



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Office of Air Quality Planning and Standards
Research Triangle Park, North Carolina 27711

Bob

May 29, 1990

MEMORANDUM

SUBJECT: Review of Peabody Holding Company's Position Regarding
the Adequacy of EPA's Required Modeling Methodologies
Applicable to Western Surface Coal Mining Operations

FROM: Joseph A. Tikvart, Chief *Saint Louis J for TAT*
Source Receptor Analysis Branch, TSD (MD-14)

TO: Robert D. Bauman, Chief
Sulfur Dioxide/Particulate Matter Program Branch, AQMD (MD-15)

In response to the request from Region VIII, the Model Clearinghouse has reviewed the Peabody position with regard to modeling procedures applicable to western surface coal mines. We agree with John Notar's March 8, 1990 review comments on the Company's position. While some rebuttals could certainly be made on additional fine points contained in the Company's October 1989 paper, we believe that John's review adequately sets forth EPA's viewpoints on the applicability of existing models to these surface coal mines.

One point made by John, but worth emphasizing, relates to the Company's questioning whether any model can be applicable to the situation (page 3 of their October 1989 position paper). Here the Company, in essence, maintains that because of the dynamic and elusive nature of the emissions, it is uncertain whether the true concentration can be accurately estimated with any model. While there may be some truth in that position if one were trying to reproduce measured concentrations in real time, John's point is that what is really required are estimates associated with allowable emissions and a worst case emission configuration. Given that these emissions can be defined (and it seems to us that they must be since they would logically need to be part of any permit condition), one is only concerned about the accuracy of the model. We believe that historical studies have substantiated that ISC, given reasonably accurate input data, does a satisfactory job of reproducing the observed design concentration.

Related to the Company's doubt about the applicability of any model, it should be pointed out to them that for permitting purposes, the Clean Air Act requires that we determine whether a proposed mining operation will cause or

contribute to a NAAQS violation. Since this analysis is associated with a future emission configuration and allowable emission rate, modeling remains the only tool available to make this assessment.

If you have any questions please contact Dean Wilson (x5683) or me.

cc: J. Dicke
R. Dunkins
W. Laxton
M. Smith
D. Wilson

bcc: Regional Modeling Contact, Regions I-X (with copy of incoming memorandum and list of FY-90 Clearinghouse memoranda)