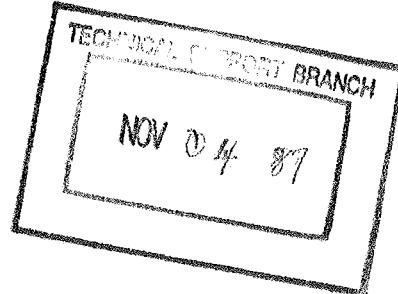




TONY JR  
RICH A.B.  
Return to Steve  
11/4/87

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

October 29, 1987



MEMORANDUM

SUBJECT: Regulatory Guidance on COMPLEX I  
FROM: Joseph A. Tikvart, Chief *J. Tikvart*  
Source Receptor Analysis Branch (MD-14)  
TO: Stephen Perkins, Acting Chief  
Technical Support Branch, Region I

In response to your telephone request regarding the appropriate option/input to COMPLEX I for stack tip downwash and wind speed profiles, the Model Clearinghouse believes that the model should be run in a manner consistent with the regulatory mode of simple terrain models, e.g. CRSTER. Thus, the Briggs (1974) stack tip downwash option should be used and the currently recommended rural wind speed profile exponents, 0.07, 0.07, 0.10, 0.15, 0.35, and 0.55 for stabilities A through F, respectively, should be input. Other options, e.g. terrain adjustment values, should be set as specified in the Guideline on Air Quality Models (Revised). Calms should be treated in a manner consistent with the Guideline. Since there is no calms processing subroutine in COMPLEX I, this will entail postprocessing with CALMPRO.

We have coordinated this position with several of the other Regional Offices who frequently run complex terrain models. Although most have not had the occasion to use COMPLEX I in the last year or so, they are all in agreement with our position.

Please contact Dean Wilson or me if you have any additional questions.

cc: R. Lee  
S. Reinders  
R. Rhoads  
J. Touma  
B. Turner  
D. Wilson