



NEW SOURCE REVIEW

PREVENTION OF SIGNIFICANT DETERIORATION AND NONATTAINMENT AREA GUIDANCE NOTEBOOK

Volume I

Prepared by:

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON D C 20460

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OFFICE OF
AIR, NOISE, AND RADIATION

SUBJECT: PSD Evaluation of Secondary Emissions for Houston Lighting
and Power

FROM: Edward F. Tuerk, Acting Assistant Administrator
for Air, Noise and Radiation (ANR-443)

TO: Allyn M. Davis, Director
Air and Hazardous Materials Division (6AAH)

This is to convey the final response to your memo of March 13, 1981 to Darryl Tyler, Acting Director of Control Programs Development Division (CPDD), in which you asked for assistance in the PSD review of a mine-mouth power plant application from Houston Lighting and Power (HL&P). In particular, you were interested in how the emissions of the nearby mine under different ownership must be taken into account by HL&P, recognizing that such emissions can often have significant ambient impacts. This memo also serves to document CPDD's involvement to date in developing this response.

As you know, issues associated with the HL&P application are closely related to those raised by the American Mining Congress (AMC) in their petition for review of the PSD regulations to the U.S. Court of Appeals for the District of Columbia Circuit. For example, in their petition, AMC has asked that an exemption be reinstated which again would allow sources to ignore the ambient impacts of certain fugitive particulate matter emissions. Because of this linkage, we agreed to explore how the HL&P and AMC issues might jointly be resolved while Region VI continued to work with HL&P to develop an otherwise complete application.

We further agreed that the joint AMC/HL&P resolution would no longer be pursued if it would begin to jeopardize unduly the company's plans for construction. HL&P had informed us that it must commence construction by October 1, 1981. On May 1, 1981 Jack Divita of your staff informed us that the company's PSD application was nearly complete except for an analysis that might be required for secondary emissions. Since a joint resolution of the AMC/HL&P issues was not yet possible, we agreed to explore other independent ways to resolve the secondary emissions issue arising from HL&P's PSD application.

The Clean Air Act requires that PSD review include a detailed and extensive air quality impact assessment of the effects of a proposed source. This includes evaluation of the source's secondary emissions. See §165(a)(3), (6) and 40 CFR 52.21(k). Secondary emissions are defined by the regulations as those which would result from the construction or operation of a major

stationary source or major modification but do not come from that source or modification. 40 CFR 52.21(b)(18). This definition sets out four tests to be used in determining whether such emissions are to be included in air quality impact assessments for PSD purposes: the emissions must be specific, well defined, quantifiable, and impact the same general area. The mine's emissions appear to meet the first three tests, but for reasons discussed below, they fail to meet the fourth test.

The term "impact the same general area" embodied in the fourth test to determine reviewability of secondary emissions is not precisely defined. However, the scope of any required analysis has to be limited to those areas where both secondary and primary emissions are known to commonly impact. Based on recent conversations with OGC, we have determined that the most useful quantification of this concept for use in Class II and III areas is that of the area of significant impact, as set forth in the Emission Offset Interpretative Ruling (40 CFR Part 51, Appendix S, III.A.) and the preamble to the 1978 PSD regulations (43 FR 26398, June 19, 1978). Pursuant to this approach, the significant impact area for total suspended particulate matter (TSP) or SO₂ would be all those areas in which the source's emissions would produce an ambient impact equal to or exceeding a concentration of 1 ug/m³ on an annual basis or 5 ug/m³ on a 24-hour basis.

Modeling analysis reveals that HL&P will not cause a significant ambient concentration of TSP at any location. Therefore, my recommendation is that Region VI not consider the emissions from the mine as secondary emissions in evaluating HL&P's impact on ambient TSP increments and standards. I believe that the mine's emissions do not meet the definitional test for secondary emissions since they do not impact any area of significant impact which would be created by the direct emissions of HL&P. Thus, HL&P's application can be processed without regard to any air quality impacts from the nearby mine.

I trust that this response will be useful to you in your efforts to process HL&P's PSD application. Let me know if we can be of further assistance.

cc: R. Campbell
E. Reich
D. Menotti
L. Wegman
D. Tyler