

RE: ECKARDT LETTER OF MARCH 27, 1984

It may be wiser to telephone Eckardt rather than writing him. In either case, I think the following points should be made:

1. Dioxin was identified as the causative agent of chloracne in the Kimmig & Schulz article in 1957. It is questionable when Monsanto got this, although it may have been the end of 1959. However, this was never reconfirmed and this article was never used as a citation in a bibliography until 1970.
2. An analytical method for dioxin which could be used in 2,4,5-T became available to us in 1964. However, inasmuch as we had a different process than Dow, it took some time to adapt it to our process because of interference. As far as I know, it was never adapted for use in air.
3. I think he is unrealistic in thinking that Dow would help us in cutting down dioxin levels in a competitive product.
4. I don't know when the 0.1 ppm level was obtained in Dow's product, but it would have been in at least 1964.
5. It should also be remembered that Dow had a series of their own chloracne problems in the middle 1960's.
6. We carried out biological monitoring in areas where these were available, i.e., parathion and para-aminobiphenyl, on through the 1950's and 1960's. (We got out of PAB, as you know, in 1955.)
7. There were many industrial hygiene recommendations made in 2,4,5-T dealing with daily clothes change, daily showers, protective equipment, changes in ventilation, recommendations of equipment changes, etc., culminating in a new plant being built sometime in the early 1960's.
8. Even after the new plant was built, there were major engineering changes (dust collectors, etc.) installed as a result of industrial hygiene recommendations up to the time the plant was closed in 1969.

I think his big hang-up is that he believes we should have used outside experts, i.e. Dow, to cut down on 2,4,5-T dioxin content. This is unrealistic. He also doesn't know that through the 1950's we were trying to establish, by rabbit ear tests at Kettering and Mellon Institute, a means of trying to find where in the process stream the acnegenic method was obtainable. We stopped these methods and a continuous research activity was present to eliminate dioxin down to 1 ppm. I don't know when we reached that.

Dr. Emmet Kelly
April 3, 1984

CONFIDENTIAL
SUBJECT TO PROTECTIVE ORDER.

004027

Monsanto

FROM : W. B. Papageorge (4-8125) G4WA
-LOCATION-PHONE-

DATE : July 6, 1981

SUBJECT : Monthly Report
June 1981

REFERENCE :

TO : M. Dmytryszyn - G4WA

cc: C. P. Farley - G4WA
M. R. Foresman - G4WA
H. M. Keating - G4WA
P. A. Klingsporn - G4WA
C. J. Larsen - 5040
M. C. Throdahl - D1D
M. F. Weishaar - G4WA

HIGHLIGHTS

Area Incinerator Pre-Project Board

P. Klingsporn will assume chairmanship of the Pre-Project Board replacing W. Smull. R. Wiese will replace D. Weber as the CED representative. R. London will become the manufacturing representative on the board. The project will proceed with waste heat recovery included. An October Board for AR approval is now planned. The evaluation for incineration at sea and elimination of waste heat boiler and ESP must be completed prior to CAC review to achieve an October Board.

NIOSH Dioxin Study

NIOSH (P. A. Honchar, Ph.D.) submitted a request in March to Dr. Gaffey for access to personnel and medical records of W. G. Krummrich, J. F. Queeny and Nitro workers who may have been exposed to dioxin isomer contaminated materials, such as: 2,4,5-T acids and esters; 2,4,5 tri-chlorophenol; or pentachlorophenol. Honchar visited the general offices May 4 for a discussion of how to meet NIOSH's needs while avoiding unnecessary interferences at the plants. While legal safeguards and an appropriate study protocol were being resolved, NIOSH issued subpoenas to all 3 locations. A meeting with NIOSH lawyers and Honchar to resolve differences is scheduled.

Texas City and Chocolate Bayou Plants - NPDES Permits

Permit renewal applications for both plant sites were completed and forwarded to Region VI EPA prior to the June 30, 1981 renewal deadline.

Texas City Plant Spare Disposal Well

Region VI EPA has confirmed the "interim status" claimed by Monsanto for the new spare disposal well in the November 1980 RCRA (Resource Conservation and Recovery Act) Part "A" Permit Application. The confirmation by EPA enables us to avoid a long drawn out permitting application procedure and to proceed with the drilling of the spare well. Drilling is scheduled to begin in September 1981.

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C07323

July 6, 1981

OSHA - W. G. Krummrich Plant Inspection

The industrial hygiene portion of an inspection conducted during the first quarter 1981 resulted in a serious citation based on monitoring results in excess of the mercury standard for 2 of 6 workers sampled. An informal conference with OSHA was held early June, following which OSHA withdrew that citation.

SUMMARIES1. Objective

Increase product quality and reduce costs through MCI Quality Assurance Program.

IBM has expressed interest in writing a computer program for the management of an analytical laboratory. The program would follow samples from log-in to reporting of results and store results for future trend analysis studies. If MCI is selected as the pilot company for development of the program, it will speed up our switch to computer management and also contribute to establishing Good Laboratory Practice (GLP) programs in product quality assurance.

2. Objective

Contest unreasonable 1980 and 1981 OSHA citations at the W. G. Krummrich plant.

Status

OSHA - W. G. Krummrich Plant Inspection - The industrial hygiene portion of an inspection conducted during the first quarter 1981 resulted in a serious citation based on monitoring results in excess of the mercury standard for 2 of 6 workers sampled. An informal conference with OSHA was held early June, following which OSHA withdrew that citation.

3. Objective

Obtain the appropriate resources for timely study of causes of death of former Texas City plant employees. Conduct a total plant mortality study.

Status

The vital status of more than 95% of 5505 current and former employees has been determined. The additional data (such as hire date, date of birth, termination date, etc.) which is now being computerized is readily available for wage employees but complications relative to inclusion/exclusion of salaried personnel will be resolved early July. Following this resolution, a realistic completion date for the study can be projected.

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C07324

July 6, 1981

4. Objective

Coordinate with other producers to provide appropriate testing of mono and dichlorobenzenes and obtain reasonable regulations for testing chlorobenzenes as EPA implements Section 4 of TSCA.

Status

CMA Chlorobenzene Panel of 5 participants is sponsoring teratology testing of mono and di (ortho and para) chlorobenzenes with Dow as the contractor. The mono teratology study interim report showed no compound related effects in rats, but a lack of comparable assurance in rabbits. The repeat rabbit study completed in June showed no compound related effects. Pilot testing of ODCB was completed and the teratology study is underway. Although plans for the pilot study of PDCB continue this study may not be necessary since results of a European study have been received and will be reviewed with EPA.

The SOCMA Chlorobenzene Producers Association (CPA) had a third meeting with EPA TSCA Section 4 personnel June 24 to discuss voluntary versus mandatory testing. It is anticipated that EPA will drop testing requirements for the tetra and penta compounds and their chlorobenzenes category approach. CPA committed to a reproductive study of mono. EPA agreed to review new subchronic data on ODCB and PDCB obtained from NCI and PDCB data obtained via ICI, with the good possibility of finding the subchronic data on these compounds as suitable as that available for mono. The question of whether EPA will insist on oncogenicity testing of 1-2-4 tri-chlorobenzene is under review by EPA. A future meeting is probable mid-July.

5. Objective

To determine if employees exposed to chlorophenols exhibit any signs of adverse health or dermal effects in comparison to those not so exposed.

Status

A team under the direction of Dr. Suskind made a thorough study, starting October 1979, to identify any chloracne or other biological indicators among penta and chlorophenol exposed workers at the W. G. Krummrich plant. A preliminary report of the study, 9/80, confirmed chloracne from penta exposure but was not definitive for exposure to the lower chlorophenols. Efforts of DMEH to extract a final report from Dr. Suskind continue.

NIOSH Dioxin Study - NIOSH (P. A. Honchar, Ph.D.) submitted a request in March to Dr. Gaffey for access to personnel and medical records of W. G. Krummrich, J. F. Queeny and Nitro workers who may have been exposed to dioxin isomer contaminated materials, such as: 2,4,5-T acids and esters; 2,4,5 tri-chlorophenol; or pentachlorophenol. Honchar visited the general offices May 4 for a discussion of how to meet NIOSH's needs while avoiding unnecessary interferences at the plants. While legal safeguards and an appropriate study protocol were being resolved, NIOSH issued subpoenas to all 3 locations. A meeting with NIOSH lawyers and Honchar to resolve differences is scheduled.

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July 6, 1981

6. Objective

Coordinate and provide input to MCI programs to ensure compliance with corporate and regulatory OSHA/EPA guideline and regulations.

Status

Pensacola Butane/Maleic Project - A memo to Region IV EPA detailing Monsanto's understanding of certain permit language was sent June 12, 1981. No comments from Region IV to date. A revised waste summary for the new Maleic facility was received. The total liquid waste to deepwell is now 16.2 gpm.

RCRA Chlor-Alkali Brine Mud Delisting - A draft of a stipulation between the Chlorine Institute and the EPA was completed and reviewed for discussion with the Federal EPA.

CMA PCB Survey - Developed data base for completion of Chemical Manufacturers Association PCB survey for totally enclosed and related uses of PCB and PCB contaminated fluids in equipment. Started review for data base for CMA's response to the Court of Appeals on the incidental manufacturing of PCB's at concentrations below 50 ppm. Major source of incidental PCB generation and distribution is the MCB process and downstream products.

Area Incinerator Pre-Project Board - P. Klingsporn will assume chairmanship of the Pre-Project Board replacing W. Smull. R. Wiese will replace D. Weber as the CED representative. R. London will become the manufacturing representative on the Board. The project will proceed with waste heat recovery included. An October Board for AR approval is now planned. The evaluation for incineration at sea and elimination of waste heat boiler and ESP must be completed prior to CAC review to achieve an October Board.

Columbia NPDES Permit - A meeting has been set with the State of Tennessee Division of Water Quality Control to review the draft permit on July 22, 1981. Final draft of proposed changes will be forwarded to the state by July 15, 1981.

7. Objective

Influence and manage programs within MCI to ensure compliance with regulatory and corporate environmental guidelines.

Status

Avon Plant - NPDES Permit - The California Regional Water Quality Board, San Francisco Bay Region, has determined that Monsanto's Avon plant be named as a co-permittee along with TOSCO on the refinery's NPDES permit. This request is at the discretion of the Regional Board, and within the provisions of existing laws. Monsanto Environmental Law Group has discussed this issue with the Board's attorneys. The Board has agreed to forward a properly signed request for application which also delineates what parts of the application should be completed.

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July 6, 1981

7. (Continued)

After submission of the application we have the opportunity to argue to the Board that Monsanto should not be a named co-permittee. The Board has the authority, when in the public interest, to not name Monsanto a co-permittee.

Environmental Operations and Environmental Law are assisting the plant with the procedural aspects of the issues and providing advise in preparing for the presentation of the data to the Board.

Texas City and Chocolate Bayou Plants - NPDES Permits - Permit renewal applications for both plant sites were completed and forwarded to Region VI EPA prior to the June 30, 1981 renewal deadline.

Superfund Notifications - All Sites - Notification of past hazardous waste management activities relative to closed landfill sites as required by the Comprehensive Environmental Response, Compensation and Liability Act (Superfund) was completed by all plant sites by the June 9, 1981 deadline.

MSD Pretreatment Program - J. F. Queeny Plant - It appears that MSD (St. Louis Metropolitan Sewer District) will miss the July 1, 1981 deadline for submission of the District's Pretreatment Program Plan to EPA. MSD is not concerned over this program slippage. This in turn delays the effective date of the proposed new pretreatment ordinance (estimated to go into effect in 1982) by at least another 6 months.

Texas City Plant Spare Disposal Well - Region VI EPA has confirmed the "interim status" claimed by Monsanto for the new spare disposal well in the November 1980 RCRA (Resource Conservation and Recovery Act) Part "A" Permit Application. The confirmation by EPA enables us to avoid a long drawn out permitting application procedure and to proceed with the drilling of the spare well. Drilling is scheduled to begin in September 1981.

W. B. Papageorge

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CONFIDENTIAL

C07327

FROM
(NA LOCATION-PHONE)

W. B. Papageorge (4-8125) G4WA

: June 3, 1981
SUBJECT : Monthly Report
May 1981
REFERENCE :
TO : M. Dmytryszyn - G4WA

cc: C. P. Farley - G4WA
M. R. Foresman - G4WA
H. M. Keating - G4WA
P. A. Klingsporn - G4WA
C. J. Larsen - 5040
M. C. Throdahl - D1D
M. F. Weishaar - G4WA

HIGHLIGHTS

Texas City Well Permits

Permit application WDW-196 and Amendment WDW-91 was approved at the May 18 meeting of the Texas Water Commission. Next step now is to get EPA Region IV to agree with our RCRA interim status determination on the RCRA Part "A" Permit.

EPA Inquiry on MOTCO, French Limited, Sikes Pit Disposal Sites - Texas City/ Chocolate Bayou

Both plant sites have received another EPA inquiry about Monsanto's use of the three disposal sites in question. Monsanto did dispose of material at the MOTCO site. It looks as if EPA is trying to build a case for future litigation. Reply to EPA will be forwarded in early June. (A rough estimate of \$40M has been thrown out as a clean up cost for the MOTCO site alone.) Environmental Law is coordinating issue with the Texas Chemical Council and others who have received similar inquiries. Final strategy meeting is planned for June 9.

PCB Legislation - Texas

A bill has been introduced in the Texas House and Senate to ban the incineration and emission of polychlorinated biphenyls currently permitted at the Rollins Deer Park, Texas facility. Issue is being followed by EPA and Corporate PCB spokesman and Texas Legislative contact.

Area Incinerator

Area incinerator pre-project board met on 5/11/81. Latest estimate for AR submittal to the Monsanto Board of Directors is now September. Problems remain with evaluation of economics of waste heat recovery boiler. Federal PSD permit will expire 1st quarter 1982 unless project is approved and construction starts by then.

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C07317

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June 3, 1981

SUMMARIES1. Objective

Coordinate and provide input to MCI programs to ensure compliance with corporate and regulatory OSHA/EPA guidelines and regulations.

Status

Pensacola Butane/Maleic Project - A memo to Region IV EPA detailing Monsanto's understanding of certain permit language has been delayed due to several rewrites by the plant. Plans are to complete and file the memo of understanding by mid-June.

The existing temporary operation permit (TOP) for the Pensacola deep well was reviewed on 5/6 with Environmental Law and Pensacola plant personnel. Existing TOP expires 6/1/81 with a request for a one year extension filed 3/81. Authority to discharge the future butane/maleic wastewaters into the deep well under the existing permit was discussed in detail. Environmental Law will prepare a legal opinion on this matter in light of existing deep well regulations and future RCRA underground injection requirements.

RCRA Chlor-Alkali Brine Mud Delisting - A memo detailing the results of Monsanto's plant scale brine mud leaching and washing tests was sent to the Chlorine Institute on May 13, 1981. These results which show mercury levels at 1/10 of the EP toxicity procedure will be used in the drafting of a performance based standard for delisting of the brine muds.

Columbia Screening Plant - The evaporative nodule cooling experimental project has completed its second scheduled four week cooling period using water sprays to cool the nodules. Preliminary results of the test indicate that (1) no adverse effects to phosphorus production have been attributed to evaporative nodule cooling; (2) nodule dust levels have decreased in the nodule craneway and nodule conveyer area, and (3) the reduction in furnace feed temperature will prolong the stocking system belts. Completion of all tests is set for July 1981.

Area Incinerator - Area incinerator pre-project board met on 5/11/81. Latest estimate for AR submittal to the Monsanto Board of Directors is now September. Problems remain with evaluation of economics of waste heat recovery boiler. Federal PSD permit will expire 1st quarter 1982 unless project is approved and construction starts by then.

Columbia NPDES Permit - An extension of time until 6/25/81 was received for comment on the Columbia NPDES permit from Tennessee. Plant environmental is drafting a compliance schedule for needed changes to the treated water solids disposal system estimated at \$30k capital and a narrative on the operation and management of the process ponds which results in high suspended solids due to algae.

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C07318

1. (Continued)

Draft comments were completed for the pH and total suspended solids (TSS) limitations of the Columbia NPDES permit. Algae in the raw water intake (Duck River) contributes to violations of the proposed pH and TSS permit conditions. A meeting has been set with the State of Tennessee Division of Water Quality Control to review the draft permit on June 25, 1981.

ACL Pre-Treatment - The pre-project Environmental control review was completed on CEA 3471 ACL Waste Water Pre-treatment. The project will reduce ambient air Cl_2 concentration at the Sauget treatment plant to below a 1 ppm ceiling, reduce atmospheric emissions of Cl_2 from ex-ACL battery limit sewer boxes; and prevent the possibility of a bug kill in the Regional Waste treatment plant planned for 1983.

NPDES Permit Texas City/Chocolate Bayou - Supplemental National Pollution Discharge Elimination System (NPDES) permit data was received from Chocolate Bayou and Texas City detailing a complete priority pollutant analysis on treated process and non-process outfalls. With submission of the data an attempt will be made to seek relief from several parameter limitations in the Texas City permit. Completion of all reviews and signature by C. P. Cunningham will meet the June 30 filing deadline.

2. Objective

Assure that MCI products continue to be acceptable in terms of user safety and environmental impact.

Status

A change in Product Acceptability Guideline No. 9 "Outside Processors" was proposed to MCI General Managers. The change would include scrap materials sold for salvage value in the scope of Guideline No. 9. These materials will be sold only to contractors capable of protecting their workers and the environment.

3. Objective

Expedite the responsible completion of the CMA sponsored benzene epidemiology study.

Status

Tabershaw Occupational Medical Associates (TOMA) stopped effort on this project mid-February pleading higher than anticipated costs to complete the study. A meeting was held with Dr. Tabershaw 3/3/81 to attempt resolution of this situation. TOMA, April 23, provided an estimate of \$101k to complete the study, but via a less satisfactory protocol. Biometric Research Institute (BRI), mid-April, provided an estimate of \$63k to complete the study, but this cost has been revised upwards to \$90-100k when modified to more nearly match the original protocol. BRI has the advantage of having three former TOMA employees who accounted for most of the TOMA effort on this project through

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June 3, 1981

3. (Continued)

3Q 1980. Termination of the TOMA contract in favor of BRI received approval of the CMA Benzene Program Panel mid-May. Details of recovery of data from TOMA and execution of a CMA/BRI contract may not be complete until mid-June. Study completion following contracting with BRI is estimated 6 months.

4. Objective

To minimize toxicity testing costs by engaging in jointly sponsored projects where appropriate.

Status

Studies of benzene are jointly sponsored by CMA and API; chlorobenzene studies are sponsored by CMA. MCI is a participant in both.

A 90 day inhalation study (rats and mice) of dicyclopentadiene contracted by Exxon, is being sponsored by five companies including Monsanto. After two weeks of exposure some abnormal kidney functions were observed in the male rat. Exxon made an 8(e) notice to the EPA. Toxicologist participants reviewed the draft final report May 7. Assessment of need for further testing is under consideration.

IISRP oncogenic testing of butadiene exposure is complete, but the pathology is not complete. Exxon, a participant, has made an 8(e) notice to EPA based on observed effects at exposures of 8000 ppm and possible effects at exposures of 1000 ppm. Conclusions from the study are expected 3Q 1981.

Joint testing of ketones under CMA sponsorship will start with MIBK. Because of lack of data on acetone, CMA requested bids on testing acetone in parallel with MIBK and contacted all major producers to solicit their interest in sponsoring a sub-chronic testing program. The caprolactam producers have agreed to make cyclohexanone a candidate for testing in their program with the Industrial Health Foundation (IHF). U.C.C. and Monsanto were invited to an IHF meeting, 4/21/81, to organize a cyclohexanone testing program and a plan for interfacing with the regulatory agencies.

Follow up on each of these programs is scheduled at a meeting of the IHF cyclohexanone participants, 6/5/81.

DMEH completed an updating of the status of toxicity information on naphthalene. Subsequently the National Toxicology Program announced a plan for limited naphthalene testing. Pending NTP plan approval, the advisability of an industry testing program will remain under study.

Joint testing of methanol and mercury previously considered dead issues are being reconsidered by SOCMA and the Chlorine Institute respectively. Potential for either establishing sufficient interest continues low.

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C07320

June 3, 1981

5. Objective

To determine if employees exposed to chlorophenols exhibit any signs of adverse health or dermal effects in comparison to those not so exposed.

Status

A team under the direction of Dr. Suskind made a thorough study, stating October 1979, to identify any chloracne or other biological indicators among penta and chlorophenol exposed workers at the W. G. Krummrich plant. A preliminary report of the study, 9/80, confirmed chloracne from penta exposure but was not definitive for exposure to the lower chlorophenols. Efforts of DMEH to extract a final report from Dr. Suskind continue. He failed to meet his mid-May deadline to deliver a final report on the Nitro study which preceded the W. G. Krummrich study.

NIOSH (P.A. Honchar, Ph.D.) submitted a request in March to DMEH for access to personnel and medical records of W. G. Krummrich, J. F. Queeny and Nitro workers who may have been exposed to dioxin isomer contaminated materials, such as: 2,4,5-T acids and esters; 2,4,5 trichlorophenol; or pentachlorophenol. Honchar visited the general offices May 4 for a discussion of how to meet NIOSH's needs while avoiding unnecessary interferences at the plants. Some legal safeguards and an appropriate study protocol have not yet been resolved.

6. Objective

Influence and manage programs within MCI to ensure compliance with regulatory and corporate environmental guidelines.

Status

Rock Springs - Solid Waste Disposal Permit - MCI Environmental Operations and Environmental Law have reviewed the directive from the Wyoming Department of Environmental Quality. Recommended to the plant to request a waiver from the permit requirements because of the remoteness of the plant and the fact that the coke plant fines are being used to reclaim the old strip mine areas. The Wyoming Department of Environmental Quality has responded verbally to the plant's request for waiver from filing for a solid waste permit requirement stating that the department is no longer giving waivers. Department personnel are going to visit the site next week. We are claiming the coke fines are a by-product material, we are not really disposing of the material but storing pending potential sale. Sale to kiln operator in Utah is still under negotiation.

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C07321

June 3, 1981

6. (Continued)

Texas City Well Permits - Permit application WDW-196 and Amendment WDW-91 was approved at the May 18 meeting of the Texas Water Commission. Next step now is to get EPA Region VI to agree with our RCRA interim status determination on the RCRA Part "A" Permit.

7. Objective

Assure proper disposal and fate of solid wastes generated at MCI sites.

Status

Avon - 67 Abandoned Hazardous Waste Disposal Sites - The Avon plant has been listed as one of the target sites for Superfund clean up in a recent report issued by the California Department of Health Services. Classifying the site as an abandoned site is incorrect. Environmental Operations is following this issue with the plant.

Hazardous Waste Disposal Contractor Inspections - Recommendations were made to Texas City plant that the EMPAK and Malone Service Company sites be re-inspected prior to any further contract negotiations. Also advised the Avon plant that the IT Corporation disposal site be inspected.

EPA Inquiry on MOTCO French Limited, Sikes Pit Disposal Sites - Texas City/Chocolate Bayou - Both plant sites have received another EPA inquiry about Monsanto's use of the three disposal sites in question. Monsanto did dispose of material at the MOTCO site. It looks as if EPA is trying to build a case for future litigation. Reply to EPA will be forwarded in early June. (A rough estimate of \$40M has been thrown out as a clean up cost for the MOTCO site alone). Environmental Law is coordinating issue with the Texas Chemical Council and others who have received similar inquiries. Final strategy meeting is planned for June 9.

Texas City South 20 - Final D'Appolonia report has been received. Strategy is being developed by the plant (to be reviewed by Environmental Law and Environmental Operations) on how we should approach the state and how we should move to resolve the issue.

Avon - Plant has received directive from State of California that the site must file their state hazardous waste management operation plan (interim status) by September 30, 1981.

PCB Legislation - Texas - A bill has been introduced in the Texas House and Senate to ban the incineration and emission of polychlorinated biphenyls currently permitted at the Rollins Deer Park, Texas facility. Issue is being followed by EPA and Corporate PCB spokesman and Texas Legislative contact.

CONFIDENTIAL

W. B. Papageorge
W. B. Papageorge

Monsanto

FEB 1 1985

2- Jethro Hall

FROM
(NAME-LOCATION-PHONE) C. P. Farley - B3NA (4-2918)

DATE February 11, 1985

SUBJECT Dioxin Type Impurities

REFERENCE

TO : G. D. Devereux - B3SC
M. F. Gilbert - B3SC
G. D. Rawlings - B3SC
K. S. Rosenberg - B3SG

S. G. Collins - B1NA
D. P. Doherty - B2SL
J. C. Hunter - B3SA
G. L. Lindsay - B3SA
W. B. Papageorge - B3NA

Attached is a summary of the current EPA plans regarding polyhalogenated dibenzo-p-dioxins and dibenzofurans as impurities in products and processes. EPA is considering ordering analytical work under Section 4 of the Toxic Substance Control Act. What could come sooner would be a request for existing analytical data under authority of Section 8 of TSCA.

Under the prevailing state of mind in the U.S. and Europe, this information development is certain to create PR problems. What is needed is valid toxicological data which will put the fears of "dioxins" to rest.

C. P. Farley
C. P. Farley

/dg

Attachment

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SUBJECT TO PROTECTIVE ORDER.

C21314

poisonous gases" from their plants and the likely health effects of the leaks.

Possible Criminal Investigation

According to sources at the agency, portions of the report, prepared by EPA Region III, Philadelphia, were pulled by agency officials in Washington because the information might "blow" a possible criminal probe into whether Union Carbide officials failed to report any releases that might have escaped the confines of the Institute plant.

Under the Comprehensive Environmental Response, Compensation, and Liability Act, firms are required to report releases of certain chemicals if they exceed certain quantities and reach the environment, the report said.

While specific sentences were deleted from the publicly released report, the possible investigation was suggested in a Jan. 23 memorandum from Stanley L. Laskowski, deputy regional administrator, to Jack W. McGraw, acting assistant administrator.

In the memo, Laskowski said of "two portions of our review" still ongoing, one dealt with releases of MIC from the plant between 1980 and 1984.

"Additional facts are needed to determine whether the releases were entirely contained within the facility or reached the environment," he said, adding the information was requested from Union Carbide and was expected soon.

"Upon receipt, we will determine if federal enforcement action is necessary.

In the document, references into possible action against the company were described as "predecisional staff opinion on a legal enforcement issue."

Tomm Sprick, a Union Carbide spokesman, told BNA in early January that the company was at that time not aware it may be the subject on any criminal investigation.

The other portion of the review dealt with spills of the chemical toluene into the Kanawha River in December 1984 and in January, he said.

Report Details

In the report, relased by the agency Jan. 23, officials said MIC was released at the West Virginia plant in 28 separate incidents between 1980 and 1984.

The largest was on Jan 1, 1984, when approximately 840 pounds of the chemical escaped as part of a 14,000-pound mixture of MIC and chloroform that spilled from a broken feed line, EPA said.

According to the document, the mixture was collected in a sump, picked up and returned to scrubbers for cleanup, and subsequently returned to production. Another release, while unspecified, was greater than 10 pounds and escaped "due to a procedural error," the report stated.

Other releases were either in unspecified quantities greater than 10 pounds, less than 10 pounds, or in "negligible quantities." They escaped either into the air or ground, the report said.

Dioxin

EPA AGREES TO REPORTING UNDER TSCA, REFUSES TO INSTITUTE IMMEDIATE CONTROLS

The Environmental Protection Agency agreed Jan. 22 to pursue reporting and testing requirements under the Toxic Substances Control Act for chemicals that may produce dioxins and dibenzofurans, but said it would not place any immediate controls on such chemicals.

EPA said it would undertake administrative proceedings to determine whether to require manufacturers to analyze chemicals that may contain dioxins. It also will consider whether to require submission of existing test data by firms that manufacture certain chemicals that may contain dioxins. The actions would be taken under Section 4 and Section 8 of the act, respectively.

The statements were made in response to a citizens' petition filed in October 1984 by the National Wildlife Federation and the Environmental Defense Fund (Current Report, Oct. 26, 1984, p. 852).

EPA, however, rejected the petition's request for immediate regulatory action under Section 6 of the act, saying there is insufficient information at this time on which to base such an action. The petition asked the agency to limit the concentration of certain chlorinated dibenzo-p-dioxins and their structural analogs, brominated dibenzo-p-dioxins, to 0.1 part per billion in products.

The agency also rejected the petition's request for comprehensive action under Section 6 to ban land and ocean disposal and underground injection of isomer-containing wastes, and to issue water effluent prohibitions for the chemicals.

EPA said in its response that other statutes under its jurisdiction can adequately deal with dioxin contamination in those settings, and that rules under TSCA therefore would be unnecessary.

Focus on PHDDs and PHDFs

In addition to EPA actions already begun or planned under the National Dioxin Strategy Program, the agency said it would comply with the petition's requests for immediate attention to possible sources of the contaminants other than those identified in the program.

EPA said its past efforts under the program focused on what the agency believed were the major sources of polychlorinated dibenzo-p-dioxins (PCDDs) and polychlorinated dibenzofurans (PCDFs).

In its information gathering under TSCA, the agency said it would focus on chemicals produced by processes which are known or believed to generate polyhalogenated dibenzo-p-dioxins (PHDDs), polyhalogenated dibenzofurans (PHDFs), and would adopt a clear procedural schedule during its rulemaking process.

The petition claimed the agency failed to deal with the continuing generation of PHDDs and PHDFs by inefficiently focusing its regulatory energies, dwelling on one dioxin isomer at a time, and by acting under a loose schedule for developing hazard and exposure assessments, guidance documents, sampling methodologies, and a research agenda.

Toxicity Evidence

The agency said it agreed with the petition that the small amount of evidence available on the brominated isomers suggests they are likely to possess toxic properties comparable to their chlorinated analogs, and said it would increase its focus on those species.

Because limited evidence also shows that PHDDs and PHDFs substituted in the 2, 3, 7, and 8 positions are likely to possess unusually potent toxic properties, the agency said they also deserve priority attention.

EPA also said it agreed that limited evidence points to a strong structure-activity correlation within the PCDD series, although correlation within the PCDF series is less well established.

The agency said it may treat groups of chemicals generically in some cases, grouping chemicals by contaminant, by similar manufacturing processes and use patterns, by similar physical-chemical properties, or by other appropriate criteria.

The response also said the agency will begin administrative proceedings to develop proposed rules under Section 4 of TSCA to require manufacturers to analyze these chemicals to determine concentrations of PHDDs and PHDFs.

A proposed rule also will be considered under Section 8 to require submission of existing information on the selected chemicals, it said.

Section 6 Action

In its rejection of the petition's request for action under Section 6 of TSCA, the agency said there were insufficient data available on all the isomers at this time to reach a finding of unreasonable risk of injury to human health or the environment.

Such action, however, may be forthcoming pending the results of the information gathering process if several conditions are met: if the agency obtains enough evidence of the current concentrations of the isomers of concern, if it is able to assess the incremental risk reduction afforded to exposed groups, and if it can estimate the economic and social costs that could result from reducing the permissible concentrations of PHDDs and PHDFs.

Additional information on the agency's plans may be obtained from Edward A. Klein, Director, TSCA Assistance Office (TS-799), Office of Pesticides and Toxic Substances, Environmental Protection Agency, Room E-543, 401 M St. S.W., Washington, D.C. 20460; (800) 424-9065 toll free, or 554-1404 in the Washington, D.C., area.

Superfund

RIGHT-TO-KNOW PROPOSALS, CHANGES TO LAW EXPECTED IN WAKE OF BHOPAL CHEMICAL ACCIDENT

Several proposals aimed at preventing or responding to industrial accidents in the United States similar to the one that occurred in India in December 1984 are being considered for possible inclusion in legislation to reauthorize the superfund law, according to some congressional staff members.

The proposals, which the staff members said are being studied as possible amendments to the Comprehensive Environmental Response, Compensation, and Liability Act, would ensure the rights of communities to know about potential chemical hazards that exist within their boundaries, would improve current superfund emergency response authorities, and would require local government entities and chemical companies to adopt emergency preparedness measures.

The community right-to-know legislation also could cover information about hazardous waste dump locations, as well as data about where and when chemicals are transported through communities, the staff members said. Interest in these measures was aroused by the accidental release of methyl isocyanate from a Union Carbide plant in Bhopal, India, which killed more than 2,000 persons, the staff members said (Current Report, Dec. 7, 1984, p. 1059).

However, any attempts to attach proposals responsive to the Bhopal accident to bills to reauthorize the superfund probably would be dropped if it appeared that they would slow revision of the law, a Senate staff member said. The

proposals also could be offered as new legislation or attached to another statute, the Senate staff member said.

Sen. Frank Lautenberg (D-NJ), a member of the Senate Environment and Public Works Committee, is expected to propose legislation to give communities the right to know what chemicals are stored, produced, or handled at chemical plants within their boundaries, according to a Senate staff member. The provisions would be similar to those contained in a New Jersey community right-to-know law, the staff member said.

Florio, Waxman May Join Forces

Also being discussed on a staff level is the possibility that Rep. James Florio (D-NJ) would join forces with Rep. Henry Waxman (D-Calif) to present legislation that would combine superfund reauthorization and community right-to-know provisions with a measure to establish a right for individuals to sue in federal court for damages from exposure to toxic substances, according to a House staff member. Such a measure also would include provisions covering toxic air pollutants, the staff member said.

Florio chairs the House Energy and Commerce Subcommittee on Commerce, Transportation and Tourism, while Waxman heads the Energy and Commerce Subcommittee on Health and the Environment.

This approach probably would entail placing regulation of hazardous air pollutants, now provided for in the Clean Air Act, under CERCLA and under the jurisdiction of Florio's subcommittee, the House staff member said. It also would make superfund an "omnibus toxics bill," the staff member said. The thinking is that Florio and Waxman together could push the legislation through the House, the staff member said.

The CERCLA proposals are among several initiatives planned in response to the Bhopal incident. Among them are regulatory changes governing transportation of hazardous materials and an EPA study to identify gaps in existing environmental regulation (Jan. 18, p. 1264; Dec. 14, 1984, p. 1078; See related article, p. 1283.).

Enforcement

PEST REPELLER 'INEFFECTIVE,' EPA SAYS IN SEEKING FINE FOR ALLEGED MISBRANDING

Facing two counts of alleged misbranding, a Massachusetts manufacturer Jan. 21 defended the efficacy of his firm's sonic rodent repeller as the Environmental Protection Agency continued a crackdown on what it says are "ineffective" pesticide devices.

In a brief filed in the case, *In re Imper Industries Inc.*, FIFRA No. I-84-1048, Tej. B. Tanden, president of Impex, said his company's products, Sonitron Model C and Sonitron Model Super C, have been demonstrated to be effective against rats and mice. He also provided the agency with case studies and several testimonials from customers satisfied with the product, Tanden told BNA.

In November 1984, the agency filed two counts of misbranding against the firm, saying tests performed on the devices by the Fish and Wildlife Service showed them to be "ineffective for rodent control." Under the Federal Insecticide, Fungicide, and Rodenticide Act, a product must meet claims made on the label or face possible action.

Tanden said his firm disputes the government test results and has provided the agency with other data.

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