



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 5  
AIR AND RADIATION DIVISION  
77 WEST JACKSON BOULEVARD  
CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF:  
(AR-18J)

October 29, 1996

William Spires  
Division of Air Pollution Control  
Ohio Environmental Protection Agency  
P.O. Box 1049  
Columbus, OH 43216-1049

Dear Mr. Spires:

Thank you for your inquiry on the policy and practice of the USEPA concerning combining flows when modeling slightly separated stacks. As you requested, this letter provides information on this issue, in accordance with our discussions of this issue.

The judgement as to whether to combine flows in any particular case must reflect consideration of a number of complicating factors, and so does not readily translate into simple criteria for when combining flows will be appropriate. This judgement must be based on consideration of 1) stack locations, 2) stack heights, 3) stack diameters, and 4) stack emission parameters (e.g., temperature, momentum or volume flow, emission rates, etc.). The stack parameter information considered would include not just maximum load conditions but also information on likely operation of the sources being vented through the relevant stacks, to indicate whether the temperatures and flow rates in the relevant stacks will increase and decrease in tandem.

Attachment 1 contains two examples of how USEPA responded to issues associated with the merging of stack plumes. In the first example, USEPA would not accept a proposal for plume enhancement without verification from a field study. In the second example, a group of closely spaced stacks was allowed to be considered a single continuous source provided certain conditions were met (i.e., the stacks would always operate with the same flow rates and temperatures). Please see Attachment 1 for more details on these examples.

Please feel free to contact me at (312) 353-5954 if you have further questions on this or any other matter.

Sincerely,

/s/ (John Summerhays for)

Mary Onischak

Attachment