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

April 6, 1989

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MEMORANDUM

SUBJECT: "Connecticut Ambient Impact Analysis Guideline"

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

TO: Stephen S. Perkins, Chief
Technical and Program Support Branch, Region I

In response to your request we have reviewed the subject Guideline and Richard Burkhart's comments on that Guideline. We have no problem with Mr. Burkhart's comments. We feel somewhat handicapped in reviewing this Guideline in that we have not seen the SIP revision or the Technical Support Document that describes what role the Guideline has in regulatory decision making in Connecticut. We are making the assumption that the Guideline will only be applicable to the State's NSR/PSD program, and not to generic SIP's, BTU bubbles, or any other type of regulatory action. Let us know if this is not the case. We would eventually like to see the SIP revision that describes how this Guideline will be used.

Attached are specific comments of the Model Clearinghouse on the document.

If you have any questions, please contact Dean Wilson at FTS 629-5683.

Attachment

cc: D. deRoeck, NPPB (MD-15)
D. Grano, SO_2/PMPB (MD-15)
S. Reinders, SRAB (MD-14)
D. Wilson, SRAB (MD-14)

Comments on "Connecticut Impact Analysis Guideline"

EPA Model Clearinghouse
March 30, 1989

Page 1-1 The CT Guideline should note that the EPA guideline and EPA models are occasionally revised or updated. Therefore the applicant should check with DEP and incorporate any relevant changes.

Pages 2-1 to 2-10 We question why the Guideline needs to include verbatim definitions established by the regulation. Perhaps it should just reference them or paraphrase them to the extent needed.

Page 2-5 The definition of major modification does not appear to allow netting. Yet, Definition 52 in the Guideline (and regulation) describes netting.

Page 3-2 In the last paragraph we suggest that they delete the word "much" in the first sentence and change nitrogen oxides to nitrogen dioxide in the second sentence.

Page 3-3 In Table 3-1 we suggest that a footnote be added to explain that the annual (arithmetic) mean value is an expected exceedance value. Also, footnote 4 applies to the 24-hour PM_{10} standard instead of footnote 1. However, footnote 4 could be better worded. For modeling purposes this explanation does not mean very much.

Page 3-5 Explain that significant impacts are used to determine whether a source would cause or contribute to a violation of the NAAQS or increments (except Class I increments). As it currently reads, the section does not explain what the modeled significant impact is to be used for.

Page 5-2 The GEP discussion may be misleading. This discussion seems intended to require the applicant to identify sources with stack heights below GEP which therefore should be modeled for downwash. However, the discussion should also make clear that the lessor of actual or GEP stack height must be used for (other than downwash) modeling for each source. Thus GEP information is needed for sources <u>outside</u> the "radius of significance."

Page 5-2 Building downwash effects on estimates can occur well beyond the immediate vicinity of the stack. Thus, while a special receptor grid need not be set up in the vicinity of the source to detect maximum downwash

concentrations, it is still generally necessary to input the requisite building dimensions to ISC for calculation of impacts within the area of significance.

Page 5-7 (PSD Increment Tracking) Technically speaking, there is no size cutoff for sources that consume increment; thus it may be necessary to model all minor sources and "growth" emissions in some circumstances where concentrations approaching the allowable increment are found by modeling only those sources identified in Section II. Also, the Guideline should require maximum actual 24-hour emission rates rather than average actual emissions based on annual actual emissions.

Page 5-8 For consistency with EPA policy, on-site data (one or more years, up to 5) are always preferable to off-site data. The CT Guideline should be changed to reflect that policy.

Page 5-11 (Section 5.4.3, last paragraph). This discussion should be supplemented to indicate that receptors should be placed on neighboring company property, even if fenced.

Page 6-1 The most recent EPA guideline should be referenced.

FY 89 MODEL CLEARINGHOUSE MEMORANDA

Date	Region	Subject
10/11/88	VI	Use of ISC UNAMAP 6, Change 7
11/07/88	VI	Compilation of Most Recent, Available 5-Year Meteorological Data By Texas
11/08/88	V	State of Indiana Meteorological Preprocessor Program
11/09/88	VI	Information Regarding Refinery Tank Farms and Their Rural/Urban Designation
11/09/88	VI	Request for Use of ISC 6.2
11/21/88	VI	Request for Use of ISCST and ISCLT Version 6.2 in Twin Oak Steam Electric Station PSD Application
11/28/88	VI	Request for Use of ISCST and ISCLT Version 6.2 in Formosa Plastics PSD Application
01/30/89	VIII	E. Helena Lead SIP
02/08/89	IV	Yates Power Plant GEP SIP
02/10/89	VIII	Denver PM_{10} SIP
02/27/89	IV	Paradise Power Plant
02/28/89	III	Martins Creek -- Regulations for Redesignation
03/20/89	VI	Proposed Region VI Responses to Louisiana About Modeling Issues
03/20/89	III & VI	Use of Allowable Emissions for National Ambient Air Quality Standards (NAAQS) Impact Analyses Under the Requirements for Prevention of Significant Deterioration (PSD)
03/23/89	X	Model Clearinghouse Review of Outline for PM_{10} SIP Modeling Protocol
04/06/89	I	"Connecticut Ambient Impact Analysis Guideline"