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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

MEMORANDUM:

DATE: January 22, 1981

SUBJECT: PSD Applicability

FROM: Director
Division of Stationary Source Enforcement

TO: Charles Whitmore, Chief
Technical Analysis Section, Region VII

This is in response to your memo of December 4, 1980, in which you requested a PSD applicability determination for Cargill Inc.'s proposed ethanol plant in Eddyville, Iowa.

The proposed plant is to be located in a designated attainment area and will consist in part of wet-milling and ethanol facilities (collectively, the "ethanol plant"). Steam and electricity for the plant are to be generated into a co-generation unit. The addition of the ethanol plant will cause a large increase in the hours of operation of the power plant and a fuel switch to burn coal exclusively.

I would like to mention first that the project may be exempt from PSD review through a "grandfather" exemption if the state air permit for the project was issued before August 7, 1980, the project would not have been subject to the 1978 PSD regulations, as stayed, and certain other conditions are met. (See 40 CFR 52.21 (i) (4) (V).

If the grandfather exemption does not apply the addition of the ethanol plant should be considered a modification to an existing major stationary source. In order to determine if the modification is major and subject to preconstruction PSD review, it is first necessary to determine if there will be a significant net emissions increase from the modification itself. EPA is interpreting the term "net emissions increase" as any significant increase in actual emissions from a physical change or change in the method of operation at a stationary source and any other creditable contemporaneous increases or decreases in actual emissions. A conforming amendment to this effect will be published in the Federal Register. In this case there is an expected increase at the ethanol plant of approximately 15 TPY of TSP, 11 TPY of SO₂ and less than 40 TPY VOC. All of these emission rates are de minimus, (see 40 CFR 52.21 (b) (23)) and therefore this modification would not be subject to PSD review. Regardless of whether or not this is determined to be a modification any increase in emission will consume increment provided the baseline has been triggered.

It is also important to note that, in the absence of any SIP or permit limitations, neither the increase in emissions from the switch to burn coal exclusively nor the increase in hours of operation at the power plant would be considered a modification (See 40 CFR 52.21 (b) (2) (iii) (e) and (f)).

This determination has been made with the concurrence of the Office of Air Quality Planning and Standards and the Office of General Counsel. If you have any questions regarding this memo, please contact Janet Littlejohn of my staff at 755-2564.

Edward E. Reich

cc: Peter Wyckoff, OGC
Mike Trutna, OAQPS
Darryl Tyler, OAQPS

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

DATE: December 16, 1980

SUBJECT: Interpretation of "Significant Contribution"

FROM: Richard G. Rhoads, Director,
Control Programs Development Division (MD-15)

TO: Alexandra Smith, Director,
Air & Hazardous Materials Division, Region X

We have received your memo of October 27, 1980 regarding the applicability of PSD and the Emission Offset Interpretative Ruling when the proposed sources (such as Northern Tier) would be locating in a PSD area and would cause or contribute to a new or existing violation of the National Ambient Air Quality Standards (NAAQS). You asked for clarification of existing policy in two areas. This memo is intended to finalize the draft transmittals we have exchanged since receiving your request.

Your first question asked whether EPA is using the concept of significant contribution within the PSD regulations when assessing whether a proposed source, locating in a PSD area, would "contribute to air pollution in violation of the NAAQS." As discussed in the PSD workshops and the PSD workshop manual, EPA continues to apply the significant impact concept using the values defined in the 1978 PSD preamble, 43 FR 26398, and in 40 CFR Part 51 Appendix S. If the proposed source or modification has no significant contribution to the nonattainment problem, then the proposed project does not contribute to this violation. Provided that it would not cause any new NAAQS violations, such a source is not subject to the requirements of 40 CFR 51.18 (k) or 40 CFR Part 51 Appendix S; the proposed project must, however, still demonstrate that it will not cause or contribute to air pollution in violation of the PSD increments. See 40 CFR 52.21 (k) (2).

Your second question asked about the need for a significant impact by the proposed source to occur simultaneously with the actual violation at a particular nonattainment site. In general, a PSD source with significant new emissions of the applicable pollutant with constructs in an area adjacent to a nonattainment area should be presumed to contribute to the violation if it would have a significant impact at any point in the nonattainment area. However, if the proposed PSD source can demonstrate that its new emissions would not have a significant impact at the point of the violation when that violation is actually occurring, then the proposed source would meet the requirements of 40 CFR 52.21 (k) (1) provided that it would not cause any new violations of the NAAQS. This answer would apply whether the nonattainment area was newly discovered or was formally designated nonattainment under Section 107. I should like to add that, while such a demonstration is allowed, it will be extremely difficult to prove an insignificant contribution, especially in the short term.

Several examples will clarify this response. For instance, a proposed new major stationary source may locate near a designated nonattainment area for SO₂. Suppose that the source owner has shown in his PSD application

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that his SO₂ impacts are significant only on the edge of the Section 107 area which is demonstrated to actually be in attainment of standards. The source owner also demonstrated that his impacts are not significant in the area of actual violation of the SO₂ standards. A second scenario is the case where the owner demonstrates that on the days when the 24-hour SO₂ standard violation is actually occurring, the proposed source's 24-hour averaged impacts are not significant. The owner has also shown that on other days when the air quality meets the 24-hour SO₂ standard, his impacts are significant but do not cause the air quality to exceed the 24-hour

standard. The third example is where the area was only nonattainment for the SO2 annual standard. The source owner shows his impacts on the nonattainment area are significant for the 24-hour averaging time and insignificant on an annual basis. For all three scenarios, the source owner has demonstrated that he will not contribute to air pollution in violation of the NAAQS and has met the PSD review requirements of 40 CFR 52.21 (k) (1) for SO2, providing that he will not cause any new violations. This source would also not be subject to nonattainment NSR requirements under 40 CFR 51.18 (k).

If you have further questions, please contact Mike Trutna (FTS 629-5291) for more information.

cc: D. Hawkins
W. Barber
Director, Air & Hazardous Materials Division, Regions I - X
Director, Enforcement Division, Regions I - X
NSR, PSD Regional Contact, Regions I - X

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 10, 1200 Sixth Avenue, Seattle, WA 98101

DATE: 27 OCT 1980

SUBJECT: Interpretation of "Significant Contribution"

FROM: Alexandra B. Smith, Director
Air & Hazardous Materials Division

TO: Richard Rhoads
Director, Control Program Development Division (MU-15)

EPA new source review regulations contain a requirement that proposed major stationary sources not contribute (or significantly contribute) to -air pollution in areas which are violating the NAAQS (40 CFR 51.24(k); 52.21(k); 51.18(k); and Part 51, Appendix S, Section III). The interpretation and implementation of this requirement may impact the final decision on the Northern Tier PSD permit application. Because of the sensitivity and high national priority placed on the timely processing of Northern Tier's permit applications, we are requesting that you provide us with a response to the following questions by November 7, 1980:

1. The PSD regulations, in 40 CFR 51.24(k) and 52.21(k), require that the proposed source not "contribute to air pollution in violation of" the NAAQS. Does this consider the concept of "significant" contribution as defined in Part 51, Appendix S, Section III.A?
2. The language in the PSD regulations (40 CFR 51.18(k) and 52.21(k)) differs from that in 40 CFR 51.18(k) and the Offset Interpretive Ruling as to what the source is contributing. In the PSD regulations the source must not contribute to "air pollution in violation of" the NAAQS. In the Offset Interpretive Ruling the source must not significantly contribute "at any locality that does not meet the NAAQS." Is, then, the determination of a source's contribution (or significant contribution) at a receptor in

an area that does not meet the NAAQS independent of the concentration at that receptor at the time of contribution, or must that receptor be experiencing pollution in violation of NAAQS simultaneously with the contribution of the proposed source? (That is, simply modeling the proposed source or simultaneously modeling the proposed source and all existing sources causing or contributing to the violations of NAAQS.)

We will greatly appreciate a timely response to these questions. If you have any questions, please contact Mr. David Bray of my staff at 8-399-1125.

cc: D. Hawkins
W. Barber