

ILLINOIS POLLUTION CONTROL BOARD  
May 19, 1988

THE DOW CHEMICAL COMPANY,            )  
  )  
                                  Petitioner,            )  
  )  
                                  v.                            )  
  )  
ILLINOIS ENVIRONMENTAL                )  
  PROTECTION AGENCY,                 )  
  )  
                                  Respondent.            )

PCB 88-86

OPINION AND ORDER OF THE BOARD (by J.D. Dumelle):

This provisional variance request comes before the Board upon a May 16, 1988, Recommendation filed by the Illinois Environmental Protection Agency (Agency). The Agency recommends that because of an unreasonable hardship, the Petitioner, Dow Chemical Company, be granted a provisional variance from the requirements of 35 Ill. Adm. Code 215.438, as it relates to the first quarter leak testing, inspection and repair requirements of Section 215.430, 215.432(b)(c)(f)(h) and (i), 215.433, 215.434 and 215.435 for a period of 35 days from and including March 31, 1988 to and including May 4, 1988.

Dow operates a polystyrene plant in Will County, Illinois and employs approximately 140 people. The facility is located at the junction of I-55 and Arsenal Road in Channahon, Illinois. The closest residences are located about two miles northwest of the facility in Channahon, Illinois. Dow manufactures high-impact polystyrene pellets, expanded polystyrene (styrofoam) insulation board, and vinyl ester resins. Approximately 235,000 pounds of raw material is used each year; of that material, 95% is styrene and ethyl benzene, and the remainder is mineral oil, rubber, and anti-oxidants. The specific activity for which a variance is requested is the process by which polystyrene is produced.

A number of similar volatile organic material emission sources are also located in the area surrounding the facility. Based on the State's Geographic Designation of Attainment Status of Criteria Pollutants dated February, 1985, Will County is an attainment area for ozone. The nearest ambient air quality monitoring station was previously located in Braidwood, Illinois. For the 1985 ozone season, the two highest readings at this station were as follows: highest reading, 0.117 ppm; second highest reading, 0.107 ppm. Currently, the closest ozone monitor is in Lockport, Illinois. For 1985, the two highest readings

were as follows: highest reading 0.109 ppm; second highest reading, 0.093 ppm.

The Agency states that Agency personnel have conducted routine inspections of the facility. The only current permit in force is Permit Number 76020210. It covers Dow's polystyrene manufacturing process and will expire on January 20, 1990. One previous variance has been filed by Dow (PCB 88-2). No enforcement actions have been filed by the Agency against the company.

The Agency further states that the only estimate of emission was provided by Dow in connection with its previous variance petition (PCB 88-2). Dow estimates that the organic emissions from sample ports at the plant are less than 0.5 tons per year. This figure is based on 8 ounces of purge per sample, one minute exposure to atmosphere per sample, and the following sample taking schedule:

Sample ID Description	Sampling Frequency	Sample Size	Disposal Method
10715 TV-I55 Styrene Storage Tank Sampling Valve (2)	1/Week	2 Oz.	Recycle for Energy Recovery In Furnace
10809 TV-114 Styrene Storage Tank Sampling Valve (2)	1/Week	2 Oz.	Recycle for Energy Recovery In Furnace
12000 Recycle "In" Sampling Valve (2)	6/Day	1 Oz.	Recycled for Energy Recovery In ##?Furance
13000 1st Stage Partial Polymer	6/Day	2 Oz.	Incinerated In Dow Facility
13525 2nd Stage Partial Polymer	2/Day	2 Oz.	Incinerated In Dow Facility
15600 Recycle "Out" Sampling Valve (2)	6/Day	1 Oz.	Incinerated In Dow Facility

After reviewing the application the Agency recommends that the provisional variance be granted. The Agency states that its review indicated the following:

1. The short time frame of the variance, the fact that Dow is in an attainment area for ozone, the fact that there have been few complaints from the public regarding plant odors, and Dow's continuing efforts to comply with the regulations, minimize any injury that the grant of the variance would impose on the public.

2. Since Dow is located in an area that has attainment status and since the period of this variance is for only 35 days, the Agency believes that any SIP revision regarding this variance would be approved by USEPA.
3. Compliance on a short term basis would impose an unreasonable hardship on Dow.

Pursuant to Section 35(b) of the Illinois Environmental Protection act, the Board hereby grants the provisional variance as recommended.

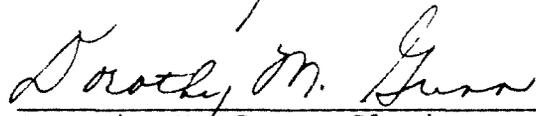
This Opinion constitutes the Board's findings of fact and conclusions of law in this matter.

ORDER

Dow Chemical Company, Petitioner, is hereby granted a provisional variance from the requirements of 35 Ill. Adm. Code 215.438, as it relates to the first quarter leak testing, inspection and repair requirements of Sections 215.430, 215.432(b)(c)(f)(h) and (i), 215.433, 215.434, 215.435, for a period of thirty-five (35) days from March 31, 1988 through May 4, 1988.

IT IS SO ORDERED.

I, Dorothy M. Gunn, Clerk of the Illinois Pollution Control Board, hereby certify that the above Opinion and Order was adopted on the 19<sup>th</sup> day of May, 1988 by a vote of 7-0.

  
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Dorothy M. Gunn, Clerk  
Illinois Pollution Control Board