ILLINOIS POLLUTION CONTROL BOARD
September 11, 1986

FRITZ ENTERPRISES, INC.,	)	
	)	
Petitioner,	)	
	)	
v.	)	PCB 86-76
	)	
ILLINOIS ENVIRONMENTAL PROTECTION AGENCY,	)	
	)	
	)	
Respondent.	)	

DISSENTING OPINION (by B. Forcade):

I respectfully dissent from the majority's action reversing the Agency's denial of an air operating permit for Fritz Enterprises, Inc. ("Fritz"). The primary reason the Agency denied the permit was an observed exceedance of the opacity limitations of 35 Ill. Admn. Code 212.123, on May 6, 1986. Thus, the two primary questions are: 1) was the May 6 observation accurate and reliable, 2) is an observed opacity exceedance adequate justification for permit denial without a contemporaneous opportunity for demonstrating compliance with the mass emission limitations. The majority answers no to both questions, although a portion of that holding is by way of dicta.

On May 6, 1986, an Agency employee observed the Fritz plume in question. The record demonstrates that the employee was competent and qualified to make plume observations, and had made many such observations in the past. The Agency employee testified that he made the observation in accordance with the relevant reference method, Method 9, and that the observation showed an exceedance of the limitations of Section 212.123. Opposing testimony was presented by a witness for Fritz. The record discloses that this witness was competent and qualified to make plume observations, and had made many such observations in the past. I find no basis to conclude that one witness was more qualified or more experienced than the other. However, the Fritz witness was evaluating an observation he made on July 18, 1986, after permit denial. The Agency witness was evaluating an observation he made on May 6, 1986.

The Agency witness was asked whether it was ever possible to obtain a valid, i.e., Method 9, opacity reading of the Fritz plume. He replied that it was, based on personal observation and under the weather conditions at the time of his observation (R. 231). The Fritz witness was repeatedly asked the same question, was it ever possible to obtain a valid opacity reading of the plume. His most descriptive answer was, "...if the conditions were at all similar to the day I was there, it would be highly

improbable for a certified smoke reader ever to get valid visible emission readings." (R. 179). He also stated:

> It would be very difficult at best to ever read this plume, though I suppose it's within the realm of possibility that it could be read if there weren't, for instance, if there wasn't visible water vapor in the plume or if the observer could discriminate for instance, if the emissions were black and detached visible water vapor plume (R. 149)

Therein lies the controversy. One qualified observer says "I saw an exceedance on May 6". Another qualified observer says, "if conditions on July 18, were similar to May 6, it would be improbable to get accurate readings." I would not find that an absolute "Yes, I saw it." is adequately refuted by a conditional statement of improbability.

To further discount the validity of the Agency observation, the majority cites certain irregularities in following Method 9. To understand these issues it is necessary to read Method 9 (40 CFR Part 60, App. A, Meth. 9, 1985) which sets out the following for procedures for visual observation:

> 2. Procedures.
>
> The observer qualified in accordance with paragraph 3 of this method shall use the following procedures for visually determining the opacity of emissions:
>
> 2.1 Position. The qualified observer shall stand at a distance sufficient to provide a clear view of the emissions with the sun oriented in the 140 sector to his back. Consistent with maintaining the above requirement, the observer shall, as much as possible, make his observations from a position such that his line of vision is approximately perpendicular to the plume direction, and when observing opacity of emissions from rectangular outlets (e.g., roof monitors, open baghouses, noncircular stack), approximately perpendicular to the longer axis of the outlet. The observer's line of sight should not include more than one plume at a time when multiple stacks are involved, and in any case the observer should make his

observations with his line of sight perpendicular to the longer axis of such a set of multiple stacks (e.g., stub stacks on baghouses).

2.2 Field records. The observer shall record the name of the plant, emission location, type facility, observer's name and affiliation, and the date on a field data sheet (Figure 9-1). The time, estimated distance to the emission location, approximate wind direction, estimated wind speed, description of the sky condition (presence and color of clouds), and plume background are recorded on a field data sheet at the time opacity readings are initiated and completed.

2.3 Observations. Opacity observations shall be made at the point of greatest opacity in that portion of the plume where condensed water vapor is not present. The observer shall not look continuously at the plume, but instead shall observe the plume momentarily at 15-second intervals.

2.3.1 Attached steam plumes. When condensed water vapor is present within the plume as it emerges from the emission outlet, opacity observations shall be made beyond the point in the plume at which condensed water vapor is no longer visible. The observer shall record the approximate distance from the emission outlet to the point in the plume at which the observations are made.

2.3.2 Detached steam plume. When water vapor in the plume condenses and becomes visible at a distinct distance from the emission outlet, the opacity of emissions should be evaluated at the emission outlet prior to the condensation of water vapor and the formation of the steam plume.

2.4 Recording observations. Opacity observations shall be recorded to the nearest 5 percent at 15-second intervals on an observational record sheet. (See Figure 9-2 for an example.) A minimum of 24 observations shall be recorded. Each momentary observation recorded shall be deemed to represent the average opacity of emissions for a 15-second period.

> 2.5 Data Reduction. Opacity shall be determined as an average of 24 consecutive observations recorded at 15-second intervals. Divide the observations recorded on the record sheet into sets of 24 consecutive observations. A set is composed of any 24 consecutive observations. Sets need not be consecutive in time and in no case shall two sets overlap. For each set of 24 observations, calculate the average by summing the opacity of the 24 observations and dividing this sum by 24. If an applicable standard specified an averaging time requiring more than 24 observations, calculate the average for all observations made during the specified time period. Record the average opacity on a record sheet. (See Figure 9-1 for an example.)

The majority first asserts that by using the attached plume method of reading there is an assumption of visible water vapor. In fact, Sections 2.3, 2.3.1, and 2.3.2 are the only guidance on observations and all three mention condensed water vapor. To be in compliance with the regulatory guidance you must use those sections.

The majority claims that the Agency did not calculate the dew point on the day of the stack test or on the day of the inspection (and opacity observation). Method 9 makes no reference to recording dew points as a necessary condition for a valid opacity reading.

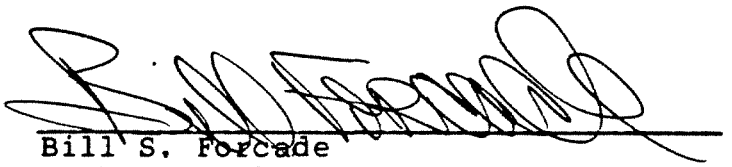
Additionally, the majority claims that the record "indicates" that the Agency did not follow the required methodology as regards data reduction. The data reduction concept is a method of adding up and averaging a series of observations to see if the resulting number violates the average limitation. Since the majority did not expand on this "indication", I cannot determine the nature of the problem. However, data reduction only becomes operable to determine if a series of observations result in an opacity of greater than 30% for more than 8 minutes in any 60 minute period. The same section that establishes this concept (Section 212.123 (b)) also sets an absolute maximum opacity of 60% which is never to be exceeded. The Agency witness testified that several observations exceeded 60% opacity (R. 229). No data reduction technique is employed when evaluating compliance with the absolute 60% limitation. This point seems lost on the majority.

The majority finds the testimony of the Agency witness regarding the opacity observations to be inconsistent and contradictory, I do not. The contradictions that occur are

between what the witness stated and the checkmark options on a preprinted Agency form. Any disparity that exists reflects consistent statements by the witness as to what occurred but a failure of the form to have adequate options to cover every nuance. After reading the testimony of the Agency witness, my impressions of his observations are clear. I then attempted to complete the Federally approved "Record of Visual Determination of Opacity "(40 CFR Part 60, App. A, Meth. 9, Figure 9-1 & 9-2, pp. 551-553 (1985)). I could not provide a complete unambiguous description within the confines of the form, and without such a form the observation would not be in compliance with Method 9. I believe the Agency witness' statements were an appropriate effort to explain what he had seen and were not inconsistent with the rudimentary data contained on the form. While the majority sees great inconsistency from the Agency witness, they see none from the Fritz witness. I find some inconsistency in a witness who claims accurate observations of the Fritz stack would be highly improbable, and then writes notes on how to properly read the Fritz stack (Respondent's Ex. 1). The majority conveniently avoids this problem by excluding the evidence from the record.

In summary, I find the opacity issue distills into a seeming conflict in testimony of two people relating to what was seen or could have been seen on May 6. I would find in favor of the person who actually made that observation. I would find an opacity violation did occur on May 6.

I believe the majority had to expend substantial effort to reach the conclusion it wanted in this proceeding. That effort reflects substantial discomfort with two aspects of the case. First, the majority has substantial discomfort with the opacity regulations because it places such high reliance on the veracity of the observer. Second, the majority does not appear willing to endorse permit denial based on regulatory violations. The majority would prefer that permits be issued where compliance is technically possible and that any violations of the regulatory framework be handled through the enforcement process. Neither of these concepts are inherently bad policy. However, their legality and wisdom should be subject to debate in a regulatory proceeding rather than implementing them on a case by case basis by factual manipulation. Accordingly, I dissent.



Bill S. Forcade
Member of the Board

I, Dorothy M. Gunn, Clerk of the Illinois Pollution Control Board, hereby certify that the above Dissenting Opinion was submitted on the 7th day of October, 1986.

Dorothy M. Gunn

Dorothy M. Gunn, Clerk
Illinois Pollution Control Board