



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Office of Air Quality Planning and Standards  
Research Triangle Park, North Carolina 27711

March 20, 1986

MEMORANDUM

SUBJECT: The Use of a Box Model for CO Modeling in Colorado

FROM: Joseph A. Tikvart, Chief *J. Tikvart*  
Source Receptor Analysis Branch (MD-14)

TO: John Notar  
Regional Meteorologist, Region VIII

In response to your January 28, 1986 letter, we find the use of the BOXRB Model acceptable for urban areawide Carbon Monoxide (CO) assessment in the two small urban areas of Ft. Collins and Greeley, Colorado. The circumstances as described in your request identifies these two cities as small urban areas where CO emissions from motor vehicles and residential wood burning are trapped under a strong radiation inversion on cold clear nights with very light and variable winds. Our acceptance of the BOXRB Model for SIP development is contingent upon the existence of adequate documentation of the model.

In addition to areawide modeling, the influence of congested highways, intersections, or street canyons on CO exceedances should be investigated through the use of "hot spot" modeling techniques which utilize CALINE3 dispersion. This investigation will ensure that microscale problems that may exist are not masked by the area analysis.

Should you have questions or if we can be of further assistance, please contact Tom Braverman on FTS 629-5690.

cc: Dean Wilson  
✓ Regional Modeling Contact, Regions I-X