

# **An Examination of Increased Public Scrutiny of Title V / PSD Projects**



**AIR & WASTE MANAGEMENT  
ASSOCIATION**

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# Overview

- Observations based on two recent refinery PSD projects:
  - Refinery A, Region IV, issued May 2007
  - Refinery B, Region VI, issued December 2006
- Both refineries were PSD for NO<sub>x</sub> and CO
- Both refinery PSD permits were challenged by Law Clinics



# Background

- Refinery A:
  - Received public comments from the UCLA Law Clinic representing the local chapter of the Sierra Club.
  - Note: Draft applications were provided to UCLA Law Clinic prior to public notice.



# Background



- **Refinery B:**
  - Received public comments from the Tulane Law Clinic representing local citizens.
  - Refinery did engage public prior to public notice, but did not address Law Clinic comments.
- A response was prepared by each refinery to address the comments provided by the law clinics.

# Why Do Law Clinics Get Involved?

- Comments prepared by Law Clinics add weight (credibility) because they are provided by "lawyers".
- Taken more seriously by regulatory agencies.
- The comments require effort to address.
- Responses include "legalese" like:  
*"arbitrary and capricious"* and *"exacerbating the disproportionate burden of industrialization"*



# Best Available Control Technologies

- The main focus of the law clinic comments:

## BACT (Best Available Control Technologies)

- Both law clinics took exception to the BACT approach taken by each refinery



# Law Clinic Comments

- BACT points of contention include:
  - Top-Down Analysis
  - Technical infeasibility
  - Site-specific costs



# Top-Down Comments

**Refineries:** Use the RACT/BACT/LAER database to identify the latest control trends for a particular pollutant.

**Law Clinics:** Exhaust all potential controls, including unproven or brand-new emerging technologies.

**Example:**  $SCONO_x$  was included in the permit on the list of  $NO_x$  controls. Law Clinic commented a control called " $EM_x$ " should have been included as well. Upon investigation, refinery discovered  $EM_x$  is simply the next generation of  $SCONO_x$ .



# Top-Down Comments



**Refineries:** If a technology would be very difficult to utilize, the technology was usually listed as technically infeasible or excluded from the Top-Down list.

**Law Clinics:** All potential controls must be examined.

**Result:** Regulatory agencies agreed with Law Clinics. Refineries had to provide data for all potential controls.

# Technical Feasibility Comments



## Example:

Refinery included a portable diesel powered generator equipped with SCR in the NO<sub>x</sub> PSD and BACT analysis.

Law Clinic asked for costs of installing natural gas fired generator or use electric power supply.

Refinery initially excluded these options as technically infeasible because the distance for piping natural gas and the safety of installing electrical supply on a separate circuit.

However, these two options were eventually excluded as cost-prohibitive.

# Cost Estimate Comments

**Refineries:** For  $\text{NO}_x$ , cost estimates start with ULNB as the baseline for controls. Then do cost analyses for add-on controls like SCR.

**Law Clinics:** Use conventional burner as cost baseline, then compare ULNB and SCR control costs.

**Result:** Refineries successfully argued ULNB was equivalent to current starting-point technology for burners. Regulatory agencies agreed.



# Cost Estimate Comments



**Refineries:** Used vendor cost-estimates for a control device installed at another facility (Refinery C).



**Law Clinics:** Cost of controls must be site-specific as stated in the NSR manual.



**Result:** Refinery successfully argued that while the costs of the control units were from another facility, the overall control device costs were based on the operating parameters of the proposed units.



# Cost Estimate Comments



## Example:

In an effort to reduce the time to obtain a vendor quote, "Refinery A" used a vendor quote from "Refinery C" for installing an SCR.

The SCR reactor costs were based on stack flow rates and temperature. The SCR reactor cost from Refinery C was used in conjunction with the stack parameters from Refinery A to determine overall cost of control.

Regulatory Agency accepted the cost analysis.

# Lessons Learned

- Focus time and energy on “bullet proofing” BACT
- Address all potential “technological” controls.
  - Or have ready answers
- Use previous BACT determinations as guidance.



# Lessons Learned

- Involve local environmental groups or law clinics prior to public notice period.

The alternative to not “learning lessons” is the potential for significant permit approval delays or permit denial.





# Questions?



**Thank  
You!**

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