Monsanto

DEC 1 1981

FROM (NAME—LOCATION—PHONE) Allan M. Ford - St. Louis A2SA 4-2578

DATE December 11, 1981

SUBJECT NITRO LITIGATION

REFERENCE

D. R. Bishop - A3NB
C. F. Callis - B3CA
R. S. Nelson - A2SA

TO : W. R. Gaffey - G2WE

CONFIDENTIAL
ATTORNEY WORK PRODUCT
ATTORNEY-CLIENT PRIVILEGE

I've attached information gathered by Dan Bishop consisting of PR statements that have been utilized at one time or the other in the past.

I suggest that you take sections of the appropriate release for your reply, as they've already been cleared as correct and will need no futher approval.

A. M. Ford

jb
enclosure

CONFIDENTIAL
SUBJECT TO PROTECTIVE ORDER.

C04511

IN - 10 (REV. 8 77)

Monsanto

FROM
(NAME—LOCATION—PHONE) Allan M. Ford - St. Louis A2SA 4-2578

DATE : December 8, 1981 CC.

SUBJECT : NITRO LITIGATION

REFERENCE :

TO : D. R. Bishop - A3NB

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I've attached the memo Bill Gaffey sent me as we discussed today.

If you can give me the appropriate replies from your Q&A, I'll get approval on the rest.

A. M. Ford

jb
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MEMO TO Allan Ford DEC 6 1971

This is the letter I called you about. Apparently this man is interested because of the Czechoslovakian accident a few years back.

Is it alright to answer his questions?

Bill Gaffey

FROM

G-321

Dept. Occupational Health
Spolana– Neratovice
Czechoslovakia

19th Oct. 1981

Judith A.Zack M.P.H.,
Monsanto Co
800 N.Lindbergh Blvd
St Louis
MO 63166

Thank you very much for the reprint of your paper" The mortality experience of workers exposed to tetrachlorodibenzodioxin in a trichlorophenol process accident".

The mechnism of the accident seems to be very similar to that from Seveso. I would be interested, how much the building was contaminated or the environment of the plant. Possibly because the accident was in 1949, it was not ascertained.

May I ask you to do me a great favour and tel me, what was the fate of the building, how it was decontaminated/ if it was decontaminated / and if you could post to me copies of the literature that are in referencies under number 3.,4.,5.,6.,7.

I could send you all papers about our accident.

Many thanks for your kindness and kind regards

Sincerely yours

2,4,5-T EQUIPMENT BURIAL

When the 2,4,5-T unit was dismantled in the early 1970s, the equipment was decontaminated and buried on the site. Monsanto monitors the containment of all its solid waste buried at Nitro. A series of monitoring wells are in place around the plant and throughout the solid waste disposal area. Periodic inspection of these wells enables Monsanto to ensure that the waste is being contained. A water sample taken from the well nearest to the site where the 2,4,5-T equipment is buried was also tested and failed to detect any tetra dioxin down to our limit of detection -- 10 parts per trillion.

DETAILS OF 2,4,5 TRICHLOROPHENOXYACETIC ACID (2,4,5-T) PRODUCTION AT THE NITRO PLANT

1. INITIAL PRODUCTION

The production of 2,4,5-T was initially started on an experimental basis during the summer of 1948 in the old pilot plant (B-32). At that time the intermediate, Sodium Trichlorophenate (NaTCP), was also produced there. From information gathered there, plant production was started in October, 1948.

Production of the NaTCP was performed in a 500 gallon autoclave in B-41, the MBT Department. The NaTCP was then transferred by pipeline to B-34 where parts of the old rubber antioxidants (Ajone, etc.) were utilized to complete the 2,4,5-T production steps through the wet filter cake steps. Since the material had to be dried elsewhere, operations were scattered over the plant. Some material was dried in the rotary dryer in B-46, tray dryers in B-21 (El-60 Department), tray dryers in B-16 (dryer building) and tray dryers in B-79 (Thiofide Seeds). Tray dried material was returned to a section of B-34 Flectol where it was milled and packaged.

2. NaTCP PRODUCTION

The initial plant production of NaTCP in the B-41 500 gallon autoclave was performed by adding all the reactants Tetrachlorobenzene,(TCB), NaOH and Methanol to the autoclave. Heat was applied and when the pressure reached the desired point, the clave was vented. On March 8, 1949, approximately six months after startup, a violent reaction and decomposition occurred in the autoclave. The pressure rose from the desired 150 PSIG to 1500 PSIG in approximately five minutes. Fumes and the tarry residue from the autoclave were discharged into the atmosphere and onto the entire interior of the autoclave section. The entire building was shutdown at this time and immediate decontamination and cleanup was started. Since no cause for the violent reaction/decomposition or physiological effects of the fumes or

residue on people were known, the hourly personnel with union backing, refused to engage in cleanup and decontamination activities. Monsanto, due to lack of knowledge on the result of exposure to the decomposed material, did not force the issue. A decontamination squad consisting of the Plant Manager, John R. Durland; Area Supervisor (Mfg. Supt.), James Roe; Department Supervisor, Merlin Wunn; and a few salaried personnel from Mr. Roe's area proceeded with cleanup activities. The entire autoclave area was scrubbed with Sodium Hypochlorite and then the entire autoclave area was sprayed with aluminum paint. At this time Monsanto had no knowledge of chloracne and in the ensuing cleanup a number of people plus some operators in the department when the eruption occurred contracted the skin condition. Several were severe cases.

After the autoclave area was cleaned up, MBT production resumed. After bench study in the laboratory, the NaTCP process was changed so that the possibility of a runaway reaction was vastly reduced or eliminated. This consisted of loading Methanol and caustic and then feed Tetrachlorobenzene at a controlled rate while controlling temperature and pressure. This process was used without incident until production ceased in 1969. In the summer of 1950, a new NaTCP production unit (B-51) was put into operation.

In November 1962, a new 2,4,5-T unit in B-34 was put into operation reducing the handling of the solids and reducing exposure through all steps of the process.

In August, 1963, the NaTCP and 2,4,5-T production were combined in one unit (B-92) with vastly decreased exposure hazards.

In August, 1969, due to process and quality problems plus decreased industrial hygiene limits, production of 2,4,5-T was discontinued.

In the late summer and early fall of 1972, the entire building and equipment were dismantled and disposed with much of it being buried in a landfill. Dismantling was performed by the Cleveland Wrecking Company.

3. MEDICAL PROBLEMS

There were no medical problems with chloracne or other complaints until after the B-41 incident. After this, there were numerous cases of the acne. Some of the workers were treated by dermatologists (Dr. Boggs, Dr. Halloran, etal).

4. VOLUNTARY WORK

After the B-41 incident, work in both the MBT and 2,4,5-T Departments were on a voluntary basis which caused severe labor problems since personnel could shut down either department if they so desired without fear of discipline. Staffing of 2,4,5-T was a problem while this presented no problem in the MBT Department. In the spring of 1954, an agreement was worked out with the union where the 2,4,5-T Department could be staffed by assigning the people with the least plant seniority to the department. In 1956 an agreement with the union was reached whereby it was necessary for a worker to notify department supervision in writing 30 days in advance when they desired to leave the department.

5. PREMIUM PAY

In 1956 a premium of $0.04/hour was awarded to the department personnel. This was eventually extended to all people involved in handling 2,4,5-T.

2,4,5-T PRODUCTION ACTIVITIES

1. Summer of 1948 - Interim production in B-32.

2. October 1948 - NaTCP production in B-41
   - 2,4,5-T production in B-34

3. March 8, 1949 - B-41 incident. Runaway reaction.

4. Summer of 1950 - NaTCP production in B-51.

5. November 1952 - New 2,4,5-T facilities in B-34.

6. August 1963 - New facilities in B-92.

7. August 1969 - 2,4,5-T production discontinued.

8. July-Sept. 1972 - Facilities dismantled by Cleveland Wrecking Company.

fr

2/1/79

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