.
(9) Q AND WHAT SORT OF PCB IS IT?
(10) A IT IS IDENTIFIED AS AROCLOR 1242.
(11) Q AND HE IS MEASURING IT IN HIS TESTS TO
(12) THE LEVEL OF PARTS PER BILLION?
(13) A YES.
(14) Q AND THESE SAMPLES THAT HE WAS REFERRING
(15) TO, PETERSTONE, LIGHTHOUSE, THOSE ARE ALONG THE
SHORE
(16) NEAR THE PLANT, RIGHT?
(17) A YES.
(18) Q IN FACT, IF YOU LOOK AT PAGE 2 OF THE
(19) EXHIBIT HE HAS ACTUALLY SHOWN YOU WHERE EACH
OF THE
(20) SAMPLES WERE TAKEN FROM?

(21) A YES.
(22) I THOUGHT WE SAID EARLIER RUABON.
(23) THAT IS A MISTAKE. THIS IS NEWPORT.
(24) Q THE MEMO IS GOING TO MR. VODDEN IN
(25) RUABON?
(26) A YES, BUT THE SAMPLES ARE FROM NEWPORT,
(27) WALES.
(28) Q BUT HE IS TALKING ABOUT SAMPLES TAKEN

Page 1823

(1) FROM NEWPORT?
(2) A CORRECT.
(3) Q ONE OF THE SAMPLES HE IS TAKING ABOUT
(4) TAKING AT NEWPORT WAS AT THE LEVEL OF 2068 PARTS
PER
(5) BILLION, RIGHT?
(6) A RIGHT AT THE PLANT OUTFLOW.
(7) Q NOW, TURN TO 111. PLEASE. IT SHOULD BE
(8) IN VOLUME THREE.
(9) A I HAVE IT.
(10) Q NOW, THOSE ARE THE MINUTES OF THE
(11) CORPORATE DEVELOPMENT COMMITTEE OF NOVEMBER
17, 1969,
(12) RIGHT?
(13) A THEY ARE.
(14) Q AND IT WAS THAT MEETING THAT A REPORT WAS
(15) MADE TO THE CDC OR CORPORATE DEVELOPMENT
COMMITTEE
(16) ABOUT ENVIRONMENTAL ASPECTS BY ELMER WHEELER,
(17) CORRECT?
(18) A YES.
(19) Q AND WHAT THAT REFERRED TO WAS THE PCB
(20) PROBLEM?
(21) A AS IT RELATED TO THE ENVIRONMENT.
(22) Q YES.
(23) A YES.
(24) Q OKAY. AND AT THIS MEETING THE CORPORATE
(25) DEVELOPMENT COMMITTEE AGREES THAT THEY
SHOULD CREATE
(26) THE JOB YOU TOOK?
(27) A THAT WAS ONE OF THE POINTS CONSIDERED,
(28) YES.

Page 1824

(1) Q IN FACT, IF YOU TURN TO THE PAGE THAT
(2) SAYS '79 ON THE TOP -
(3) A I HAVE IT.
(4) Q "APPOINT PROJECT MANAGER," RIGHT?
(5) A I SEE IT.
(6) Q IN FACT, THAT WAS DONE AND THAT WAS YOUR
(7) JOB?
(8) A YES.
(9) Q AND ONE OF THE OTHER THINGS THE COMMITTEE
(10) DECIDED WAS TO STUDY THE STATUS OF AROCLOR 1242,
(11) RIGHT, RIGHT AT THE BOTTOM OF THAT SAME PAGE?
(12) A YES.
(13) Q AND THAT WAS BECAUSE, AT THAT POINT, IT
(14) REALLY WASN'T THAT CLEAR THAT 1242 WAS OKAY TO
USE
(15) FROM AN ENVIRONMENTAL PERSPECTIVE?
(16) A THERE WAS A QUESTION REGARDING ITS
(17) PERSISTENCE IN THE ENVIRONMENT, YES.
(18) Q OKAY. WHY DON'T YOU TURN RIGHT TO 112.
(19) NOW, THAT IS THE PRESENTATION MADE TO THE
(20) COMMITTEE, THE MINUTES OF WHICH WE HAVE JUST
SEEN,
(21) THE COMMITTEE MEETING OF NOVEMBER 17, RIGHT?
(22) A WELL, THIS IS ONE OF SEVERAL
(23) PRESENTATIONS.
(24) Q OKAY. THIS IS ONE MADE IN CONNECTION
(25) WITH THAT MEETING, THE MINUTES OF WHICH WE JUST
SAW?
(26) A YES.
(27) Q ALL RIGHT. SO WHEN THIS STATES AT THE
(28) TOP THERE, "PCB PRESENTATION TO CORPORATE
DEVELOPMENT

Page 1825

(1) COMMITTEE," THAT IS THE COMMITTEE MEETING WE

WERE

(2) JUST LOOKING AT?
(3) A CORRECT.
(4) Q AND WHAT THIS PRESENTATION SAYS IS A
(5) NUMBER OF THINGS ABOUT WHAT WAS BEING FOUND
ABOUT
(6) PCB'S AS OF NOVEMBER '69, RIGHT? I'M STILL ON THE
(7) FIRST PAGE OF 112.
(8) A I SEE IT.
(9) Q ONE OF THE THINGS THE COMMITTEE WAS
(10) INFORMED IN THIS PRESENTATION WAS THAT FROM THE
(11) STANDPOINT OF REPRODUCTION THE PCB'S ARE HIGHLY
TOXIC
(12) TO BIRDS, RIGHT?
(13) A IT DOES.
(14) Q AND WHAT THAT REFERRED TO WAS THAT PCB'S
(15) INTERFERED WITH EGGSHELL FORMATION?
(16) A YES.
(17) Q AND CAUSED EGGSHELL THINNING?
(18) A THAT IS ONE EFFECT, YES, SIR.
(19) Q AND THE PART OF THE PRESENTATION MADE TO
(20) THAT COMMITTEE SAID, LOOK AT THE BOTTOM THERE,
(21) MR. PAPAGEORGE, "THIS IS A SERIOUS MATTER, NOT
ONLY
(22) FROM THE POLLUTION VIEWPOINT BUT ALSO BECAUSE
OF THE
(23) DOLLAR 22 AND THEN M," DO YOU SEE THAT?
(24) A I DON'T SEE THE DOLLAR - OH, THE DOLLAR
(25) SIGN, I SEE THAT.
(26) Q THE DOLLAR SIGN 22 AND THEN A LINE
(27) THROUGH IT, THAT REFERS TO MILLION, CORRECT?
(28) A CORRECT.

Page 1826

(1) Q THE \$22 MILLION WORLDWIDE CUSTOMER
(2) BUSINESS INVOLVED WITH RESULTANT GROSS PROFITS
OF 10
(3) MILLION AND A NET INVESTMENT OF APPROXIMATELY
NINE
(4) MILLION?
(5) A IT SAYS THAT.
(6) Q THIS PRESENTATION OBSERVED THAT IN
(7) ADDITION THERE COULD BE POSSIBLE ADVERSE LEGAL
AND
(8) PUBLIC RELATION PROBLEMS LEVELED AGAINST
MONSANTO?
(9) A YES.
(10) Q TURN TO PAGE 6. IT'S HANDWRITTEN, RIGHT
(11) AT THE TOP, MR. PAPAGEORGE.
(12) A I HAVE IT.
(13) Q IN THAT PRESENTATION THE HISTORY OF
(14) MONSANTO'S PCB BUSINESS WAS RECOUNTED, RIGHT?
(15) A YES.
(16) THERE IS A PARAGRAPH.
(17) Q VERY BRIEFLY?
(18) A YES.
(19) Q AND BASICALLY THE STORY WAS THAT MONSANTO
(20) BOUGHT A COMPANY CALLED SWANN CHEMICAL
COMPANY IN
(21) 1930?
(22) A IT SAYS THAT, BUT IT'S INCORRECT.
(23) Q WHAT IS THE YEAR?
(24) A 1935, AS I UNDERSTAND IT.
(25) Q '35?
(26) A YES, SIR.
(27) Q SO WHEN DID THE FIRST LOAD OF AROCLOR GO
(28) OUT OF ANNISTON, ALABAMA TO GENERAL ELECTRIC?

Page 1827

(1) A AS I UNDERSTAND IT IT WAS LATE 1929.
(2) Q AND WAS THE PRESENTATION ACCURATE WHEN IT
(3) SAYS THAT SINCE THEN THE MARKET HAS GROWN TO
ONE OF
(4) MONSANTO'S MOST PROFITABLE FRANCHISES?
(5) A THAT IS WHAT IT SAYS.
(6) I HAVE NO PERSONAL WAY TO MEASURE WHETHER
(7) IT WAS THE MOST - ONE OF THE MOST PROFITABLE.
(8) Q THE PCB BUSINESS WAS PROFITABLE, THOUGH,

(9) WOULD YOU AGREE?
 (10) A IT WAS PROFITABLE, YES.
 (11) Q AND THAT IS BASICALLY BECAUSE THE RAW
 (12) INGREDIENTS WERE NOT VERY EXPENSIVE OR
 (13) COMPLICATED TO
 (14) PUT TOGETHER?
 (15) A THAT IS ONE FACTOR, YES.
 (16) Q OKAY. AND WHAT THE PRESENTATION SAID TO
 (17) THE CORPORATE DEVELOPMENT COMMITTEE WAS THAT
 (18) THOSE
 (19) PROFITS, THAT FRANCHISE, WAS BEING THREATENED
 (20) BY THIS
 (21) POLLUTION PROBLEM?
 (22) A IT DOES SAY THAT, YES.
 (23) Q OKAY. TAKE A LOOK, IF YOU WOULD, PLEASE,
 (24) MR. PAPAGEORGE, AT 121.
 (25) A I HAVE IT.
 (26) Q YOU HAVE IT?
 (27) A UH-HUH.
 (28) Q NOW, THAT IS A MEMO FROM SCOTT TUCKER TO
 (29) DR. KELLER DATED JANUARY 29, 1970?
 (30) A IT IS.
 (31) Q AND DID YOU ACTUALLY GET A CARBON COPY OF

Page 1828

(1) THIS?
 (2) A I DID.
 (3) Q ALONG WITH DR. RICHARD AND A COUPLE OF
 (4) OTHER PEOPLE?
 (5) A YES.
 (6) Q NOW, WHAT SCOTT TUCKER WAS REPORTING ON
 (7) WAS A RIVER DEGRADATION STUDY, RIGHT?
 (8) A YES.
 (9) Q AND WHAT HE WAS TRYING TO LOOK AT WAS
 (10) WHETHER CERTAIN PCB'S DEGRADED IN THE
 (11) ENVIRONMENT?
 (12) A CORRECT.
 (13) Q AND WHAT HE FOUND WAS THAT CERTAIN DID
 (14) NOT, RIGHT?
 (15) A YES.
 (16) Q AND WHAT HE FOUND WAS THAT THE ONES THAT
 (17) DID NOT WERE 1242, 1248 AND 1254, RIGHT?
 (18) A UNDER THE CONDITIONS OF THAT TEST?
 (19) Q CORRECT.
 (20) A YES, UH-HUH.
 (21) Q THOUGH UNDER THE CONDITIONS OF THIS TEST
 (22) WHAT TUCKER WAS REPORTING TO KELLER AND TO YOU
 (23) WAS
 (24) THAT 1242 DIDN'T DEGRADE?
 (25) A CORRECT. IN FIVE WEEKS.
 (26) THERE IS A TIME LIMIT.
 (27) Q OKAY. BUT 1221 DID?
 (28) A YES.
 (29) Q THIS WAS ACTUALLY - THIS MEMO TO TUCKER
 (30) OR FROM TUCKER WAS ONE THAT YOU GOT NOT LONG
 (31) AFTER

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(1) STARTING WORK?
 (2) A CORRECT.
 (3) Q AND THERE WAS LOTS OF INFORMATION COMING
 (4) YOUR WAY IN THOSE FIRST WEEKS?
 (5) A YES.
 (6) Q LIKE EXHIBIT 122, FOR EXAMPLE?
 (7) A THAT IS AN EXAMPLE, YES, SIR.
 (8) Q OKAY. AND THAT IS A MEMO FROM ELMER
 (9) WHEELER TO D. S. CAMERON IN BRUSSELS, RIGHT?
 (10) A IT IS.
 (11) Q IT IS DATED JANUARY 29, 1970, SO NOT LONG
 (12) AFTER YOU TOOK ON YOUR JOB, RIGHT?
 (13) A RIGHT.
 (14) Q AND WHAT WHEELER IS TELLING CAMERON ABOUT
 (15) IS THE RESULTS OF SOME TOXICITY TESTS THAT WERE
 (16) BEING
 (17) CONDUCTED AT THAT TIME?
 (18) A CORRECT.
 (19) Q AND THEY WERE BEING CONDUCTED BY
 (20) INDUSTRIAL BIO-TESTS; IS THAT RIGHT?

(20) A YES.
 (21) Q AND DO YOU KNOW WHAT KIND OF TESTS THEY
 (22) WERE?
 (23) A IT'S -
 (24) Q FEEL FREE TO LOOK THROUGH THE MEMO.
 (25) A I AM TRYING TO RECALL.
 (26) THEY WERE LIFETIME FEEDING STUDIES OF
 (27) RATS, TWO-YEAR FEEDING STUDY ON DOGS. THERE WAS A
 (28) STUDY INVOLVING CHICKENS.

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(1) THAT COVERS THE TYPES OF TEST ANIMALS.
 (2) Q OKAY.
 (3) A AND THERE WERE ALSO STUDIES RELATING TO
 (4) TERRATOGENIC EFFECTS, THE BIRTH-DEFECT SITUATION.
 (5) THAT IS ALL THAT COMES TO MIND AT THE
 (6) MOMENT.
 (7) Q OKAY. NOW, WHAT WHEELER WAS TELLING YOU
 (8) AND THE OTHER PEOPLE WHO GOT THIS MEMO WAS
 (9) THAT THE
 (10) INTERPRETATION OF THE DATA COMING FROM THOSE
 (11) TESTS
 (12) WAS THAT PCB'S WERE EXHIBITING A GREATER DEGREE
 (13) OF
 (14) TOXICITY THAN HAD BEEN ANTICIPATED?
 (15) A IT DOES, UH-HUH.
 (16) Q AND YOU REMEMBER LEARNING THAT?
 (17) A YES.
 (18) Q NORM JOHNSON, WHO WAS HE?
 (19) A AT WHAT POINT IN TIME?
 (20) Q HOW ABOUT FEBRUARY OF '70.
 (21) A NORMAN JOHNSON WAS THE MANAGER OF THE
 (22) MARKETING OF FLUIDS USED IN - I'M GOING TO CALL THEM
 (23) HYDRAULIC SYSTEMS, COMPRESSORS, TURBINES, DIE
 (24) CASTING
 (25) MACHINES AND SO ON.
 (26) Q SORT OF FUNCTIONAL FLUIDS?
 (27) A WELL, FUNCTIONAL FLUIDS ALSO INCLUDES
 (28) HEAT TRANSFER AND DIELECTRIC USE.
 (29) BUT MR. JOHNSON WAS ONLY INVOLVED IN
 (30) THOSE USES WHERE THE FLUID WAS USED TO
 (31) PARTICIPATE IN
 (32) SOME MACHINERY OF SOME KIND.
 (33) Q LET ME SHOW YOU, MR. PAPAGEORGE,

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(1) TRANSWESTERN 372. THIS IS TITLED "MONSANTO
 (2) ORGANIZATIONAL CHART."
 (3) HERE IS A POINTER SHOULD YOU NEED IT.
 (4) NOW, NORMAN T. JOHNSON, FIELD SALES
 (5) MANAGER.
 (6) DO YOU SEE HIM?
 (7) A (INDICATING.)
 (8) Q NOW, IN YOUR JOB AFTER JANUARY OF 1970
 (9) YOU HAD CONTACT WITH NORM JOHNSON, RIGHT?
 (10) A I DID.
 (11) Q AND WOULD YOU SAY HE WAS A GOOD SALESMAN?
 (12) A OH, YES.
 (13) Q WOULD YOU SAY HE WAS AN AGGRESSIVE
 (14) SALESMAN?
 (15) A YES.
 (16) Q YOU ARE UP THERE ON THE RIGHT-HAND SIDE,
 (17) RIGHT, WILLIAM PAPAGEORGE, MANAGER,
 (18) ENVIRONMENTAL
 (19) PROTECTION?
 (20) A I AM.
 (21) Q AND THOSE LINES ALL FEED INTO HOWARD
 (22) BERGEN, RIGHT?
 (23) A THEY DO.
 (24) Q AND HE WAS THE DIRECTOR OF SPECIALITY
 (25) PRODUCTS AS YOU HAVE SAID, RIGHT?
 (26) A YES.
 (27) Q OKAY. TURN, IF YOU WOULD, TO
 (28) TRANSWESTERN 125, MR. PAPAGEORGE.
 (29) A I HAVE IT.

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(1) Q THAT IS A MEMO FROM NORM JOHNSON TO HIS
 (2) SALES FORCE, RIGHT?

(3) A YES.
 (4) Q LET ME TAKE THAT DOWN FOR JUST A MOMENT
 (5) SO WE CAN USE THE TV.
 (6) YOU HAVE SEEN THAT BEFORE?
 (7) A YES.
 (8) Q IT IS DATED FEBRUARY 16, 1970?
 (9) A IT IS.
 (10) Q AND IT REFERS TO A POLLUTION LETTER?
 (11) THAT IS THE SUBJECT OF THE MEMO?
 (12) A IT IS.
 (13) Q OKAY. NOW, YOU TALKED TO MR. JOHNSON
 (14) ABOUT THE WORK THAT HE WAS DOING AS A SALESMAN,
 (15) RIGHT?
 (16) A AS THE NEED AROSE I WOULD TALK WITH THE
 (17) MAN, YES.
 (18) Q OKAY. AND IN THIS MEMO MR. JOHNSON IS
 (19) INFORMING HIS SALES FORCE OF A LETTER THAT WE
 (20) ARE
 (21) GOING TO TAKE A LOOK AT IN A MINUTE.
 (22) AND HE IS TALKING TO HIS SALES FORCE
 (23) ABOUT WHAT SHOULD HAPPEN IF A CUSTOMER WANTS
 (24) TO
 (25) RETURN ANY FLUID THAT THEY HAVE PURCHASED FROM
 (26) MONSANTO, RIGHT?
 (27) A YES.
 (28) Q AND YOU KNOW FROM TALKING TO MR. JOHNSON
 (29) THAT THE DIRECTION HE WAS GIVING HIS SALESMEN
 (30) WAS, WE
 (31) DON'T WANT TO TAKE FLUID BACK, RIGHT?

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(1) A YES. HE WAS - THAT WAS HIS OBJECTIVE,
 (2) YES.
 (3) THAT DOESN'T MEAN HE WOULDN'T TAKE IT
 (4) BACK.
 (5) Q HE CERTAINLY DIDN'T WANT TO, DID HE?
 (6) A HE DIDN'T WANT IT BUT HE WOULD TAKE IT.
 (7) Q OKAY. AND THAT STATEMENT, "WE DON'T WANT
 (8) TO TAKE FLUID BACK," THAT AROSE BECAUSE WHAT
 (9) WAS
 (10) HAPPENING BY THIS DATE WAS THAT MONSANTO WAS
 (11) STARTING
 (12) TO TAKE SOME OF THESE PRODUCTS OFF THE MARKET,
 (13) RIGHT?
 (14) A WELL, CERTAINLY THAT WAS TAKING PLACE AT
 (15) THE TIME.
 (16) YEAH, THAT COULD TRIGGER A NEED FOR
 (17) RETURNING TO, YES.
 (18) Q AND WHAT MR. JOHNSON IS TELLING HIS SALES
 (19) FORCE IS, "I DON'T WANT TO DO THAT. WE CAN SELL HIM
 (20) THE NEW STUFF. I DON'T WANT TO TAKE THE OLD STUFF
 (21) BACK."
 (22) THAT IS WHAT THE MEMO SAYS?
 (23) A YES, BUT THERE IS A REASON BEHIND THAT.
 (24) Q LOOK AT THAT FOR JUST A MOMENT,
 (25) MR. PAPAGEORGE.
 (26) IT SAYS, "WE WANT TO AVOID ANY SITUATION
 (27) WHERE A CUSTOMER WANTS TO RETURN FLUID. THE
 (28) NEW
 (29) REFORMULATED PRODUCTS WILL BE AVAILABLE WITHIN
 (30) A
 (31) MONTH."
 (32) DO YOU SEE THAT?
 (33) A I SEE THAT.

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(1) Q AFTER YOU TOOK YOUR JOB DID YOU FIND OUT
 (2) THAT MONSANTO WAS ACTUALLY IN THE PROCESS OF
 (3) REFORMULATING OR REMAKING SOME OF ITS FLUIDS?
 (4) A YES.
 (5) Q OKAY. AND "REFORMULATION" MEANS WHAT
 (6) EXACTLY, TO YOU?
 (7) A IT IS AN ATTEMPT TO FIND OTHER
 (8) INGREDIENTS THAT CAN BE MIXED TOGETHER TO
 (9) PRODUCE A
 (10) PRODUCT THAT HAS THE PROPERTIES THAT THE ORIGINAL
 (11) PCB
 (12) PRODUCT HAD AS CLOSE AS YOU COULD GET TO THE

(13) ORIGINAL.
 (14) Q SO IN THE CASE OF PYDRAUL AC, THAT WAS A
 (15) LUBRICANT FOR AIR COMPRESSORS, CORRECT?
 (16) A CORRECT.
 (17) Q AND AT THIS POINT, THE TIME OF THIS
 (18) LETTER, EXCUSE ME, WHICH WAS FEBRUARY OF 1970, IT
 (19) HAD
 (20) BEEN DECIDED TO REFORMULATE PYDRAUL AC?
 (21) A YES.
 (22) Q AND THE WAY TO DO THAT WAS TO FIND SOME
 (23) WAY TO MAKE AN AIR COMPRESSOR LUBRICANT BUT
 (24) WITHOUT
 (25) PCB'S?
 (26) A CORRECT.
 (27) Q THAT PROJECT WAS ALREADY UNDERWAY BY THE
 (28) TIME YOU TOOK YOUR JOB?
 (29) A YES.
 (30) Q NOW, TURN TO PAGE 2 OF THAT MEMO, PLEASE,
 (31) MR. JOHNSON.
 (32) YOU KNOW THAT MR. JOHNSON, IN DEALING

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(1) WITH HIS SALES FORCE, HAD TOLD THEM WE CAN'T
 (2) AFFORD
 (3) TO LOSE ONE DOLLAR OF BUSINESS, RIGHT?
 (4) A YES.
 (5) Q AND THAT THE ATTITUDE THAT HE WANTED TO
 (6) TAKE OR HE WANTED HIS SALES FORCE TO TAKE WAS, IN
 (7) HIS
 (8) JUDGMENT, GOING TO BE THE DECIDING FACTOR IN OUR
 (9) SUCCESS OR FAILURE IN RETAINING ALL OF OUR
 (10) PRESENT
 (11) BUSINESS, RIGHT?
 (12) A WILL YOU HELP ME FIND THAT?
 (13) Q YES, SIR, RIGHT ON PAGE 2, THE PARAGRAPH
 (14) JUST BEFORE HIS NAME, N. T JOHNSON?
 (15) A I SEE IT.
 (16) Q SO AS YOU UNDERSTOOD IT, JOHNSON WANTED
 (17) HIS SALESMEN TO GO OUT AND SELL THE NEW FLUIDS?
 (18) A CERTAINLY.
 (19) Q AND TO KEEP THE EXISTING BUSINESS?
 (20) A YES.
 (21) Q TO SELL THE CUSTOMERS ON THE NEW
 (22) PRODUCTS?
 (23) A CORRECT.
 (24) Q NOW, LET'S LOOK AT THE ATTACHMENT, THE
 (25) LETTER THAT IS ATTACHED TO HIS MEMO.
 (26) THAT IS ON MONSANTO LETTERHEAD, RIGHT?
 (27) A IT IS.
 (28) Q AND IT'S DATED FEBRUARY 9, 1970?
 (29) A YES.
 (30) Q AND IT'S ADDRESSED TO "DEAR SIR"?
 (31) A YES.

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(1) Q NOW, YOU THINK THAT THIS LETTER WENT TO
 (2) MONSANTO'S CUSTOMERS, RIGHT?
 (3) A WELL, THAT IS MY UNDERSTANDING,
 (4) DEFINITELY.
 (5) Q OKAY. AND WHAT THIS LETTER DOES, IN
 (6) ESSENCE, IS TO ADDRESS CUSTOMERS ON THE
 (7) SUBJECT OF
 (8) PCB'S IN THE ENVIRONMENT.
 (9) A CORRECT.
 (10) Q OKAY. LET'S TAKE A LOOK AT THAT FOR A
 (11) SECOND.
 (12) IN THE LETTER TO CUSTOMERS MONSANTO IS
 (13) SAYING, "IT IS CLAIMED THAT PCB'S FOUND STRONGLY
 (14) RESEMBLE CHLORINATED BIPHENYLS CONTAINING 54
 (15) PERCENT
 (16) AND 60 PERCENT CHLORINE BY WEIGHT," RIGHT?
 (17) A IT SAYS THAT, YES.
 (18) Q AND IT GOES ON TO SAY THAT "SOME OF OUR
 (19) PRODUCTS ARE, IN FACT, MADE WITH CHLORINATED
 (20) BIPHENYLS CONTAINING 54 PERCENT AND 60 PERCENT
 (21) CHLORINE BY WEIGHT"?
 (22) A RIGHT, IT DOES.
 (23) Q AND IT GOES ON TO LIST THEM.

(22) SO THE PRODUCTS REFERRED TO ARE PYDRAUL
(23) 625, FOR EXAMPLE?
(24) A YES.
(25) Q PYDRAUL AC?
(26) A YES.
(27) Q AND THE LETTER SAYS, "AS YOUR SUPPLIER OF
(28) AROCLOR 1254 AND 1260 AND FORMULATED PRODUCTS

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(1) CONTAINING 1254, WE WISH TO ALERT YOU TO THE
(2) POTENTIAL PROBLEM OF ENVIRONMENTAL
CONTAMINATION AS
(3) REFERRED TO IN THE NEWSPAPER AND MAGAZINE
ARTICLES?"
(4) A CORRECT.
(5) Q IT GOES ON TO SAY, "WE WOULD LIKE TO
(6) POINT OUT THE FOLLOWING ADDITIONAL FACTS?"
(7) A IT DOES.
(8) Q ONE, "PRODUCTS SUCH AS PYDRAUL 90," AND
(9) THEN IT LISTS A BUNCH OF NUMBERS THERE, THOSE
ARE ALL
(10) DIFFERENT PRODUCTS, RIGHT?
(11) A YES.
(12) Q TURBINOL-153?
(13) A IT DOES.
(14) Q AND SOME OTHER PRODUCTS ARE NOT
(15) FORMULATED WITH AROCLOR 1254 OR 1260?
(16) A THAT IS WHAT IT SAYS.
(17) Q OKAY. BUT IT DOESN'T SAY THESE PRODUCTS
(18) ARE NOT FORMULATED WITH 1242?
(19) A CORRECT.
(20) Q OKAY. SO A CUSTOMER GETTING THIS FROM
(21) MONSANTO AND READING WHAT IT SAYS COULD COME
TO THE
(22) CONCLUSION THAT TURBINOL-153 IS OKAY, SINCE IT
(23) DOESN'T HAVE 1254 OR 1260?
(24) A IT'S OKAY INSOFAR AS IT RELATES TO THE
(25) PRESENCE OF AROCLOR 1254 AND 1260, THE MATERIALS
THAT
(26) WERE BEING REPORTED AS BEING IN THE ENVIRONMENT.
(27) Q RIGHT.
(28) WHAT THE LETTER SAYS IS, "LOOK, WE HAVE A

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(1) PROBLEM WITH 1254 AND 1260 AND WE ARE TAKING
THOSE
(2) PRODUCTS OFF LINE," RIGHT?
(3) "WE ARE NOT GOING TO USE THEM ANYMORE OR
(4) SELL THEM ANYMORE?"
(5) A THAT IS WHAT IT SAYS, YES.
(6) Q AND WHAT IT SAYS IS, "THE PROBLEM IS WITH
(7) 2154 AND 1260."
(8) THOSE ARE THE TWO BEING IDENTIFIED?
(9) A CORRECT.
(10) Q AND THEN IT GOES ON TO SAY,
(11) "TURBINOL-153, AMONG OTHERS, DOESN'T CONTAIN
1254
(12) AND 1260?"
(13) A THAT IS CORRECT.
(14) Q AND THE IMPLICATION THAT THAT CARRIES FOR
(15) THE CUSTOMER IS THAT TURBINOL-153 IS OKAY TO USE
(16) BECAUSE IT DOESN'T CONTAIN 1254 AND 1260?
(17) MR. PREUSS: OBJECTION, SPECULATION.
(18) THE COURT: OVERRULED.
(19) THE QUESTION CALLS FOR YOUR
(20) UNDERSTANDING.
(21) THE WITNESS: ALL IT SAYS IS THAT THE MATERIAL
(22) LISTED, THE PRODUCTS LISTED, DO NOT CONTAIN
AROCLOR
(23) 1254 AND 1260.
(24) Q BY MR. TALLON: ALL RIGHT.
(25) A "THEREFORE, THIS PARTICULAR GROUP OF
(26) LISTED PRODUCTS ARE NOT, IN OUR OPINION, RELATED TO
(27) THE FINDINGS THAT WE REPORTED TO YOU IN THE FIRST
(28) COUPLE OF PARAGRAPHS."

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(1) Q RIGHT?
(2) A THAT IS ALL IT SAYS.

(3) IT DOESN'T SAY "POUR IT DOWN THE SEWER."
(4) IT DOESN'T SAY THAT.
(5) Q IT CERTAINLY DOESN'T SAY THAT.
(6) BUT THE SILENT IMPLICATION THERE IS THAT
(7) IF THESE PRODUCTS DON'T CONTAIN 1254 AND 1260,
THEY
(8) ARE OKAY?
(9) A OKAY FOR WHAT?
(10) Q OKAY. THEY ARE NOT PART OF THE PROBLEM.
(11) A THEY ARE NOT PART OF THE PROBLEM
(12) DESCRIBED.
(13) Q SURE. AND, IN FACT, THE LETTER GOES ON
(14) TO SAY, PCB'S WITH A CHLORINE CONTENT OF LESS
THAN 54
(15) PERCENT HAVE NOT BEEN FOUND IN THE
ENVIRONMENT?
(16) A THAT IS ANOTHER FACTUAL STATEMENT AT THAT
(17) TIME.
(18) Q AND THE FACTUAL STATEMENT WAS FALSE,
(19) RIGHT?
(20) A IN FEBRUARY OF '70?
(21) IT ALL DEPENDS HOW YOU DEFINE "POTENTIAL
(22) PROBLEM IN THE ENVIRONMENT."
(23) Q WELL, LET'S LOOK AT THE LANGUAGE.
(24) "PCB'S WITH A CHLORINE CONTENT OF LESS
(25) THAN 54 PERCENT HAVE NOT BEEN FOUND IN THE
ENVIRONMENT."
(26) LET'S TAKE THAT MUCH OF IT AND THEN WE
(27) WILL TALK ABOUT THE PART THAT SAYS, "AND APPEAR
TO

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(1) PRESENT NO POTENTIAL PROBLEM TO THE
ENVIRONMENT."
(2) A CORRECT.
(3) Q THE STATEMENT, "PCB'S WITH A CHLORINE
(4) CONTENT OF LESS THAN 54 PERCENT HAVE NOT BEEN
FOUND
(5) IN THE ENVIRONMENT," IS A FALSE STATEMENT IN
(6) FEBRUARY, 1970, RIGHT?
(7) A IT DEPENDS ON HOW YOU DEFINE
(8) "ENVIRONMENT."
(9) IF YOU DEFINE THE PLANT SEWER, YOU WILL
(10) FIND IT.
(11) IF YOU DEFINE THE PINE NEEDLES THAT I
(12) DESCRIBED LATER, AS THE ENVIRONMENT, THEN THE 1242
(13) TYPES, AS AN EXAMPLE, WERE NOT FOUND IN PINE
(14) NEEDLES.
(15) Q THEY WERE FOUND IN FISH.
(16) TAKE A LOOK AT SCOTT TUCKER'S COMPILATION
(17) OF ALL THOSE STUDIES THAT WE LOOKED AT A FEW
MINUTES
(18) AGO, EXHIBIT 110?
(19) A YEAH, BUT THE ONE I RECALL WAS A FISH
(20) STUDY WHERE THE GOLDFISH WERE DELIBERATELY
EXPOSED IN
(21) AN AQUARIUM.
(22) IT'S IN A WILDLIFE SITUATION OUT THERE
(23) WHERE GOLDFISH ARE OUT IN THE LAKES SOMEWHERE.
(24) Q HOW ABOUT THE WATERS SAMPLES THAT SCOTT
(25) TUCKER HAD TAKEN OUTSIDE THE ANNISTON PLANT?
(26) HE FOUND 1242?
(27) A THAT IS RIGHT BY THE SOURCE.
(28) Q OKAY. IT'S IN THE ENVIRONMENT, ISN'T IT?

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(1) A WELL, IN THE PURE SENSE, YES.
(2) BUT IN THE REAL WORLD WHEN WE SPEAK OF
(3) ENVIRONMENT, WE ARE TALKING ABOUT THE GREAT LAKES
OR
(4) THIS - THESE FEATURES THAT THE SOCIETY KIND OF
(5) DEFINES AS OUR ENVIRONMENT, NOT JUST THE PLANT
SITE
(6) ITSELF WHERE SPILLS HAVE OCCURRED.
(7) Q WELL, WHAT ABOUT THE MISSISSIPPI MUD
(8) SAMPLES?
(9) A WELL, THAT IS RIGHT BY THE PLANT, RIGHT
(10) BY THE PLANT.

(11) Q BUT WOULD YOU AGREE WITH ME,
 (12) MR. PAPAGEORGE, THAT A CUSTOMER READING THIS
 LETTER
 (13) DOESN'T KNOW YOU ARE DRAWING A FINE DISTINCTION
 AS TO
 (14) WHAT IS AT THE PLANT AND WHAT IS IN A PINE NEEDLE,
 (15) RIGHT?
 (16) MR. PREUSS: OBJECTION, ARGUMENTATIVE.
 (17) THE COURT: SUSTAINED.
 (18) Q BY MR. TALLON: WOULD YOU AGREE WITH ME,
 (18) MR. PAPAGEORGE, THERE IS NOTHING IN THIS LETTER
 (20) TELLING THE READER THAT THE TERM "ENVIRONMENT"
 IS
 (21) EXCLUSIVE OF LOCATIONS NEAR PLANTS?
 (22) A NO, THERE IS NOTHING IN THE LETTER, NO.
 (23) Q OKAY. SO IN ORDER TO HAVE THIS LETTER
 (24) READ ACCORDING TO YOUR INTERPRETATION, IT WOULD
 NEED
 (25) TO SAY "PCB'S WITH A CHLORINE CONTENT OF LESS
 THAN 54
 (26) PERCENT HAVE NOT BEEN FOUND IN THE ENVIRONMENT
 OTHER
 (27) THAN NEAR PLANTS"?
 (28) A THAT WOULD HAVE BEEN A REFINEMENT OF THAT

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(1) SITUATION, YES, SIR.
 (2) Q THAT WOULD HAVE RENDERED IT ACCURATE?
 (3) A WELL, MORE SPECIFIC.
 (4) AGAIN, IT DEPENDS ON HOW THE READER
 (5) PERCEIVES THE ENVIRONMENT.
 (6) Q OKAY. AND "ENVIRONMENT," YOU WOULD READ
 (7) TO BE A REASONABLY BROAD WORD, WOULDN'T YOU?
 (8) MR. PREUSS: OBJECTION, VAGUE.
 (9) THE COURT: SUSTAINED.
 (10) Q BY MR. TALLON: TELL ME, MR. PAPAGEORGE,
 (11) WHAT WAS THE DOWNSIDE OF SAYING SOMETHING TO
 (12) CUSTOMERS IN THIS LETTER THAT THESE PRODUCTS
 (13) CONTAINED AROCLOR 1242, LIKE TURBINOL-153?
 (14) A THE DOWNSIDE?
 (15) COULD YOU HELP ME WITH THE EXPRESSION
 (16) "DOWNSIDE"?
 (17) Q SURE.
 (18) THE LETTER IS TALKING ABOUT 1254 AND
 (19) 1260?
 (20) A UH-HUH.
 (21) Q RIGHT?
 (22) A YES.
 (23) Q AND IT SAYS NONE OF THESE PRODUCTS
 (24) CONTAIN 1254 AND 1260?
 (25) A YES.
 (26) Q OKAY. WHY DIDN'T YOU SAY IN THE LETTER,
 (27) "HOWEVER, THEY DO INCLUDE 1242 AND YOU OUGHT TO
 BE
 (28) CAREFUL WITH THAT ALSO"?

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(1) A THAT IS WHAT THE LAST PARAGRAPH DOES.
 (2) MR. PREUSS: OBJECTION, YOUR HONOR, NO
 (3) FOUNDATION AS TO WHO THE AUTHOR OF THAT LETTER
 WAS.
 (4) THE COURT: SUSTAINED.
 (5) Q BY MR. TALLON: YOU TALKED TO MR. JOHNSON
 (6) ABOUT THIS LETTER?
 (7) A YES.
 (8) Q AND YOU GAVE HIM COMMENTS ON IT?
 (9) A YES.
 (10) Q OKAY. SO YOU KNEW WHAT THE TEXT SAID
 (11) BEFORE IT WAS ACTUALLY RELEASED TO MONSANTO
 (12) CUSTOMERS?
 (13) A YES.
 (14) Q SO WHEN YOU WERE OFFERING COMMENTS ON THE
 (15) TEXT OF THIS LETTER, WHY DIDN'T YOU SUGGEST
 INCLUDING
 (16) A PHRASE SAYING, "HOWEVER, ALTHOUGH
 TURBINOL-153
 (17) DOESN'T CONTAIN 1254 OR 1260, IT DOES CONTAIN 1242
 (18) AND YOU SHOULD BE CAREFUL WITH THAT"?

(19) A THAT IS WHAT I READ - INTENDED IN THAT
 (20) LAST PARAGRAPH WHICH REFERS TO PRODUCTS IN THE
 PROPER
 (21) HANDLING THEREOF.
 (22) Q WHERE DO YOU SEE THAT?
 (23) A THE LAST PARAGRAPH.
 (24) "WE FEEL ALL POSSIBLE CARE SHOULD BE
 (25) TAKEN IN APPLICATION, PROCESSING, EFFLUENT
 DISPOSAL
 (26) OF THESE PRODUCTS TO PREVENT THEM FROM BECOMING
 (27) ENVIRONMENTAL CONTAMINANTS."
 (28) THAT INCLUDES NOT ONLY PCB'S BUT ANYTHING

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(1) ELSE IN THAT LINE OF PRODUCTS DISCUSSED IN THAT
 (2) DOCUMENT WHICH INCLUDES THE 1254 TYPE PCB'S AND
 THE
 (3) OTHERS.
 (4) Q SO WHEN YOU READ PARAGRAPH - YES,
 (5) PARAGRAPH 2 ON PAGE 2 OF THE LETTER -
 (6) A YES.
 (7) Q YOU ARE INFERRING THAT TO REFER TO ALL
 (8) THE PRODUCTS MENTIONED IN THE LETTER AND NOT
 JUST THE
 (9) HEAVIER CHLORINATED PRODUCTS?
 (10) A IT'S ALL OF THE PRODUCTS.
 (11) THAT IS WHAT THE ATTACHMENT FROM THE
 (12) CHEMICAL WE CAN JUDGE COVERS, INDUSTRIAL
 CHEMICALS.
 (13) Q ALL CHEMICALS?
 (14) A ALL CHEMICALS, YES, SIR.
 (15) Q SO WHAT WAS BEING SUGGESTED WAS WHATEVER
 (16) YOU HAVE?
 (17) A BE CAREFUL, YES.
 (18) Q BUT NO SPECIFIC MENTION OF 1242, RIGHT?
 (19) A THAT IS TRUE.
 (20) Q NOW, ONE OF THE THINGS YOU TOOK ON
 (21) RESPONSIBILITY FOR WAS COMING UP WITH KIND OF A
 PLAN
 (22) FOR DEALING WITH THE GROWING PCB PROBLEM?
 (23) A YES.
 (24) Q AND IN THE SPRING OF 1970 YOU SET ABOUT
 (25) TO ACTUALLY DRAFT A PLAN?
 (26) A YES.
 (27) Q AND YOU EVENTUALLY DID PUT PEN TO PAPER
 (28) AND CAME UP WITH SOMETHING THAT YOU BEGAN TO

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(1) CIRCULATE TO A GROUP OF PEOPLE FOR COMMENTS?
 (2) A I DID.
 (3) Q TAKE A LOOK AT 135, TRANSWESTERN 135,
 (4) PLEASE, MR. PAPAGEORGE.
 (5) A I HAVE IT.
 (6) Q OKAY. NOW, THAT IS YOUR MEMO OF APRIL 7,
 (7) 1970 TO HOWARD BERGEN, JOHN MASON, AND OTHERS,
 RIGHT?
 (8) A YES.
 (9) Q WHAT WAS JOHN MASON'S JOB IN APRIL OF
 (10) 1970?
 (11) A HE WAS AN ASSISTANT GENERAL MANAGER OF
 (12) THE ORGANIC DIVISION OF MONSANTO CHEMICAL
 COMPANY.
 (13) Q AND THE OTHER GENTLEMEN WHO GOT COPIES OF
 (14) THIS LETTER, THEY WERE RELATIVELY SENIOR
 EXECUTIVES?
 (15) A YES.
 (16) Q LET'S LOOK JUST AT YOUR COVER MEMO THERE
 (17) FOR A SECOND, MR. PAPAGEORGE.
 (18) THAT IS YOUR SIGNATURE?
 (19) A YES.
 (20) Q AND WHAT YOU ARE DOING IS TRANSMITTING TO
 (21) THEM THE ATTACHMENT TO THE COVER MEMO SAYING,
 "HERE
 (22) IS THE PLAN THAT I HAVE COME UP WITH AND IT HAS
 BEEN
 (23) REVIEWED WITH MEDICAL, LEGAL, PUBLIC RELATIONS
 AND
 (24) THE BUSINESS GROUPS"?

- (25) A IT DOES SAY THAT.
 (26) Q AND WHAT YOU ARE --
 (27) THE COURT: MR. TALLON, LET ME INTERRUPT SO WE
 (28) CAN TAKE THE AFTERNOON BREAK.

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- (1) MR. TALLON: OKAY.
 (2) THE COURT: LADIES AND GENTLEMEN, WE WILL BE IN
 (3) RECESS UNTIL THREE O'CLOCK.
 (4) PLEASE DO RETURN AT THAT TIME SO WE CAN
 (5) RESUME.
 (6) (RECESS.)
 (7) THE COURT: AND RESUMING.
 (8) GO AHEAD, MR. TALLON.
 (9) MR. TALLON: THANK YOU, YOUR HONOR.
 (10) Q MR. PAPAGEORGE, WE WERE JUST LOOKING AT
 (11) TRANSWESTERN 135.
 (12) YOU IDENTIFIED THE COVER MEMO.
 (13) I WANT TO TURN YOU NOW TO THE ATTACHMENT
 (14) WHICH IS ENTITLED "MANAGEMENT PLAN,
 POLYCHLORINATED
 (15) BIPHENYL, ENVIRONMENTAL PROBLEM," ARE YOU WITH
 ME?
 (16) A I AM.
 (17) Q IN THE FIRST PARAGRAPH, THIS IS A
 (18) DOCUMENT YOU DRAFTED?
 (19) A YES.
 (20) Q IN THE FIRST PARAGRAPH YOU REFERRED TO
 (21) THE PROBLEM. AND YOU GO ON TO DESCRIBE THE
 PRESENCE
 (22) OF MATERIALS IN THE ENVIRONMENT IDENTIFIED AS
 PCB'S
 (23) AND YOU REFER BACK TO THE JENSEN ADD WIDMARK
 WORK,
 (24) RIGHT?
 (25) A YES.
 (26) Q AND YOU RELATE THAT BACK TO THE TIME WHEN
 (27) IT WAS FIRST MADE AVAILABLE, WHICH IS NOVEMBER,
 1966?
 (28) A I DO.

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- (1) Q AND THEN YOU SAY, "SINCE THEN, AND WITH
 (2) INCREASING FREQUENCY, OTHER INVESTIGATORS HAVE
 (3) IDENTIFIED PCB IN MARINE AND ANIMAL LIFE."
 (4) A YES, I DO.
 (5) Q AND THEN YOU WROTE, "INCREASING EVIDENCE
 (6) HAS BEEN NOTED THAT INDICATES PCB IS
 UBIQUITOUSLY
 (7) PRESENT IN THE ENVIRONMENT AND IS RESULTING IN
 DAMAGE
 (8) TO THE ECOLOGICAL SYSTEM."
 (9) WHAT DOES "UBIQUITOUSLY PRESENT" MEAN?
 (10) A PRESENT IN MANY, MANY PLACES.
 (11) Q DO YOU THINK THAT WOULD BE THE EQUIVALENT
 (12) OF SAYING "PRESENT EVERYWHERE"?
 (13) A I CAN'T SAY EVERYWHERE BECAUSE THERE ARE
 (14) SOME SPOTS THAT DON'T HAVE IT.
 (15) Q HOW ABOUT ANTARCTICA?
 (16) A I DON'T KNOW THAT.
 (17) THE SAME WITH THE SAHARA DESERT AND SO
 (18) ON.
 (19) Q YOU DON'T KNOW WHETHER PCB HAS EVER BEEN
 (20) FOUND IN ICE SAMPLES TAKEN IN ANTARCTICA?
 (21) A I PERSONALLY DON'T KNOW.
 (22) Q HOW ABOUT DISHWASHING DETERGENT?
 (23) A I'M AWARE OF THAT SITUATION, YES.
 (24) Q HOW ABOUT SHREDDED WHEAT?
 (25) A YES, I'M AWARE OF THAT.
 (26) Q AND DID YOU FIND OUT THAT THE PCB'S
 (27) IDENTIFIED IN SHREDDED WHEAT WERE 1242?
 (28) A YES.

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- (1) Q AND DID YOU FIND OUT THAT THE PCB'S IN
 (2) THE DISHWASHING DETERGENT WERE 1242?
 (3) A YES.
 (4) Q DID YOU FIND OUT THAT THE PCB'S IN THE
 (5) DISHWASHING DETERGENT AND THE SHREDDED WHEAT

CAME

- (6) FROM THE BOX THAT THEY WERE IN?
 (7) A WE DID.
 (8) Q AND DID YOU FIND OUT THAT THE PCB'S IN
 (9) THE BOXES THAT CONTAINED THE DISHWASHING
 DETERGENT
 (10) AND THE SHREDDED WHEAT HAD BEEN MADE OF
 RECYCLED
 (11) PAPER?
 (12) A YES.
 (13) Q AND SOME OF WHAT WAS RECYCLED, TOGETHER
 (14) WITH OTHER PAPER, WAS NCR CARBONLESS CARBON
 PAPER,
 (15) RIGHT?
 (16) A YES.
 (17) Q AND THAT IS HOW THE 1242 GOT THERE?
 (18) A YES.
 (19) Q AND WHAT IS BIOACCUMULATION,
 (20) MR. PAPAGEORGE?
 (21) A THIS IS THE TERM THAT DESCRIBES THE
 (22) SITUATION WHERE, AS AN EXAMPLE, A CREATURE OUT IN
 (23) NATURE, WHICH IS IN A PCB-TYPE OF ENVIRONMENT,
 (24) COLLECTS IN ITS MAKEUP AN AMOUNT OF PCB THAT IS A
 LOT
 (25) HIGHER THAN THE AMOUNT THAT ITS ENVIRONMENT
 CONTAINS.
 (26) FOR EXAMPLE, IN A FISH IT COULD EXIST IN
 (27) PARTS-PER-MILLION LEVELS WHEREAS THE WATER IT LIVES
 (28) IN IS IN THE PARTS-PER-BILLION LEVEL.

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- (1) SO THAT MEANS THAT IT'S ACCUMULATING IN
 (2) THAT FISH, BIOACCUMULATION.
 (3) Q WHAT ABOUT BIOMAGNIFICATION?
 (4) A BIOMAGNIFICATION IS A TERM THAT IS USED
 (5) TO DESCRIBE THE SITUATION WHERE EACH CREATURE IN
 THE
 (6) FOOD CHAIN, AS IT GOES UP THE FOOD CHAIN, CONTAINS
 (7) MORE AND MORE PCB'S, SUCH THAT THE -- FOR EXAMPLE,
 (8) THE LITTLE CREATURES IN THE WATER MAY CONTAIN
 (9) SOMETHING LIKE A PART-PER-BILLION LEVEL. BUT BY THE
 (10) TIME IT GOES THROUGH THE FISH TO THE EAGLE, THE
 EAGLE
 (11) HAS IT NOW IN PARTS PER MILLION LEVEL.
 (12) SO IT MAGNIFIES AS IT GOES UP THE FOOD
 (13) CHAIN.
 (14) Q SO IF A BIG FISH EATS A BUNCH OF LITTLE
 (15) FISH, ALL THE PCB'S AND ALL THOSE LITTLE FISH ARE
 NOW
 (16) IN THE BIG FISH?
 (17) A SOME OF THEM.
 (18) SOME OF THEM ARE METABOLIZED, USED UP BY
 (19) THE BIGGER FISH.
 (20) SOME OF THEM ARE EXCRETED, DISCARDED.
 (21) BUT SOME ARE KEPT IN THE LARGER FISH.
 (22) Q OKAY. LET'S TALK ABOUT UBIQUITOUSLY
 (23) PRESENT OR PRESENT EVERYWHERE OR LOTS OF
 PLACES.
 (24) WHEN YOU TOOK ON YOUR JOB, YOU WERE
 (25) HEARING ABOUT DAIRY HERDS, RIGHT?
 (26) A I DID HEAR, YES.
 (27) Q AND YOU BECAME FAMILIAR WITH THE FACT
 (28) THAT HERDS OF COWS THAT WERE MAINTAINED FOR
 THE

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- (1) PURPOSES OF PRODUCING MILK HAD INGESTED PCB'S
 FOUND
 (2) IN GRASS, RIGHT?
 (3) A THERE WAS A CASE, YES.
 (4) Q WHERE WAS THAT ONE?
 (5) A GEORGIA.
 (6) Q OKAY. AND THERE WAS ONE IN THE MIDWEST,
 (7) TOO, RIGHT, WHERE PCB'S HAD BEEN IN THE PAINT
 USED TO
 (8) PAINT THE INSIDE OF THE SILO?
 (9) A YES.
 (10) Q AND THE PAINT -- THE PCB'S IN THAT PAINT

(11) EITHER FLAKED OFF AND CONTAMINATED THE STUFF THAT WAS
 (12) KEPT IN THE SILO?
 (13) A YES.
 (14) Q OR THE PCB'S ACTUALLY LEACHED OUT INTO THE SILAGE?
 (15) A I DON'T KNOW ABOUT SO MUCH LEACHING AS THE FLAKING OFF AND ABRASION OF THIS DEVICE THAT MOVES THE SILAGE AND THROWS IT OUT THE SIDES SO IT GETS DOWN TO GROUND LEVEL SO CATTLE CAN GET TO IT.
 (20) Q AN THEN THE COWS EAT THE SILAGE THAT IS CONTAMINATED WITH THE PCB'S AND WHAT HAPPENS?
 (22) A IT SHOWS UP IN THEIR MILK.
 (23) Q AND ISN'T THAT THE WHOLE PROBLEM THAT YOU WERE LOOKING AT IN EARLY 1970, WAS THE BIOACCUMULATION, THE BIOMAGNIFICATION, THE PCB'S IN MILK, THE PCB'S IN SHREDDED WHEAT, THAT THEY WERE
 (27) UBIQUITOUSLY PRESENT?
 (28) A IT WAS A MATTER OF PRESENCE. AND IT WAS

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(1) FOUND IN MANY DIFFERENT TYPES OF SITUATIONS, YES.
 (2) Q TURN TO PAGE 2 OF YOUR MANAGEMENT PLAN, IF YOU WOULD, MR. PAPAGEORGE.
 (4) A I HAVE IT.
 (5) Q UNDER OBJECTIVES.
 (6) AND WHAT YOU WERE SAYING WAS THE
 (7) OBJECTIVE OF THE PCB MANAGEMENT PLAN YOU DRAFTED WAS
 (8) THAT "THE OVERALL OBJECTIVE OF THIS PLAN IS TO MANAGE
 (9) THE PCB POLLUTION PROBLEM, TO PREVENT IT FROM
 (10) ADVERSELY AFFECTING THE ESTABLISHED RETURN ON
 (11) INVESTMENT OBJECTIVES OF THE FUNCTIONAL FLUIDS AND
 (12) PLASTICIZERS GROUPS WHILE MAINTAINING THE CORPORATE
 (13) IMAGE OF MONSANTO AS A RESPONSIBLE AND RESPECTED MEMO
 (14) OF INDUSTRY WORLDWIDE."
 (15) A I DID SAY THAT.
 (16) Q WHAT DOES "RETURN ON INVESTMENT" MEAN?
 (17) A THAT IS A TERM USED TO DESCRIBE HOW MUCH
 (18) DOES THE ACTIVITY WITHIN THE COMPANY RETURN IN
 (19) DOLLARS FOR THE AMOUNT THAT THE COMPANY INVESTED IN
 (20) TANKS AND PUMPS AND TRUCKS AND PEOPLE. SO IT'S A
 (21) RETURN ON THAT INVESTMENT IS A MEASURE OF HOW GOOD
 (22) THAT INVESTMENT WAS OR IS.
 (23) Q OKAY. AND IT'S PRETTY COMMON IN THE
 (24) BUSINESS WORLD TO MEASURE THE PERFORMANCE OF A
 (25) BUSINESS BY RETURN ON INVESTMENT?
 (26) A CERTAINLY.
 (27) Q OKAY. AND WHAT YOU WERE TALKING ABOUT
 (28) WAS THAT AT THE TIME YOU WROTE THIS REPORT IN 1970

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(1) THE FUNCTIONAL FLUIDS AND PLASTICIZER BUSINESSES OF
 (2) MONSANTO, THE PCB BUSINESSES, HAD
 (3) RETURN-ON-INVESTMENT OBJECTIVES, RIGHT?
 (4) A CERTAINLY.
 (5) Q TAKE A LOOK AT PAGE 3 OF THAT SAME PLAN, PLEASE, MR. PAPAGEORGE, UNDER ACTION PLAN.
 (7) A I SEE IT.
 (8) Q IN THE SECTION TITLED ACTION PLAN, AS I UNDERSTAND IT, YOU WERE IDENTIFYING SPECIFIC THINGS
 (10) THAT YOU THOUGHT SHOULD BE DONE?
 (11) A CORRECT.
 (12) Q OKAY. AND THE FIRST THING THAT YOU
 (13) THOUGHT SHOULD BE DONE WAS TO REDUCE AND EFFECTIVELY

(14) CONTROL THE PCB CONTENT OF ALL EFFLUENT FROM MONSANTO
 (15) PLANTS, RIGHT?
 (16) A CORRECT.
 (17) Q AND "EFFLUENT" MEANS WHAT?
 (18) A IT DESCRIBES THE WASTE WATERS, AS AN
 (19) EXAMPLE, THAT LEAVE THE PLANT OR THE GASES AND VAPORS
 (20) THAT ARE GENERATED AT THE PLANT AND GO UP THE STACKS
 (21) OR THROUGH VENTS OR OPENINGS IN THE SYSTEM.
 (22) Q UH-HUH.
 (23) SO BASICALLY THE OBJECTIVE WOULD BE TO -
 (24) WOULD BE TO RESTRICT PCB OUTFLOW, WHETHER IT WAS IN
 (25) WATER OR GARBAGE OR AIR STREAM, RIGHT?
 (26) A GARBAGE COMES UNDER THE SOLID WASTE
 (27) MANAGEMENT.
 (28) I DON'T KNOW THAT THE WORD "EFFLUENT" IS

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(1) NORMALLY USED TO DESCRIBE THAT KIND OF SITUATION.
 (2) Q OKAY. BUT YOU WERE INTERESTED IN
 (3) CONTROLLING OUTFLOW IN WATER OR AIR?
 (4) A YES.
 (5) Q OKAY. AND WHAT YOU WERE RECOMMENDING
 (6) THAT MONSANTO DO WAS TO CONTINUE EMPHASIS ON CONTROL
 (7) TO ACHIEVE A TARGET OF 10 PARTS PER BILLION IN PLANT
 (8) EFFLUENT, RIGHT?
 (9) A CORRECT, CORRECT.
 (10) Q MR. PAPAGEORGE, YOU WROTE A DOCUMENT
 (11) CALLED HISTORICAL SUMMARY OF THE PCB ENVIRONMENTAL
 (12) PROBLEM, RIGHT?
 (13) A I THINK I REMEMBER THAT, YES.
 (14) Q OKAY. AND TAKE A LOOK AT THAT IF YOU WOULD, PLEASE.
 (15) IT'S NOT IN THE BLUE BINDERS.
 (17) YOU NEED TO LOOK AT THE BLACK BINDERS,
 (18) EXHIBIT 716.
 (19) A I HAVE THE DOCUMENT.
 (20) Q THAT IS THE HISTORICAL SUMMARY OF PCB ENVIRONMENT ISSUES THAT YOU WROTE?
 (21) A IT IS.
 (23) Q AND YOU WROTE THAT SOMETIME IN THE LAST
 (24) QUARTER OF 1970?
 (25) A AS BEST AS I CAN RECALL. THAT IS ABOUT
 (26) RIGHT.
 (27) Q MR. PAPAGEORGE, I HAVE PLACED ON THE
 (28) EASEL A BLOWUP OF JUST THE FIRST PAGE.

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(1) WE WILL TURN TO THE SECOND PAGE IN A
 (2) MOMENT.
 (3) BUT WHAT YOU DO IS BASICALLY TO RECAP ALL
 (4) OF THE INFORMATION AND TO BOIL IT DOWN INTO A COUPLE
 (5) OF PAGES, RIGHT?
 (6) A I DID.
 (7) Q AND WHAT YOU OBSERVED WHEN YOU WROTE THIS HISTORICAL SUMMARY WAS, YOU REFERRED BACK TO JENSEN
 (9) AND WIDMARK, RIGHT?
 (10) A I DID.
 (11) Q AND REPORTED ON THE STUFF THAT THEY HAD
 (12) REPORTED ON IN LATE 1966?
 (13) A YES.
 (14) Q AND IT WAS YOUR THOUGHT, WHEN YOU WROTE THIS, AND YOU BELIEVED THAT DURING 1967 OTHER
 (16) INVESTIGATORS, USING JENSEN'S METHOD, ESTABLISHED THE
 (17) PRESENCE OF POLYCHLORINATED BIPHENYLS IN SAMPLES IN
 (18) THE ENVIRONMENT, RIGHT?
 (19) A YES.
 (20) Q AND BY LATE 1967 AND EARLY 1968 PRESENCE

(21) IN THE ENVIRONMENT WAS FAIRLY WELL ESTABLISHED BUT IN
 (22) MANY INSTANCES COULD NOT BE EXPLAINED, RIGHT?
 (23) A CORRECT.
 (24) Q OKAY. TURN TO PAGE 2 OF THAT, IF YOU
 (25) WOULD, PLEASE.
 (26) OKAY. YOU RECAPPED THE FINDINGS OF
 (27) STUDIES THAT HAD BEEN DONE BY THE TIME YOU
 WROTE
 (28) THIS, CORRECT?

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(1) A I DID.
 (2) Q ALL RIGHT. AND YOU SAID, "STUDIES
 (3) PERFORMED THROUGHOUT THE WORLD HAVE
 RESULTED IN THE
 (4) FOLLOWING FINDINGS: NUMBER ONE, THE PRESENCE OF
 (5) POLYCHLORINATED BIPHENYLS IN THE ENVIRONMENT HAS
 BEEN
 (6) CONFIRMED," CORRECT?
 (7) A CORRECT.
 (8) Q AND YOU BELIEVED THAT WAS TRUE AT THE
 (9) TIME YOU WROTE THIS?
 (10) A YES.
 (11) Q AND UNDER ITEM FIVE IN THAT SAME LIST YOU
 (12) WROTE, "BIOLOGICAL MAGNIFICATION IN THE FOOD
 CHAIN
 (13) DOES OCCUR," RIGHT?
 (14) A YES.
 (15) Q NOW, YOU KNOW WHO CONGRESSMAN JOHN RYAN
 (16) IS, DON'T YOU?
 (17) A I DID KNOW, YES.
 (18) Q AND HE BEGAN TO CONTACT MONSANTO IN THE
 (19) SPRING OF 1970 AFTER YOU TOOK YOUR JOB, RIGHT?
 (20) A HE DID.
 (21) Q AND HE WROTE TO MONSANTO, CORRECT?
 (22) A HE DID, YES.
 (23) Q AND YOU SAW THOSE LETTERS?
 (24) A YES.
 (25) Q TAKE A LOOK, IF YOU WOULD, PLEASE, AT
 (26) EXHIBIT 136.
 (27) A I HAVE IT.
 (28) Q TELL US WHAT 136 IS?

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(1) A IT'S A COPY OF A LETTER FROM CONGRESSMAN
 (2) WILLIAM RYAN ADDRESSED TO MR. EDWARD BOCK, THE
 (3) PRESIDENT OF MONSANTO AT THE TIME OF THE DATE OF
 THE
 (4) LETTER, APRIL 9TH, 1970.
 (5) Q AND IN THE LETTER CONGRESSMAN RYAN IS
 (6) WRITING ABOUT PCB'S, RIGHT?
 (7) A HE IS.
 (8) Q AND WHAT DOES THE LETTER SAY, IN ESSENCE?
 (9) A HE EXPRESSES CONCERN ABOUT THE FINDINGS
 (10) OF PCB'S IN THE ENVIRONMENT.
 (11) HE - THE LETTER KIND OF SPEAKS FOR
 (12) ITSELF.
 (13) HE URGES THE COMPANY TO COOPERATE AND TO
 (14) LIST THE USES OF PCB'S AND HE REFERRED TO A
 TECHNICAL
 (15) BULLETIN THAT MONSANTO HAD ISSUED AT ONE TIME.
 (16) HE ENCOURAGED MONSANTO TO BE RESPONSIBLE
 (17) IN THIS MATTER.
 (18) Q CONGRESSMAN RYAN REQUESTED MR. BOCK, WHO
 (19) IS THE PRESIDENT OF MONSANTO, TO INFORM HIM OF
 ITS
 (20) ANNUAL PRODUCTION AND SALES FIGURES FOR EACH
 YEAR
 (21) SINCE 1940 FOR THE PLANTS IN THE UNITED STATES
 AND
 (22) PLANTS IN ENGLAND, RIGHT?
 (23) A HE DID.
 (24) Q AND HE ASKED TO HAVE MONSANTO PROVIDE
 (25) INFORMATION ABOUT USES TO WHICH PRODUCTS WERE
 PUT?
 (26) A THAT'S RIGHT.
 (27) Q MONSANTO REFUSED TO PROVIDE THAT

(28) INFORMATION?

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(1) A MONSANTO REFUSED TO PROVIDE THE
 (2) INFORMATION REGARDING SALES FIGURES TO
 CUSTOMERS.
 (3) I DON'T KNOW THAT THERE WAS ANY REFUSAL
 (4) TO DESCRIBE THE TYPES OF USES.
 (5) I JUST DON'T REMEMBER THAT.
 (6) Q OKAY. DID YOU SEND ANY LETTERS TO
 (7) CONGRESSMAN RYAN DESCRIBING THE TYPES OF
 USES?
 (8) A I DID NOT.
 (9) Q NOW, WE LOOKED A MOMENT AGO AT YOUR
 (10) APRIL, 1970 PCB MANAGEMENT PLAN, RIGHT?
 (11) A YES.
 (12) Q AND ONE OF THE PEOPLE THAT YOU SENT THAT
 (13) TO WAS JOHN MASON?
 (14) A CORRECT.
 (15) Q YOU GOT A MEMO BACK FROM JOHN MASON
 (16) COMMENTING ON YOUR DRAFT, RIGHT?
 (17) A I DID, I DID.
 (18) Q AND WHY DON'T YOU LOOK AT TRANSWESTERN
 (19) 137.
 (20) A I HAVE IT.
 (21) Q THAT IS A MEMO FROM MR. MASON TO YOU
 (22) DATED APRIL 9, 1970 COMMENTING ON THE DRAFT THAT
 YOU
 (23) HAD SENT HIM, RIGHT?
 (24) A YES.
 (25) Q LET'S TAKE A LOOK AT THAT.
 (26) OKAY. SO IT'S A MEMO TO YOU DATED APRIL
 (27) 9, 1970.
 (28) WHAT IS MR. MASON WRITING TO YOU IN THAT

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(1) VERY FIRST PARAGRAPH, MR. PAPAGEORGE?
 (2) A HE IS INFORMING ME HE READ MY PROPOSED
 (3) MANAGEMENT PLAN, THAT HE THOUGHT IT WAS OKAY AS A
 (4) WORKING DOCUMENT, WHICH WAS THE INTENT.
 (5) BUT HE DIDN'T THINK THAT THE CORPORATE
 (6) MANAGEMENT COMMITTEE WAS THE GROUP TO WHICH
 SUCH A
 (7) DOCUMENT WOULD BE HELPFUL.
 (8) Q HE TOLD YOU THAT HE DIDN'T THINK THAT
 (9) YOUR WORKING DOCUMENT WOULD SATISFY THE
 CORPORATE
 (10) MANAGEMENT COMMITTEE?
 (11) A THAT IS THE WORD HE USED, YES.
 (12) Q AND HE TOLD YOU IN HIS OPINION YOU AND HE
 (13) NEEDED TO TAKE A MORE AGGRESSIVE ATTITUDE IN THE
 (14) SUBJECT OF PCB'S, RIGHT?
 (15) A YES.
 (16) Q OR OTHERWISE YOU WOULD FIND YOURSELVES
 (17) DIRECTED TO A COURSE OF ACTION WHICH MAY NOT BE
 IN
 (18) THE DIVISION'S BEST INTERESTS?
 (19) A THAT IS A POSSIBILITY.
 (20) THAT IS WHAT HE INDICATED.
 (21) Q THAT IS CERTAINLY WHAT IT SAYS?
 (22) A YES.
 (23) Q AND THE DIVISION REFERRED TO IS WHAT,
 (24) AGAIN?
 (25) A THE ORGANIC DIVISION OF MONSANTO CHEMICAL
 (26) COMPANY.
 (27) Q AND HIS ROLE IN CONNECTION WITH MANAGING
 (28) THE ORGANIC DIVISION WAS WHAT, AGAIN?

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(1) A HE WAS AN ASSISTANT GENERAL MANAGER, ONE
 (2) OF TWO.
 (3) Q THAT WAS THE SENIOR POSITION?
 (4) A YES.
 (5) Q AND ESSENTIALLY IN THIS MEMO MR. MASON
 (6) GOES ON TO POINT OUT TO YOU THINGS THAT YOU
 SHOULD
 (7) INCLUDE IN REVISING YOUR MEMO, IN REVISING YOUR
 PCB
 (8) MANAGEMENT PLAN, RIGHT?

(9) A HE DOES, HE DOES.
 (10) Q ALL RIGHT. AND HE SUGGESTS THAT YOU LIST
 (11) MAJOR DEVELOPMENTS?
 (12) A YES.
 (13) Q LIKE THE FINDING OF PCB'S IN COW'S MILK
 (14) IN OHIO?
 (15) A YES.
 (16) Q LIKE THE PROBABLE INTERVENTION OF THE FDA
 (17) TO FIX MINIMUM LEVELS OF PCB'S IN FOOD STUFFS?
 (18) A YES.
 (19) Q SO BY APRIL OF 1970 YOU WERE GETTING
 (20) INDICATIONS FROM THE FEDERAL FOOD AND DRUG
 (21) ADMINISTRATION THAT IT WAS THINKING ABOUT
 (22) SETTING
 (23) MINIMAL LEVELS OF PCB'S IN FOOD?
 (24) A YES.
 (25) Q AND HE ASKED YOU TO INCLUDE IN YOUR
 (26) REPORT A REFERENCE TO THE FACT THAT YOU HAD MET
 (27) WITH
 (28) FEDERAL WATER POLLUTION AUTHORITIES?
 (29) A YES.
 (30) Q AND THEY WERE INTERESTED, TOO?

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(1) A YES.
 (2) Q AND HE ASKED YOU TO DESCRIBE THE
 (3) INCREASING CONCERN IN THE UK AND THE
 (4) INTERVENTION OF
 (5) THE MINISTRY OF AGRICULTURE, FISHERIES AND FOOD?
 (6) A YES.
 (7) Q THAT GOVERNMENTAL BODY WAS INTERESTED IN
 (8) PCB'S AS WELL?
 (9) A YES.
 (10) Q I'M SORRY, I FORGOT ONE THING.
 (11) IF YOU LOOK AT POINT TWO ON PAGE 1 FOR A
 (12) SECOND.
 (13) A I'M LOOKING AT IT.
 (14) Q DID HE ALSO ASK YOU TO MAKE REFERENCE TO
 (15) THE FACT THAT POLLUTION HYSTERIA CONTINUES TO
 (16) GROW?
 (17) A YES.
 (18) Q AND DID HE TELL YOU THAT HE THOUGHT WE
 (19) ARE, MEANING YOU ARE, PROBABLY MOVING INTO A
 (20) STAGE
 (21) WHERE GOVERNMENT AGENCIES AS WELL AS
 (22) INDEPENDENT
 (23) WORKERS WILL BECOME INVOLVED?
 (24) A YES.
 (25) Q AND, IN FACT, DID YOU INCLUDE THOSE
 (26) THOUGHTS IN YOUR REVISION?
 (27) A YES, DEFINITELY.
 (28) Q LET'S TURN JUST TO THE BOTTOM OF PAGE TWO
 (29) THERE, MR. PAPAGEORGE.
 (30) MR. MASON IS ESSENTIALLY SIGNING OFF HERE
 (31) AND SUGGESTING THAT YOU SUMMARIZE BY
 (32) REQUESTING THAT
 (33) YOU BE ALLOWED TO IMPLEMENT THE PLAN AS
 (34) PRESENTED TO

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(1) THE CMC, RIGHT?
 (2) A YES.
 (3) Q AND HE IS SUGGESTING TO YOU ALL - THAT
 (4) YOU SHOULD INCLUDE ALL THE THINGS IN THE MEMO,
 (5) RIGHT?
 (6) A YES.
 (7) Q AND READ THAT LAST SENTENCE.
 (8) ACTUALLY, I GUESS YOU ARE GOING TO HAVE
 (9) TO READ THE WHOLE PARAGRAPH BECAUSE THE WHOLE
 (10) PARAGRAPH IS ONE SENTENCE.
 (11) WOULD YOU PLEASE, PARAGRAPH 10, STARTING
 (12) AT THE BOTTOM OF THE PAGE?
 (13) A "SUMMARIZE BY REQUESTING THAT WE BE
 (14) ALLOWED TO IMPLEMENT THE PLAN AS PRESENTED TO THE
 (15) CMC
 (16) AND PARTICULARLY THAT THEY AGREE TO THE
 (17) MODIFICATION
 (18) IN THE STRATEGY, EMPHASIZING THAT AT THIS STAGE

THERE
 (16) IS NO POINT IN DISCONTINUING THE MANUFACTURE OF
 (17) 1254
 (18) AND 1260 AND THAT RESTRICTION OF THEIR USES IS FAR
 (19) MORE LIKELY TO GET US OFF THE HOOK AND ENABLE US
 (20) TO
 (21) MAINTAIN MAXIMUM PROFITABILITY WHILE PRESERVING A
 (22) RESPONSIBLE IMAGE AS A COMPANY.
 (23) Q YOU DID REVISE THAT PCB MANAGEMENT PLAN
 (24) THAT WE LOOKED AT A FEW MOMENTS AGO TO PICK UP
 (25) MR. MASON'S COMMENTS?
 (26) A MOST OF THEM, NOT ALL OF THEM.
 (27) Q AND YOU DID MAKE A PRESENTATION TO THE
 (28) CORPORATE MANAGEMENT COMMITTEE?
 (29) A I DID.
 (30) Q LOOK AT TRANSWESTERN NUMBER 138,

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(1) MR. PAPAGEORGE?
 (2) A I HAVE IT.
 (3) Q THAT IS A COPY OF THE TEXT THAT YOU READ
 (4) FROM AT THE CMC MEETING THAT WE HAVE JUST BEEN
 (5) TALKING ABOUT, RIGHT?
 (6) A IT APPEARS TO BE, YES, SIR.
 (7) Q AND THAT CORPORATE MANAGEMENT COMMITTEE
 (8) MEETING WAS APRIL 10TH, 1970?
 (9) A YES.
 (10) Q WAS THAT APRIL -
 (11) A OR APRIL 20TH, MAYBE.
 (12) Q OKAY.
 (13) A I'M A LITTLE CONFUSED RIGHT NOW.
 (14) IT IS CERTAINLY APRIL, APRIL 10TH OR
 (15) 20TH.
 (16) Q OKAY. WAS THAT CORPORATE MANAGEMENT
 (17) COMMITTEE MEETING IN APRIL OF 1970 THE FIRST
 (18) REPORT
 (19) THAT YOU HAD ATTENDED AT THE CMC FOLLOWING THE
 (20) MEETING THE PRECEDING FALL WHERE YOUR JOB WAS
 (21) CREATED?
 (22) A YES.
 (23) Q AND WAS THIS THE FIRST UPDATE THAT THE
 (24) SENIOR MANAGERS OF MONSANTO WERE GETTING
 (25) BACK WHAT
 (26) WAS HAPPENING WITH THE PROBLEM THEY HAD HEARD
 (27) ABOUT
 (28) IN THE FALL OF '69?
 (29) A TO THE BEST OF MY KNOWLEDGE, YES.
 (30) Q NOW, ONE OF THE THINGS THAT THE AD HOC -
 (31) WELL, ONE OF THE THINGS THAT THE PRESENTERS AT
 (32) THAT

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(1) MEETING HAD TOLD THE CORPORATE MANAGEMENT
 (2) COMMITTEE
 (3) IN THE FALL OF '69 WAS THAT PRODUCTS WOULD BE
 (4) RELABELED WITHIN 60 DAYS, RIGHT?
 (5) A YES. I REMEMBER THAT, YES.
 (6) Q THAT DIDN'T HAPPEN?
 (7) A NO. WE MISSED THAT DATE, UH-HUH.
 (8) Q SO WHEN YOU GOT TO THE CORPORATE
 (9) MANAGEMENT COMMITTEE MEETING IN APRIL OF '70,
 (10) DID THE
 (11) CORPORATE MANAGEMENT COMMITTEE MEMBERS
 (12) ESSENTIALLY
 (13) SAY, "SO, WHAT'S BEEN GOING ON WITH YOU FELLOWS?"
 (14) A I DON'T KNOW THAT I RECALL THEM USING
 (15) EXACTLY THOSE WORDS.
 (16) IT JUST SAID, IN ESSENCE, "BRING US UP TO
 (17) DATE ON WHAT IS HAPPENING."
 (18) Q OKAY. AND YOU USED THIS DOCUMENT,
 (19) TRANSWESTERN 138, TO GIVE THAT REPORT?
 (20) A YES.
 (21) THERE WERE ALSO COMMENTS MADE BY OTHERS
 (22) IN THE AUDIENCE TO SUPPLEMENT MY COMMENTS.
 (23) Q LIKE WHO?
 (24) A WELL, THERE WAS MR. BERGEN WAS IN THE
 (25) AUDIENCE AND DR. KELLY AND MR. SPRINGGATE,
 (26) MR. MINCKLER.

(24) THERE WERE OTHERS THERE.
(25) THERE WAS A GIVE-AND-TAKE KIND OF
(26) DISCUSSION GOING ON.
(27) Q OKAY. WAS THIS MEETING HELD IN
(28) ST. LOUIS?

Page 1864

(1) A YES.
(2) Q AT MONSANTO'S HEADQUARTERS?
(3) A YES.
(4) Q HELD IN A BIG CONFERENCE ROOM OR WHAT
(5) KIND OF SETTING?
(6) A IT'S HELD IN THE - IT'S A BIG CONFERENCE
(7) ROOM, YES.
(8) Q ABOUT HOW MANY PEOPLE WOULD YOU SAY WERE
(9) PRESENT ALL TOGETHER?
(10) A ABOUT A DOZEN.
(11) Q OKAY. AND DID YOU USE TRANSPARENCIES OR
(12) SLIDES TO GIVE THIS PRESENTATION?
(13) A I DID, YES.
(14) Q TO ILLUSTRATE THE POINTS THAT YOU WERE
(15) MAKING?
(16) A YES.
(17) Q OKAY. AND YOU BASICALLY WALKED THEM
(18) THROUGH WHAT HAD BEEN HAPPENING AND WHAT YOU
WERE
(19) PROPOSING?
(20) A THAT WAS MY INTENT, YES.
(21) Q AND THEN LET'S SAY FOR EXAMPLE AT THE
(22) BOTTOM OF THE FIRST PAGE OF THIS EXHIBIT,
(23) TRANSWESTERN 138, IT SAYS, IN NOVEMBER, AND YOU
ARE
(24) REFERRING BACK NOW TO THE FALL OF '69 MEETING?
(25) A YES.
(26) Q OKAY. "IN NOVEMBER THE DECISION WAS MADE
(27) TO DEVELOP A PLAN TO PHASE OUT THE MANUFACTURE
OF
(28) AROCLOR 1254 AND 1260," CORRECT?

Page 1865

(1) A YES.
(2) Q "SINCE THEN," YOU SAID, "AS YOU WELL
(3) KNOW, THE POLLUTION HYSTERIA CONTINUES TO GROW
AND
(4) SPECIFICALLY IN THE AREA OF PCB'S THE NUMBER OF
(5) LABORATORIES, BOTH GOVERNMENTAL AND
UNIVERSITY,
(6) INVOLVED CONTINUES TO INCREASE AS WE HAD
PREDICTED,"
(7) RIGHT?
(8) A YES.
(9) Q AND YOU NOTED FOR THE COMMITTEE THAT THE
(10) PRESS HAD BEEN PRETTY QUIET ON THIS ISSUE, RIGHT?
(11) A I DID.
(12) Q AND IN FACT WHAT YOU SAID WAS SINCE
(13) NOVEMBER THE PRESS HAS BEEN RELATIVELY QUIET
EXCEPT
(14) FOR THE RECENT FLURRY FOLLOWING CONGRESSMAN
RYAN'S
(15) PRESS CONFERENCE, RIGHT?
(16) A YES.
(17) Q AND YOU NOTED, NOW OVER TO PAGE 527, THAT
(18) YOU HAD MET WITH DRS. RISEBROUGH AND OLCUTT IN
(19) BERKELEY?
(20) A YES.
(21) Q YOU ALSO SAID YOU HAD ATTENDED A MEETING
(22) IN DULUTH, MINNESOTA?
(23) A I DID.
(24) Q WHEN THAT MEETING WAS ESSENTIALLY PLANNED
(25) DID YOU THINK IT WAS GOING TO INCLUDE ABOUT 50
(26) TECHNICAL REPRESENTATIVES AND OTHERS?
(27) A NO. THAT WAS NOT OUR INITIAL
(28) UNDERSTANDING.

Page 1866

(1) Q YOU THOUGHT THAT THE MEETING THAT WAS
(2) HELD IN DULUTH, MINNESOTA WAS GOING TO BE A
SMALLER
(3) MEETING THAT IT TURNED OUT TO BE?

(4) A THAT IS CORRECT.
(5) Q WHO ACTUALLY ORGANIZED THAT MEETING?
(6) A DR. DON MOUNT WHO WAS THE DIRECTOR OF
(7) THAT WATER POLLUTION LABORATORY IN DULUTH,
(8) MINNESOTA.
(9) Q AND YOU WERE INVITED TO ADDRESS THE PCB
(10) ISSUE ON BEHALF OF MONSANTO?
(11) A I AND TWO OTHERS.
(12) Q WHO ELSE?
(13) A DR. KELLER.
(14) Q YEAH.
(15) A AND MR. GARRETT.
(16) Q OKAY. AND WHO WAS IN ATTENDANCE? I
(17) DON'T MEAN INDIVIDUAL PEOPLE, JUST DESCRIBE THE
KINDS
(18) OF ORGANIZATIONS REPRESENTED.
(19) A IT INCLUDED REPRESENTATIVES OF THE
(20) FEDERAL WATER POLLUTION LABORATORIES FROM SUCH
PLACES
(21) AS ATHENS, GEORGIA AND CORVALLIS, OREGON, AS WELL
AS
(22) DULUTH.
(23) IT INCLUDED ANALYTICAL CHEMISTS FROM THE
(24) COMMERCIAL FISHERIES LABORATORIES, SUCH AS THE
ONE IN
(25) COLUMBIA, MISSOURI AND THE ONE DOWN IN GULF
BREEZE,
(26) FLORIDA.
(27) IT INCLUDED ANALYTICAL CHEMISTS. THESE
(28) WERE PRIMARILY CHEMISTS THAT ATTENDED FROM
SEVERAL

Page 1867

(1) STATE LABORATORIES, PARTICULARLY THOSE STATES
THAT
(2) ARE ALONG THE BORDER OF THE GREAT LAKES, MICHIGAN,
(3) ILLINOIS, WISCONSIN, INDIANA.
(4) THAT IS GENERALLY THE DESCRIPTION OF THE
(5) GROUP.
(6) IT WAS ABOUT 50 PEOPLE.
(7) Q WHY PARTICULARLY PEOPLE FROM THE AREA
(8) BORDERING THE GREAT LAKES, AS YOU UNDERSTOOD
IT?
(9) A BECAUSE THEY ASSOCIATE THEMSELVES WITH
(10) THE DULUTH LABORATORY REGARDING WATER. THEY
WANT TO
(11) KEEP UP TO DATE.
(12) THIS IS THEIR WAY OF DOING IT.
(13) Q WAS IT YOUR SENSE THAT THE MEETING
(14) REPRESENTED A GROWING INTEREST IN THE PCB
INTEREST ON
(15) THE PART OF THE SCIENTIFIC COMMUNITY?
(16) A CERTAINLY.
(17) Q AND A GROWING INTEREST ON THE PART OF
(18) GOVERNMENT COMMUNITY?
(19) A YES.
(20) Q DID YOU ALSO TELL THE CORPORATE
(21) MANAGEMENT COMMITTEE, CORPORATE MANAGEMENT
COMMITTEE
(22) MEETING ABOUT A VISIT YOU HAD FROM DR. HILL OF THE
(23) OHIO STATE HEALTH?
(24) A I DID.
(25) Q WHAT DID YOU TELL THEM?
(26) A I TOLD THEM I MET WITH THE DIRECTOR OF
(27) THEIR DAIRY DIVISION OF THEIR HEALTH DEPARTMENT
THAT
(28) HE WAS VERY INTERESTED IN THE PRESENCE OF PCB'S IN

Page 1868

(1) MILK AND PRESENT IN DAIRY HERDS IN THE STATE OF
(2) OHIO.
(3) HE WAS SEEKING GUIDANCE FROM THE FEDERAL
(4) FOOD AND DRUG ADMINISTRATION REGARDING WHAT
LEVELS
(5) ARE ACCEPTABLE.
(6) AND HE WAS AT THAT TIME NOT GETTING CLEAR
(7) ANSWERS, CLEAR GUIDANCE.
(8) HE WAS ALSO INTERESTED IN JUST THE

(9) GENERAL PCB DESCRIPTION, WHAT ARE THEY, WHERE ARE
 (10) THEY USED, HOW DO YOU ANALYZE FOR THEM.
 (11) Q DIDN'T YOU LEARN FROM DR. HILL THAT THE
 (12) FDA WAS CONSIDERING ESTABLISHING LIMITS?
 (13) A YES.
 (14) Q PCB LIMITS?
 (15) A HE TOLD ME THAT THEY WERE CONSIDERING -
 (16) THAT THEY HAD AT THAT TIME YET TO ARRIVE AT A NUMBER
 (17) THAT HE WOULD WORK WITH.
 (18) Q YOU TOLD THE CORPORATE MANAGEMENT
 (19) COMMITTEE THAT YOU LEARNED THAT THE FDA, THE
 (20) FOOD AND
 (21) DRUG ADMINISTRATION, WAS CONSIDERING A LEVEL OF
 (22) .2
 (23) PARTS PER MILLION, RIGHT?
 (24) A I BELIEVE THAT WAS THE NUMBER. .2 PARTS
 (25) PER MILLION IN THE WHOLE MILK, YES. THAT'S RIGHT.
 (26) Q OKAY. AND THAT IS NOT TWO PARTS PER
 (27) MILLION, IT'S TWO-TENTHS OF A PART PER MILLION?
 (28) A THAT IS CORRECT.
 (29) Q OKAY. YOU TOLD THE CORPORATE MANAGEMENT
 (30) COMMITTEE, DID YOU NOT, MR. PAPAGEORGE, THAT IN
 (31) THE

Page 1869

(1) UK YOU WERE EXPERIENCING CONSIDERABLE
 (2) CONCERN?
 (3) A YES.
 (4) Q AND THAT WAS COMING FROM THE MINISTRY OF
 (5) AGRICULTURE, OF FISHERIES AND FOOD, RIGHT?
 (6) A YES.
 (7) Q AND THAT MINISTRY WAS SEEKING INFORMATION
 (8) ABOUT MONSANTO'S CUSTOMERS?
 (9) A CORRECT.
 (10) Q YOU WERE AWARE THAT IN MEETINGS WITH THE
 (11) MINISTRY OF AGRICULTURE THAT MONSANTO
 (12) REPRESENTATIVES
 (13) WERE NOT DISCLOSING THE FACT THAT NCR USED
 (14) PCB'S IN
 (15) MAKING CARBONLESS COPY PAPER, RIGHT?
 (16) A NOT AT THAT TIME, CORRECT.
 (17) Q AND, IN FACT, DURING MEETINGS WITH THE UK
 (18) MINISTRY OF AGRICULTURE, MONSANTO PEOPLE
 (19) CONSCIOUSLY
 (20) DID NOT REFER TO NCR USE, RIGHT?
 (21) A AT THAT TIME, AGAIN. UH-HUH. YES.
 (22) Q SO WHAT WERE YOU BASICALLY SUGGESTING
 (23) THAT THE CORPORATE MANAGEMENT COMMITTEE
 (24) SHOULD DO AT
 (25) THIS POINT?
 (26) IT'S NOW THE SPRING OF '70, RIGHT?
 (27) A YES.
 (28) Q THE INFORMATION HAD INITIALLY COME IN IN
 (29) LATE '66.
 (30) SO WE WENT THROUGH '67, '68, '69 AND NOW
 (31) WE ARE UP TO APRIL OF '70.
 (32) WHAT WERE YOU SUGGESTING BE DONE?
 (33) A I WAS SUGGESTING THAT FOR THOSE USES IN

Page 1870

(1) WHICH PCB'S COULD NOT BE CONTROLLED AND THEIR
 (2) ENTRY
 (3) INTO THE ENVIRONMENT WAS ALMOST IMMEDIATE, FOR
 (4) EXAMPLE IN THE TRAFFIC PAINT THAT I MENTIONED
 (5) EARLIER, YOU CAN'T STOP IT FROM ENTERING THE
 (6) ENVIRONMENT, OR THE NCR PAPER APPLICATION.
 (7) THAT KIND OF USE SHOULD BE PHASED OUT AND
 (8) NO FURTHER SALES BE MADE AFTER A TIMETABLE THAT I
 (9) HAD
 (10) PRESENTED.
 (11) Q OKAY.
 (12) A TO GIVE TIME FOR THE CUSTOMER TO CHANGE
 (13) HIS PRODUCT, TO SELECT AN ALTERNATIVE MATERIAL.
 (14) WE ALSO RECOMMENDED AT THE TIME, I'M
 (15) TRYING TO RECALL THE DETAILS, THAT THE USES IN
 (16) ELECTRICAL EQUIPMENT BE CONTINUED BUT THAT A
 (17) GREAT
 (18) EMPHASIS BE GIVEN TO THE CONTROL OF THAT MATERIAL

AS
 (19) THE EQUIPMENT IS MANUFACTURED AND USED AND
 (20) FINALLY
 (21) DISPOSED, SO THAT PCB'S DO NOT ESCAPE INTO THE
 (22) ENVIRONMENT, THE USE IN HIGH TEMPERATURE HEAT
 (23) TRANSFER SYSTEMS WHERE FIRE AND EXPLOSIONS
 (24) COULD
 (25) OCCUR WITH OTHER MATERIALS BE CONTINUED BUT
 (26) THERE
 (27) AGAIN, THE CUSTOMER MUST BE VERY, VERY CAREFUL OF
 (28) WHERE THAT MATERIAL WAS DISPOSED WHEN IT WAS NO
 (29) LONGER USEFUL OR IF THERE IS A LEAK THAT IT BE
 (30) QUICKLY CONTROLLED, THAT KIND OF RECOMMENDATION
 (31) WAS
 (32) MADE.
 (33) Q UH-HUH.
 (34) A I DON'T HAVE THE SLIDE IN FRONT OF ME
 (35) THAT TREATED ON OUTLINE ALL OF THESE WITH THE
 (36) DATES

Page 1871

(1) OF EXPECTED COMPLETION.
 (2) BUT THE WHOLE ATTEMPT WAS TO BALANCE THE
 (3) SAFETY THAT THE PCB'S GAVE IN TERMS OF FIRES AND
 (4) EXPLOSIONS AGAINST THE IMPACT ON THE ENVIRONMENT,
 (5) THE
 (6) ABILITY TO CONTROL THAT LOSS TO THE ENVIRONMENT
 (7) AND
 (8) STILL BENEFIT FROM THE USE OF THESE MATERIALS.
 (9) Q IN YOUR REMARKS TO THE CMC OR THE
 (10) CORPORATE MANAGEMENT COMMITTEE, YOU DIDN'T
 (11) CONFINE
 (12) YOURSELF JUST TO AROCLOR 1254 AND 1260, DID YOU?
 (13) A NO, WE DIDN'T.
 (14) Q IN FACT, YOU TOLD THE CORPORATE
 (15) MANAGEMENT COMMITTEE THAT YOU WERE
 (16) DISAPPOINTED BY
 (17) THE RESULTS OF THE DEGRADATION WORK ON 1242,
 (18) RIGHT?
 (19) A I BELIEVE I USED THOSE WORDS.
 (20) BUT THERE WAS SOME FRUSTRATION AT THE
 (21) TIME THAT THE MATERIAL DIDN'T TOTALLY DEGRADE.
 (22) Q RIGHT. AND YOU ALSO TOLD THE CORPORATE
 (23) MANAGEMENT COMMITTEE THAT THE FACT THAT 1242
 (24) WASN'T
 (25) DEGRADING TENDED TO CONFIRM THE FACT THAT WHAT
 (26) WAS
 (27) BEING - WHAT WAS BEING SEEN IN THE ENVIRONMENT
 (28) WAS
 (29) 1242?
 (30) A WELL, COULD BE RESULTING FROM THE USE OR
 (31) MISUSE, REALLY, OF 1242.
 (32) IT COULD RESULT.
 (33) IT DOESN'T EXCLUDE 1254 AND 1260 FROM
 (34) BEING A SOURCE OF THE PROBLEM ALSO.
 (35) Q WELL, WHEN YOU SAY "MISUSE," YOU DON'T
 (36) MEAN LIKE, YOU KNOW, SENDING CARBONLESS CARBON
 (37) PAPER

Page 1872

(1) TO THE DUMP HEAP WHERE IT'S BURNED? THAT IS NOT
 (2) MISUSE, IS IT?
 (3) A IT'S AN IMPROPER DISPOSAL.
 (4) "MISHANDLING" IS PERHAPS A BETTER WORD
 (5) THAN MISUSE.
 (6) Q TURN TO PAGE 9352 OF THAT SAME EXHIBIT,
 (7) MR. PAPAGEORGE, EXHIBIT 138, PLEASE.
 (8) LOOK AT THE BOTTOM WHERE IT SAYS
 (9) "BIODEGRADATION STUDIES."
 (10) A I SEE IT.
 (11) Q OKAY. WHAT YOU TOLD THE COMMITTEE WAS,
 (12) "BIODEGRADATION STUDIES HAVE THUS FAR
 (13) CONFIRMED OUR
 (14) INITIAL BELIEFS THAT THE LOWER CHLORINATED
 (15) BIPHENYLS
 (16) WOULD DEGRADE EASILY," CORRECT?
 (17) A THAT IS CORRECT.
 (18) Q WHAT THAT REFERRED TO WAS 1221?

- (17) A WELL, IT REALLY REFERRED TO THE
(18) ONE-CHLORINE, TWO-CHLORINE, THREE-CHLORINE AND
MOST
(19) OF THE FOUR-CHLORINE BIPHENYLS.
(20) Q TAKE A LOOK AT PAGE 1, IF YOU WOULD.
(21) SEE WHERE IT SAYS, "SHOW TRANSPARENCY AND
(22) NON-DEGRADABLE AROCLORS"?
(23) A YES.
(24) Q WHAT YOU WERE TELLING THE COMMITTEE WAS
(25) THAT THE TRANSPARENCY THAT YOU SHOWED THEM AT
THAT
(26) POINT SUMMARIZED THE BUSINESS WHICH DEPENDS ON
THE
(27) NON-DEGRADABLE PERSISTENT AROCLORS, CORRECT?
(28) A YES.

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- (1) Q "SOLID AROCLORS WHICH ARE NOT AN
(2) ENVIRONMENT PROBLEM AND AROCLOR 1221 WHICH
HAS BEEN
(3) DEMONSTRATED IN OUR LABORATORIES TO RESPOND
TO
(4) DEGRADATION HAVE BEEN EXCLUDED," RIGHT?
(5) A THAT'S IT.
(6) Q SO BY PROCESS OF ELIMINATION EVERYTHING
(7) ELSE IS NON-DEGRADABLE?
(8) A I WOULD LIKE TO SEE THAT CHART TO REFRESH
(9) MY MEMORY AS TO WHAT WAS ON IT.
(10) THAT WOULD CERTAINLY HELP HERE.
(11) I JUST DON'T RECALL HOW IT WAS DESCRIBED
(12) AT THAT TIME.
(13) Q OKAY. UNFORTUNATELY IT'S IN THE A PART
(14) OF THE EXHIBIT.
(15) BUT IF WE COULD LOOK BACK AT THE PAGE
(16) THAT HAS THE NUMBER ON IT, TRAN 9532, OKAY, RIGHT
AT
(17) THE BOTTOM WHERE WE WERE READING A MOMENT
AGO?
(18) A 9532?
(19) I HAVE IT.
(20) Q AND YOU TOLD THE COMMITTEE THAT YOU WERE
(21) DISAPPOINTED IN THE RESISTANCE TO DEGRADATION
OF SOME
(22) OF THE ISOMERS?
(23) A ISOMERS.
(24) Q IN 1242, RIGHT?
(25) A YES.
(26) Q AND THE ISOMERS IN 1242 THAT DIDN'T
(27) DEGRADE WITH THE MORE HIGHLY CHLORINATED?
(28) A THEY WERE THE FIVE- AND THE SIX-CHLORINE

Page 1874

- (1) CONTAINING PCB'S, YES.
(2) Q OKAY. THOSE ARE THE COMPONENTS OF 1242
(3) THAT RESULTED FROM THE WAY YOU MADE IT,
BUBBLING THAT
(4) CHLORINE GAS UP THROUGH BIPHENYL?
(5) A THAT'S RIGHT.
(6) Q THAT IT WAS UNAVOIDABLE THAT THEY WOULD
(7) RANDOMLY BECOME PART OF 1242?
(8) A THAT IS CORRECT.
(9) Q AND YOU WENT ON TO TELL THE COMMITTEE
(10) THAT THIS WOULD TEND TO CONFIRM THE BELIEF THAT
SOME
(11) OF THE FIVE- AND SIX-CHLORINATED BIPHENYLS BEING
(12) FOUND IN THE ENVIRONMENT COULD BE RESIDUE FROM
(13) DEGRADED 1242, RIGHT?
(14) A THAT IS WHAT HE SAID, UH-HUH.
(15) Q TAKE A LOOK FOR A MOMENT IF YOU WOULD,
(16) MR. PAPAGEORGE, AT EXHIBIT 160, THAT IS TO SAY
(17) TRANSWESTERN EXHIBIT 160.
(18) A I HAVE IT.
(19) Q IN THIS MEMO FROM YOU TO MR. DURLAND IN
(20) TOKYO DATED MAY 27, 1970, YOU'RE REPORTING TO HIM
ON
(21) THAT CMC MEETING WE HAVE JUST BEEN DISCUSSING,
RIGHT?
(22) A YES.

- (23) Q AND YOU ARE SUMMARIZING FOR HIM WHAT
(24) HAPPENED AT THE MEETING, OKAY?
(25) A YES.
(26) Q AND WHAT YOU ARE TELLING HIM IN PART
(27) ABOUT THE MEETING IS THAT THE ONLY AROCLORS
WHICH AT
(28) THIS TIME ARE CONSIDERED - ARE CONSIDERED

Page 1875

- (1) BIODEGRADABLE ARE AROCLOR 1221, AND A
FRACTIONALLY
(2) DISTILLED AROCLOR 1242.
(3) A I DID.
(4) Q WHAT DOES THAT MEAN "FRACTIONALLY
(5) DISTILLED"?
(6) A THIS DESCRIBES A PROCESS IN WHICH A
(7) MATERIAL IS HEATED TO WHERE IT FORMS A VAPOR AND
(8) THOSE VAPORS ARE PERMITTED TO GO THROUGH A PIECE
OF
(9) EQUIPMENT THAT AS THE VAPORS RISE THEY BECOME - I'M
(10) GOING TO CALL IT MORE REFINED SO THAT THE TOP
VAPORS
(11) ARE AS PURE AS YOU CAN GET THEM AND THE LIQUID THAT
(12) RUNS DOWN FOR REHEATING CONTAINS THE
UNDESIRABLE
(13) PARTS.
(14) Q LET'S LOOK FOR A MOMENT, MR. PAPAGEORGE,
(15) AT TRANSWESTERN 352.
(16) I WILL PUT THIS UP ON THE EASEL FOR YOU.
(17) I'M INTERESTED, PARTICULARLY, IN THE LINE
(18) THAT IS HIGHLIGHTED IN YELLOW, AROCLOR 1242.
(19) DO YOU SEE THAT?
(20) A I DO.
(21) Q AND THAT INDICATES THAT AROCLOR 1242 IS
(22) 42 PERCENT CHLORINE BY WEIGHT, RIGHT?
(23) A YES.
(24) Q AND THAT THE AVERAGE NUMBER OF CHLORINES
(25) PER PCB IS THREE?
(26) A I HAVE NEVER PERSONALLY USED THE APPROACH
(27) OF AVERAGING CHLORINES.
(28) IT'S THE PREDOMINANT TYPE OF ISOMER

Page 1876

- (1) PRESENT IN THAT MIXTURE.
(2) I DON'T KNOW ABOUT THE AVERAGE.
(3) Q AND 1242 HAS PCB'S WITH FOUR OR MORE
(4) CHLORINES PER MOLECULE AND PCB'S WITH FIVE OR
MORE
(5) CHLORINES PER MOLECULE, RIGHT?
(6) A YES.
(7) Q AND FRACTIONALLY DISTILLED AROCLOR 1242
(8) TAKES OUT THE HIGH END, RIGHT?
(9) A CORRECT.
(10) Q OKAY. WHAT IS AROCLOR 1242-B?
(11) A IT'S AROCLOR 1242 WHICH HAS BEEN PUT
(12) THROUGH THIS ADDITIONAL REFINING STEP THAT I JUST
DESCRIBED TO REMOVE THESE KINDS OF THINGS.
(13) Q OKAY.
(14) A THE 10 PERCENT PART.
(15) Q SO MONSANTO IN THE SPRING OF 1970 WAS
(16) WORKING ON AROCLOR 1242 TO TRY TO GET THOSE
MORE
(17) HIGHLY CHLORINATED MOLECULES OUT?
(18) A THAT IS CORRECT.
(19) Q AND THAT PRODUCT WAS AT ONE POINT CALLED
(20) AROCLOR 1242-B?
(21) A YES.
(22) Q AS IN BIODEGRADABLE?
(23) A YES.
(24) Q BUT IT WAS ACTUALLY CHANGED AND REFERRED
(25) TO AS MCS-1016, RIGHT?
(26) A YES.
(27) Q BECAUSE IT WASN'T REALLY BIODEGRADABLE?
(28)

Page 1877

- (1) A NO.
(2) THAT IS NOT THE REASON.
(3) Q BUT IT WAS NOT, IN FACT, BIODEGRADABLE?
(4) A I WILL HAVE TO HAVE SOME HELP WITH YOUR

(5) DEFINITION OF "TRULY BIODEGRADABLE."
 (6) Q LET ME ASK YOU THIS QUESTION.
 (7) A UNDER CERTAIN CONDITIONS YOU CAN DEGRADE
 (8) THE 1242 THAT WAS REFINED.
 (9) Q THE 1242-B?
 (10) A YES.
 (11) Q OKAY. NOT LIKE 1221?
 (12) A IT TAKES A LITTLE LONGER, BUT THE END
 (13) RESULT SHOULD BE THE SAME.
 (14) Q THOUGH MY QUESTION WAS, 1242-B OR THE
 (15) FRACTIONALLY DISTILLED AROCLOR 1242 DIDN'T
 DEGRADE AT
 (16) THE SAME RATE OR UNDER THE SAME CONDITIONS AS
 1221?
 (17) A THAT IS TRUE.
 (18) Q NOW, YOU WERE TELLING JOHN DURLAND -
 (19) IT'S JOHN DURLAND, RIGHT?
 (20) A YES.
 (21) Q AND HIS JOB AT TOKYO AT THAT TIME WAS
 (22) WHAT?
 (23) A I DON'T KNOW THE OFFICIAL TITLE BUT HE
 (24) WAS THE U.S. REPRESENTATIVE LOCATED IN TOKYO TO
 (25) PARTICIPATE AS MONSANTO'S REPRESENTATIVE IN THE
 JOINT
 (26) VENTURE THERE IN JAPAN.
 (27) Q OKAY. LET'S HOLD UP ON THAT ONE FOR A
 (28) SECOND.

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(1) WE HAVE TO GET BACK TO THAT CMC MEETING.
 (2) AND YOU SHOULD TURN, PLEASE, TO TAB 144-A
 (3) IN THAT BINDER.
 (4) A I HAVE IT.
 (5) Q OKAY. AND THOSE ARE THE MINUTES OF THE
 (6) CORPORATE DEVELOPMENT COMMITTEE MEETING THAT
 WE HAVE
 (7) BEEN TALKING ABOUT IN APRIL OF 1970, CORRECT?
 (8) A YES.
 (9) Q IN FACT, IF YOU LOOK AT THE TOP THERE,
 (10) MR. PAPAGEORGE, RIGHT WHERE MY FINGER IS,
 ORGANIC
 (11) DIVISION, REPORT ON PCB ISSUES?
 (12) A YES, I SEE THAT.
 (13) Q AND IT INDICATES THAT YOU WERE THERE AT
 (14) THAT MEETING, RIGHT?
 (15) A IT DOES.
 (16) Q AND YOU GAVE THE PRESENTATION THAT WE
 (17) HAVE JUST BEEN LOOKING AT?
 (18) A YES.
 (19) Q NOW, AT THE CONCLUSION OF THAT MEETING
 (20) WHAT DID THE COMMITTEE ASK YOU TO DO?
 (21) A AS I REMEMBER, THE COMMITTEE FELT THAT
 (22) OUR PROGRAM WAS A GOOD ONE, BUT THE TIMING THAT
 WE
 (23) HAD SHOWN THEM WAS NOT REALLY AS - WHAT THEY
 WANTED
 (24) TO SEE.
 (25) THEY WANTED US TO SPEED UP THE PROGRAM.
 (26) THEY ASKED US TO GO BACK AND WORK ON THAT
 (27) AND SEE WHAT IMPROVEMENT WE COULD MAKE IN
 CHANGING
 (28) THE DEADLINES SO THAT THE PROGRAM WOULD BE
 COMPLETED

Page 1879

(1) SOONER.
 (2) Q WHAT THE COMMITTEE SAID WAS, MORE
 (3) AFFIRMATIVE ACTION HAD TO BE TAKEN, RIGHT?
 (4) A YES. THAT'S - UH-HUH.
 (5) Q AND WHAT THE COMMITTEE SAID WAS, "A
 (6) REPLACEMENT PRODUCT SHOULD BE DEVELOPED ON A
 CRASH
 (7) BASIS FOR THE NCR APPLICATION," RIGHT?
 (8) A YES.
 (9) Q OKAY. "CRASH BASIS," THAT MEANS URGENT?
 (10) A IT NORMALLY DOES, YES, SIR.
 (11) Q OKAY. AND -
 (12) A FASTER THAN NORMAL.

(13) Q WHY REPLACE OR FIND SOMETHING TO REPLACE
 (14) THE NCR APPLICATION ON A CRASH BASIS?
 (15) A I CAN'T PUT MYSELF IN THE SHOES OF THE
 (16) MEMBERS OF THE COMMITTEE TO GET A FEEL FOR WHAT
 THEY
 (17) SENSE IN THAT AREA, BUT AS I RECALL, AGAIN, I WOULD
 (18) LIKE TO HAVE THAT SLIDE WHERE WE SHOWED THEM
 DATES OF
 (19) HOW WE WOULD TAKE CARE OF THE NCR PAPER
 APPLICATION
 (20) IN THE U.S. AND IN EUROPE BECAUSE THEY WERE
 (21) DIFFERENT.
 (22) AS I REMEMBER, THOSE DATES WERE ON INTO
 (23) '71.
 (24) THEY DIDN'T LIKE THAT.
 (25) THEY WANTED TO SPEED IT UP AND THE WHOLE
 (26) PURPOSE WAS TO CONVINCE NCR THAT THEY AND
 MONSANTO
 (27) JOINTLY HAD TO WORK ON THIS AND DEMONSTRATE THAT
 (28) ALTERNATIVE MATERIAL BEING CONSIDERED WAS
 ACCEPTABLE

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(1) AND TO IMPLEMENT THAT USE, DON'T RELY ON PCB'S TOO
 (2) LONG.
 (3) Q OKAY. WHY SO URGENT?
 (4) A BECAUSE THAT WAS THE - ONE OF THE
 (5) LARGEST USES TO WHICH CONTROL WAS NOT PERCEIVED
 (6) POSSIBLE.
 (7) IT ENTERS THE ENVIRONMENT SO EASILY AND
 (8) IT WAS FELT THAT IF YOU COULD MAKE THE CHANGE IN
 THAT
 (9) AREA, YOU WOULD HELP THE ENVIRONMENTAL SITUATION
 (10) DRAMATICALLY.
 (11) Q OKAY. SO NCR WAS USING 1242 TO MAKE
 (12) CARBONLESS COPY PAPER?
 (13) A CORRECT.
 (14) Q AND THERE WAS A LOT OF 1242 GOING TO THAT
 (15) USE?
 (16) A QUITE A BIT, YES.
 (17) Q AND IT WAS EVERYWHERE WHERE YOU WOULD
 (18) THROW PAPER AWAY?
 (19) A VIRTUALLY SO, YES.
 (20) Q YOU ARE FAMILIAR WITH THE TERMINOLOGY
 (21) "OPEN APPLICATION," RIGHT?
 (22) A YES, SIR.
 (23) Q OKAY. NCR CARBONLESS COPY PAPER WAS ONE
 (24) OF THE MOST OPEN APPLICATIONS, WASN'T IT?
 (25) A THAT IS RIGHT.
 (26) THAT IS WHAT I MEANT TO SAY EARLIER.
 (27) IT'S JUST THAT YOU CAN'T CONTROL IT.
 (28) ONCE IT'S OUT THERE IN USE, IT'S OPEN.

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(1) Q AND AT THIS TIME YOU HAD BEEN ADVISING
 (2) THE COMMITTEE THAT 1242 WAS A PROBLEM?
 (3) A YES, YES.
 (4) Q AND YOU HAD TO GET THAT CARBONLESS COPY
 (5) PAPER PUT AWAY BECAUSE IT WAS EVERYWHERE IN THE
 (6) ENVIRONMENT?
 (7) A WELL, AGAIN, MANY PLACES.
 (8) I DON'T KNOW HOW FAR THE USE OF
 (9) CARBONLESS COPY PAPER WENT THROUGHOUT THE
 WORLD.
 (10) Q USED IN - MADE IN ENGLAND WITH MONSANTO
 (11) PRODUCTS?
 (12) A IT CERTAINLY WAS IN THE DEVELOPED
 (13) COUNTRIES.
 (14) I DON'T KNOW ANY MORE THAN THAT.
 (15) Q OKAY. SO EVERYWHERE IN DEVELOPED
 (16) COUNTRIES?
 (17) A I DON'T KNOW ABOUT THE COMMUNIST
 (18) COUNTRIES AND THE REST OF THE WORLD.
 (19) MR. TALLON: YOUR HONOR, WE COULD BREAK AT THIS
 (20) POINT.
 (21) THE COURT: THEN, LADIES AND GENTLEMEN, WE WILL
 (22) TAKE OUR RECESS NOW.
 (23) I WILL REMIND YOU AGAIN HOW IMPORTANT IT

(24) IS NOT TO FORM ANY IMPRESSION IN YOUR OWN MIND,
NOT
(25) TO SAY ANYTHING TO ANY OTHER PERSON ABOUT
ANYTHING
(26) HAVING TO DO WITH THE CASE AND TO HAVE A NICE
(27) EVENING.
(28) WE WILL SEE YOU TOMORROW MORNING AT 9:30.

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(1) PLEASE RETURN JUST BEFORE THEN.
(2)
(3) (AT 4:00 P.M., THE PROCEEDINGS WERE ADJOURNED
(4) UNTIL TUESDAY, DECEMBER 7, 1993 AT 9:30 A.M.)
(5)
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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,)
A DELAWARE CORPORATION,)
(6))
PLAINTIFF,)
(7))
VS.) NO. BC 026959
(8))
(9) MONSANTO COMPANY AND DOES 1)
THROUGH 200, INCLUSIVE,)
(10) DEFENDANTS.)
(11))
(12)
(13) REPORTER'S DAILY TRANSCRIPT OF PROCEEDINGS
(14) DECEMBER 6, 1993
(15) VOLUME 13
(16) PAGES 1660 THROUGH 1881
(17)
(18) APPEARANCES:
(19) FOR PLAINTIFF: SHEARMAN & STERLING
BY: JAMES P. TALLON, ESQ.
(20) & JANET M. GRADY, ESQ.
& JERRY MARKS, ESQ.
(21) 725 SOUTH FIGUEROA STREET
21ST FLOOR
(22) LOS ANGELES, CA 90017
(23) FOR DEFENDANT: PREUSS, WALKER & SHANAGHER
BY: CHARLES F. PREUSS, ESQ.
(24) & DONALD F. ZIMMER, ESQ.
& ALAN LAZARUS, ESQ.
(25) 595 MARKET STREET
16TH FLOOR
(26) SAN FRANCISCO, CA 94105
(27) DAVID A. SALYER, CSR #4410
(28)

OFFICIAL COURT REPORTER

(28) 111 NORTH HILL STREET

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(3) DECEMBER 6, 1993 A.M. 1670
(4) P.M. 1792
(5)
(6) PLF'S WITNESSES DIRECT CROSS REDIRECT RECROSS
(7)
(8) DEPO READ (CONTINUED.)
(9) EMMET KELLY 1670
(10)
(11) PAPAGEORGE, WILLIAM
(12) (UNDER 776) 1759
(13)
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(16) 8 -MEMO 1673
(17) 10 -LETTER 1680
(18) 18 -BULLETIN 1694
(19) 83 - DOCUMENT 1709
(20) 57 -DOCUMENT 1711
(21) 80 -DOCUMENT 1727
(22) 142-DOCUMENT 1735
(23) 91 - REPORT 1741
(24) 33 -LETTER 1782
(25) 46 -DOCUMENT 1784
(26) 48 -MEMO 1785
(27) (EXHIBITS CONTINUED ON NEXT PAGE.)
(28)

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(6) 110 -MEMO 1794
(7) 74 -PRESS RELEASE 1800
(8) 83 - DOCUMENT 1809
(9) 87 -DOCUMENT 1809
(10) 102 -REPORT 1816
(11) 103 -REPORT 1820
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(16) 372 -CHART 1830
(17) 125 -MEMO 1831
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(19) 716 -SUMMARY 1852
(20) 136 -LETTER 1855
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Look-See Concordance Report

UNIQUE WORDS: 2,561
TOTAL OCCURRENCES: 11,227
NOISE WORDS: 385
TOTAL WORDS IN FILE: 34,582

SINGLE FILE CONCORDANCE

CASE SENSITIVE

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NOISE WORD LIST(S): NOISE.NOI

INCLUDES ONLY TEXT OF:

QUESTIONS

ANSWERS

COLLOQUY

PARENTHETICALS

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IGNORES PURE NUMBERS

POSSESSIVE FORMS OFF

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