

• READING FILE

• January-February 1974

UCC  
067727

1974  
UCC  
employee -  
angiosclerosis

UCC  
067728



February 22, 1974

Marcus M. Key, M. D.  
Director, National Institute  
of Occupational Safety & Health  
5600 Fishers Lane  
Rockville, Maryland 20852

Dear Dr. Key:

I recently advised NIOSH of the evidence of a case of angiosarcoma among employees engaged in the manufacture of PVC at our South Charleston plant. I believe I stated that the death certificate in this case listed primary cause of death as heart failure and angiosarcoma only as a contributing cause. Shortly after advising you I received information indicating that I had been misinformed regarding the death certificate and that in fact the death certificate listed the cause of death as angiosarcoma. This may not be important, but I felt I should set the record straight.

Kindest regards,

Very truly yours,

Associate Medical Director

C. U. Dernehl, M. D.  
lk

1974  
UCC  
employee -  
angiosarcoma

UCC  
067729



T. W. Carmody  
D. H. Glenn, M. D.  
R. E. Graebert  
H. R. Guest  
R. W. Holland, Jr., M. D.  
E. Q. Hull, M. D.  
A. B. Steele  
J. J. Welsh, M. D.  
R. N. Wheeler  
J. W. Whittlesey

February 14, 1974

Medical Department

Gentlemen:

I attach a few notes summarizing a meeting called by NIOSH  
to discuss the problem of carcinogenicity of vinyl chloride.

Very truly yours,

C. U. Dernehl, M. D.  
Associate Medical Director

CUD:lk  
Attachment

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2-12-74  
Denehl  
summary  
of  
VOSH  
meeting  
closed

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I attended a meeting called by NIOSH at the Sheraton-Hopkins at Cleveland on February 12, 1974. This meeting was called to acquaint all interested persons with the current status of the problem of cancer of the liver in employees engaged in the manufacture of PVC and to advise regarding NIOSH plans for attack on this problem. The morning was spent in reviewing the current knowledge of the situation and was divided into four categories. I will give the categories and comment briefly on any significant comments that were made in each. By significant I mean information not generally held by those involved in the problem.

1. Manufacturing and Industrial Hygiene

Relatively little new information was uncovered in this review and perhaps the review pointed out most clearly a rather impressive lack of knowledge of NIOSH people regarding manufacturing processes involved in PVC.

2. Medical Findings and Pathology

The significant item here was that NIOSH has confirmed that the suspect fourth case was indeed an angiosarcoma so that we now definitely have four cases of the disease in the Goodrich plant at Louisville. It was also pointed out that all four cases had a non-alcoholic cirrhosis and NIOSH is investigating at least four additional suspect cases of cirrhosis among employees in the plant.

3. Epidemiology

The major discussion here was concerned with the problems of identifying angiosarcoma among the many different diagnostic possibilities listed as cause of death on a death certificate. The epidemiologists point out that there may indeed be a significant number of cases of angiosarcoma hidden under different diagnostic terminology.

4. Toxicology

Nothing new or startling was submitted here.

2-12-74  
Darnell  
summary  
of  
NIOSH  
meeting  
Cleveland



-2-

The afternoon was devoted to discussion of the same four areas given above but with the interest now pointed toward NIOSH's ongoing program in these areas.

1. In the industrial hygiene area NIOSH expects to visit a number of manufacturing operations and to do appropriate sampling of the air for vinyl chloride monomer. They will look for sources of leaks permitting the escape of VCM and they will investigate improved technology to reduce the escape of VCM. Otherwise they will be conducting routine industrial hygiene surveys.
2. Epidemiology - NIOSH along with other government agencies will be establishing a surveillance of all deaths in the United States of liver cancer with a view to confirming the type of malignancy involved and thus establishing a factual incidence of the disease in the United States. They also intend to select a block of plants which should involve all four of the standard manufacturing processes for PVC and hopefully will not involve any copolymers. I doubt that they will be able to meet this criteria. A detailed epidemiological study of all the diseases appearing in this work force will be undertaken in an attempt to develop the spectrum of diseases seen in these workers.
3. Medical - Because it is well nigh impossible to diagnose angiosarcoma of the liver prior to surgery or autopsy, it will be necessary to rely upon the concomitant disease, cirrhosis, to identify persons for whom there should be a high index of suspicion. Since cirrhosis is by itself an exceedingly difficult disease to diagnose until it reaches an advanced stage, NIOSH will convene a panel of experts on liver disease who will develop essential protocols which should be followed by physicians examining employees working in a production of PVC.

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R. N.  
Vickie  
for  
NIOST  
advisory  
committee

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-3-

*R. N.  
Wheeler  
on  
NIOSH  
advisory  
committee*

4. Toxicology - After careful review of ongoing toxicology programs NIOSH will select any additional work which it believes should be done, will develop protocols for the studies and will probably ask for bids by outsiders for the completion of the work.

NIOSH has established an advisory committee for dealing with this problem, and Union Carbide has R. N. Wheeler on that advisory committee.

C. U. Dernehl, M. D.

lk

February 13, 1974

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February 14, 1974

Mr. C. J. Dinklocker  
Jennat Corporation  
40 Veronica Avenue  
Somerset, New Jersey 08873

Dear Mr. Dinklocker:

As per your request I am attaching Toxicology Studies sheets on triethylene glycol and tetraethylene glycol which you may transmit to your customer in answer to their request for toxicity data.

Very truly yours,

Associate Medical Director

C. U. Dernehl, M. D.  
lk  
Attachments

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Mr. A. Lee  
Linde Division  
South Plainfield, N. J.

February 13, 1974  
Medical Department

The subject of oxygen resuscitators has been reviewed by physicians in the New York Medical Department, and it is their general conclusion that either the Robertshaw or Hudson units would be acceptable.

Very truly yours,

C. U. Dernehl, M. D.  
Associate Medical Director

CUD:lk

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Mr. W. J. Ziemia  
Tarrytown Technical Center  
Saw Mill River Road  
Route 100C  
Tarrytown, NY

February 13, 1974

MEDICAL DEPARTMENT

Dr. J. J. Welsh  
Dr. K. S. Lane

Dear Mr. Ziemia:

During a visit to the Tarrytown site on February 8, 1974, the following areas and situations were inspected and reviewed.

Linde Bldg.

Copper Project--A discussion was held with Dr. Eschenbakh and others regarding problems of metal fume. It was ascertained that during runs on two different occasions symptoms of metal fume fever were exhibited by three individuals associated with the project.

Improvements in exhaust ventilation and control of fume were indicated and air sampling during extended runs was suggested so that conditions may be controlled and contaminant levels defined. Copper fume has a limit of  $0.2 \text{ mg/m}^3$  and good control is essential to prevent recurrence of the previously noted conditions with some of the personnel. Other metal contaminants present such as zinc etc. could add to the problem.

It is also recommended that prior to start up of projects of this kind that this department be contacted so that potential hazards can be minimized.

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Mr. W. J. Ziemba

-2-

February 13, 1974

Overall noise levels were determined in Room 73L where scarfing development is carried out. Results were as follows:

| <u>Condition</u>                   | <u>Overall noise dBA</u> |
|------------------------------------|--------------------------|
| No room exhaust fan on             | 72                       |
| Room exhaust fan operating         | 79                       |
| Power unit for electric welder     | 83                       |
| Standard Scarfing - Post PRE       | 99                       |
| " " - PRE-PRE-NO O <sub>2</sub>    | 106.5                    |
| " " - O <sub>2</sub> @ 10# cutting | 111                      |
| " " - O <sub>2</sub> @ 20# cutting | 113.5                    |
| " " - O <sub>2</sub> @ 30# cutting | 114.5                    |
| Spot scarfing - preheat            | 88                       |
| " " - O <sub>2</sub> start up      | 114.5                    |
| " " - O <sub>2</sub> cutting       | 107                      |

UCRI - A process using hydrogen and carbon monoxide at elevated temperatures and pressures was discussed and it was felt that with the precautions that had been outlined and the quantities of material involved that this could be done safely.

#### Silicones Bldg.

Air samples for TDI were taken in Rooms 111 and 116. In Room 111 where the frothing operation for coating sheets is carried out about 0.02 ppm TDI were found at the operator position by the hood. In the general room in the vicinity of the overflow and check station bucket slightly less than 0.01 ppm TDI was found.

While these concentrations are about or somewhat below present limits for TDI, they are higher than the proposed limit of 0.005 ppm for continuous exposure.

It is understood that a constant monitoring device will be installed in this area.

In Room 116 a mold operation was observed and sampled. Only one mold was filled and the TDI concentration was determined to be less than 0.01 ppm.

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Mr. W..J. Ziemba

-3-

February 13, 1974

Since both operations observed were only one shot type situations, it is not possible to say that levels of TDI would remain low if the operations were carried out throughout an entire shift.

If you have any further questions regarding any of these areas covered, please contact me. Thanking you again for courtesies extended, I remain.

Very truly yours,

L. J. LaFrance  
Industrial Hygienist

LJL/jr

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