



UNION CARBIDE CORPORATION
CHEMICALS AND PLASTICS

P.O. BOX 8004, SOUTH CHARLESTON, W. VA. 25303

SOUTH CHARLESTON PLANT

April 26, 1976

Mr. Carl G. Beard, II, Director
West Virginia Air Pollution Control Commission
1558 Washington Street, East
Charleston, West Virginia 25311

Ref: Letter, Carl G. Beard, II
to Arthur R. Ryrholm,
April 12, 1976

Dear Mr. Beard:

Subject: Vinyl Chloride Emissions From The
South Charleston Plant

The information which you requested is attached.

Very truly yours,

A. R. Ryrholm
Plant Manager

ARR/pl

Attachment

UCC 104028

"(a) Vinyl Chloride emissions for th years 1967 through 1975
(these are to be th hourly values for a r latively
trouble free operation);"

See the attached table. Please note that the information is
given in the form of annualized average emission rates. This
is not precisely in the form requested, but we believe it to
be suitable for the purposes of the Center of Disease Control
study.

UCC 104029

ATMOSPHERIC VCM EMISSIONS

ANNUAL AVERAGE

UNION CARBIDE CORPORATION - SOUTH CHARLESTON PLANT

<u>YEAR</u>	<u>EMISSIONS, LBS./HOUR</u>
1967	240
1968	260
1969	250
1970	260
1971	270
1972	235
1973	265
1974	180
1975	76
1976	65*

*Emissions by the end of 1976 will have been reduced to approximately 3 pounds per hour.

UCC 104030

"(b) The dates, times and quantities of unusual emissions of vinyl chloride within the 1967 - 1975 time period;"

This information follows.

UCC 104031

ABNORMAL EMISSIONS
(Estimates)

	<u>Number of Abnormal Emissions</u>
1970	28
1971	18
1972	12
1973	5
1974	2
1975	0

These emissions ranged from 1000 to 8000 pounds. The average has been estimated as 2000 pounds; the larger releases have been very infrequent.

No estimates are available for the years 1967 - 1968 - 1969.

UCC 104032

An emission of 7000 + lbs. of vinyl chloride occurred on October 1, 1974, at about 2:15 a.m. This is the largest emission of which we have knowledge of during the 1967 - 1975 period.

Ten samples were taken to determine the effect and persistency of vinyl chloride in the community as a result of this release.

<u>Time</u>	<u>Sample Station</u>	<u>Type Sample</u>	<u>VCM Conc. ppmv</u>
7:36 a.m.	No. Chas. Fire Station	Grab	<0.05
7:36 a.m. - 11:55 a.m.	No. Chas. Fire Station	Carbon tube	<0.05
7:50 a.m.	No. 8*	Grab	0.2
7:50 a.m. - 11:55 a.m.	No. 8*	Carbon Tube	<0.05
8:11 a.m.	No. 9*	Grab	0.1
8:11 a.m. - 12 Noon	No. 9*	Carbon Tube	<0.05
8:25 a.m.	No. 10*	Grab	<0.05
8:25 a.m. - 12:15 p.m.	No. 10*	Carbon Tube	NA
8:45 a.m.	No. 3*	Grab	<0.05
8:45 a.m. 12:15 p.m.	No. 3*	Carbon Tube	<0.05

Weather conditions at the time of the incident:

Temperature	40 F°
Humidity	85%
Wind - Calm	Out of the SW
Other	Fog Condition

The emission occurred at a facility on Blaine Island, where all vinyl chloride consuming units are located. Virtually all abnormal vinyl chloride emissions have occurred at facilities located on Blaine Island.

*Consult the attached map.

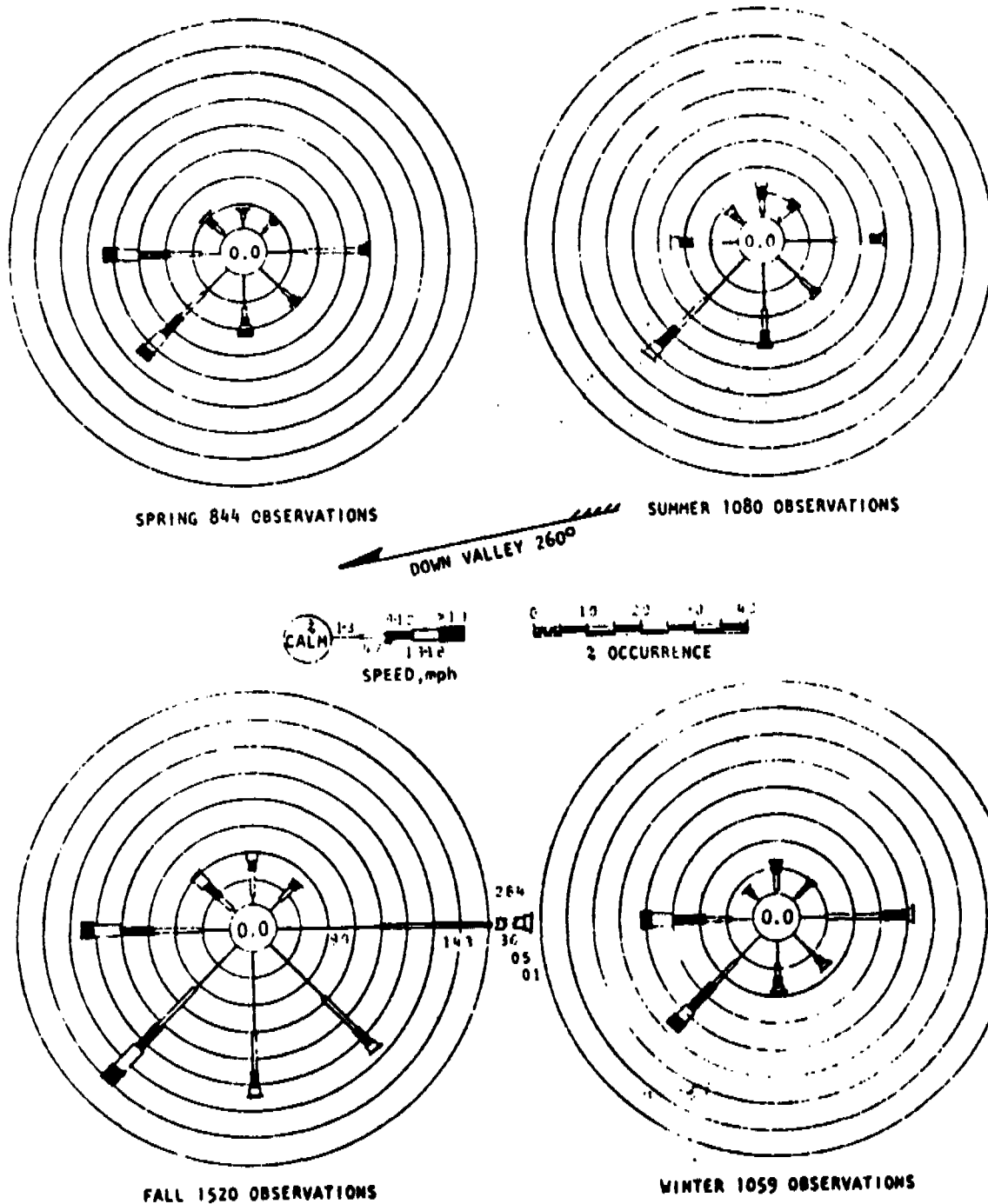
UCC 104033

"(c) Any meteorological data that your plant has that was taken by your personnel during the same time at your facility in South Charleston. It would be particularly helpful if this particular information had already been reduced to wind roses."

The following section is a summary of the requested data.

UCC 104034

Data Base: April 21, 1965 through
March 31, 1966



UNION CARBIDE CORPORATION, SOUTH CHARLESTON PLANT

Data from an aerovane located on our office building in South Charleston (inoperable since 1973) are used in the Figure B-12 wind roses. Calm winds have been distributed among the 1 - 3 mile per hour groups of the 8 point wind record.

UCC 104035