

Memorandum

Isham Dep. Ex #6
12/2/83 KIL

APR 25 1979

FROM: NAME-LOCATION-PHONE

R. C. Isham - B1ND

DATE: April 25, 1979

cc: ☒ R. Foehr
G. D. Ingenthron
G. Young

SUBJECT:

REFERENCE:

TO: E. H. Harbison, Jr.

The attached MIC Q&As are the final version for Mr. Hanley.

At this point, of course, he is only interested in reviewing major new issues.



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RCI:smt

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C00486

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Q: HAVE OTHER TANK CARS OF OCP, SHIPPED SINCE THE STURGEON, MO., ACCIDENT, BEEN CONTAMINATED WITH TCDD?

A: Very shortly after the TCDD was discovered, we started to analyze the production unit where the OCP (ortho-chlorophenol) and its chemical intermediates are made. If TCDD is found elsewhere, it would be a production impurity which we would try to eliminate. We are looking at all levels of the production unit and, as part of that complicated process, we are studying other batches of OCP. We'll probably know in mid-April *few weeks* where the problem is in the unit.

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A: The plant's solid waste is about 90 percent water and calcium, nine percent silicon, silicate and fluoride and about one percent trace metals.

The Missouri Department of Natural Resources, which has responsibility for industrial waste landfills, has stated that the geology in the landfill area -- a thick deposit of impermeable clay -- prevents waste material from escaping the site.

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A: We are committed to two university studies on developing ideas and doing feasibility studies on how PCBs might be removed from the environment. The universities involved have been interviewing various candidates to undertake these studies. We, of course, don't know what results they may report, but we are hopeful that these research-oriented institutions might produce valuable, unconventional ideas as to how PCBs might be removed.

Q: (Only if asked) WHICH UNIVERSITIES ARE INVOLVED?

A: The California Institute of Technology and the Massachusetts Institute of Technology. I might add that the studies are only in the very early stages of development, however.

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A: A disposal contractor had deposited wastes in an open pit near farmland in Dittmer, Mo. This company had a contract with Monsanto to dispose of waste oil from our Corporate Research Center, and had contracts for disposal with many other St. Louis firms at the same time. As soon as we were aware of the problem, we immediately stopped shipping with the company. Last year, a suit was filed against the contractor and Monsanto, claiming damages incurred when this material allegedly leaked onto private property. The suit is now in litigation.

Q: DOES MONSANTO PLAN TO REINTRODUCE NTA INTO THE U.S.?

A: We have asked the EPA to re-evaluate the government's earlier positions on the use of NTA in the U.S. NTA has been used for nine years in Canada without any problems. We're asking the EPA to review existing safety data and the conclusions of the International Joint Commission with respect to NTA's use in household detergents.

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Q: WHY DID MONSANTO SELL FLAVOR/ESSENCE? WHAT SALE PRICE?

A: This decision was part of our continuing program to cull those businesses that do not fit into our long-term growth plans. In effect, this frees capital for those businesses that would benefit from additional investment. The sales price was not disclosed as part of the agreement with Bush Boake Allen, the purchaser. However, I can report that it does not affect our sales or profits in any material way.

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Additional answer to question...Is Monsanto playing any role in the nitrite/sorbate controversy?

- A. Recently, the USDA and HEW (Food & Drug Administration) held a joint press conference, proposing that Congress pass legislation which would give some flexibility on banning nitrite. Such flexibility could include allowing the USDA to institute measures such as the one proposed for use of reduced nitrite and sorbate.

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A: Competitive conditions created by foreign manufacturers have required us to price sorbates at unrealistically low levels. Recently, prices have moved upward, though still not to levels that are required for an adequate rate of return. We have been very aggressively working in new markets and applications, and we are hopeful that the pricing problems will be resolved eventually.

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A: Our operating management is seriously considering that site, but the proposal has not been brought forward to the CAC or to the board of directors. If the board approves the proposal, we will make a full announcement at that time.

Q: WERE ANY OF MONSANTO'S RUBBER CHEMICAL PRODUCTS USED IN THE MANUFACTURE OF THE FIRESTONE 500 TIRE?

A: Monsanto is the No. 1 producer of rubber chemicals, and we sell products to all of the tire companies, including Firestone. (None of which are suspect in the reported problems with this tire.)

Q: ARE PHOSPHATE ESTERS USED IN ANY MONSANTO PRODUCTS, AND WHAT IS THE CONCERN ABOUT THEM?

A: Phosphate esters are used in some of our FR additives for plastics and in our hydraulic fluids for industry, areas where they make a vital contribution. In April 1978, EPA's Inter-agency Testing Committee recommended that phosphate esters be placed on the priority list for testing because of the large production volume in the United States and the opportunity for worker exposure to these compounds beyond that encountered at their original site of manufacture. We feel there should be no concerns about the phosphate esters we manufacture and, in fact, we have a testing program that has been underway for the past several years to ensure their acceptability.

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A: Phosphate esters are used in some of our FR additives for plastics and in our hydraulic fluids for industry, areas where they make a vital contribution. In April 1978, EPA's Inter-agency Testing Committee recommended that phosphate esters be placed on the priority list for testing because of the large production volume in the United States and the opportunity for worker exposure to these compounds beyond that encountered at their original site of manufacture. We feel there should be no concerns about the phosphate esters we manufacture and, in fact, we have a testing program that has been underway for the past several years to ensure their acceptability.

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CONFIDENTIAL

Sham rep-ix #4
12/21/83 KIL

APR 25 1979

NAME-LOCATION-PHONE

R. C. Isham - RIND

DATE : April 25, 1979

cc: *✓* R. Foehr
G. D. Ingenthron
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SUBJECT :

REFERENCE :

TO : E. H. Harbison, Jr.

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Q: HAVE OTHER TANK CARS OF OCP, SHIPPED SINCE THE STURGEON, MO., ACCIDENT, BEEN CONTAMINATED WITH TCDD?

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Confidential-Subject
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Q. How long will the OCP be a problem at Sturgeon?

A. We don't consider the OCP to be a health problem at Sturgeon.

Rather, it is an odor problem, as the smell can be detected at very small amounts. We don't know when the smell will fall below the level that can be detected, as some people may be more sensitive to the smell than others.

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Q: HOW LONG WILL THE OCP BE A HAZARD IN STURGEON?

A: Fortunately, OCP (ortho-chlorophenol) rapidly biodegrades. Under laboratory conditions the product in water goes from 300 parts per million to essentially zero in from two days to two weeks, depending on conditions. We'd expect any OCP that is in a body of water to degrade completely in two weeks. The reason OCP is still around in the water now is evidently because it was frozen and hence didn't have the opportunity to biodegrade.

Q: IF OCP IS KILLING FISHES AND FROGS, HOW DO WE KNOW IT ISN'T POISONING HUMANS?

A: OCP is detectable in taste and smell at extremely low levels. For example, you can taste OCP in water at 1 part per billion. The level to kill 50% of test animals is 67,000 times that concentration. So you can see our taste is a safety factor against any contamination of ground water. ~~You get a strong medicinal taste (hospital room/mothball smell or taste)~~ *at 1/1000th of the concentration that will kill 50% of test animals.*

Q: HAS MONSANTO SOLD ITS OPTOELECTRONIC DEVICE AND/OR III-V MATERIALS BUSINESS?

A: We have signed an agreement in principle with General Instrument Corporation for General Instrument to acquire Monsanto's Worldwide Optoelectronic Device and III-V Materials business. The Silicon Products Business Group is unaffected by this agreement.

Confidential-Subject to Protective Order.

Q: THE ST. PETERS PLANT DUMPS HAZARDOUS WASTE IN A LANDFILL ADJACENT TO THE INNSBROOK RECREATIONAL AREA. WHAT WASTE IS DUMPED, HOW HAZARDOUS IS IT AND WILL IT SOME DAY FIND ITS WAY INTO OUR LAKES?

A: The plant's solid waste is about 90 percent water and calcium, nine percent silicon, silicate and fluoride and about one percent trace metals.

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Consent

Dep 7K #6
12/21/83 K14

APR 25 1979

NAME - LOCATION - PHONE

R. C. Isham - BLND

DATE : April 25, 1979

cc: *LS* R. Foehr
G. D. Ingenthron
G. Young

SUBJECT :

REFERENCE :

TO : E. H. Harbison, Jr.

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C00456

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Wenson 10

Isham Rep #6
12/21/83 K14

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Confidential-Subject
Protective Order

CONFIDENTIAL

Handwritten: Dep 9x #6
12/21/83 KIL

APR 25 1979

NAME-LOCATION-PHONE

R. C. Isham - BLND

DATE : April 25, 1979

cc: *Handwritten:* ✓ R. Foehr
G. D. Ingenthron
G. Young

SUBJECT :

REFERENCE :

TO : E. H. Harbison, Jr.

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At this point, of course, he is only interested in reviewing major new issues.



R. C. Isham

RCI:smt

Att.

Handwritten: 4/26/79

Handwritten: reference to

Handwritten: Wouldn't we want Mr. Hanley to indicate the PR release by the N&W railroad that a defective coupler was the alleged cause of the rail accident and this was a new lease car used for the first time by Monrovia?



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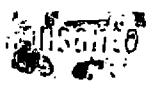
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Confidential-Subject
Protective Order



#Sham Rep X #6
12/21/83 CLK

APR 25 1979

FROM
 NAME-LOCATION-PHONE

R. C. Isham - BLND

DATE : April 25, 1979

cc: *✓* R. Fochr
 G. D. Ingenthron
 G. Young

SUBJECT :

REFERENCE :

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Confidential-Subject
Protective Order



Isham Rep #6
12/21/83 K14

APR 25 1979

FROM: NAME-LOCATION-PHONES

R. C. Isham - B1ND

DATE : April 25, 1979

cc: *✓* R. Foehr
 G. D. Ingenthron
 G. Young

SUBJECT :

REFERENCE :

TO : E. H. Harbison, Jr.

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4/26/79

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Confidential-Subject to
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Confidential-Subject
Protective Order

Isham Rep #6
12/21/73 KLV

APR 25 1979

FROM
NAME-LOCATION-PHONE

R. C. Isham - BLND

DATE : April 25, 1979

cc: *✓* R. Foehr
G. D. Ingenthron
G. Young

SUBJECT :

REFERENCE :

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Confidential-Subject to
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Confidential-Subject
Protective Order

105-1010
105-1010

Isham *AP 4K #6*
12/21/03 KLV

APR 25 1979

FROM
TIME-LOCATION-PHONES

R. C. Isham - BIND

DATE : April 25, 1979

cc: *LS* R. Foehr
G. D. Ingenthron
G. Young

SUBJECT :

REFERENCE :

TO : E. H. Harbison, Jr.

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R. C. Isham

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Att.

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Confidential-Subject to
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Confidential-Subject
Protective Order

San Antonio

Isham Rep 4x #6
12/21/03 KLV

APR 25 1979

NAME-LOCATION-PHONE

R. C. Isham - BLND

DATE : April 25, 1979

cc: ✓ J. R. Fochr
G. D. Ingenthron
G. Young

SUBJECT :

REFERENCE :

TO : E. H. Harbison, Jr.

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R. C. Isham

RCI:smt

Att.

4/26/79

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Confidential-Subject to
Protective Order

C00456

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Confidential-Subject
Protective Order

SECRET

Isham Rep #6
12/21/83 K14

APR 25 1979

NAME-LOCATION-PHONE

R. C. Isham - BIND

DATE : April 25, 1979

cc: *✓* J. R. Foehr
G. D. Ingenthron
G. Young

SUBJECT :

REFERENCE :

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4/26/79

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Confidential-Subject to
Protective Order

C00486

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Isham Rep #6
12/21/83 K14

APR 25 1979

NAME-LOCATION-PHONE

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Confidential-Subjec.
Protective Order

9055110

Isham Dep X #6
12/21/83 K14

APR 25 1979

FROM
NAME-LOCATION-PHONE

R. C. Isham - BLND

DATE : April 25, 1979

cc: *✓* J. R. Foehr
G. D. Ingenthron
G. Young

SUBJECT :

REFERENCE :

TO : E. H. Harbison, Jr.

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A: Very shortly after the TCDD was discovered, we started to analyze the production unit where the OCP (ortho-chlorophenol) and its chemical intermediates are made. If TCDD is found elsewhere, it would be a production impurity which we would try to eliminate. We are looking at all levels of the production unit and, as part of that complicated process, we are studying other batches of OCP. We'll probably know in mid-April *few weeks* where the problem is in the unit.

Confidential-Subject
Protective Order



*Isham Rep #6
12/21/03 KIL*

APR 25 1979

NAME-LOCATION-PHONE

R. C. Isham - BLND

DATE : April 25, 1979

cc: *✓* R. Foehr
G. D. Ingenthron
G. Young

SUBJECT :

REFERENCE :

TO : E. H. Harbison, Jr.

The attached MIC Q&As are the final version for Mr. Hanley.

At this point, of course, he is only interested in reviewing major new issues.

R. C. Isham

RCI:smt

Att.

4/26/79

reference to

Wouldn't we want Mr. Hanley to include the PR release by the N&W railroad that a defective coupler was the alleged cause of the rail accident and this was a new lease car used for the first time by Monrovia?

Confidential-Subject to
Protective Order

C00486

Q: WHAT IS MONSANTO GOING TO DO ABOUT DIOXIN CAUSED FISH/FROG/OR CALF KILLS IN STURGEON.

A: The clean-up contractor for the railroad has removed all contaminated material from the January 10 spill. The EPA has undertaken a very thorough monitoring plan to ensure there is no long-term health problem in Sturgeon. The EPA has taken water and soil samples from the spill site and has taken blood and urine samples from clean-up workers. The EPA is also coordinating the tissue and blood examination of area livestock. At this point there's no indication that the trace amount of TCDD has anything to do with the reported fish, frog or calf kills.

OCP (ortho-chlorophenol) itself is a product that requires worker protection like gloves and eye protection. It is classified as a corrosive liquid and can cause burns. The emphasis since the January spill has been on containment of the spilled product and removal of the contaminated soil. The EPA feels the two ponds containing dead fish contain enough OCP to have been toxic to the fish. Steps were taken to bulldoze a dam to prevent overflow from these ponds into nearby streams.

Q: WASN'T THERE DIOXIN IN THE CHEMICAL SPILLED IN STURGEON MO.?

A: We do know that TCDD or dioxin, which is the production impurity found in this load of OCP (ortho-chlorophenol), while highly toxic to man was found in quantities so small that we can just barely measure it. We found 37 parts per billion in our OCP. Another way of stating that is the total load of OCP weighed about 207,000 pounds. The trace contamination of TCDD in that load was 1/8 of 1 ounce, and spread evenly throughout the tank car contents. We feel confident that the TCDD has had absolutely nothing to do with the animal or fish losses in Sturgeon, and the impurity presented no hazard to the citizens.

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Confidential-Subject
Protective Order

#sham Rep #6
12/21/03 K14

APR 25 1979

NAME-LOCATION-PHONE

R. C. Isham - BLND

DATE : April 25, 1979

cc: ☒ R. Foehr
G. D. Ingenthron
G. Young

SUBJECT :

REFERENCE :

TO : E. H. Harbison, Jr.

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R. C. Isham

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Confidential-Subject to
Protective Order

C004S6

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