

- EPA NEWS RELEASE OF 9 a.m. SUNDAY, FEB. 11

(Phoned from EPA Region VII Public Affairs Department to UPI, AP, Kansas City Star, Columbia Daily Tribune).

On Friday evening, Feb. 9, the Monsanto Chemical Co. told EPA Region VII officials that the shipment of chlorinated phenolic compounds which was spilled in a rail car derailment in Sturgeon, Mo., on Jan. 10 contained trace quantities of a compound known as dioxin (TCDD). Monsanto reported three samples measured, averaging 37 ppb (34, 36, 40 ppb). The company could not identify which particular forms of TCDD were present. Acting on this information, Harry Gilmer, EPA Region VII on-scene coordinator, ordered the extraction of a sample of soil taken at the spill site sent to the University of Ill., Champaign. With the assistance of Region VII, Dr. Billie Fairless, Dr. R. D. Kleopfer, Dr. C. Cook of the University performed analyses which confirmed the presence of 2,3,7,8 TCDD at a level less than 0.01 ppb.

Gilmer's team had explored the possibility of dioxin contamination and had both performed some analyses and had contacted Monsanto on this point. According to medical scientists at EPA headquarters in Washington, DC, the new information is of concern but presents no cause for change in the cleanup procedures currently underway. Dr. J. Seister, senior medical advisor to the office of toxic substances, stated, "The presence of dioxin in the spill material changes the scope of our review but does not present cause for immediate alarm in the levels reported."

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PRESS QUERY

H.J. Corbett - D1D
G.M. Ellsworth - E3NA
D.S. Frazer - 1670
F.E. Kearney - E3NA

COMPANY (Unit or Corporate): Corporate

SUBJECT: Nader Public Citizens Press Conference

REPORTER & MEDIA: Jo Mannies, St.L. P-D, Wash., D.C.
(202) 298-6880

Jan Smith, Independent Network News
(202) 783-5616

QUESTION & RESPONSE:

DATE: January 23, 1985

X J.F. Hussey
X G.D. Ingenthron
X J.v. Morse
X J.T. Nolan
X D.R. Bishop
X A.N. Filippello
X S.Pickard-Washington, D.C.
X New York PR
X Brussels PR
X MAP PR
X MEM PR
X MFI PR
X MIC PR
X MPP PR
X Eng'd. Prods. PR
X Int'l. PR
X J.W. Molloy - 1740
X W.J. McCarville - G3WC
X W.B. Papageorge - B3NA
X J.G. Nassif - E2NG

Q: Ralph Nader's Public Citizens Health Group held a press conference today in Washington during which they accused the Administration of preventing NIOSH from informing a quarter of a million workers that they face a higher cancer risk from occupational exposure to chemicals. Workers exposed to dioxin at Sauget and Nitro are included in a NIOSH study obtained through FOI. What do you know about this?

A: NIOSH approached Monsanto in the late 1970s to see if we would cooperate with them in compiling a "dioxin registry." And we agreed. As a result, NIOSH officials were permitted to inspect worker records at our Nitro and Sauget plants in order to compile a list of registry of those people who may have been exposed to dioxin as a result of their previous employment in an area where dioxin may have been present as an unwanted contaminant.

I don't know whether NIOSH informed our workers who made the registry but I can tell you that our employees are fully aware of any potential past exposure. We've told them and they've been told in a number of other ways. Our Nitro employees have been the subject of several medical/epidemiology studies, both done by Monsanto and outside medical institutions. The results of these medical studies have been shared with those employees both in general and specifically as they related to them personally. The conclusion of this extensive investigation is that other than the skin condition, chloracne, our workers are not suffering any chronic or lasting health effects from exposure to dioxin

SOURCE OF ANSWER

HANDLED BY:

C02408

Dan R. Bishop

Monsanto

Isham Dep Gx #4
12/21/83 KID

FROM
NAME--LOCATION--PHONE

R. C. Isham - BLND

DATE : February 12, 1979

SUBJECT : STURGEON, MO., DERAILMENT
POSITION STATEMENT

REFERENCE :

TO :

D. R. Bishop	J. T. Nolan
W. R. Corey	P. S. Park
J. R. Foehr	R. G. Pier
T. L. Gossage	G. Roush
E. H. Harbison	J. J. Spano
J. S. Metcalf	R. A. Stohr
J. E. McKee	G. Young
J. C. McPhillips	

XC { M. E. MILLER
D. B. EDWARDS
D. R. Roman
FVL

[Signature]

If you have any corrections or suggestions to this position statement, please phone extension 4-2621. Also attached is the EPA news release of Sunday, Feb. 11.

R. C. Isham
R. C. Isham

cc: J. S. MORAN

RCI:smt

Att.

Bob,
We say that it's "probably not" the 2,3,7,8
issue yet EPA says it is. We better be able to respond
to our difference in opinion.

[Signature]

C00441

POSITION STATEMENT -- TRACE AMOUNTS OF TCDD IN CRUDE ORTHOCHLOROPHENOL
QUESTIONS & ANSWERS TO BE USED ONLY BY MIC PR IN RESPONDING TO DIRECT
MEDIA INQUIRIES

At the request of the EPA we analyzed a reserve sample of the crude orthochlorophenol involved in the derailment at Sturgeon, Mo.

(Jan. 10, 1979) for tetrachloro dioxin. On Friday, Feb. 9, our analytical chemists reported finding this impurity at a .037 ppm average level in the reserve sample. We informed the EPA of this that evening and contacted the clean-up contractor the next morning. Since this is an extremely low level of tetrachloro dioxin contamination, just barely above what equipment can detect, we're sure there was no harm to the citizens of Sturgeon.

We have notified the clean-up contractor so he can take the appropriate precautions with his people. The same protective clothing that protects clean-up workers from the crude orthochlorophenol would protect them from the miniscule amounts of tetrachloro dioxin.

Q. Is this the same TCDD found at Seveso, Italy?

A. Probably not. The 2,3,7,8 isomer of tetrachlorodibenzo-para-dioxin released at Seveso can't be formed directly in our process. The impurity found in our sample is most probably a different isomer which is far less toxic.

-more-

Q. Why did Monsanto wait so long to test its batch sample for TCDD?

A. In the past we've analyzed crude orthochlorophenol for TCDD a number of times and never found TCDD. That was using the same analytical equipment which measures for tetrachloro dioxin down to .010 ppm. (three tests). We theorize the TCDD was an impurity in one of the components. Recently another chemical company reported that dioxins are ubiquitous and can be formed a number of ways, for example, by combustion. That is everything from burning leaves to smoking a cigarette may form dioxins. We'll be working to find out how the small amounts of TCDD got in our product and eliminate the contamination.

Q. Did Monsanto act quickly when it had this new knowledge on TCDD?

A. Very quickly. We learned on the afternoon of Feb. 9 that there were trace amounts of TCDD in our chemical intermediate and informed the EPA that evening.

Q. How can you say there was no harm to the citizens of Sturgeon when they were exposed to the vapor clouds for a long period of time?

A. We monitored the air soon after the train derailment. The highest concentration of crude orthochlorophenol detected was .085 ppm. So if you percentage the .037 ppm TCDD contamination against the highest known crude orthochlorophenol concentration in the air of .085 ppm, you get a number so small it's meaningless to express.

-more-

Dr. Seister had led a team of medical and public health experts before a town meeting in Sturgeon on Thursday night held at the request of Senator Tom Eagleton. Concern among residents is still strong as odors from the spill linger. Seister's group answered questions on the known and suspected effects of phenol and various chlorinated phenolic compounds as well as orthochlorophenol which were known at that time to be present in the spill material. They were preparing a report of recommendations for further studies in the area to be presented early this week.

Additional samples of the spill material have been obtained from Monsanto by Region VII officials. These are being prepared for further analyses. Steve Jellineck, EPA assistant administrator to toxic substances will be meeting with Seister's group on Monday to coordinate further activities. "We intend to take all necessary steps to assure the continued identification and removal of these spill chemicals," declared Jellineck. "EPA headquarters will provide Region VII with any assistance needed to complete the job and protect the health of local residents."

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PRESS QUERY

COMPANY (OpUnit or Corporate): MIC

SUBJECT: TRACE LEVELS OF TCDD IN ORTHOCHLOROPHENOL

REPORTER & MEDIA: John Frank, Columbia Missourian
(314) 442-3161

TIME & DATE: February 16, 1979 -- 3:40 p.m.

QUESTION & RESPONSE:

Comment: The nature of the reporter's continuing questioning is that Monsanto knew TCDD was present in the OCP and that not testing our OCP reserve sample until one month after the spill was an unconscionable act.

☒ K. W. Easley
☒ News Bureau
☒ J. T. Nolan
☒ J. E. McKee
___ D. R. Bishop
___ W. J. McCarville
___ W. R. Mulhall
☒ J. F. Hussey-Washington, D.C.
☒ S. Pickard-Washington, D.C.
☒ New York Public Relations
___ Brussels Public Relations
___ MAP PR
☒ MCI PR (J. Spano)
☒ MIC PR (G. Young)
___ MPR PR
___ MTC PR
___ INT'L PR
☒ J. R. Foehr
☒ T. L. Gossage
☒ E. H. Harbison
☒ J. C. McPhillips
☒ J. S. Metcalf
☒ G. Roush

- Q. Harry Gilmer (EPA Region VII) says he never asked Monsanto to analyze the reserve sample of OCP, but rather to prepare two samples for EPA analysis. You said he asked you to test your product sample for TCDD. Whose telling the truth?
- A. The sequence of events was that Harry Gilmer called Monsanto and asked if there were any TCDD in the OCP. We said no, we never found any. He asked us if we ever tested the product reserve sample from this shipment. We said no, we hadn't. Mr. Gilmer said, will you test your reserve sample for TCDD and will you prepare two samples for EPA evaluations. We said we would. We reported the trace TCDD levels in a phone call the p.m. of Feb. 9 and delivered two samples to the airport on Feb. 10 for the EPA to evaluate.
- Q. Why did this one sample have TCDD levels and your other evaluations not show it?
- A. TCDD is a production impurity. Due to process variabilities, we developed the TCDD. We are working to find where in the process the small amount got in and eliminate the contamination. (Went into dioxin ubiquity from the position paper).

C00458

Q. Will you send me a press release when you find the problem in your OCP?

A. There will be no press release. The contamination is at a miniscule level, just barely above what sophisticated analytical equipment can measure. We'll find the contamination and eliminate it. We're not concerned.

Q. Your not concerned?

A. No, this low level contaminant is no threat to the citizens of Sturgeon. We haven't found it in the past and we'll work to eliminate it.

Q. Has the EPA asked for the health records of your workers in the Illinois plant that makes OCP?

A. No.

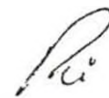
Q. It sure would be reassuring to the Sturgeon residents to know that your workers at the plant, exposed over 40 years of production, didn't have health problems.

A. I know of no health problems associated with our OCP production unit. If I can get any facts on this, I'll get them to you.

Warren Easley reports from Washington that the EPA has asked the county health people to draw blood and urine samples from cleanup workers and a press release will be issued.

Dr. Roush called Dr. Poole, EPA, and learned that in addition to blood/urine samples from cleanup workers, the EPA has a list of 15 other things they might do. Steve Jellineck will decide how many they will do.

Attached is an interesting feature in the Feb. 12, 1979, C&E News on dioxins.



Source of Answer: Position Paper

Handled by: R. C. Isham

PRESS QUERY

COMPANY (OpUnit or Corporate): MIC

SUBJECT: OCP AT STURGEON

REPORTER & MEDIA: Howard Mitchell (314) 449-1400
KFRU-Radio Columbia, Mo.

TIME & DATE: May 14, 1979 -- 2:12 p.m.

QUESTION & RESPONSE:

☒ News Bureau
☒ J. T. Nolan
☒ J. E. McKee
☐ D. R. Bishop
☐ W. J. McCarville
☐ W. R. Mulhall
☒ J. F. Hussey-Washington, D.C.
☒ S. Pickard-Washington, D.C.
☒ New York Public Relations
☐ Brussels Public Relations
☐ MAP PR
☒ MCI PR (J. Spano)
☒ MIC PR (Glynn Young)
☐ MPR PR
☐ MTC PR
☐ INT'L PR
☒ J. R. Foehr
☒ T. L. Gossage
☒ E. H. Harbison
☒ E. L. Head
☒ J. S. Metcalf
☒ J. C. McPhillips

- Q. Have you done any more work to determine which type of dioxin was in the OCP?
- A. Our analytical equipment is pretty sophisticated, but the dioxin was in such trace amounts that our equipment can't tell which isomer was there (explained different varieties of dioxins).
- Q. What kind of dioxin did the EPA find in the workers' blood?
- A. I don't know; ask them.
- Q. Since the EPA is talking about dioxin in parts per trillion in the workers' blood and your sophisticated equipment can measure down to .010 parts per million, why the discrepancy in testing?
- A. We were surprised that the EPA could measure dioxins down in the low parts per trillion. Our analytical people don't know the equipment they are using although there is no reason to doubt that they've found a new way to measure dioxins in these small amounts.
- Q. What are you doing about the dioxins in your OCP?
- A. The dioxins in the OCP don't belong there. They're a production impurity. We've made this product for many years and never found any TCDD in it. When the EPA asked us to sample our reserve sample from the tankcar involved, we did find TCDD. We started

C00424

then to study our entire process and find the TCDD and eliminate it. Since then we have made two changes in our process. Hopefully, we've gotten rid of these trace amounts of dioxin; but we won't know until our tests are completed.

Source of answer: Files


Handled by: R. C. Isham

PRESS QUERY

COMPANY (Unit or Corporate): MIC

SUBJECT: Dioxin and WGK

REPORTER & MEDIA: Casey Bukro, Chicago Tribune

TIME & DATE: February 16, 1983

QUESTION & RESPONSE:

Reporter called and referred to a recent article in the New York Times (see attached) regarding chlorophenol production at chemical plants around the country. He said he had confirmed with the EPA that the Sauget site was WGK.

Q. Does your plant in Sauget produce dioxins as by-products of its chemical manufacturing?

A. No. To the best of our knowledge, none of our products are contaminated with dioxin.

Q. Does your plant still produce chlorophenols and are these products contaminated?

A. Yes we still produce chlorophenols, but again, to the best of our knowledge, the products are not contaminated. We routinely test the products for contamination.

Q. Did your Sauget plant ever produce the herbicide, 2,4,5-T?

A. No.

Q. What are chlorophenols used for?

A. They are a group of common industrial chemicals used in the manufacture of various products including dyes, herbicides and wood preservatives.

<u>X</u>	J.F. Hussey
<u>X</u>	G.D. Ingenthron
<u>X</u>	J.v. Morse
<u>X</u>	J.T. Nolan
<u>X</u>	D.R. Bishop
—	A.N. Filippello
—	S.Pickard-Washington, D.C.
—	New York PR
—	Brussels PR
—	MAP PR
—	MF&I PR
—	MIC PR
—	MPP PR
—	Eng'd. Prods. PR
—	Int'l. PR
<u>X</u>	L.Boesch
<u>X</u>	W.Carpenter/M.Throdahl
<u>X</u>	H.Curtis/J.Molloy
<u>X</u>	D.Edwards/V.Matteucci
<u>X</u>	M.Foresman/W.Papageorge
<u>X</u>	E.Head/M.Miller
<u>X</u>	R.Potter

SOURCE OF ANSWER M. R. Foresman
File

HANDLED BY: S. G. Collins

C09753

Dioxin A Nationwide Concern

CONFIDENTIAL
SUBJECT TO PROTECTIVE ORDER

By Philip Shabecoff
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WASHINGTON

CONCERN IS GROWING among public health officials, scientists and legislators that contamination by dioxin, one of the most toxic substances created by man, may turn out to be a serious national problem for which they are ill-prepared.

Recent tests have confirmed dioxin contamination at 22 places in Missouri, and state officials fear the chemical may pollute more than 50 sites there. In 1979, the Environmental Protection Agency prepared a list of 31 cities where chemical manufacturing was likely to produce waste contaminated with dioxin and destined for the nation's dumps for hazardous wastes. Those dumps number in the thousands; their contents are largely unknown.

There is no reliable information about how much dioxin has been produced or where it is, and there is considerable controversy over what danger it poses to health and the environment. Nobody knows for sure.

Rep. James J. Florio, D-N.J., co-author of some of the key legislation regulating hazardous wastes, is worried about the scarcity of information. "This is something of extreme gravity and we have to treat it as such," he said. "I'm not saying we have to burn down every town in the country that has been exposed to dioxins, but this problem deserves close scrutiny, closer than other things."

Richard C. Fortuna, staff toxicologist for the House Energy subcommittee headed by Florio, said, "We know that dioxin is a serious environmental problem, but we don't know yet if it is a national emergency."

ADMINISTRATION OFFICIALS and chemical industry executives do not see any emergency. They view the contamination in Missouri as an aberration and believe there are few if any other areas in the country where dioxin presents a significant health problem. In the hazardous waste dumps, they observe, dioxin clings tightly to soil particles and is nearly insoluble in water. And in Missouri, they contend, the dangers to exposed humans have been exaggerated in public accounts.

"It gets me that some scientists are saying that dioxin is the most deadly chemical known to man," said Rita M. Lavelle, assistant administrator of the EPA until she was dismissed Feb. 7. "That's not true. It depends on the concentration. In the right concentration, table salt is just as deadly."

Ms. Lavelle, who was in charge of protecting the public from hazardous waste and responding to emergencies such as the one in Missouri, belittled the significance of dioxins as a threat to the environment and public health in an interview before she left office.

"I am more worried about the threat of other chemicals," she said. "Dioxin is not a national threat."

Dioxin is the name given to any of a family of 75 compounds called dibenzo-para-dioxins composed of benzene and oxygen atoms. When chlorine atoms are added, they become chlorinated dioxins, which have been found to be toxic at low concentrations.

LABORATORY TESTS on animals have linked chlorinated dioxins, even in tiny amounts, to birth defects, skin disorders, liver ailments and other problems. Concentrations as small as five parts per 1,000 billion have caused statistically significant increases in cancer in rats. A single oral dose of 25 micrograms can kill a two-pound chicken. There are a million micrograms in a gram and a thousand grams in a kilogram, and one estimate is that more than 80 kilograms of dioxin was produced in chemical manufacturing in the United States every year from the 1950s to the mid-70s. Yet dioxin's effects on humans, particularly long-term risks, are not clearly understood.

Florio is concerned about what he views as legal loopholes that would allow dioxin to continue to move into the environment if it was contained in waste oils that might be recycled, as they were in Missouri, leading to the contamination there. He says the EPA should follow the recommendation of its staff to declare dioxins a "hazardous air pollutant," an action the agency has not yet taken.

Similarly, Dr. Ellen K. Silbergeld, chief toxics scientist for the Environmental Defense Fund, a not-for-profit environmental group, said the agency had not acted on long-pending recommendations by its staff that new rules should limit dioxin in water supplies to fractions of a part per 1,000 billion.

William N. Hedeman Jr., director of the environmental agency's Office of Emergency Response, said in an interview, "To the best of my knowledge, there are no other Russell Bliss situations around the country." Russell Bliss is the contractor who sprayed the waste oils containing dioxin on horse arenas and roads in Missouri.

Hedeman said he was not aware of other areas where dioxin had posed a problem except for Love Canal in Niagara Falls, N.Y., where it was found in an abandoned chemical dump. But he acknowledged, "We don't know how much is out there. We don't know where it is." On the EPA's 1979 list were 31 cities around the country where plants produced chlorophenols. The manufacture of these chemicals produces dioxins, including the deadly 2,3,7,8-T — tetrachlorodibenzene-p-dioxin, TCDD, as an unwanted byproduct.

The cities on the agency list were St. Louis; Sauget, Ill.; Tuscaloosa, Ala.; Jacksonville, Ark.; Fremont, Calif.; San Mateo, Calif.; Orlando, Fla.; Chicago; Chicago Heights, Ill.; Naperville, Ill.; Shenandoah, Iowa; Kansas City, Kan.; Wichita, Kan.; Whiteford, Md.; Midland, Mich.; St. Paul; St. Joseph, Mo.; Springfield, Mo.; Verona, Mo.; Clifton, N.J.; Linden, N.J.; Rahway, N.J.; Niagara Falls, N.Y.; Cleveland; Dover, Ohio; Portland, Ore.; Ambler, Pa.; Philadelphia; Port Neches, Texas; Tacoma, Wash.; and Nitro, W. Va.

The National Institute of Occupational Safety and Health, an arm of the Department of Health and Human Services, is now working on an updated and more complete "national registry" of producers of products that leave dioxins as a byproduct.

Dr. William Halperin, chief of the institute's industrywide studies branch, said a major purpose of the registry was to locate workers exposed to dioxin on the job so that the effects of the chemical on their health can be studied.

SINCE THE LATE 1970s, the use and production of many of the products that cause the formation of TCDD have been restricted, although not entirely banned. But a significant if unknown amount of dioxin was introduced earlier into various waste streams, and it is likely that some is still escaping into the environment through a variety of routes, including the combustion of wastes.

C09754



"This is something of extreme gravity and we have to treat it as such. I'm not saying we have to burn down every town in the country that has been exposed to dioxins, but this problem deserves close scrutiny, closer than other things."

Rep. James J. Florio

A rough guess at the amount of dioxin discharged into the environment was made in a recent interview by Dr. Alvin Young, an environmental scientist for the Veterans Administration. Dr. Young is a specialist in that agency's efforts to deal with the problems resulting from Vietnam veterans' exposure to Agent Orange, a defoliant that includes the herbicide 2,4,5-T, which is associated with TCDD. He said available figures showed that in 1975 about 800,000 gallons of products associated with TCDD had been produced. From what is known about the dioxin residues in the manufacturing process, he estimated that about 2.1 kilograms of dioxin was contained in the products themselves and about 80 kilograms was left over as waste in that year. A kilogram is about 2.2 pounds.

Dr. Young said that at least that amount of dioxin had been produced annually since the 1950s. While the yearly production has been sharply reduced since 1975, "that is a hell of a lot of dioxin," he said. But he said he did not think dioxin constituted a national health problem, though it might pose a problem in specific areas of the country.

There is broad agreement that a substantial proportion of dioxin-contaminated wastes are now buried in dumps around the country. Anne M. Gorsuch, administrator of the Environmental Protection Agency, recently said there were 12,000 of these "ticking time bombs"; other experts have put the number of toxic dumps at 50,000 or more. There is little if any information on the content of most of these sites. The EPA recently issued a list of 418 "priority" sites, but it has just begun to act on some of these areas. Administration officials and chemical companies contend that the dioxins in the waste dumps do not constitute a serious threat because they adsorb strongly to soil and are not water-soluble; therefore, the officials say, they are unlikely to seep into water tables.

But some environmentalists contend that other solvents in the dumps could flush the dioxin into the water.

RELATIVELY HIGH LEVELS of dioxin have been found in gulls' eggs and fish taken from the Great Lakes and in waterfowl in the North-Central states. Dr. Young noted that dioxins tend to collect in silt and are ingested by bottom-dwelling animals, such as crayfish and turtles.

The spraying of Agent Orange and other pesticides and herbicides introduced dioxin directly into the environment. Some of these uses have been suspended by government order, but other applications continue. Industry officials and some administration authorities argue that dioxin breaks down rapidly in sunlight and therefore disappears quickly from the surface.

But surface contamination found in Missouri after many years has led other scientists to question whether sunlight does cause the deadly substance to disappear. And the manufacturing of some other products still in use forms dioxins as byproducts.

Another route by which dioxin can enter the environment is through fires involving transformers or other electrical equipment containing polychlorinated biphenyls, or PCBs. When burned at low temperatures, these release substances called "furans," which are closely related to dioxins, according to scientists at the EPA.

One of the scientists said that such a fire several years ago in a government office building in Binghamton, N.Y., produced, "maybe the only building in the country where you can't find a single cockroach." The building has stood empty since.

Fires or explosions at plants that produce pesticides, herbicides and other products that involve dioxin, such as the explosion at the Hoffmann-LaRoche plant in Seveso, Italy, on July 10, 1976, can also provide a path through which dioxin enters the environment.

In 1980 a study by scientists of the Dow Chemical Co. suggested that dioxin could be released from the combustion of organic materials. They found dioxins in car mufflers, fireplace soot, charcoal-grilled steaks, cigarette smoke and a variety of other sources.

Etcyl Blair and Perry J. Gehring, Dow scientists and officers, said in a telephone interview that while it was true that dioxin was present in the environment and was highly toxic, it did not constitute a serious problem. "There is a difference between toxicity and hazard," Blair said. "Just because it is a risk doesn't mean you are in danger." He asserted that there were no cases where exposure levels had proved to be a hazard to humans and added, "Statements about how much of the stuff can kill so many people are just not productive."

The Dow officials said that employees working with dioxin in the 1960s had developed chloracne, a skin disease, but that surveillance of the workers had turned up no pattern of serious illness.

THERE APPEARS to be no agreement in among scientists on the health effects of dioxin where it is known to have entered the environment in substantial quantity: Missouri, Love Canal, Vietnam and Seveso.

But Dr. Henry Falk, chief of the special studies branch of the federal Centers for Disease Control, remarked that dioxin contamination was "very much regarded as a significant public health problem that needs to be handled with extreme care."

"There undoubtedly are other Russell Blisses around the country," Dr. Falk said. "We haven't systematically approached all of the past producers to identify where their products are. That would really be an extensive job."

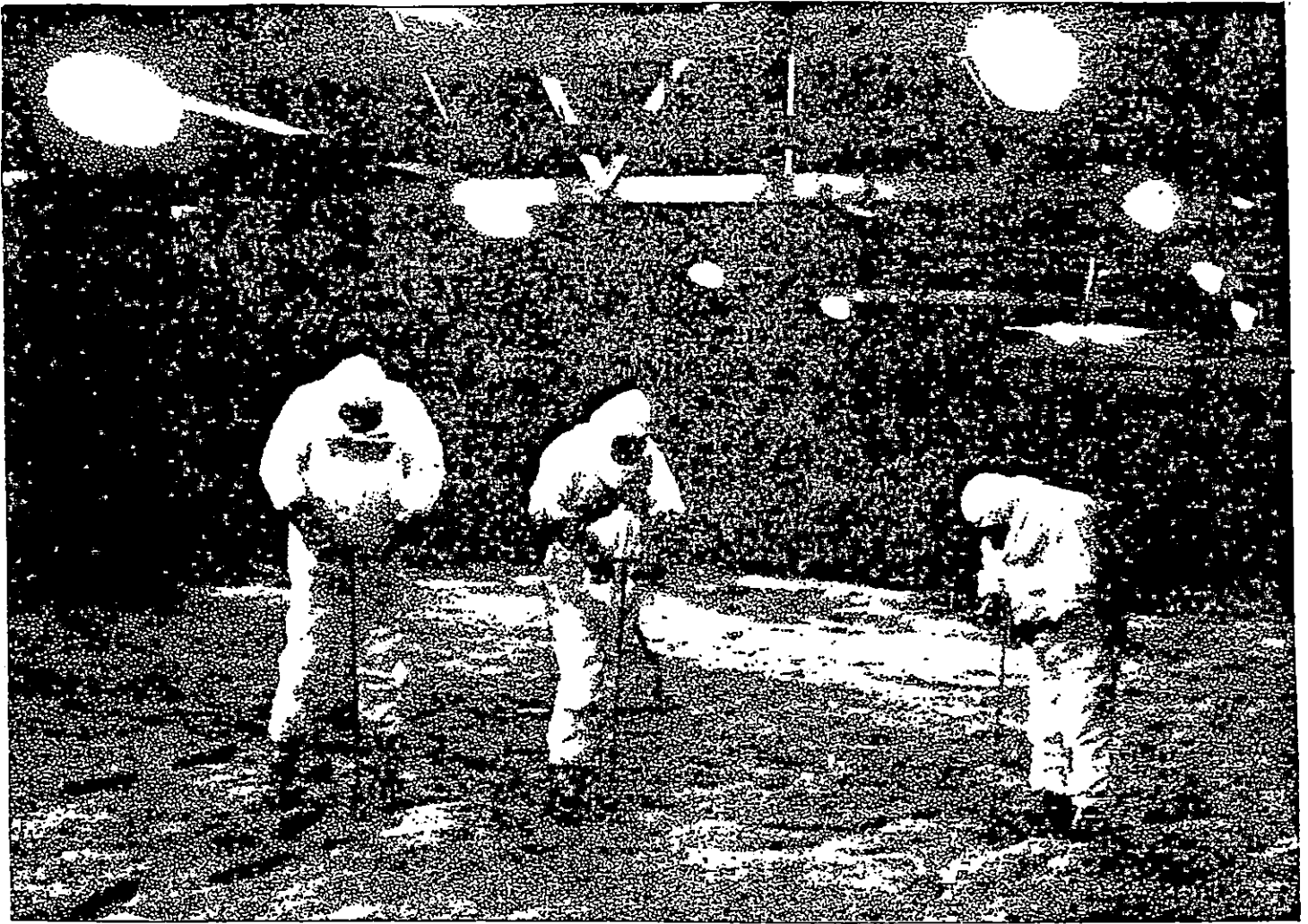
He also said that the acute effects were not the only problem created by dioxin in the environment. "There is a lot of uncertainty about the long-term effects on people," he said.

Halperin of the National Institute of Occupational Safety and Health said, "In an occupational setting, exposure to dioxins is clearly a problem." He explained that data collected by Swedish epidemiologists as well as his own studies suggested that exposed workers faced a substantial risk of soft-tissue sarcoma, a malignant growth.

"What we can say about dioxin," Halperin said, "is that it is an extremely toxic agent whose long-term consequences are only beginning to be understood."

CONFIDENTIAL
SUBJECT TO DISSEMINATION

009755



CONFIDENTIAL
SUBJECT TO PROTECT

009756

Monsanto

→ Jim Mierce

FROM
(NAME, LOCATION, PHONE)

R. C. Isham - BLND

FEB 12 1979

DATE : February 12, 1979

SUBJECT : STURGEON, MO., DERAILMENT
POSITION STATEMENT

REFERENCE :

TO : D. R. Bishop
W. R. Corey
J. R. Foehr
T. L. Gossage
E. H. Harbison
J. S. Metcalf
J. E. McKee
J. C. McPhillips

J. T. Nolan
P. S. Park
R. G. Pier
G. Roush
J. J. Spano
R. A. Stohr
G. Young

OCP-Spill

Perot
Mike Miller
Jim Wilson
~~Fast Track~~
Don Edwards

If you have any corrections or suggestions to this position statement, please phone extension 4-2621. Also attached is the EPA news release of Sunday, Feb. 11.

R. C. Isham
R. C. Isham

RCI:smt

Att.

C00466

POSITION STATEMENT -- TRACE AMOUNTS OF TCDD IN CRUDE ORTHOCHLOROPHENOL
QUESTIONS & ANSWERS TO BE USED ONLY BY MIC PR IN RESPONDING TO DIRECT
MEDIA INQUIRIES

At the request of the EPA we analyzed a reserve sample of the crude orthochlorophenol involved in the derailment at Sturgeon, Mo.

(Jan. 10, 1979) for tetrachloro dioxin. On Friday, Feb. 9, our analytical chemists reported finding this impurity at a .037 ppm average level in the reserve sample. We informed the EPA of this that evening and contacted the clean-up contractor the next morning. Since this is an extremely low level of tetrachloro dioxin contamination, just barely above what equipment can detect, we're sure there was no harm to the citizens of Sturgeon.

We have notified the clean-up contractor so he can take the appropriate precautions with his people. The same protective clothing that protects clean-up workers from the crude orthochlorophenol would protect them from the miniscule amounts of tetrachloro dioxin.

Q. Is this the same TCDD found at Seveso, Italy?

A. Probably not. The 2,3,7,8 isomer of tetrachlorodibenzo-para-dioxin released at Seveso can't be formed directly in our process. The impurity found in our sample is most probably a different isomer which is far less toxic.

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Q: Why did Monsanto wait so long to test its batch sample for TCDD?

A. In the past we've analyzed crude orthochlorophenol for TCDD a number of times and never found TCDD. That was using the same analytical equipment which measures for tetrachloro dioxin down to .010 ppm. (three tests). We theorize the TCDD was an impurity in one of the components. Recently another chemical company reported that dioxins are ubiquitous and can be formed a number of ways, for example, by combustion. That is, everything from burning leaves to smoking a cigarette may form dioxins. We'll be working to find out how the small amounts of TCDD got in our product and eliminate the contamination.

Q. Did Monsanto act quickly when it had this new knowledge on TCDD?

A. Very quickly. We learned on the afternoon of Feb. 9 that there were trace amounts of TCDD in our chemical intermediate and informed the EPA that evening.

Q. How can you say there was no harm to the citizens of Sturgeon when they were exposed to the vapor clouds for a long period of time?

A. We monitored the air soon after the train derailment. The highest concentration of crude orthochlorophenol detected was .085 ppm. So if you percentage the .037 ppm TCDD contamination against the highest known crude orthochlorophenol concentration in the air of .085 ppm, you get a number so small it's meaningless to express.

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Q. What would be the symptoms of TCDD poisoning?

A. The first clinical sign would be chloracne. That's pus-like
sacks formed on skin exposed to TCDD.

Q. Is Monsanto doing any more testing of crude orthochlorophenol?

A. Yes, we're continuing to analyze the product for other production
impurities. The EPA had also been sent product from our reserve
sample for their own analysis.

Q. When will the cleanup be completed?

A. It was reported on St. Louis radio on Feb. 9 that the cleanup
is 95% complete. We understand the cleanup contractor is taking
out all contaminated material down to a 200 ppm level.

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