

ILLINOIS POLLUTION CONTROL BOARD  
May 22, 1975

SHELL OIL COMPANY, )  
 )  
 ) Petitioner, )  
 )  
 ) v. ) PCB 75-90  
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 ) ENVIRONMENTAL PROTECTION AGENCY, )  
 )  
 ) Respondent. )

DISSENTING OPINION (by Mr. Dumelle):

There are two unanswered questions which bear upon this proceeding. First, what is the "airshed" affected by the particulate from Shell (in the legal sense) and second, what is that airshed in the physical sense if no clear legal guidance appears?

The Metro East area of Illinois, of which Roxana (and Shell) is a part, is in the Metropolitan St. Louis Interstate Air Quality Control Region which includes Madison, St. Clair, Bond, Clinton, Monroe, Randolph and Washington counties in Illinois. It also includes St. Louis City, and St. Charles, St. Louis, Franklin, and Jefferson counties; all in Missouri.

Are these areas the "legal airshed" to which we apply the standards of Train v. NRDC, et al (43 USLW 4467)? If the particulate standards are violated anywhere in this region, as for example, in Granite City, are we then constrained from granting a variance?

There is no dispute that the primary (health-related) ambient air quality standards for particulate are violated at Granite City. In 1974, the most recent report of the Illinois Environmental Protection Agency as submitted into the record by the Petitioner on May 20, 1975 showed the 1974 preliminary data for Granite City as follows:

Granite City (6 stations) All above primary  
standard (100,93,86,158,etc.)

The national primary standard for particulates is 75 ug/m<sup>3</sup> as an annual geometric mean. Thus, Granite City (for the four stations for which data are given) is respectively; 33%, 24%, 15% and 111% over the standard. How much the other two stations are over the standard is not known in this record. Thus we have four clear violations of a health-related ambient air quality standard. In addition, East St. Louis, with 89 ug/m<sup>3</sup>, and Cahokia Mounds Park, with 111 ug/m<sup>3</sup>, are respectively 19% and 48% over the standard.

Granite City has a population of 40,440; East St. Louis has 69,996; and Cahokia has 20,649. Thus 131,085 persons that we know of from this record are subjected to unhealthy air in the Illinois portion of this Air Quality Control Region (AQCR). Whether there are any other particulate violations in the remainder of the Illinois portion is not known. Nor is it known whether any violations exist on the Missouri side. The record is silent in presenting air quality data for the entire AQCR.

A careful reading of Train v. NRDC fails to show any mention of the need, if any, to meet ambient air quality standards in an entire AQCR. Again, we just do not know. A presumption can be made that the AQCRs exist for some purpose and that these are the "legal airsheds" within which air standards are to be met. But we have no guidance here and simply must wait for further developments, either via court decisions or from Congressional action.

We then must look to the "physical" or "meteorological airshed". If the air coming from Roxana and flowing southerly into Granite City, et al, via various trajectories, is 72 ug/m<sup>3</sup> (as measured at Wood River) or 69 at Alton or 66 at Collinsville, then very little margin exists for the industries and other sources in and near to Granite City, East St. Louis and Cahokia to discharge particulate without violating the 75 ug/m<sup>3</sup> national standard. A community of heavy industry, such as Granite City, must have relatively clean air coming to it if its own discharges are not to overwhelm health-related standards.

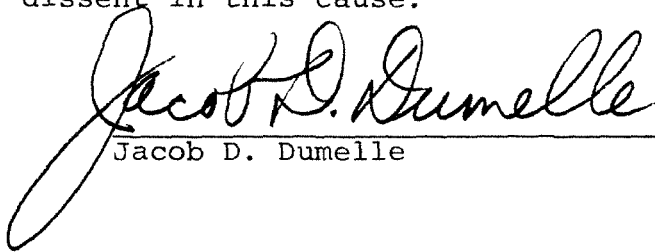
This record gives no inkling as to whether Granite City, East St. Louis and Cahokia are in the same meteorological airshed as Roxana and Shell. Knowing the frequent inversion conditions of the American Bottoms and the channeling effects of the bluffs it would be my opinion that they each contribute to each other's pollution problems. Here again the record is silent on this important point.

The Board has granted air variances until July 31, 1975 feeling that this is permissible under Train. I would

have granted such a short variance to Shell in light of their good faith efforts. They would then have had enough time to present meteorological experts to discuss physical airshed aspects. They could also present legal argument of the applicability of the AQCR boundaries to their situation. In a variance case, the burden is upon the petitioner.

The Metropolitan St. Louis Interstate Air Quality Control Region is probably the most thoroughly studied such region in the United States. The 8-volume U.S. Public Health Service "Interstate Air Pollution Study" by J.D. Williams, G. Ozolins, J.W. Sadler, and J.R. Farmer, was issued in May, 1967 and might possibly provide answers to the "physical airshed" question raised earlier. Unfortunately, this study was not entered into the record of this case. And the "Metromex" and "RAPS" studies now in progress in this same area may have additional findings to supplement the 1967 study.

I respectfully dissent in this cause.

  
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Jacob D. Dumelle

I, Christan L. Moffett, Clerk of the Illinois Pollution Control Board, hereby certify the above Dissenting Opinion was submitted on the 16<sup>th</sup> day of June, 1975.

  
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Christan L. Moffett, Clerk  
Illinois Pollution Control Board