

1986-pm10-implementation-program.HEIC

November 10, 1986

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PM10 IMPLEMENTATION PROGRAM

Background/Status

The Agency is proceeding toward promulgation of revised air quality standards for particulate matter around February 1987. Issues raised by the public comments on the April 2, 1985, proposal are being addressed. A wide range of comments were received on the proposed SIP development policy, fugitive dust policy, PSD/NSR programs, and legal pathways for implementation. A final meeting of the Clean Air Science Advisory Committee (CASAC) was held October 15-16, 1986. The committee accepted addenda to the particulate matter criteria document which concluded that new studies of health effects of particulate matter reinforce earlier results.

Future Milestones

Self instructional courses and workshops are being planned to help prepare State and local personnel for SIP development.

The Oregon, Colorado, Kansas, New Mexico, and California agencies each helped their respective EPA Regional Offices prepare brief reports on rural fugitive dust areas. The reports include a description of the area, the particulate monitoring site and particulate sources in the area. EPA will seek public comments on alternative fugitive dust policies about February 1987 and will use the study information to provide examples of actual conditions and factors influencing air quality in rural fugitive dust areas.

EPA will hold a series of three workshops across the country to explain the implementation of the new PM10 standard. EPA is planning to hold the workshops between 30 and 60 days after the promulgation of the standard.

EPA Contact Person

Ken Woodard (919) 541-5697
(FTS) 629-5697

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STATUS OF PM10 SAMPLERS

Background

On March 20, 1984, the PM10 network design and siting requirements of 40 CFR 58 were proposed in the Federal Register. Under Section 58.34 of the proposal, the National Air Monitoring Stations (NAMS) for PM10 would be required to be operational 1 year after promulgation. Also, Section 58.23 of the proposal would require that the State and Local Air Monitoring Stations (SLAMS) be operational depending on the area's probability of nonattainment either 1 or 2 years after promulgation.

In 1984, EPA procured a total of 662 PM10 samplers [541 size-selective inlet (SSI's) and 121 dichotomous] in order to accelerate the collection of ambient PM10 data. These samplers were distributed to the States and local agencies in late 1984 and early 1985 based on prescribed criteria.

A total of 115 additional samplers are targeted for procurement by the States with section 105 grant funds.

Status

As of September 30, 1986, there were 872 samplers operating which represent an increase of 15 since June 30, 1986. Of the 872 samplers, 612 samplers are from the August 1984 EPA procurement, 65 are from other EPA sources, and 195 are State or local agency supplied.

The 612 samplers represent 92 percent of the 662 EPA procured samplers. No start dates have been specified for the remaining 50 EPA supplied samplers. Efforts are being made to establish start dates for these samplers.

Future Milestones

Assuming promulgation of PM10 standards by end of March 1987 the following monitoring activities are scheduled for completion by September 30, 1987:

- (1) SLAMS and NAMS network descriptions submitted to EPA.
- (2) Urbanized areas (>100K population) have at least one PM10 sampler operating at required frequency
- (3) Group I counties (excluding urbanized areas in (2) and fugitive dust counties) have at least one PM10 sampler operating at required frequency.

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STATUS OF PM10 SAMPLERS (continued)

- (4) Group II counties (excluding urbanized areas in (2) and fugitive dust counties) have at least one PM10 sampler operating at required frequency.

Distribution of oiling plate (shims) for retrofit installation in the EPA supplied Sierra Anderson PM10 samplers by March 31, 1987.

EPA Contact Person

Stan Sleva (919) 541-5651
 (FTS) 629-5651

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EXISTING SOURCES

COMMONWEALTH OF VIRGINIA
STATE AIR POLLUTION CONTROL BOARD
REGULATIONS FOR THE CONTROL AND ABATEMENT OF AIR POLLUTION
PART IV
SPECIAL PROVISIONS

4.02 COMPLIANCE

(a) thru (e) No change.

(f) New or More Stringent Emission Standards

(1) In the case of any emission standard adopted by the Board which is more stringent than the emission standard for the source in effect prior to such adoption, if any, or where there was no emission standard, the source shall not be considered in violation of the newly adopted emission standard provided that the owner:

(i) Submits to the Board, in a form and manner satisfactory to the Board, a control program showing how compliance shall be achieved within the time frame in the applicable compliance schedule prescribed under Appendix N or, where no applicable compliance schedule is prescribed under Appendix N, as expeditiously as possible, but in no case later than three years after the effective date of such emission standard;

(ii) Receives approval of the Board of such control program ~~within one year after the effective date of such emission standards;~~ and

(iii) Complies with all provisions, terms and conditions of the control program including the increments of progress.

(2) thru (6) No change.

(7) Nothing in this section shall prevent the owner of a source subject to a compliance schedule in Appendix N from submitting to the Board a pro-

House-Joint-Resolution-274-1985.HEIC

HP9082509

1985 SESSION

MAR 28 1985

ENGROSSED

HOUSE JOINT RESOLUTION NO. 274

House Amendments in [] - February 4, 1985

[~~Establishing a joint subcommittee Requesting the Air Pollution Control Board~~] to study whether present environmental laws are stringent enough to c resulting from fugitive coal dust. control the problems

Patrons-Maxwell, Robinson, W. P., Lambert, Morrison, Forehand, Dicks, and Miller, Y. B.,
Senator: Scott

Referred to the Committee on Rules

WHEREAS, residents of the Commonwealth place a high priority on a clean alr
13 environment; and

WHEREAS, a pollutant known as fugitive coal dust [^from whatever sources] presents a potential environmental problem for residents of the Commonwealth; and

WHEREAS, there are no federal or state coal dust standards for piers or coal loading facilities other than requiring the best available control technology; and

WHEREAS, there are no air monitoring stations presently measuring the extent of fugitive coal dust [^emanating from various sources] in the area of coal loading piers; now, therefore, be it

RESOLVED by the House of Delegates, the Senate concurring, That ~~[a joint subcommittee be established to study whether present environmental laws are stringent enough to control the problems resulting from fugitive coal dust. The joint subcommittee shall be composed of three members of the House Committee on Conservation and Natural Resources appointed by the Speaker of the House, and two members of the Senate Agriculture, Conservation and Natural Resources Committee appointed by the Senate Committee on Privileges and Elections.~~

The subcommittee shall complete its work in time to submit recommendations to the 1086 Session of the General Assembly.

The cost of this study, Including direct and indirect costs are estimated to be \$11,375. the Air Pollution Control Board conduct a study to determine whether present environmental laws are stringent enough to control the problems resulting from fugitive coal dust, and if they find that such laws are not, to proceed to promulgate appropriate regulations to do so as soon as possible.]

Official Use by Clerks

Agreed to By The House of Delegates
without amendment ☐
with amendment ☐
substitute ☐
substitute w/amdt ☐
Date: _____

Clerk of the House of Delegates

Agreed to By The Senate
without amendment ☐
with amendment ☐
substitute ☐
substitute w/amdt ☐
Date: _____

Clerk of the Senate

1977-hrec.HEIC

MEMORANDUM FOR: Agenda, Board Meeting, October 3, 1977
TO : Board Members
FROM : Executive Director
SUBJECT : Permit Review - Hampton Roads Energy Company - Reg. No. 60839
DATE : September 22, 1977

INTRODUCTION

The Hampton Roads Energy Company and Security Marine Terminal submitted a permit application on May 13, 1975 to build a refinery which would manufacture Propane LPG, Butane LPG, Motor Gasoline (two grades), Jet (A-1) fuel, No. 2 fuel oil, No. 5 fuel oil and Elemental Sulfur.

The Board at its regular meeting on October 7, 1975 approved the permit application. The minutes of that meeting show:

"Minute 20 - Permit Request - Hampton Roads Energy Company

Based on information and recommendations contained in a staff memorandum dated September 19, 1975, the Board approved the permit application of June 2 and June 25 of the Hampton Roads Energy Company, provided that the process and construction was conducted as proposed and that emissions would not exceed predictions."

The action of the Board was based on the memorandum for Agenda Board Meeting October 7, 1975 dated September 19, 1975 (copy attached).

The Regulations for the Control and Abatement of Air Pollution on October 7., 1975 stated Part II - General Provisions - Section 2.33 - Permits - Stationary Sources and Indirect Sources (h) Revocation of Permit :

"A permit granted pursuant to this section shall be revoked if a program of continuous construction is not begun within 24 months from the date the permit is granted."

The Board at its regular meeting on August 1, 1977 adopted the following revision for this section:

"(h) Revocation of Permit

A permit granted pursuant to this section shall become invalid if a program of continuous construction or modification is not commenced within 24 months from the date the permit is granted or if a program of construction or modification is discontinued for a period of 12 months or more. The Board may extend such time period upon a satisfactory showing that an extension is justified."

Hampton Roads Energy Company on August 11, 1977 by letter (Serial: 543-77) requested under Section 2.05 of the Regulations for the Control and Abatement of Air Pollution a variance to existing Section 2.33(h). Copy of letter is attached.

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Mr. William C. Sims from the Division of Industrial Development spoke mon the proposed change to the wording on the revocation of permits. Hestated that automatic revocation was too stringent a requirement and that the Board should have some flexibility in this area. Frankly, the applicant cannot get financing unless the most critical permit has been issued.

Mrs. Beverley Mann appeared on behalf of CARE and stated that she was wholly opposed to any change in Section 2.33(h). She also stated that the change appeared to be only for the benefit of the Hampton Roads Energy Company and that at least part of the delay by the Corps. of Engineers in acting on the permit request was due to the long time taken by Hampton Roads Energy Company to answer questions raised by the Corps. of Engineers.

Mr. Danny Steiner from the ECOS organization in Norfolk also appeared to oppose the change in the permit section. Mr. Steiner noted that a citizenshour was being held early in the day but the agenda item was not until later in the afternoon. He felt that a comment period should be held for each item on the agenda so that comments could be considered just prior to the Board's action. Mr. Steiner also noted that to change the language from "shall revoke" to "may revoke" might keep the Board from revoking a permit it wished to revoke.

Mr. Robert Porterfield spoke on behalf of the proposed change because he said it was not unusual for

1977-hrec-portsmouth

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STATE
AIR POLLUTION CONTROL BOARD

BOARD MEETING

D. J. Gaston

FREDERICKSBURG, VA.
OCTOBER 3, 1977

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Hampton Roads Energy Company on August 11, 1977 by letter (Serial: 544. requested that the permit issued to Hampton Roads Energy that the revision to Section 2.33(h) would become effective on September 30, 1977. Copy of letter is attached.

BACKGROUND

Subsequent to the granting of the permit by the Board, the following significant events have occurred:

(1) On April 19, 1976 at the public hearing held by the Corps Engineers, EPA entered into the record a statement saying that the refinery was "environmentally unacceptable" because it would add additional hydrocarbons to the atmosphere which would worsen the air quality which was already in violation of the photochemical oxidant standard. Copy of the statement is attachment.

(2) On June 30, 1976, as published in the Federal Register of July 12 1976, EPA designated Region VI as being in violation of NAAQS for photochemical oxidants and required a revision to Virginia's SIP.

(3) Pacific Environmental Services, Inc. (PES), under contract to EPA. made a study of plans for the refinery. In its report, it concluded that "The total emissions of each pollutant as summarized by PES in Section III reflect, in general, the application of best available control technology (BACT)." PES further concluded that the hydrocarbon emissions should be 642 ton/yr. less than those cited in the Board memorandum dated September 19.

(4) On December 15, 1976, as published in the Federal Register of December 21, 1976, EPA set forth its "Interpretative Ruling" which outlined its emission offset policy for major sources to be constructed or modified in non-attainment areas.

(5) On June 1, Hampton Roads Energy Company by letter (Serial: 321-77) requested EPA and the Board staff to resolve the long standing hydrocarbon trade-off issue as quickly as possible (copy attached). On the same date HREC by letter (Serial: 320-77) transmitted a possible hydrocarbon emission monitoring program to Mr. James F. Durham, Chief, Petroleum Section Chemical and Petroleum Branch, U.S. EPA Research Triangle Park, N.C. (copy attached).

(6) On June 16, 1977 Mr. Gordon Rapier, Director Air and Hazardous Material Division, Region III EPA by letter answered HREC's letter of June 1. In this letter Mr. Rapier stated the refinery in NMHC emissions would be 1285 tons/year. The emission reduction from the proposed HREC inspection and maintenance program would be 592 tons/year and the emissions to be offset would be 1285 tons/year.

(7) On July 25, 1977, EPA in its letter to HREC, notified HREC that its request for a permit to construct and operate the refinery was granted and that it would meet all provisions of EPA's Prevention of Significant Air Quality Deterioration (PSD) This covered the emissions of particula

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and SO₂. The letter went on to point out that since the refinery would be a major source of non-methane hydrocarbons (NMHC), and since the area exceeds the photochemical oxidants standards, NMHC offsets would be required. In short, this letter grants the PSD permit and says that EPA's concern is NMHC emissions with regard to air quality.

Location

The location of the plant is on the western branch of the Elizabeth River between the Coast Guard Station and the Western Branch Sewage Treatment Plant.

Permit Facility

1. The approved refinery will process crude oil into gasoline, jet fuel, No. 2 fuel oil, No. 5 fuel oil, naphtha, and elemental sulfur. A distillation process will be utilized and there will be a total of 8 process heaters plus one steam generator. There will be no cracking units. The fuel will be de-sulfurized and elemental sulfur will be a by-product.
2. The refinery will operate at a feed rate of 175,000 bbls/calendar day on an annual basis. Maximum daily feed rate is 184,000 bbls/stream day.
3. The most significant air pollution control features of the refinery are:
 - a. Fuel processing, from crude to finished product, will be accomplished within a closed system and the only vent in this closed system will be from the Beavon Control Unit into the No. 1 stack. The Beavon Unit has a designed efficiency of 99.5% for controlling sulfur emissions.
 - b. Neither the process heaters nor the steam generator will have specific emission control devices installed, but will depend on advanced design technology and low sulfur/ash fuel to meet emission standards.
 - c. The incinerator, of unknown design at this point, will be used to incinerate primary and secondary sludge and will meet new source emission standards.
 - d. The control devices to be utilized for the storage of crude and refined products will consist of "floating roof tanks" for storage of crude, gasoline, jet fuel and naphtha, a pressure tank for propane, and a spherical tank for butane. The other products, as well as slop oil and ballast water, will be stored in steel, fixed roof, tanks.
 - e. The terminal facility will have a vapor recovery system for use when loading barges and ships so equipped.
4. HREC proposes to start construction in 1978 and to be completed and ready for final source emission testing in 1980.

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5. HREC will be prepared to conduct stack tests and validate all emissions upon completion of construction and start up of the refinery. IN addition HREC proposes to install in each stack the following monitoring equipment:
 - a. Opacity indicators (24 hour continuous disc type)
 - b. A device for monitoring and recording H₂S in fuel gases.
 - c. An instrument for continuously monitoring and recording So₂.
 - d. A device for measuring the oxygen content in the flue gas.
6. HREC will provide and implement a program of hydrocarbons monitoring and leakage detection for the entire refinery complex with an interlocking follow-up and preventive maintenance program. This is outlined in HREC letter (Serial: 321-77) dated June 1, 1977 to EPA and was conditionally accepted by EPA's letter dated June 24, 1975 to HREC from the Office of Air Quality Planning and Standards.

CURRENT ENGINEERING EVALUATION

Subsequent to the Board's approval, EPA contracted with Pacific Environmental Services, Inc. to conduct an extensive evaluation of the air pollution potent of the proposed refinery. This evaluation resulted in slightly different estimates of total emissions.

Still later, as a result of discussions concerning hydrocarbon emissions between personnel from EPA and HREC, HREC agreed to develop and implement a detailed plan for an inspection and maintenance program for the detection and control of hydrocarbon emissions from seals, blowdowns, and various process operations. Based on such a plan, and in consideration of recent Chicago Bridge and Iron emission testing of hydrocarbons emitted from floating roof and fixed roof storage tanks, EPA established a value of hydrocarbon emissions of 1285 tons per year for the pronosed complex.

A summary emission (tons/year) is:		<u>Particulate</u>	<u>SO_x</u>	<u>NO_x</u>	<u>HC</u>
a.	Commonwealth of Virginia: As of 10/7/75	677.3	4255.2	4465.9	2819.1
b.	EPA as of 1/76	82.4	4072.2	5398.1	2172.2
c.	EPA as of 6/16/77	—	—	—	1285

All of the above emissions meet new source standards, or where new source standards have not been established, Best Available Control Technology.

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Particulate

The study by PES included particulate emissions from the fuel burning equipment on vessels delivering and taking on products from the refinery. This amounted to 82.4 tons of particulate. The same report also used worst case conditions (ash content of the fuel) rather than the average of the test data which was furnished in the original permit submittal. This amounts to 92.7 tons/year.

SO_x

The PES report used a mass balance equation rather than the AP-42 emission factors which were used by staff in its original evaluation. The same report also used a control efficiency of 99.9% from the sulfur recovery unit rather than 99.8% which was used by staff. This resulted in a decrease of 183 tons SO_x/year.

NO_x

The PES report agreed that the NO_x figures compiled by staff were achievable using BACT and that they believed the figures were realistic. However, PES used emission factors from a study performed by the Radian Corporation (These values are intermediate values between the BACT and AP-42 emission factors). Technology is available to meet the original staff estimates.

Hydrocarbons

The PES study reduced the hydrocarbon emissions by 642 tons/year. Staff in its original evaluation had used worst case conditions (AP-42 factors which were based on emissions from existing sources). Further review by EPA reduced the hydrocarbons by 300.1 tons/year on the basis of emission testing of hydrocarbons from floating roof and fixed roof storage tanks that had been done by Chicago Bridge and Iron. The Inspection and Maintenance program agreed to by HREC and EPA accounts for the further reduction. HREC's letter of agreement dated September 19, 1977 is attached.

AIR QUALITY MAINTENANCE

The control of ambient particulate matter is an attainment and maintenance concern in this air quality control region. The existing air quality concentration is an acceptable 48-53 micrograms per cubic meter in the area where the refinery emissions will impact. The additional 1 microgram per cubic meter will not cause the secondary annual guideline value of 60 micrograms per cubic meter to be exceeded.

PREVENTION OF SIGNIFICANT DETERIORATION

This area is designated Class II with a PSD allowance of 20 micrograms per cubic meter for sulfur dioxide. The sulfur dioxide impact is 6.28 micrograms per cubic meter thus consuming 31% of the allowed increase in sulfur dioxide concentration.

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The PSD permit was reviewed by Region III EPA. By letter dated July 25, 1977 this permit was granted (copy attached). The letter made the following requirements a part of their permit approval:

"(1) For control of total suspended particulates (TSP), the specified design and control efficiency must meet the requirements for best available control technology as defined by Federal New Source Performance Standards and specified in 40 CFR, Part 60. Total suspended particulate emissions from all fuel burning equipment must not exceed 0.1 lbs. /million BTU's actual heat input. Total suspended particulate emissions from the industrial waste sludge incinerator must not exceed 0.03 grains/dry standard cubic foot corrected to 120 CO₂ at standard conditions.

(2) For control of sulfur dioxide (SO₂) emissions, the specified design and control efficiency must meet the requirements of best available control technology as defined under New Source Performance Standards as specified in 40 CFR, Part 60. Sulfur dioxide emissions from all fuel burning equipment must not exceed 0.8 lbs./million BTU's actual heat input. Sulfur dioxide emissions in the tail gas exit for the Sulfur Recovery Unit (between the Beavon Unit and stack No. 1) must not exceed 380 part per million.

(3) The source owner shall perform stack emission tests to determine final compliance with all applicable emission standards. These tests shall be performed in accordance with approved Federal and State test methods and procedures. Results of such tests shall be submitted to the Environment Protection Agency and the Virginia State Air Pollution Control Board.

Approval to construct the Hampton Roads Energy Company oil refinery and marine terminal, pursuant to 40 CFR, Part 52.21, shall be effective on the date of this approval. If construction authorized by this approval is not commenced within eighteen (18) months of this approval date, such authority shall become invalid."

EMISSION OFFSET

The "Interpretive Ruling" published by EPA on December 21, 1976 is applicable to HREC. This requires a reduction in hydrocarbons at least equal to the hydrocarbon to be emitted by HREC. These emission reductions from other sources must be other than those addressed in the State Implement Plan requirement. Offsetting reductions of 1493 tons/year will be effected by converting to emulsified asphalt for highway surfacing and/or resurfacing as a substitute for solvent mix. The following table shows reduction in hydrocarbon emissions in the Richmond and Suffolk highway districts in Virginia

Projected 1977 - Cutback usage in the area:

Rapid Cure (RC):	4563.55 tons	(52.82% of cutback used)
Medium Cure(MC):	<u>4976.70 tons</u>	(47.18% of cutback used)
	8640.25 tons	Maximum amount of cutback, '77
	<u>- 4850.00 tons</u>	Maximum amount of cutback, '78 and later
	3790.25 tons	Amount of reduction in cutback use

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RC: 3790.25 tons x .5232 = 2002 tons x .35 solvent content	= 700.7 tons HC
MC: 3790.25 tons x .4718 = 1788.24 tons x .45 solvent content	= <u>804.7</u> tons HC
	1505.4 tons HC
Solvent content of CSM-2 portion of emulsion replacing cutback	<u>- 12.1 tons HC</u>
	<u>NET REDUCTION IN HC 1493.3 tons</u>

Attached is the original emission offset proposal and the modified version derived after further discussions with EPA and the Highway Department.

The above calculations and values are based on the following assumptions which were agreed to by EPA after an all-day meeting with them to discuss the technical requirements.

1. Amount of asphalt used should be prorated on the basis of highway miles in each district compared to the total highway miles in the State.
2. Solvent content in asphalt should be based on specification provided by the Virginia Department of Highways and Transportation.
3. Ultimately, 100% of the solvent content will evaporate.

NON-ATTAINMENT PROVISIONS

Under the Clean Air Act Amendments, until such time as States submit, and EPA approves, a new implementation plan that will provide orderly growth without exacerbating an air quality program, EPA's Interpretive Ruling will apply to new sources. Under this ruling, there are three major items that must be met:

1. The permit authority must determine that by the time the new facility will commence operation that there will be a reduction in emissions from existing sources so as to represent reasonable progress toward attainment.
2. The proposed source is required to comply with the lowest achievable emission rate.
3. The owner or operator of a new facility must have demonstrated that all of his existing facilities are in compliance with all applicable emission requirements.

Since this was an area of concern to EPA, we have discussed Hampton Roads Energy Company with EPA and they agree that all the requirements under their Interpretive Ruling have now been met by Hampton Roads Energy Company and the Commonwealth of Virginia.

EXTENSION OF PERMIT

HREC requests that the present permit expiring October 7, 1977 be extended for a two year period. The granting of such a request by the Board is authorized under Provisions of Section 2.33(h) of the Regulations as modified by the Board at its regular meeting on August 1, 1977. This revision becomes effective September 30, 1977.

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In justification of the request HREC cites that while it has been acting engaged in the process of obtaining required State and Federal permits for the past two years sufficient time has not been available to complete action on the permit request from the Federal Government, i. e. the Army Corps of Engineers. The permit request to the Corps was dated March 3, 1977.

Colonel Newman A. Howard, U.S. A., the District Engineer in Norfolk estimates that the processing of the permit may be completed as early as December 1977 and should be completed no later than February 1978.

VARIANCE TO SECTION 2.33(h)

HREC requested a variance to Section 2.33(h) of the Regulations whereby granted permit should be revoked if a program of continuous construction have not begun from the date the permit was granted. The existing permit to construct and operate will expire October 7, 1977. HREC states the same fact for the variance request as it did for the extension of the permit.

The request, for a variance was made by HREC so that if the Section 2.33, effective September 30, 1977 was not valid then the Board would have the option of granting a variance under Section 2.05 of the Regulations.

PUBLIC HEARING

The public hearing concerning the approval of a variance extension of the permit and approval of the emission offset was advertised in the Norfolk Virginian Pilot, Friday, August 19, 1977 and in the Richmond Times Dispatch on August 21, 1977. The hearing was held as advertised at 7:30 p.m. September 20, 1977 in the City Council Chambers, Municipal Building, Portsmouth, Virginia. The hearing officer was L. B. McDonald, Region VI Director. The hearing was opened at 7:30 p.m. and ended at 9:50 p.m. The hearing was electronically transcribed and is on file in the Region VI Office at Virginia Beach.

The total attendance was 121. Of those in attendance 63 individuals were against the refinery and 26 were for the refinery. There were 28 speakers - 10 speaking for the refinery, 18 against. In the rebuttal portion there were 9 speakers.

Those speaking for the refinery primarily addressed:

1. Approve the variance.
2. Extend the permit.
3. Approve the emission offset.
4. The expiration of a permit after two years was not practical and feasible and a permit should be good for a longer period of time.

Those speaking against the refinery primarily addressed:

1. Disapprove the variance.
2. Disapprove extension of a permit.
3. Disapprove the emission offset.
4. The two year life of a permit was sufficiently long and should not be changed.

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5. The VOC emission reduction accomplished by use of emulsified asphalt should be effected but the reduction should be used to improve the ambient air quality rather than as a emission offset for one source.
6. The calculation of the VOC offset was questioned by one speaker. The report of the hearing officer will be made available after it has been assembled.

DISCUSSION

Staff is of the opinion that HREC's purpose in requesting an extension of the permit to construct and operate and a variance to Section 2.33(h) of the Regulations is to provide an additional two year time period for the construction of the refinery. On August 11, 1977 HREC was not certain which vehicle (extension or variance) should be used to obtain two years additional time.

Staff believes the proper vehicle for granting this extension is through Section 2.33(h) which was approved by the Board at its regular meeting on August 1, 1977 and which was effective September 30, 1977. It is Staff's opinion that the emission offsetting reduction of 1493 tons/year, which will be effected by converting to emulsified asphalt for highway surfacing and/or resurfacing as a substitute for solvent mix in the Richmond and Suffolk highway districts, more than meets the "Interpretive Ruling" published by EPA on December 21, 1976. The estimated hydrocarbon emissions from the refinery are 1285 tons of volatile organic compounds/year. This is a reduction of 1.16 tons of VOC for each one ton of VOC to be emitted by the refinery.

ALTERNATIVES

1. Allow the permit to construct and operate to expire October 7, 1977 and take no action.
2. Deny the request for an extension of the permit to construct and operate.
3. Deny the variance for an extension of the permit.
4. Grant an extension of the permit under Section 2.33(h) effective September 30, 1977 with the following conditions:
 1. Effective from October 8, 1977 to October 7, 1979.
 2. The total volatile organic compound emissions are 1285 ton/year.
 3. HREC will implement a program to monitor, record and report all VOC emissions due to leaks and equipment failure with a program to immediately correct all detected leaks and equipment failures. These programs shall be in conformance with the plant submitted by HREC to the Board dated September 19, 1977.

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4. Other provisions of the permit letter of October 8, 1975 to HREC remain in effect
5. Grant the variance under Section 2.05 of the Regulations with the same conditions as outlined in Alternative 4
6. Approve the offset submitted by Staff
7. Disapprove the emission offset submitted by Staff.

RECOMMENDATION

It is recommended that :

1. Alternative 4 be approved.
2. Alternative 6 be approved and Staff be directed to submit the offset to the Director, Environmental Protection Agency for approval.

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HAMPTON ROADS ENERGY COMPANY
SUITE 202 - CENTRAL OFFICE BUILDING
330 COUNTY STREET
PORTSMOUTH, VIRGINIA 23704
(804) 397.7056
September 19, 1977

JOHN K. EVANS
President

Mr. James F. Durham
Chief
Petroleum Section
Chemical and Petroleum Branch
Environmental Protection Agency
Office of Air Quality Planning and Standards
Research Triangle Park, North Carolina
27711

EXECUTIVE OFFICE
Suite 917
1010 Vermont Ave , N W
Washington, D. C. 20005
202 - 783-1546

Serial: 552-77

Dear Mr. Durham:

Enclosed is a revised Hydrocarbon Monitoring and Maintenance Program for the Hampton Roads Energy Company refinery and marine terminal project in Portsmouth, Virginia.

This plan incorporates the changes proposed in your letter of June 24, 1977, and is submitted to confirm the projected rate of hydrocarbon emissions of 1285 tons per year as a final number pursuant to Mr. Gordon Rapier's letter of June 16, 1977.

It is requested that the final number be confirmed as soon as possible to allow further progress between HREC and the Commonwealth of Virginia on the trade off required under the Interpretative Offset Ruling and the Clean Air Act as amended.

I am sending Mr. Rapier a copy of this letter and enclosure to expedite matters.

Sincerely,
Robert E. Porterfield
Vice President

REP/cr
Enclosure
cc:
Mr. Gordon M. Rapier
Mr. William R. Meyer

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RECEIVED NOV 25 1977

STATE
AIR POLLUTION CONTROL BOARD

BOARD MEETING

D. J. Gaston

RICHMOND, VA.
DECEMBER 2, 1977

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Dr. Stephens noted that the cost of operating the plane was estimated at \$50.00 per hour.

The second speaker was Mrs. Joanne Berkley who represents CARE and was speaking against extension of the Hampton Roads Energy Company permit. Mrs. Berkley noted that she felt that oxidants created a health problem and that a plant such as this should not be located in a major urban area. She noted, also, that both the oyster packers and the seafood industry had expressed concern about this refinery and she felt that any offset should be used to improve air quality rather than letting in a new source.

Mrs. Berkley also noted that this was a third offset calculation for hydrocarbons and she was concerned about whether the Board had had sufficient time to consider all of these factors. Mr. Mattson noted that he had received a copy of a telegram from the Virginia Oyster Packers and Plantation Association concerning the Hampton Roads Energy Company refinery in Portsmouth, Virginia.

Mrs. Suellen T. Keiner, who is an attorney for CARE, expressed her concern about the legal aspects of what the Board was proposing in regard to the Hampton Roads Energy Company. She made the following points:

1. In her opinion, it was improper for the Board to vote to extend the permit until EPA had approved the permit language in our regulations.
2. The Clean Air Act amendments established existing State Implementation Plan as the base line for offsets and until of these measures are imposed, Virginia could not qualify for an offset.
3. In her opinion, the existing permit could not be extended in its present form but should be revised to make it legally enforceable.
4. Citizens have not been given a chance to comment on the conditions being proposed for the Hampton Roads Energy Company permit extension.
5. CARE and others still believe the original permit issued in October of 1975 was an illegal action and as a consequence, the permit is invalid.

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6. Ms. Keiner noted that CARE might have to seek legal redress if the Board does not defer action on Hampton Roads Energy Company.

Ms. Beverly Mann commented that much of the material distributed in favor of the refinery was very biased. She said that those favoring the refinery will benefit economically while those who are opposed will not benefit at all. Ms. Mann felt that the first and foremost responsibility of the Board was to control air pollution but not permit economic growth. She felt that the Board was being asked to vote on incomplete data and she asked that the Board allow the permit to expire until an acceptable emission offset plan can be prepared and judged on its own merit.

Mrs. Eleanor Baird stated that she represented the Conservation Council of Virginia and that the Board should receive a telegram from the president reaffirming their opposition to the refinery being located in Portsmouth. Mr. Mattson acknowledged that such a telegram had been received from Mr. J. Robert Hicks the previous evening.

Ms. Julia Worth, who lives in the West Oceanview area, expressed concern about what the Hampton Roads Energy Company would do to the air quality in the area near their homes. She stated that there was already heavy "fallout" in their area and the reduction of hydrocarbons in the Fredericksburg area as an offset for emissions in the Tidewater area was ludicrous.

Dr. Skeppstrom stated that CARE was pleased by the results of the public hearing held on September 20 and noted that there was virtually "zero" public support for the project.

Mrs. Fran Martin presented an economy report by James Brady which pointed out that there was no shortage of refineries in the United States but that there was a shortage of raw materials to be used in the refinery. She felt that the company would not be a beneficial tax base for the City of Portsmouth. According to Mr. Brady, the United States could run out of oil in ten years.

Mr. Danny Steiner, speaking for ECOS, stated that his organization had one hundred members and that he did not believe that the Board had followed the State procedures for hearings and hearing notices.

Admiral Allan Roby spoke on behalf of CARE and stated that he did not believe the citizens of Virginia were getting a full and fair shake on Hampton Roads Energy Company. He stated that he was not directing this accusation just to the Air Board but to the entire government of Virginia.

Ms. Barbara Robinson, a Portsmouth resident stated that she had lost numerous plants in her back yard because she was next door to Virginia Chemical Company and she felt that permitting Hampton Roads Energy Company to build would be making a bad situation worse.

Mr. Warren Belknap noted that in a recent Fifth Circuit Court decision, the judge had decided that no one could guarantee that a particular decision would flow from public participation. This involved a suit by the State of Alabama against EPA.

Mr. Axel T. Mattson noted that he had received 61 letters against

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the Hampton Roads Energy Company and Mr. L. B. McDonald delivered a partition to the Board favoring the Hampton Roads Energy Company which contained 1,438 signatures.

Citizens' Hour closed at 10:18 a.m.

Minute 3 - Permit Review - Hampton Roads Energy Company

Based on information contained in a staff memorandum dated September 22, 1977 and based further on information presented at the Board meeting, including the fact that the Hampton Roads Energy Company request had been reviewed just as if it were a new permit, the Board approved an extension of the permit for Hampton Roads Energy Company through October 7, 1979. The extension was granted pursuant to Section 2.33(h) of the Regulations for the Control and Abatement of Air Pollution and was issued subject to the following conditions:

1. This permit is effective from October 8, 1977, to October 7, 1979.
2. The total volatile organic compound emissions are not to exceed 1,285 tons/year, as indicated in the attached table.
3. Hampton Roads Energy Company will implement a program to monitor, record and report all VOC emissions due to leaks and equipment failure with a program to immediately correct all detected leaks and equipment failures. These programs shall be in conformance with the plan submitted by Hampton Roads Energy Company to the Board dated September 19, 1977.
4. Construction shall not commence until Hampton Roads Energy Company is notified in writing by the Board that the State Implementation Plan revisions, required by the interpretative regulation of the administrator of the Environmental Protection Agency published in 41 Federal Register 55524-30, December 21, 1976, are satisfied.
5. Other provisions of the permit letter of October 8, 1975, to Hampton Roads Energy Company remain in effect.

Minute 4 - Variance Request - Womack Foundry

Based on information and recommendations contained in a staff memorandum dated September 15, 1977, and based further on information presented at the Board meeting, the Board approved the variance request of Womack Foundry through October 31, 1978. The Board directed that the following be added to the order granting the variance:

"Whereas the Board was of the opinion that failure to grant this request would result in economic hardship to Womack Foundry, Inc."

The variance was granted subject to the following

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STATE
AIR POLLUTION CONTROL BOARD
BOARD MEETING
FREDERICKSBURG, VA.
OCTOBER 1, 1979

J. C. Doherty

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The Board recessed for dinner at 5:20 P.M. and reconvened at 7:15PM for Citizens' Hour.

Minute 13 - Citizens' Hour

Mr. Robert Porterfield, Mr. William H. Hathaway, Mr. N. L. McCarthy and Mr. John H. Waters, all spoke praising the Board for their equitable handling of permit requests. Mrs. Elvie H. Butt, Mrs. Beverly Mann, and Mrs. Joan Berkley all spoke indicating that they did not think the Board had acted properly in dealing with the permit request for Hampton Roads Energy Company or Swann Oil Company. Mrs. Mann noted that she wondered if the proper base year had been used, if the proper background values had been used, and whether we had used the right basis for transport. She accused the Board of stonewalling the regulations and that Hampton Roads Energy Company would use up 99 percent of the sulphur oxide increment. Mrs. Berkley noted that their organization included 70 different organization and 15,000 members and the Board should suggest to the Legislature the proper course of action on air pollution problems. She also noted the GAO report which stated that additional refineries were not necessary. Several other citizens spoke in opposition to the Swann Oil Company permit request. At the request of the Board, the Assistant Executive Director - Enforcement described the accommodative SIP concept for the people in attendance at Citizens' Hour.

Minute 14 - Swann Oil Company Permit Request

Based on information and recommendations contained in a staff memorandum dated July 23, 1979, the Board authorized the staff to go to public hearing on the accommodative SIP concept and the Swann Oil Company permit request under the accommodative SIP concept.

Minute 15 - Election of Chairman and Vice Chairman

The Board unanimously selected Mr. E. Folger Taylor as Chairman and Mrs. Elizabeth H. Haskell as Vice Chairman for the coming year.

The Board meeting adjourned at 8:57 p.m.

Attachments: 4

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STATE
AIR POLLUTION CONTROL BOARD
BOARD MEETING
RICHMOND, VIRGINIA.
DECEMBER 10, 1979

J. C. Doherty

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4. Allied Chemical Corporation Fibers Division shall make quarterly reports to the Board (Attention: Director, Division of Compliance) and the Region V Director concerning the status of evaluation of emission control systems and shall include visible emission evaluation reports conducted once per week by Allied Chemical Corporation Fibers Division personnel.

The Board recessed for lunch at 12:24 p.m. and reconvened at 1:30 p.m.

Minute 11 - Citizens' Participation Hour

The following individuals spoke during Citizens' Hour:

1. Mr. Mahoney, representing the Isaac Walton League, had misgivings about granting permits for refineries in the Portsmouth area because there was a potential for error in such a large operation. He felt the Board should consider the potential economic impact on recreation in the Chesapeake Bay area.
2. Mrs. Robert Mann, of CARE, reiterated many of that organization's concerns including:
 - a. The Board cannot approve permits until the accommodative SIP is approved.
 - b. The Interpretive Ruling Emission offset should be enforced.
 - c. The emission inventory was incomplete.
 - d. PSD permit has not yet been approved

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- e. Questions the invalidation of data from monitors run from Old Dominion University.
 - f. The Board should look at all the data and facts and require a completely new application.
3. Mr. V. A. Blandin, representing CARE, expressed concern about the different meteorological conditions used to review the maximum impact from Hampton Roads Energy Company and Swann Oil Company. He felt that plume indicating point of impact at 90 degrees apart from each other was not appropriate and represented unprofessional work. He noted that this had been conveyed by letter to the Corps of Engineers.
4. Mr. Sam Cravotta, President of the Northern Shenandoah Valley Audubon Society, noted that his organization consisted of 5,000 members and that he felt that both the permits for Swann Oil Company and Hampton Roads Energy Company should have been denied. He also questioned the removal of sulfur oxide bubblers despite the fact that EPA said such devices were unacceptable.
5. Mr. Wallace E. Reed said that he disagreed with the staff's position on the Indirect Source Rule and felt that permits for this type of source should be required before a zoning change is granted. He noted that the models are reasonable tools to predict air pollution impact and he wanted the rule retained.
6. Mr. John Yagla, representing the King George Environmental Association, comprised of some 9,000 citizens expressed serious concern about the DANO permit request which would be the subject of a public hearing in King George County on October 18. His group was totally opposed to the facility and listed the following reasons:
 - a. The Company lacks technical competence.
 - b. The Company has no experience in the United States.
 - c. Similar facilities in Arizona and California failed to operate properly.
 - d. The European process will not work in the United States.
 - e. They believe there is a serious air pollution and potential odor problem.
 - f. Character of the owners.
 - g. The product is not merchantable.
7. Mrs. Joanne Berkley, of CARE, felt that the staff did not give the Board a fair picture of what citizens were saying and she felt that there must be a better way for citizens, the Board, and the staff to work so that they were not fighting each other all the time. She felt that citizens should have material given to the Board in the Board book.

[handwritten note-
underlined
sections in same
pen, section 6 in
its entirety is
boxed] "Public
housing held in
region IV
October 18, 1979.
This statement
interestingly
presented at the
Board Meeting on
Oct 1, 1979,
definitely conflicts
with 'Agenda
Item 5, page 4-7,
Someone should
have ruled him
out of order'"

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DECEMBER 12, 1986
BOARD RETREAT

CHARLOTTESVILLE, VIRGINIA

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Name	Organization	I wish to speak at the Citizen's hour
Nelson Brown	Westrap Corp	—
Samuel JOurner	“”	
YVES ALARIE	UNIV. PITTSBURGH	
Frank Lambert	Westreld	
C. Whitter	Massey Coal	
J N Houch	Dominion Coal	
J. Collins	M.C.T.C	
q toda	NSC	
J. Mclean	DeD	
Jony L. Ivez	Seueton R.C. Scott office	
Nita G. Velherson		yes
Gisele Peake Russel	Del. Mavuell's office	
Laurie Bazonone	Citizen	yes
Ben Mann	“	yes
J. D. Reilley	“	No
John W. GRAFF	VA Dept Forestry	No
G.G. EMMITT	Simpson Weather Assoc	
G.C. Llewellyn	VDH	
Khizer Wasti	State Health Dept	
Danny L. Gray	APCo	
any for NS—		

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DRAFT
MINUTES
AIR POLLUTION CONTROL BOARD
Agecroft Room
DIVISION OF MOTOR VEHICLES
2300 West Broad Street
RICHMOND, VIRGINIA

On Monday, February 2, 1987, the regular meeting of the State Air Pollution Control Board was convened at 9:11 A. M. The following individuals were present:

BOARD MEMBERS

Mrs. Elizabeth H. Haskell, Chairman
Mr. Carl C. Redinger, Vice Chairman
Mr. Timothy E. Barrow, Member
Mr. Manuel Deese, Member
Mr. Wallace E. Reed, Member

STAFF MEMBERS:

Mr. R. L. Cook, Executive Director
Ms. D. L. Feild, Assistant Attorney General
Mr. J. M. Daniel, Jr., Assistant Executive Director - Operations
Mr. J. E. Sydnor, Assistant Executive Director - Programs
Ms. Jane Beckett-Camarata, Assistant Executive Director -
Administration
Ms. M. B. Lester, Policy and Programs Analyst - Division of
Program Design and Development
Mr. K. O. Chaudhari, Director-Division of Computer Services
Modeling and Air Quality Analysis
Mr. W. W. Erskine, Director-Division of Program Audit and
Evaluation
Mr. W. P. Pitts, Director- Division of Source Evaluation
Mr. K. C. VanAuken, Legislative Liaison
Mr. R. O. Stone, Public Information Officer
Mr. M. D. Overstreet, Region I Director
Mr. D. L. Shepherd, Region II Director
Mr. T. L. Henderson, Region III Director
Mr. W. M. Jewell, Jr., Region V Director
Mr. R. P. Minx, Region VI Director
Mr. L. R. Baumann, Assistant Region VII Director

OTHERS:

None

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MINUTE 5 - Coal Dust Study

Delegate W. Henry Maxwell addressed the Board and expressed appreciation for the fact that the dust had been abated by about 80 percent, but he was very concerned about the 20 percent that still created "an unbearable nuisance". He also noted that while we might be achieving the health-based air quality standards, he was still concerned about pollution levels in homes where significant quantities of dust still collected. He noted that people who live in the area still feel that it is a serious problem and we need to do everything we can to reduce emissions further.

Using agenda item No. 5 as a briefing document, the Director of Region VI reviewed with the Board the steps that had been taken to develop a procedure for reducing fugitive emissions. Temperature, relative humidity, and wind speed were all factors that needed to be considered in determining when to water the coal piles. Each cycle used approximately

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24,000 gallons per hour of fresh water and it was costing the coal companies approximately \$100,000 per year in water bills to do this. It was also noted that we were meeting the primary or health-based standard for total suspended particulate and that we would also be able to meet the proposed inhalable particulate standard for PM10. It was noted further that fugitive emissions from coal stored in hopper cars bad {at} both the CSX and Norfolk and Western terminals might be significant and needed further study.

MINUTE 6 - Citizens' Hour

Nita Wilkenson said that she lived close to the impact area of the coal terminals and that she also had friends in the development called Harbo{R} Homes who had to clean constantly to keep the coal dust under control. She urged the Board to study the health effects of coal dust, especially, as it affected families with children.

Louise Bazemore said she is also concerned about the health effects from coal dust coming from the terminals. She noted that gutters on houses have a black, muddy substance coming from them and that mud puddles in the area have coal dust all around them. She was concerned about how much coal was getting inside the homes and the daily cleaning problem that people had. She was concerned about what would happen if we had a water shortage and urged that Doctors be included in further studies.

Beverly Mann said that there were hundreds of citizens in the Norfolk area who felt that coal dust from the Norfolk and Western facility at Lambert's Point was causing a problem and she urged the Board to require ★ Reasonable Available Control Technology (RACT) on existing sources to minimize the problem. She noted that a monitor placed at her house contained over 38% coal dust and that the quality of life of the people was being adversely affected. She noted that the Norfolk and Southern, and Norfolk and Western were good neighbors but that the Board really needed to take appropriate steps to minimize fugitive emissions. She read into

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the record three letters from individuals who shared similar concerns. These three letters were from Mr. Clyde H. Jacob, Jr .; Mr. H. K. Wood, President of the West Ghent Civic League; and Mr. Paul Sellers of the Edgewater Association. Copies of these letters are attached to and made a part of these minutes.

Carol Jordan, an attorney for Norfolk and Southern, stated that once they had reviewed the draft report of the coal dust study, they would make appropriate comments on it and provide these comments to the Board {, AND STAFF}

The Board meeting recessed for lunch at 1:10 P. M. and reconvened at 2:37 P. M.

MINUTE 7 - Proposed Charter Change and Membership for the State Advisory Board on Air Pollution

Using agenda item No. 7 as a briefing document, the Executive Director discussed with the Board a proposal to restructure the State Advisory Board on Air Pollution. He provided the Board with a draft initial charter and suggested that the Board select 15 to 20 people from the list that he had provided to serve as members. The Executive Director noted that potential candidates included people in the following disciplines:

- Control Technologies
- Public Administration and Economic Development
- Economics
- Health
- Atmospheric Chemistry
- Modeling
- Monitoring
- Regulatory
- Resources

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DRAFT
MINUTES

STATE AIR POLLUTION CONTROL BOARD

Agecroft Room

DIVISION OF MOTOR VEHICLES

2300 West Broad Street

RICHMOND, VIRGINIA

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Mr. Timothy E. Barrow, Member

Mr. Manuel Deese, Member

Mr. Wallace E. Reed, Member

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Ms. D. L. Feild, Assistant Attorney General

Mr. J. M. Daniel, Jr., Assistant Executive Director - Operations

Mr. J. E. Sydnor, Assistant Executive Director - Programs

Ms. Jane Beckett-Camarata, Assistant Executive Director -
Administration

Ms. M. B. Lester, Policy and Programs Analyst - Division of
Program Design and Development

Mr. K. O. Chaudhari, Director-Division of Computer Services
Modeling and Air Quality Analysis

Mr. W. W. Erskine, Director-Division of Program Audit and
Evaluation

Mr. W. P. Pitts, Director- Division of Source Evaluation

Mr. K. C. VanAuken, Legislative Liaison

Mr. R. O. Stone, Public Information Officer

Mr. M. D. Overstreet, Region I Director

Mr. D. L. Shepherd, Region II Director

Mr. T. L. Henderson, Region III Director

Mr. W. M. Jewell, Jr., Region V Director

Mr. R. P. Minx, Region VI Director

Mr. L. R. Baumann, Assistant Region VII Director

OTHERS:

None

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ELIZABETH H. HASKELL, CHAIRMAN
MARTINSVILLE

CARL C. REDINGER, VICE CHAIRMAN
ALEXANDRIA

TIMOTHY E. BARROW
VIRGINIA BEACH

MANUEL DEESE
RICHMOND

JMDR
File copy
John- HOLD
THIS TO CORRECT MINUTES IR
WALLY CALLS John
mailed to home address

COMMONWEALTH of VIRGINIA
State Air Pollution Control Board
ROOM 801, NINTH STREET OFFICE BUILDING
POST OFFICE BOX 10089
RICHMOND, VIRGINIA 23240
(804) 786-2378
March 5, 1987

Mr. Wallace E. Reed
Clark Hall
University of Virginia
Charlottesville, VA 22903

Dear Wally:

As I mentioned to you on the phone, the tape recording of the February Board meeting is virtually useless in being able to transcribe anything intelligible from it.

In view of that, I have gone back carefully through my notes of the presentations made at the Board meeting and would suggest the attached as what we use as the minute for that particular agenda item.

With the information in the attached minute, no one could realistically accuse us of compromising the health of the surrounding population.

Please let me know if you think this is OK.

Sincerely,

John M. Daniel, Jr., P. E.
Assistant Executive Director

JMDJr/jh

Cc: SAPCB Board Chairman
Executive Director

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Board Members

January 23, 1987

Page 2

Coal Dust Study

I am attaching a preliminary outline of how I propose to have Ray Minx present this subject. We will have a dry run during the week of January 26. The report itself needs some reorganization and rewrite but the conclusions seem to be sound.

1. The installation and use of computer controlled coal pile water spray systems is adequate to reduce the fugitive coal dust emissions from the terminal operation to a level below established federal Total Suspended Particulate (TSP) emission limits. Also with these spray systems in operation, there does not appear to be any problem with inhalable particulates (10 microns or smaller). All this is based on monitoring data. The nuisance problem has been significantly reduced but will continue to be a source of irritation to residents across the street as long as the terminal is in operation.
2. There appears to be a TSP and perhaps potential inhalable particulate problem with the rail transportation of coal, based on Canadian studies and some preliminary studies by Region VI. This is a politically sensitive issue because the resolution would most likely involve spraying each coal car after it is loaded with a chemical sealant. Some of the coal involved is from out of state and, of course, a great deal of it is Virginia coal. Furthermore, much if not most of the coal involved does not go to the coal terminal which is the subject of this study.

Before the meeting, I will be sure that the legislators in the Tidewater area (Senator Scott and Delegate Maxwell) are satisfied with the resolution of the terminal problem. I recommend that we recognize that coal transportation is a problem we should be looking at along with other air quality issues we are identifying in our Board/staff planning process. I will discuss the coal transportation issue with both Secretaries Bagley and Daniel to be sure we have their advice, agreement with/on recommendations.

Advisory Board

I am attaching the current list of suggested candidates for membership. Please let me know if you want to add or delete anyone. This is the same list I sent you before except as noted. If I don't hear from you by Wednesday afternoon, January 28, we will begin contacting these people to see if they would be willing to serve if asked.

A revised charter is included in the Board Book.

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COAL DUST STUDY

- I. Brief Description of Facility and Operation (Slides)
- II. Problem (Why do anything?)
 - A. Health Potential (PM-10)
 - B. Ambient Air Quality STD (Total Suspended Particulate)
 - C. Quality of Life
 - D. Economic Development
- III. Solution
 - A. Mechanism Causing Fugitive Coal Dust
 - B. Spray System to Reduce Fugitive Coal Dust
 - C. Analysis of Results - Before and After Use of Spray System
 - D. Other Sources of Fugitive Dust
- IV. Coal Transportation As A Source of Air Pollution
- V. Conclusion and Recommendations

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POTENTIAL MEMBERS

(* Denotes Nominating Committee Preferences)

Control Technologies

- * Larry Tropea (Reynolds)
- * Sam Brown (Virginia Power)
- * Beth Turner (duPont/Conoco)
- * James Remington (retired Vice President, manufacturing
Philip Morris)

Public Administration (and Economic Development)

- Lee Grossneck (Richmond)
- Tom Hadd (Chief of grants, EPA)
- Mark Kilduff (State Deputy Director, Economic Development)
- * Hugh Keogh (Economic Development - Tidewater)
- * John R. Bryan (Pittston Coal - Board of Supervisors, SW VA)
- Dr. Raphael Coleman (formerly with C.I.T.) Geo. Mason Bus. Sch.
- + Paul Torgersen (Dean, School of Engineering, VPI - instrumental in setting up CIT)

Economics

- John Knapp (Taylor Murphy Institute)
- * John Calagnie (EPA - Research Triangle Park [RTP])

Health (Last 3 names from Kevin Cooper - strongest recommendation for Dr. Rose)

- * Dr. Kevin Cooper (MCV)
- Dr. Cecile Rose (MCV, Division of Environmental Medicine-Toxicology)
- Dr. Bob Blanke (MCV, Toxicologist, Director of Toxicology)
- Dr. Joe Saady (MCV, Technical Coordinator for Toxicology)

Atmospheric Chemistry

- * Bob Harris (NASA)
- * Gerald Pellet (NASA)

POTENTIAL MEMBERS

(* Denotes Nominating Committee Preferences)

Control Technologies

Larry Tropea (Reynolds)

*

Sam Brown (Virginia Power)

*

Beth Turner (duPont/Conoco)

James Remington (retired Vice President, manufacturing

Philip Morris)

Public Administration (and Economic Development)

Lee Grossneck (Richmond)

Tom Hadd (Chief of grants, EPA)

Mark Kilduff (State Deputy Director, Economic Development)

* Hugh Keogh

(Economic Development - Tidewater)

* John R. Bryan (Pittston Coal - Board of Supervisors, SW VA)

- Dr. Raphael Coleman (formerly with C.I.T.) Geo. Mason Bus. Sch.

+ Paul Torgersen (Dean, School of Engineering, VPI - instrumental
in setting up CIT)

Economics

John Knapp (Taylor Murphy Institute)

* John Calagnie (EPA - Research Triangle Park [RTP])

Health (Last 3 names from Kevin Cooper - strongest recommendation
for Dr. Rose)

* Dr. Kevin Cooper (MCV)

Dr. Cecile Rose (MCV, Division of Environmental Medicine-Toxicoloc

Dr. Bob Blanke (MCV, Toxicologist, Director of Toxicology)

Dr. Joe Saady

(MCV, Technical Coordinator for Toxicology)

Atmospheric Chemistry

* Bob Harris (NASA)

* Gerald Pellet (NASA)

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CLYDE H. JACOB, JR.
1220 NORTH FAIRWATER DRIVE
NORFOLK, VIRGINIA 23508

February 1, 1987

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February 1, 1987

Virginia State Air

Pollution Control Board

Dear Board Members:

I support the conclusions of the January 1987 study "Report on Fugitive Emissions From Storage and Rail transport of Coal" by the Hampton Roads Region. While the Norfolk and Southern is a great benefit to the City and the area, coal dust continues to be a nuisance. Cars, house, exteriors, and attics are hit by coal dust. We would appreciate any reduction in the amount of coal dust in the air.

Yours truly,

H.K. Wood

President West Bhoat

Civic League

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STATE AIR POLLUTION CONTROL BOARD MEETING

FEBRUARY 2, 1987

AGENDA ITEM NO. 5 : Fugitive Emissions from Storage and Rail
Transport of Coal

PRIMARY SPEAKER : R. P. Minx, Director, Region VI

DOCUMENTATION : HJR274 - Report on Fugitive Emissions from
Storage and Rail Transport of Coal. January 1987
(Provided Separately)

SUMMARY

Prior to 1983, two coal terminals operated in the Hampton Roads area. Norfolk and Southern Terminal in Norfolk and Chessie (CSX) in Newport News had operated for many years and were believed to be minor contributors to the ambient TSP. Both of these terminals stored coal in rail cars for subsequent ship loading. The only controls required was a wet suppression system at the rotary rail car dumper which was considered to be RACT.

Two new terminals were proposed for Newport News and SAPCB permits to construct and operate were granted in 1980 and 1981. Both new terminals were modern facilities employing BACT and no significant deterioration of ambient air quality was expected. These new terminals differed from the existing terminals in the method of coal storage using open ground storage piles rather than rail car storage.

The Massey Terminal began operating in early 1983 and no problems were experienced until the spring of 1983 when high wind speed following a drought period caused a major dust emission episode from the storage piles. This episode prompted a re-evaluation of controls for fugitive emissions from the storage piles. The permits for both new terminals were amended to include permanent wet suppression systems to be used periodically and when weather conditions indicated.

The Dominion Terminal Associates began operating in early 1984 and a second spring emissions episode occurred. The nuisance problem from fugitive coal emissions became chronic at an adjacent housing area with both wet suppression systems in operation. Although these systems were operable, there was no scheduled spray system which appeared to be effective.

The General Assembly in 1985 by Joint Resolution (HJR274) directed that the SAPCB conduct a study to determine whether present environmental laws are stringent enough to control the problems from fugitive coal dust.

The key findings of this study are:

The Board's regulations are adequate to protect public health, but will not totally eliminate nuisance complaints.

Most of dust emissions are larger than 20 microns and thus will not be in the respirable range.

Fugitive dust emissions from other, older existing terminals are significant.

BACKGROUND

See Report on Fugitive Emissions from Storage and Rail Transport of Coal (sent to you under separate cover).

CONCLUSION

The existing environmental laws are stringent enough to permit regulation of fugitive coal emissions. (Section 10-17.18 (b) of the Air Pollution Control Law of Virginia).

The primary source of fugitive emissions from the coal export terminals located in Newport News is the coal storage piles. The application of water suppression, in accordance with an optimized plan, appears to represent BACT. It appears, when this optimized plan is properly implemented, emissions of coal dust from the terminals will comply with all State and Federal air quality standards.

The analysis of particle size distribution indicates that most of the dust emissions are larger than 20 um and do not fall into the respirable range. As a consequence, no health hazard appears to exist.

It has been determined that emissions from the previously existing CSX and Norfolk and Southern terminals are significant. It now appears that Reasonably Available Control Technology should be revised to decrease the emissions from these terminals. These revisions may include enclosing the car dumpers and application of a crusting agent or water suppression to control emissions from rail cars.

Fugitive emissions from unit coal trains are significant. Proper maintenance of the rail cars, to prevent spillage in transit, should be considered as a minimum for control. The exposed surface of coal in transit and in storage may be controlled in numerous ways.

RECOMMENDATION

1. Comment on the study by mail by February 12. If acceptable, the report would be issued by February 20.
2. Consider fugitive emissions from unit coal trains as a potential source of air pollution, along with other opportunities to improve Virginia's air quality, in the planning process now under way to determine future actions by the Board.

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BOARD MEETING

APRIL 21, 1987

(Agenda Item #4-Shenandoah Quarries

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Henderson: 8:15 a.m. to 5:00 p.m., but we'll answer complaints within 48 hours.

Chopski: 48 hours, okay. Also, I wanted to know. You are talking about tremendous amounts of water washing this rock. I don't understand where all of this water is going to go. Because this is on the side of the mountain and it drains down into Enoch Creek which will eventually go down to Deatch Creek which will eventually go into the Roanoke River. And, I was just wondering. They say its just not going to just drain but it's got to go somewhere because they are talking tremendous amounts of water. They are doing all of this work and I was just - where did it go?

Haskell: Any comment on that Tom?

Henderson: Most of the water remains in quarry pit. Water on roadway drains as rain water would.

Chopski: You know, you can talk about these things, but until they happen, you really don't know who to call or what to do.

Chopski: All right, thank you.

Haskell: Beverly Mann, you have not signed on my list, but maybe you would like to make a comment or two?

Mann: Good afternoon, Mrs. Haskell, Mr. Barrow, Mr. Cook, Mr. Daniel, I am representing the Tidewater Chapter of the Chesapeake Bay Foundation.

Haskell: A new organization?

Mann: No, it's still the same one, CARE. We are still going by Day CARE now, but it's not really official, so - so, it's still really CARE but it's DAY CARE and we are still the Tidewater Chapter of the Chesapeake Bay Foundation. We were very disappointed when the Coal Dust Study was removed from the agenda today, and we would like to know what will happen to the Coal Dust Study and when will it be back on the agenda. We feel this is a matter of vital importance and it has been postponed too long already, especially in light of the material which has recently surfaced from the files of the Air Board office which were obtained under the Freedom of Information Act. And, I refer, specifically, to the Norfolk and Western Railway Company report entitled "Evaluation of Air Pollution Potential and Development of Dust Control Programs" which was done by McDowell-Wellman Engineering Company and dated March 28, 1973. I would like to quote from

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the introduction of this study. "The purpose of the study is to identify and measure the sources of coal dust, develop a proposed control plan to reduce emissions to allowable levels and to provide an approximate cost estimate of a required work." Roman numeral seven (VII) - one of the reports summarizes, the violations of process weight, opacity, and fugitive dust. Roman numeral VIII, pages 1 through 5 give the proposed control plan and outline the strategies. And I call your attention to two major ones One is prewetting of coal on pier No. 5, and the other major recommendation for a baghouse dust collectors for dumpers on pier No. 6 or alternatives VIII-14 gave the anticipated results "intended to bring dust emissions from pier No. 6 rotary car dumpers and pier No. 5 dumper to within allowable limits - a process weight loss, opacity and addition reduce the level of fugitive dust." IV-2 gave the existing pollution controls at Norfolk Western Terminal which existed in 1972, and to my knowledge, none of these controls have been changed or updated since that time. Based upon results of this report, based upon the fact that it was submitted as a control strategy program, we don't understand why the recommended controls were never implemented. It is understandable that some confusion could easily exist in the earlier years following the Clean Air Act. It was in its infancy. But, we don't understand how this report was so totally ignored. In view of the fact that the Wellman report was submitted as a control strategy program by Norfolk and Western, in order to be in compliance with the regulations, what data did the regional director of the Air Board at that period of time use to make his decision. That it was unnecessary to adopt the recommended controls in a report, and I reiterate that this report was paid for by Norfolk and Western Terminal Railway. I would like to call your attention to what was done instead and I read to you from a Norfolk and Western memo of August 9, 1973. "Mr. McDonald stated that the report, and I won't give the name of it again, was an excellent report. However, Mr. McDonald felt that the Norfolk and Western should not be exposed to the expense of installing equipment as recommended in this report as he and his department feel that if the existing dust suppression system now installed on pier 6 and pier 5 would be used at all times as coal is being dumped, the air pollution caused by dumping of coal should be kept below minimum requirements. Mr. McDonald, on a recent visit to the coal piers, stated that the dust suppression system was not being used at the beginning of a dumping operation. However, after a period of time, the dust suppression system was put into operation and he could observe a noticeable difference in the amount of dust escaping into the air. He then gave his phone number and asked that the railway call when their dust suppression system was not in service. A letter then goes on to mention the planting of some pine trees. I would like to remind you that the Wellman report called for baghouse collectors for the dumpers on pier No. 6 and for prewetting coal on pier No. 5 and if that was not effective, they would have to enclose the dumper on three sides. I would like to read to you about prewetting of coal from the report in the conclusion of the Appendix K-2. "Spraying the cars prior to dumping appears to be effective in reducing the dust generated during dumping. Whereas, the spray during dumping appeared less effective. Needless to say, we are not going to go into the file anymore. Reading it was, indeed, quite shocking. Especially when one considers the complaints to the Regional Air Board Director about coal dust back in the early and middle 70s were answered by the statement

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that everything that could be done was being done. Rather than to cry over spilled milk, and belabor facts of what did not happen and what did happen, we believe it is possible and, therefore, appropriate to ask this Board to require Norfolk and Western to implement controls for coal dust emissions. Your agency is mandated by your own regulations to take action. It is now almost 15 years later since the recommendations for controls for fugitive dust emissions since this report was done. But, it is not too late for positive action. Citizens are still suffering from coal dust and paragraph 4.04.02 of the regulations concerning fugitive dust have not changed. Representatives from various civic leagues had a meeting with the president of Norfolk Southern recently as well as a tour of the Norfolk and Western terminal. As I have stated before, Norfolk Southern has been a wonderful corporate vehicle. They have been most cordial and cooperative in our recent meetings. Norfolk Southern has not attained a powerful and successful position in the corporate world without being sensitive to people's needs. I believe their sensitivity along with direction mandated by your agency can result in Norfolk Southern being a better corporate neighbor by making our community healthy and cleaner by regulating their fugitive coal dust emissions. Several members of the Lambert's Point Civic League were planning to attend the meeting today but as of last night, they could not attend. And, I point out to you that Lambert's Point community is located on the north north-south borders of Norfolk Western Terminal. The president of the Lambert's Point Civic League, Ellen Harvey, asked me to tell you that their league will work with you for your kindness. I would like to read a letter to you. I know you all have been concerned about the health effects and I am still waiting to receive material I asked the EPA for back in February. I did get a call from EPA last week saying they were getting the material together and it has not arrived yet. thought it might be useful to ask you, too, if you could perhaps ask the Board of Health to look into the effects of health on the communities. I notice in the files that this was done back in 1971. However, as stated by the Health Department, it could only be concluded that this sample offered little, if any, information on the community's exposure to coal dust. It went on to say more studies would have to be done. But, if you feel that it would be helpful, it would certainly be worthwhile, perhaps. I would like to read this letter to you.

To Whom It May Concern:

"This letter is to express my concerns about continuous coal dust exposure on respiratory functions. Many studies have documented the detrimental effect of coal dust exposure on humans. It is associated with reduced ventilatory capacity and increased residual volume. Different types of coal dust have different degrees of harmful effects on lung function. There is significant correlation between radiographic progression and exposure to airborne dust. There should be strong consideration, but the exposure we are considering is for 24 hours a day - 365 days a year. Most studies deal with much less time.

I wanted the Air Board to know my concerns about the effects of coal dust on health and I will be happy to pursue it in more depth when more time is available.

Yours truly,

Rueben M. McBreyor, Chief
Pulmonary Medicine

Haskell: Where is he?

Mann: He is in Norfolk General Hospital. I thank you for your time and attention. I know the hour in the day is late, but, on behalf of the many, many residents that continue to suffer from these emissions from this coal dust, we urge you to go forward with some positive action and we hope it will be on your agenda soon for consideration.

Haskell: Thank you very much. You should know that we share your deep interest in coal dust in the area. What we have asked the staff to do is do some additional work before the coal dust study comes back to us. We want it to be more complete than where we were last time we discussed this. I think there is going to be some additional monitoring going on down there and there is going to be some additional analysis and research of exactly what those emissions are at the Norfolk and Western site. What kind of controls are needed. NOW, we are not talking about what was needed in 1973.

Mann: Conditions have changed.

Haskell: Yes, of course. And, we know what is going on quite specifically at that site now. I think we are in a process of doing that. And, then, there will be, of course, some rewriting of the report as well, and it will come back to the Board, but we don't want to bring it back until it's ready, until it's right. In the meantime, we are working on this.

Mann: Do you have any idea how long this will be?

Haskell: No. I don't want to say because I don't want to pin us down to promising to bring it back before it's right. We want to do this one right.

Mann: I guess I just like to say one little last thing, that is I hate to see this thing studied to death and monitored and argued over for years to come.

Haskell: I think this is real positive action that's going on down there now. I don't think this is any sort make work project or defer it while you study it kind of thing. I think there is some real positive steps being made down there to improve our understanding of the situation and if additional controls are needed, to define what those are, work closely with the company to get those things that - the things that it takes to really accomplish something.

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Barrow: I think one thing that is important to recognize is that the draft study which was presented at the last meeting was discussed. We really don't have a copy of it but it was reported on at the last meeting. It focused primarily on research and analytical work that was done in relationship to the peninsula facilities, to the facilities there. Although the Norfolk and Western facilities on the Southside were referenced, we did not have the analytical base there that is now being sought. I think that is one of the key things that the Region is now working on is to develop the background information that is needed to make sure that the recommendations when they come to the Board are solidly based. So, I think that's where we are coming from at this point and I, like you, am very anxious to see the coal dust study - the work that the region has done in this area is really pioneering work, in a sense, in the nation, and I think that it's important that we get it done right and we get it done, again, as you are interested, in having it done in a timely fashion. I certainly hope it will be coming back to us very, very soon. But, I think it is important that we base the Southside recommendations on the good analytical basis so that we can put it forward, well supported.

Mann: Okay, but I won't belabor it. I said I wouldn't but there's a lot here I still don't understand if anybody can find any answers, it would be helpful.

Barrow: The information is a surprise to all of us, but there's a lot there.

Mann: Thank you.

Haskell: Thank you.

Haskell: Does anybody else want to make a comment?

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Julia Worth: Yes.

Haskell: Please identify yourself for the record.

Worth: Yes, I'm Julia Worth and I live in West Ghent in Norfolk. I am a member of the West Ghent Civic League but I am speaking as a private citizen. I would like to let you know that all of us in our neighborhood have been very, very concerned about the issue of coal dust. When we moved into our house about 12 years ago, I really was not aware of the coal dust problem and the longer you live there the more the of a problem you will find out there is in Norfolk. The first summer, we wanted to sit out on the porch and went out on the porch and it was a screened-in porch and I cleaned it off and I thought, what is all this black stuff all over the place, so then, I kept trying to shoot the hose to get the water out the porch and eventually got the place all cleaned off. I hit the screens with brooms and everybody said, well, you can't use a porch here, that's coal dust. And, I thought, I'm going to get it all cleaned off. Well, I did and by the time it dried, the coal dust was back again. You know, the porch was an absolutely impossible place to see. We ended up glassing in

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the porch with the screens on the inside instead of on the outside, so when we, so we could still open it up and have a screened-in porch, but without the screens collecting the coal dust. It is a problem in our area. It's a problem with children. It's a problem with coal dust on your clothes, coal dust in the yard, coal dust on the window seals and coal dust in the house. My, this is a - you might call this a cosmetic problem - it becomes a bit of a fiscal problem when you replace your rugs a little more often and things of this nature because it is quite messy. It's all over the cars and everything. We do have some concern in our neighborhood, and our major concern is, all this we can put up with and everything, but we are concerned about the possible health implications of something like this over a long-term, and we do not know what the answer to this question is, but a number of our neighbors were talking and this is just a concern we wanted to express. We have no answers and, hopefully, when your study comes out, or you will have some information on this issue.

Haskell: Thank you very much.

Worth: Thank you.

Haskell: I just wanted to make one comment based on what you said about health in the area, and, also Bev said we ought, perhaps, go to the Board of Health to find out what is the healthy environment and we have one and are going to have a second rule that tells us what is healthy and not healthy in that area. We have one that is called our non-criteria pollutant rule. A toxic pollutant rule. There's a number in that that governs coal dust so in that sense, the coal dust is covered. But then, there is also a particulate standard and likely to be a fine particulate standard added to that from EPA sometime soon. So, all of those things tell us - give us numbers - real targets to shoot for in protecting the health in the area. So, we are a little farther along than we were in 1973 when we didn't have numbers and, so we were shooting at dart boards then. Thank you for coming.

Anything else? Does the staff want to bring up any other matters? We will just talk to Board members on the phone about the date of the next meeting, if it's satisfactory to all of them.

Cook: We are shooting for July 27, 1987 and plan to the drop June meeting.

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