RCRA Permit Appeal Fact Sheet **1988**

FACILITY: Thermal Oxidation Corporation (TOC)
Roebuck, South Carolina
SCD 981 467 616
RCRA Appeal No. 88-28

PETITIONER: TOC

PETITION FILED: November 7, 1988

STATUS OF PETITION: See Permit Appeal Status Report

ISSUES:
- RFI conditions are not justified
- Procedural issues
- Miscellaneous other issues (metals emission limits)

Summary of Petition:

TOC is petitioning for review of its hazardous waste incinerator permit as issued on September 29, 1988. The petitioner contends that the metals emission limits specified in the permit are based on assumptions that are erroneous and an abuse of discretion. TOC argues that, in the absence of published regulations on metals emission limits, the issue is of such a fundamental nature that it should be decided by the Administrator. In addition, TOC contends that RFI requirements for a gas tar pond as specified in the permit are duplicative of the conditions of a Section 3008(h) Order.

- **RFI Conditions are not Justified.** The petitioner argues that the permit condition requiring TOC to conduct an RFI at a gas tar pond is duplicative of the provisions of a Section 3008(h) Corrective Action Order, which subjects this unit, as well as four other SWMUs, to the RFI process. TOC had already submitted an RFI work plan to EPA for review according to the provisions of the Order, and no deficiencies were cited by EPA regarding the gas tar pond. TOC contends that EPA has treated the gas tar pond differently from the four other SWMUs undergoing the RFI process under the Section 3008(h) Order, because the permit requires TOC to implement the RFI work plan developed under the Order with respect to the four other SWMUs.

- **Procedural Issues**. As critical details of EPA's risk assessment supporting the metals emission limits were not fully represented in the administrative record, TOC was denied the opportunity to comment on the Agency's methodology.

- **Metals Emission Limits.** The petitioner argues that the permit contains unduly restrictive limit's for the emission of metals from the hazardous waste liquids incinerator. The petitioner makes the following arguments in support of its position:

  - Metals emission limits in the permit were based in part on an EPA risk assessment. This risk assessment, in turn, was based on the draft guidance. TOC contends that such guidance is subject to continuing review and revision by the Agency, and is not to preempt reasonable alternatives proposed by permit applicants.

  - The Agency abused its discretion by using unrealistic and prohibitively restrictive assumptions as part of its analysis, including assumptions regarding selection of the "maximum exposed individual," level of removal of metals from the waste stream, and the type of chromium that would be included in the waste feed.

BEFORE THE ADMINISTRATOR
U.S. ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C.

In the Matter of:	)	
Thermal Oxidation Corporation, Inc.	)	RCRA Appeal No. 88-28
RCRA Permit No. SCD 981 467 616	)	

ORDER DENYING REVIEW

Pursuant to 40 CFR §124.19, Thermal Oxidation Corporation, Inc. ("TOC") seeks review of the federal portion of a RCRA permit issued by Region IV. The permit authorizes continued hazardous waste management at TOC's Roebuck, South Carolina facility. The federal portion of the permit governs requirements relating to the Hazardous and Solid Waste Amendments of 1984 ("HSWA"). It also imposes emission controls for TOC's hazardous waste incinerator. [1/] As requested by the Agency's Chief Judicial Officer, the Region submitted a response to the Petition which defends the permit as written.

The Agency recently proposed to amend the RCRA regulations to include specific, risk-based controls for metal and other emissions from hazardous waste incinerators. See 55 Fed. Reg. 17,862 (April 27, 1990). Because the existing rules do not contain direct controls for metal emissions, [2/] Region IV used

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[1/] The balance of the permit was issued by the South Carolina Department of Health and Environmental Control, which is authorized to implement non-HSWA requirements under RCRA.

[2/] Under the existing rules, toxic metal emissions from hazardous waste incinerators are controlled only indirectly

(continued...)

the RCRA omnibus authority [3] to impose metal limits in TOC's permit. [4] These permit conditions, which generally conform to the proposed regulations, were formulated in accordance with Agency guidance documents and are intended to ensure that emissions from TOC's incinerator do not pose an unreasonable risk to human health.

TOC challenges three key assumptions made by Region IV as part of the risk assessment that underlies the permit controls for metal emissions: (1) that the location of the maximum exposed individual ("MEI") is 100 meters from the incinerator stack, even though there is currently no human population at that location; (2) that all metals in the wastefeed would be emitted, despite summary data suggesting that the incinerator's air

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[2] (...continued)
through a limitation on particulate matter. In the preamble to the recent proposal, the Agency noted that under some conditions the particulate standard might not adequately protect human health from metal emissions. 55 Fed. Reg. 17,862.

[3] See RCRA §3005(c)(3), 42 U.S.C.A. §6925(c)(3) ("Each permit issued under this section shall contain such terms and conditions as the Administrator (or the State) determines necessary to protect human health and the environment"); 40 CFR §270.32(b)(2)(same).

[4] Such use of the omnibus authority is consistent with Agency policy. See 55 Fed. Reg. 17,889 ("permit writers will be expected to continue to implement the appropriate controls on metals, HCl, and PIC emissions proposed here on a permit-by-permit basis without waiting for promulgation of the final rule."); In re Chemical Waste Management, Inc., RCRA Appeal No. 87-12 (May 27, 1988) (permit writers should consider using the RCRA omnibus authority to impose incinerator emission controls beyond those required by the rules); Memorandum from S. Lowrance, Director, Office of Solid Waste, to Hazardous Waste Division Directors, Regions I-X (Feb. 27, 1989) (same).

pollution control equipment removes more than 99 percent of such metals; and (3) that all chromium in the wastefeed, even trivalent chromium, would be emitted as hexavalent chromium. [5/] TOC also argues that Permit Condition II.C.1, which requires a RCRA Facility Investigation ("RFI") for the facility's gas tar pond, unnecessarily duplicates requirements set forth in an Interim Status Corrective Action Order issued by Region IV under RCRA §3008(h).

Under the rules that govern this proceeding, a petition for review of a RCRA permit determination ordinarily will not be granted unless the permit is based on a clearly erroneous finding of fact or conclusion of law, or involves an important matter of policy or exercise of discretion that warrants review. See 40 CFR §124.19; 45 Fed. Reg. 33,412 (May 19, 1980). The preamble to Section 124.19 states that "this power of review should be only sparingly exercised," and that "most permit conditions should be finally determined at the Regional level * * *." Id. The burden of demonstrating that review is warranted is thus on the Petitioner.

Region IV's response to the Petition thoroughly rebuts each of TOC's arguments, and only a brief response is needed here. First, the Region's use of the maximum concentration area as the MEI location -- regardless of existing population patterns --

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[5/] Hexavalent chromium is the most potent carcinogenic form of chromium. See 55 Fed. Reg. 17,877.

reflects the Agency's current position on this issue as set forth in the preamble to the proposed rule. [6/]

Second, Region IV's refusal to rely on TOC's summary data regarding the incinerator's metal removal efficiency is consistent with the Agency's general policy that such removal credits be based on actual, well supported, emissions data derived from tests conducted at the feedrate requested by the applicant. Prior to the public comment period on the draft permit, Region IV officials told TOC that the feedrates and emission rates in TOC's risk assessment, if supported, would be taken into account in setting final permit conditions. [7/] TOC failed, however, to provide the Region with documentation of metals sampling methods, analytical methods, QA/QC data, and the like. [8/] Accordingly, the Region conducted its own risk assessment, assuming zero removal efficiency, to arrive at appropriate metal limits for the final permit. On appeal, TOC has not provided a sufficient explanation for its failure to

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[6/] See 55 Fed. Reg. at 17,867 & n.8 ("Since EPA's intention is to be fully protective of health in the future as well as the present, and since this analysis must generalize on the basis of a sample of situations, we have defined the MEI in terms of maximum potential exposure."). If this Agency position changes as a result of comments on the proposed rule, TOC is free to seek modification of its permit at that time. Where, in exercise of the omnibus authority, a permit addresses an issue raised by a proposed rule in a manner consistent with the proposal, the permit will generally be upheld.

[7/] See Region Response at 11-15; Memorandum from B. Willis, Region IV Combustion Expert, to J. Dickinson, Region IV NC/SC Unit Chief, re TOC Permit Conditions for Metals (Sept. 27, 1988).

[8/] Id.

support the assumptions underlying its risk assessment. In the absence of supported, reliable data, Region IV did not abuse its discretion in assuming zero removal efficiency. [9/]

Third, the permit properly reflects the Agency's general presumption that chromium waste converts to hexavalent chromium when managed in an oxidized environment, a position incorporated into the recently proposed rule on metal emissions. See 55 Fed. Reg. 17,877-78; see also 45 Fed. Reg. 72,030 (Oct. 30, 1980). [10/]

Finally, TOC's concerns regarding duplicative corrective-action requirements for the gas tar pond are unwarranted. The Region has made clear (Response at 17) that the RFI need only

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[9/] After filing its appeal, TOC submitted additional materials in an attempt to support its summary data. TOC evidently seeks a remand so that the permit may be adjusted to reflect these new data. Region IV, on the other hand, argues that its permit decision was proper based on the then-existing administrative record and that any additional submissions should be presented in a request for permit modification. It is unclear whether the new data will support modification of the permit. TOC's risk assessment was rejected not only because its summary data were unsupported, but also because TOC apparently failed to conduct a trial burn using the feedrates it now requests. Instead, it back-calculated from data achieved at a different rate, an approach that Region IV properly deemed questionable due to the myriad factors (other than feedrates) that affect emission rates.

In any event, TOC has failed to identify any substantive or procedural error by Region IV, and thus review is denied. The Region has stated, however, that it will consider a request for permit modification in this regard based upon appropriate and supported trial burn data.

[10/] As with the Agency's position on MEI location (see note 6, above), if its position regarding chromium emissions is modified in light of comments on the proposed rule, TOC may seek appropriate modification of the permit at that time. Alternatively, TOC could request modification based upon data that reliably determine actual hexavalent chromium emissions from its incinerator. See 55 Fed. Reg. 17,878.

include any necessary investigations beyond those already undertaken by TOC, and that, upon submission of proper documentation or justification, TOC may limit the RFI to potential soil releases so that its previous groundwater investigations will not be repeated.

All other arguments raised by TOC have been considered and rejected. For the reasons set forth above and in the Region's Response, TOC's petition for review is denied.

So ordered.

Dated: JUL 2 6 1990

William K. Reilly
Administrator

CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing Order Denying Review, RCRA Permit Appeal No. 88-28, were sent to the following by first class mail, postage prepaid.

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Dated: JUL 30 1990

Brenda H. Selden, Secretary
to the Chief Judicial Officer