

State of Florida
DEPARTMENT OF ENVIRONMENTAL REGULATION



Interoffice Memorandum

TO: Al Devereaux

FROM: Clair Fancy *Clair Fancy*

DATE: April 18, 1986

SUBJ: Broward County Resource Recovery Hearing Transcripts

FOR ROUTING TO OTHER THAN THE ADDRESSEE

| | |
|------------------|-------------|
| To: <i>Fancy</i> | LOCN: _____ |
| To: _____ | LOCN: _____ |
| To: _____ | LOCN: _____ |
| FROM: _____ | DATE: _____ |

This week I have read the entire hearing records on the air testimony. The most important facts, in my opinion, that I derived from the testimony are stated below.

- o Cost figures on particulate-acid gas greatly exaggerated by Broward County. Hearing officer cited lower figures of \$6.00/ton for total controls.
- o Broward discussed possible problems with baghouses, clogging, cementing, burning. Hearing officer found baghouses and scrubbers efficient and reliable.
- o Much of energy impact and cost information put on by Broward was related to wet scrubbers even though all experts felt that was not proper technology and was so stipulated that if acid gas control was required, wet scrubbers would not be used.
- o Data suggest 3 stage ESP could achieve 0.02 grains/SCF. Has been done by several existing facilities.
- o They had three experts on dioxin and health effects. We had none. They said no health effects and this was stipulated to as we had no witnesses to argue differently. This was before Department's Dioxin Report.
- o Modeling of Broward's proposal showed only slight changes in air quality levels. Less than 10% of any PSD increment and less than 3% of ambient standards for SO₂ and particulate.
- o Broward discussed lost revenues for when pollution control equipment inoperable. Said it could cost \$3.4 million per year. Since they need to burn all the garbage anyway, this was wrong. Hearing officer apparently recognized this.

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- o Dry scrubber baghouses are used extensively in Europe and Japan, but not here. Only one currently in use here (Framingham, Mass.).
- o For new units, thirteen states were requiring acid gas control at time of hearing. Many of these states do specifically regulate HCl emissions. New Jersey has required scrubbers for several proposed installations.
- o We used recent Connecticut BACT as large basis for our determination.
- o Big part of hearing was on cost per ton of removal for pollutants. 1978 EPA guideline for NSPS is \$2000. Cost for this project are about \$3500/ton for particulate and \$3500 for regulated acid gases, excluding HCl. In light of inflation-in ballpark. We would also control fine particulate (heavy metals) and dioxin if adsorbed on fine particulate. If unregulated HCl were added to other acid gases, would come down to \$1100 per ton. HCl emissions from this facility will exceed 5000 tons per year.
- o We indicated good combustion efficiency, 99.8-99.9%, as measured by CO concentrations would help to minimize dioxin and that baghouse would remove more fine particulates. Also that New York State is requiring dioxin tests on all plants every 18 months (our New York State expert).
- o We stressed how BACT should be considered: NSPS, all information available to department, BACTs of other states, and economic and social considerations-per 17-2.630. Stated economics much more than just dollars per ton and that resident outcry in 1984 was a social impact.
- o They stressed how BACT should be considered: environmental impacts, energy costs, economic impacts. This is from a federal publication as contrasted to the above, which is somewhat different. Hearing officer agreed with their interpretation.
- o We stressed the necessity of leaving room for scrubbers if not in hearing officer's recommended order.

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- o Plant construction costs about \$187 million, (excluding land). Control equipment costs as we proposed at about \$15 million. As they proposed, about \$5-7 million.

CHF/ks

cc: Victoria Tschinkel
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Buck Oven
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FEDERAL EXPRESS

Ms. Victoria Tschinkel, Secretary
State of Florida
Department of Environmental Regulation
2600 Blair Stone Road
Tallahassee, Florida 32301

Office of the Secretary

Re: Broward County -- 441 Site Power Plant Siting

Dear Secretary Tschinkel:

I wanted to take this opportunity to provide you with Broward County's overview of the B.A.C.T. issue in the presently pending matter.

The analysis of "Best available Control Technology" (BACT) is essentially an engineering analysis of the energy, environmental, and economic impacts of applying demonstrated technology to achieve the best practicable controls on air emission rates in attainment areas, such as Broward County. The Florida Department of Environmental Regulation (DER) defines BACT as "(a)n

1/ Broward County is in an attainment area for all pollutants except ozone, the emissions of which are not part of DER's dispute with the County concerning BACT.

DEPARTMENT OF ENVIRONMENTAL REGULATION

ROUTING AND TRANSMITTAL SLIP

ACTION NO

ACTION DUE DATE

1. TO: (NAME, OFFICE, LOCATION)

Steve Smallwood

Initial

Date

2.

~~*Alan Fancy*~~

Initial

Date

3.

Patty - for file

Initial

Date

4.

Initial

Date

REMARKS:

INFORMATION

Review & Return

Review & File

Initial & Forward

DISPOSITION

Review & Respond

Prepare Response

For My Signature

For Your Signature

Let's Discuss

Set Up Meeting

Investigate & Report

Initial & Forward

Distribute

Concurrence

For Processing

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FROM:

DATE *5/1*

PHONE

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emission limitation...based on the maximum degree of reduction of each pollutant emitted which (DER), on a case by case basis, taking into account energy, environmental and economic impacts, and other costs, determines is achievable." Fla. Admin. Code, § 17-2.100(24) (1985); see also id. § 17-2.630. This definition rejects a generic approach that would automatically apply state-of-the-art technology as BACT without evaluating the burdens and benefits that would result from its application. Indeed, DER has adopted such a generic approach to the determination of appropriate control technology in non-attainment areas, embodied in rule 17-2.640 on the "Lowest Achievable Emission Rate" (LAER). Unlike the LAER rule, however, the BACT rules are not "technology-forcing" regulations but require a case-by-case analysis of benefits and impacts. Because of the different emphases in the BACT and LAER rules, technology that might constitute LAER in a non-attainment area may well not be BACT in an attainment area.

Significantly, also, the BACT requirements do not apply to every pollutant emitted by a facility. Rule 17-2.500(5)(c) of the Florida Administrative Code states that a facility must "apply [BACT] for each pollutant subject to NSR [New Source Review] requirements as set forth in 17-2.500(2)(f)." The latter rule limits the application of NSR requirements to "pollutants regulated under the [Clean Air] Act for which the . . . significant emission rates listed in Table 500-2" would be exceeded. Table 500-2 appears immediately before rule 17-2.510. The table lists "Regulated Air Pollutants -- Significant Emission Rates." Please note that the list does not include dioxin or hydrogen chloride gas or hydrochloric acid. The requirements of BACT do not apply to such pollutants, which are not even subject to New Source Review, under DER's present rules.

Because BACT analysis takes a case-by-case approach, a generic approach to the consideration of environmental, energy, and economic costs is inadequate. The analysis must consider the modeled ground-level concentrations of each pollutant from a particular facility to determine the likely effects (if any) on the environment and the public health. Pointing to annual mass emissions from the stack will not suffice. Instead, substantial mass emissions merely call for an air quality modeling and analysis to determine the actual likely impact in light of available meteorological information, terrain, facility operating conditions, the temperature and velocity of the emissions at the stack exit, and any other information pertinent to the particular facility. Similarly, BACT analysis requires an evaluation of the energy and

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economic costs of proposed control technology for a particular facility, in light of its size, process technology, financing arrangements, and the like.

As for whether one must balance projected burdens and benefits of particular control technology for a particular facility or follow some other method, the label is unimportant. What matters is that the BACT analysis must consider all the burdens and benefits in the particular setting. If the evidence shows, as found by the Hearing Officer in the South Broward County Resource Recovery proceeding, that the environmental need for particular control technology is minimal in a particular case and that the cost is substantial, one can hardly have taken these factors into account if he nevertheless concludes that the costly and unneeded control technology is BACT.

The extensive testimony of expert Ken Kosky at the hearing is clear and instructive on the proper techniques for BACT review at the state and federal levels, based on his experience in over 100 such reviews. A review of this testimony would assist in understanding BACT and how it differs from the method of review suggested by the Department.

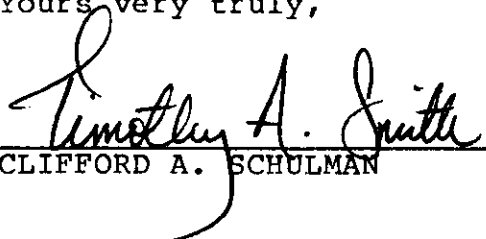
Of course, the Department may presently believe that the BACT rule does not presently provide for any "weighing" of factors to be used in the review process, or the Department may desire LAER for this type of facility. Rulemaking may be the Department's choice to enunciate its feelings clearly on these matters. Rulemaking would allow a full compilation of available scientific data on the subject and an analysis of the cost impact of such technology on the citizenry of the State of Florida. As you noted, this is not Broward's problem alone. Resource recovery facilities presently exist without this technology, and others will be permitted in the future. Although the legislature has mandated its policy of encouraging resource recovery in lieu of landfilling, the comparable costs of emission controls that are not required to provide reasonable assurances of protection of the environment may compel a continuation and expansion of landfills. Broward has indicated that it would be willing to build its facilities so that scrubber technology can be physically accommodated in the future. DER then could adopt and implement a valid rule requiring the retrofitting of facilities with such technology without causing undue interruption of operations or facing prohibitive physical constraints. Moreover, after such rulemaking Broward must be treated equally with all

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other such facilities state-wide, and not have one of the few resource recovery facilities in the state with this expensive technology.

We would like to meet with you to discuss this issue at your convenience. We would also offer to bring our expert consultant with us to assist in these discussions. We will greatly appreciate your favorable consideration of this matter, and we look forward to hearing from you soon.

Yours very truly,


for CLIFFORD A. SCHULMAN

CAS:tr

Victoria Tschinkel, Secretary
Department of Environmental Regulation

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