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To: Joe Tikvart/RTP/USEPA/US@EPA, Brenda Johnson/R4/USEPA/US@EPA

cc: alan_klimek@ncair.net, donald_vandervaart@ncair.net

Subject: GEP Regulations

Hello Joe,

My name is Jim Roller - I supervise a group of meteorologists/modelers with the North Carolina Division of Air Quality. We have met and talked before but it has been quite some time. The purpose of this e-mail is to ask a question regarding GEP stack height regulations, the early years. I was told you have some familiarity within this area and might be able to answer my question.

From the GEP regulations, I understand that a facility with an existing stack height greater than 65 meters but less than GEP wishing to raise that stack to a height less than or equal to GEP and establish emission limitations based on the new stack height must first do one of the following:

- conduct a fluid modeling study to demonstrate that existing conditions will result in "excessive concentration" or,
- show by site specific data that the existing conditions will cause a local nuisance.

I also understand modeling (e.g., with / with-out downwash) cannot be used to demonstrate "excessive concentration" - my question is, why not? Are the modeling (i.e., downwash) algorithms not considered accurate enough or overly conservative such that the modeled concentrations could result in an "excessive concentration" determination when that condition may not exist? If this is correct and given that fluid modeling is still relatively expensive and time consuming, could the numerous enhancements/revisions to ISCST over the years and the development of ISC-PRIME result in a significant enough improvement in accuracy to warrant a reevaluation of this guidance?

Joe, if this question needs to be directed elsewhere, please advise. Thanks for your input.

Jim Roller

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