



THE DOW CHEMICAL COMPANY

BENNETT BUILDING
2030 DOW CENTER
MIDLAND, MICHIGAN 48640

RECEIVED

MAR 27 1978

R. N. WHEELER, JR.

SOCIETY OF THE PLASTICS INDUSTRY
VCM/PVC HEALTH SUBCOMMITTEE

W. M. Smith, Air Products
✓ R. N. Wheeler, Union Carbide
M. N. Johnson, M.D. BFG
G. L. Binyea, Ethyl

cc: John Stafford, Ph.D. Imperial Chemical Industries, Ltd.

Gentlemen:

Dr. Stafford was kind enough to copy me with this most interesting letter of March 3, 1978. Since the data are of interest to all of you I'm taking the liberty of sending copies to each of you.

Please respect the confidentiality of Dr. Stafford's letter. By copy of this letter I'm requesting Dr. Stafford's permission to use the information in his March 3 letter.

Sincerely yours,

T. R. Torkelson
Subcommittee Chairman.

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Imperial
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Plastics
Division

M/s Rose M Kaminski
Division of Surveillance, Hazard Evaluations
and Field Studies
National Institute for Occupational Safety and Health
Robert A Taft Laboratories
4676 Columbia Parkway
Cincinnati
Ohio 45226, USA

Your ref.	Our ref	Tel ext	Date
	JS/MJE/DSO 107	3162	3 March 1978

Dear M/s Kaminski

Thank you for your letter of 1 February which I was very glad to receive. I would certainly like to co-operate with you in collating better human data than we have at present. The delay in my replying to you is not due to any lack of enthusiasm on my part - I have spent a large part of February on overseas visits and am only now catching up with the mail which awaited my return.

If I may take the points you raise in order.

1 UK Case 01

Getting complete accuracy is a problem. Case UK 01 (WJ) was an ICI employee. In 1974 there was some dubiety over the classification of this man's employment in the 1944-1946/7 period. Our Company bio-statistician, Dr G Paddle, assures me that WJ was employed in a VC monomer plant from 1944-6. His first VCM exposure occurred on 04.04.44. Our ICI records show his death as 03.12.72 but Fox and Collier in their BJIM paper in 1977 show 23.12.72. I enclose a photocopy of this paper and on page 4 I have ringed this case. Fox and Collier are correct when they say WJ was an autoclave operator 1948-1961 but WJ had the other VCM exposed jobs listed in my table both pre-1948 and post-1961. We therefore believe WJ had 22 years total exposure and was diagnosed 28 years after 1st exposure.

As you will see in Fox and Collier, the case was microscopically confirmed by a panel of histopathologists.

2 UK Case 02

By copy of this letter I am referring your query to Dr Peter Baxter. I also enclose a copy of the BMJ paper of 8 October 1977 by Dr Baxter and his colleagues and I have marked the portion on page 920 where he refers to what I identify as Case UK 02. On the map on page 921 I have marked the location of Case UK 02. I don't know how much detail is in Dr Baxter's file about this man's exposure. The company for which he worked was I think IOCO, makers of insulated tapes (and perhaps also waterproofed materials). I knew them as cloth coaters and

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and in the 1950's I was supplying them with silicone rubber pastes. IOCO seemed to have used many chemicals and polymers. The important statement on page 920 is that there was no evidence UK 02 had been working with PVC but the possibility could not be excluded.

3 Japan 02

Thank you for the information. I have asked the Japanese PVC Association to let me know whether we are now up to date.

4 Belgium 01

Month-Day-Year

Date of Birth	12-01-13
First VCM Exposure	00-07-58
Date of Diagnosis	00-05-76
Age at Dx	63
Years of exposure to Dx	18
Years of exposure	17
Date of death	29-06-76
Hist. confirmation	Yes
Exposure	High
Job	Autocleaner 14 years Polyworker 3 years

Are these details sufficient for you? If not, I will find out the name of some official in Belgium with whom you could correspond.

5 NIOSH Tables of January 1978

- (a) Canada I thought all the 10 cases had been histologically confirmed. You could check this with Dr Theriault of Laval University, Quebec.
- (b) FGR
 Re Case 04, I have a note that Dx date was 26 November 1974, post mortem.
 Re Case 06, I have failed so far to get anyone in Germany to "own" this case. I am still trying because somewhere I got the impression he had been a polyworker. Can you give me any leads so that I can pursue with the company in question. I thought this case came from Hoechst's Gendorf factory but only last week their factory physician denied this!
 Re Case 07, I have Dx as 12 November 1975, day before death.
 Re Case 08, I have failed to get anyone in Germany to "own" it but I am still trying.
 Re Case 09, the employers confirm 1st exposure February 1961, Dx and 1976, 15 years exposure to Dx and 13 years total exposure.
- (c) France There are now 10 cases in France.

	<u>Case 09</u>	<u>Case 10</u>
Date of Birth	08-10-14	24-05-19
First VCM Exposure	10-01-48	00-12-56
Date of Diagnosis	26-04-76	00-01-78
Age at Dx	62	58
Years of exposure to Dx	28	21
Years of Exposure	28	21
Date of death	16-12-77	00-01-78
Hist. confirmation	Yes	Yes
Job	Polymerisation operator	Autocleaner

I have some details to fill in the 00-00 of the days and months and these are trifling matters. Perhaps you could wait until I issue an up to date tabulation. There are also minor details like Case 02 had 16 years to Dx (not 15) and Case 05 and 11 years exposure (not 10). Case 06 had 13 years exposure (not 12) and I think this is the only recorded case of a man who had acro-osteolysis first and ASL later.

(d) Sweden Re Case 02, I wonder whether he was purely a monomer work r. At third hand, I had a report of a Kemnord manager having pulled this man unconscious from VCM exposure. I must check whether this was from a VCM or FVC building.

(e) USA I notice some changes since you last reported. Is the change in Case 03 from Dx of 1954 to 1945 a typographical error or is 1945 correct?

The mechanism for discounting cases, especially peripheral ones, such as your accountant US 15, our UK 02, German 06 and Italy 01 is not known to me and I tend merely to repeat in my tables the best opinion I can get. The cases which I count as genuine really omit US 15, UK 02, German 06 and Italy 01 which are all atypical and some very much "query". I make the present "genuine" ASL count.

USA	23
Canada	10
Germany	10
France	10
Sweden	4
Italy	2
UK	2
Japan	2
Yugoslavia	2
Czechoslovakia	2
Norway	1
Belgium	1
	69

The clustering of these cases in a relatively small number of factories is the most interesting feature of the whole story.

I hope the above rather long screed is helpful to you. Please do keep in touch with me and if you are on this side of the Atlantic, please do not hesitate to come and visit me to exchange data.

With best wishes,

Yours sincerely

J. C. ...
 ...
 ...

cc Dr T R Torkelson
 Dow
 Dr P J Baxter, EMAS
 Dr G Paddle
 Dr W G F Adams
 Dr D P Duffield
 Dr D Winter
 Mr G J Sleddon

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THE DOW CHEMICAL COMPANY

March 22, 1978

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M. N. Johnson, M.D. BFG
W. M. Smith, Air Products
✓ R. N. Wheeler, Union Carbide
G. L. Binyea, Ethyl

cc: C. D. Kary, Shell
John Lawrence, SPI

SPI VCM/PVC PRODUCERS SUBCOMMITTEE

As you recall our efforts to find a data information service capable of handling vinyl chloride were not successful last year. Since then I have kept on slow burner under the problem but have had no success.

At the request of C. D. Kary of Shell who brought the question up again at the recent MCA Vinyl Panel Meeting, our SPI subcommittee will again try to get a hold on the literature. I've already made two overtures; the first to IARC in Lyon, France, is I suspect not going to produce anything since time and distance are too great. The second, however, may prove useful.

In telephone conversation with Helga Gerschner of the Toxicology Information Response Center (TIRC) at Oak Ridge National Laboratory it was obvious that TIRC could meet part if not all of our needs. Last week Dr. Kary and I discussed the matter with Mrs. Gerschner at the Society of Toxicology Meeting. A copy of a folder from th Oak Ridge group is enclosed.

Mrs. Gerschner is going to prepare a proposal with estimated cost in the next few weeks. There are administrative as well as technical problems to be met but we'll see what can be set up.

You will be kept posted of any progress we make.

Sincerely yours,

Theodore R. Torkelson
Sub-Committee Chairman

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RECENT TIRC PUBLICATIONS*

ORNL/TIRC-76/1: Toxicology Information Response Center Literature Search Index. I. 101 to 2100. (\$7.50).

ORNL/TIRC-76/2: Trichloroethylene: I. An Impact Overview. II. An Abstracted Literature Collection, 1907-1976. (\$20.00).

ORNL/TIRC-76/3: Kepone. I. A Literature Summary. II. An Abstracted Literature Collection, 1952-1976. (\$15.00).

ORNL/TIRC-76/4: Mirex. I. An Overview. II. An Abstracted Literature Collection, 1947-1976. (\$10.00).

ORNL/TIRC-76/5: Toxicology Information Response Center Literature Search Index. II. 2101 to 2600. (\$7.50).

ORNL/TIRC-76/6: Lead Analysis: Literature Collection, 1966-1976. (\$18.00).

ORNL/TIRC-77/1: Selected Case Histories and Epidemiological Examples of Human Mercury Poisoning. I. State-of-the-Art Review. II. An Abstracted Literature Collection, 1947-1976. (\$20.00).

ORNL/TIRC-77/2: Methoxyflurane. I. An Overview. II. An Abstracted Literature Collection, 1947-1976. (\$22.50).

ORNL/TIRC-77/4: Health Aspects of Chloroform - A Review and An Abstracted Literature Collection 1907-1977. (\$28.00).

ORNL/TIRC-77/6: Toxicology Information Response Center Literature Search Index. III. 2601-3100. (\$7.50).

ORNL/TIRC-78/1: Toxicology Information Response Center Literature Search Index. IV. 3101-3500. (\$9.00).

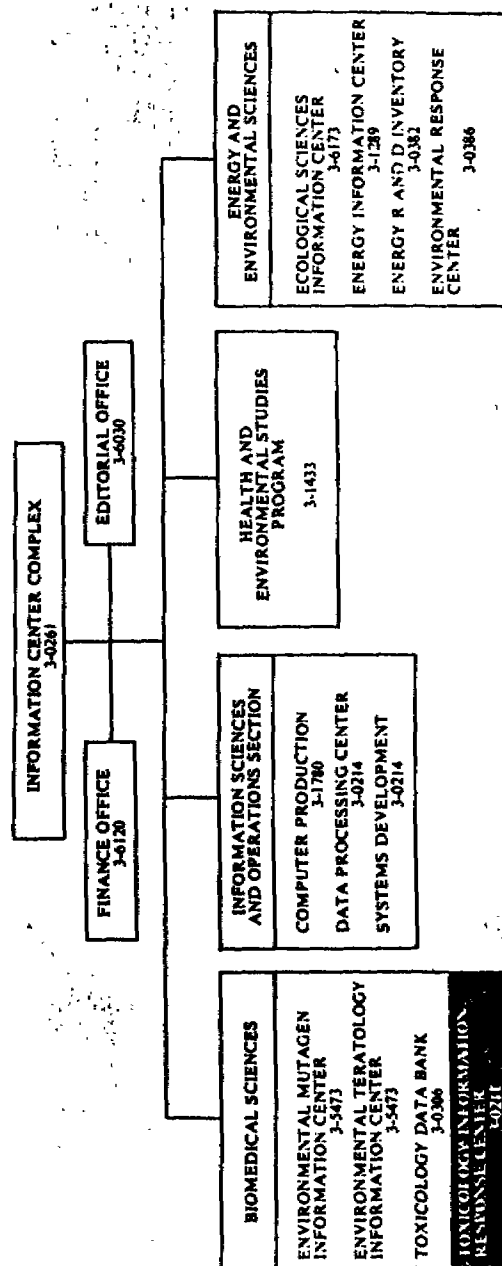
PUBLICATIONS IN PREPARATION

ORNL/TIRC-77/3: Vinyl Chloride and Vinylidene Chloride.

ORNL/TIRC-77/5: Asbestos. A Perspective.

Leptophos.

Polychlorinated Biphenyls.



Commercial telephone: 483-4611 + extension
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TOXICOLOGY INFORMATION RESPONSE CENTER



INFORMATION CENTER COMPLEX Information Division

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*Available from the National Technical Information Service, Springfield VA 22161.

TOXICOLOGY INFORMATION RESPONSE CENTER

The Toxicology Information Response Center (TIRC) was founded in 1971 to establish a national and international center for toxicology information. TIRC provides information to all individuals on a variety of chemicals such as food additives, pharmaceuticals, industrial chemicals, environmental pollutants, heavy metals, and pesticides; and other topics of toxicologic concern.

ORGANIZATION

TIRC is sponsored by the National Library of Medicine's Toxicology Information Program. Located at the Oak Ridge National Laboratory, TIRC is part of the Information Center Complex, a major scientific and technical unit within the Information Division. This Complex coordinates the functions and activities of several information units at the Laboratory. These associations provide a unique opportunity for scientific and technical interactions.

INFORMATION SERVICES

As an information analysis center, TIRC acquires, selects, stores, retrieves, evaluates, analyzes, and synthesizes comprehensive literature packages according to a user's specific request or a current need. TIRC provides extensive toxicology information assistance and reference services to the scientific, administrative, and public communities—health science students, educators, practitioners, scientists, and administrators. Interested persons may request:

- Specific published toxicology data
- Individualized literature searches
- Topical bibliographies
- Annotated and/or keyworded bibliographies
- State-of-the-art overviews
- Custom searches of computerized data bases
- SDI Service
- Access to over 650 bibliographic collections generated annually
- In-Center use of the toxicology reference library
- Selected reports available from the National Technical Information Service.

INFORMATION RESOURCES AND BIBLIOGRAPHIC RETRIEVAL SERVICES

TIRC utilizes a variety of information sources. On-line access is available to several computerized data systems: MEDLINE and TOXLINE, RECON, and the diversified files of commercially available data systems such as DIALOG (Lockheed), ORBIT (Systems Development Corporation), and BRS (Bibliographic Retrieval Services, Inc.). The ORNL data files are searchable in batch mode and also provide SDI service.

Hard copy secondary sources used by TIRC include *Biological Abstracts*, *BioResearch Index*, *Chemical Abstracts*, *Current Contents*, *Excerpta Medica*, *Index Medicus*, *ATOMINDEX*, *Science Citation Index*, *ERDA Energy Research Abstracts*, *Nutrition Abstracts and Reviews*, *Air Pollution Abstracts*, and others. In addition, the ORNL library system provides an abundance of valuable resources with more than 200,000 bound volumes and 600,000 reports. Of the 3,500 subscription journals, about 1,200 are biologically or environmentally oriented.

As part of the Information Center Complex, TIRC maintains ready access to consultation and information exchange with other distinct, discipline-oriented entities which specialize in:

- Preparing evaluative multimedia monographs, state-of-the-art reviews and overviews
- Building an interactive computerized Toxicology Data Bank
- Constructing and maintaining computerized reference and data files on mutagens and teratogens
- Compiling environmentally oriented data files
- Collecting and distributing published energy information as well as ongoing research and development data.

SEARCH REQUEST INFORMATION

Literature searches are initiated after receiving from the requester certain background information:

- Definition of the search request in detail
- Subject, scope, limitations, time and literature coverage, languages, suggested completion date
- Agreement on the cost estimate of the completed search.

COST

Searches are accomplished for requesters under a direct, full-cost recovery system. The rate is \$30/hour with a minimum charge of \$35 for domestic search requests. Charges for search requests from foreign countries are \$35/hour with a \$40 minimum charge. Computer-associated charges, reproduction costs, as well as use fees for copyrighted materials, are assessed in addition to the hourly rate.

Following agreement between TIRC and the requester, a thorough literature search is conducted utilizing on-line computerized data bases and traditional library sources. Scope, time coverage, and search parameters determine the overall search cost.

Payment is collected by the National Technical Information Service in Springfield, Virginia 22161, either by direct billing or through deposit accounts.

Work for government agencies can be accomplished through interagency agreements.

SEARCH COMPLETION TIME

Response times vary from an immediate telephone answer to eight to twelve days for computerized data base searching to three to four weeks for detailed literature searches.

PERSONNEL

TIRC's professional staff members possess multidisciplinary scientific backgrounds covering chemistry, biology and medicine, pharmacology and toxicology, microbiology, bacterial physiology, information sciences, and administration. The staff specializes in bibliographic literature compilations, state-of-the-art overviews, and consultations. Scientific interaction occurs with personnel from the other information centers within the Information Center Complex as well as with the multidisciplinary Laboratory research staff.

CONTACT THE CENTER

Telephone inquiries can be made by direct dialing (615)483-8611, extension 3-0211. For those who have access to the Federal Telecommunications System (FTS), the number is 850-0211. Written requests for information or searches should be mailed to:

Toxicology Information Response Center
Post Office Box X, Building 7509
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