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JACOBS ENGINEERING CO.

ENGINEERS • CONSTRUCTORS
CALIFORNIA • ILLINOIS • FLORIDA
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April 8, 1975

Mr. Darwin E. Rhoads, CSP
Manager, Safety and Loss Prevention
Tenneco Chemicals
Park 80 Plaza West-1
Saddle Brook, N. J. 07662

Vinyl Chloride
NAPC TAC
Arlington, Va.
March 25 & 26, 1975

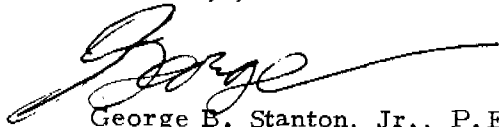
Dear Darwin:

As you requested, here is a copy of my report on the National Air Pollution Control Techniques Advisory Committee meeting about vinyl chloride emissions.

Jacobs Engineering Co. is a full service engineering and construction organization. We serve the process industries world-wide. A special strength is our Environmental Services Group. This group can determine and implement the best approach to managing the environmental problems associated with the storage, handling, and polymerization of vinyl chloride.

Darwin, my colleagues and I would like to serve you and Tenneco Chemicals. Please let me know your needs.

Sincerely yours,



George B. Stanton, Jr., P.E., C.S.P.
Manager, Safety & Health Services

GBS:ns

Enclosure: Report on NAPC TAC meeting

COLORITE 007959

April 3, 1975

TO:	M. Wolfstein	cc: ERS/et
FROM:	G. Stratton	EW/et
SUBJECT:	National Air Pollution Control Techniques Advisory Committee Arlington, Virginia March 25 and 26, 1975	MP/et HJ/et EO/et

1. This Committee advises the air standards development agency of EPA, the Emissions Standards and Engineering Division (see Agenda). It reviews and makes informal comments on standards as they approach final development, and before EPA publishes them as a Proposed Standard in the FR. Industry has been contacted during development of the standard both informally and by requests for information published in the FR. Industry and other groups are given time to comment at meetings of this Committee. The Committee meets every month or every other month. The next meetings are scheduled, tentatively, for May 5th and May 6th, 1975 possibly in Puerto Rico and for June 25th and June 26th, 1975.

2. New Regulations under Development - see notes for March 26, 1975, attached.

3. Vinyl Chloride

EPA standard is scheduled to be proposed in June. This agency prepared a draft document of 6 to 700 pages, not available to us before the meeting. The data was revised after publication and before presentation on March 25th. The standards to be prepared are intended to encourage VCM recovery, rather than incineration. The "numbers" are 400 parts VC per million parts PVC leaving the stripper and 10 parts VC per million parts air emitted from driers, bagging and other downstream point sources. Industry representatives said suspension processes could meet these, especially if the emissions are averaged over batches and products; the proposal is for each batch and product. However, dispersion processes cannot meet these standards. The standard proposed for water effluent is 0.0043 lbs VC per 100 lbs PVC.

The same 10 ppm standard will apply to the ethylene dichloride vent and the oxychlorination vent in VCM plants (11 of 15 plants have oxychlorination vents).

The capital costs and the operating costs in the draft document were developed by a contractor, the National Air Cleaning Institute (?), who used sub-contractors. The costs were challenged vigorously by industry. An SPI group will meet with agency staff to review cost data.

COLORITE 007960

Control techniques are reviewed in the draft document. These techniques include incineration, adsorption on activated carbon, and solvent absorption. Only incineration has been used successfully for large air volumes containing low concentrations of chlorinated hydrocarbons. Industry representatives pointed out that highly corrosive HCl mist from the incineration of chlorinated hydrocarbon escapes from even the best scrubbers, creating another, equally bad environmental problem. There was extensive discussion of the proposal to control emissions from safety relief valves; increased hazard, waste of fuel and money to operate a flare used infrequently, ineffectiveness of flare in oxidizing a sudden rush of VC, the secondary emission of HCl and its hazard. A few small existing plants do not now strip VC from PVC; the cost of doing so probably will force them to close.

Environmental impact has been assessed in the document using diffusion modeling. The model neglects plume rise and local velocity gradients. Field data has been collected to refine model. The model predicts 0.26 ppm maximum for 24 hours under worst conditions with the standard described above. If no standard is adopted, the model predicts 14 ppm. EPA health people have not determined (neither has NIOSH) whether a high short-time exposure e.g. discharge from safety relief valve or low long-time exposure e.g. drier emissions is the cause of disease. Thus, no performance standard based on monitoring ambient air can be established.

4. Coke Oven Emissions

The standard which this agency is developing is to allow a 20-second visible emission per charge averaged over 18 charges. The United Steel Workers are advocating no visible emissions and will fight for this as the OSHA standard; such a standard is achievable in coke oven batteries designed and operated to this criterion. The many old coke ovens in the U.S. can be made to meet the 20-second standard only with major maintenance expenditures and unusually well-disciplined managers and crews. The working conditions are arduous, 120-140° F top-side temperature; this leads to low quality maintenance.

Engineering work to bring existing coke oven batteries into compliance and to design new batteries will be done by the operating companies and their traditional suppliers.

GBS:cb

enclosures: GBS' manuscript notes to M. Wolkstein and E. Weisberg
1 & 2 of 3/26/75
NAPCTAC Material

Mar. 25, 1975

Status of New Regulations under Development

- A. Phosphate Fertilizer
after Comments
 - 1. Removed opacity standard
 - 2. Modifications - for combined sources.
- B. Continuous Monitoring for New Sources and Existing Sources
Standards should be in EPA Steering Committee in mid-April.
- C. Dust Emissions from Coal Preparation Plants - tested for the
greatest times - applying to new plants.

Discussions of volatiles in residual waste piles from coal which
emit H_2S , SO_2 , etc. from slow combustion.
- D. Developing simpler procedures for States to follow in setting
regulations for non-criteria substances under Sec. 111 (d) of
the Clean Air Act.
- E. Electric Steel Furnaces - will go forward in May.
- F. Non-Ferrous Smelters - American Mining Congress resisting.
Plan to promulgate zinc and lead smelters and copper smelters,
except those that use impure concentrates.
- G. Asbestos regulation is to be promulgated this summer - for emissions
from manufacturing plants and mines.
- H. NO_x standard about ready for review by committee in May.
- I. Sulfur from sulfur recovery plants in oil refineries - same as H.
- J. Kraft Pulp Mills - Existing Pulp Mills
Lengthy discussion of setting standards and of measuring odors and
of enforceability of these standards. Victor Sussman spoke knowledge-
ably of measuring odor; he was at N.J. hearing yesterday.
- K. Primary Aluminum - Section 111(d) -
different standards for different aluminum cells.

COLORITE 007962

NATIONAL AIR POLLUTION CONTROL TECHNIQUES ADVISORY COMMITTEE

AUTHORITY

Established by the Surgeon General, U.S. Public Health Service, Department of Health, Education, and Welfare, on March 4, 1968, under section 110(d) of the Clean Air Act, as amended; reestablished by the Administrator, Consumer Protection and Environmental Health Service, pursuant to the Secretary's Reorganization Order dated July 1, 1968; transferred to the U.S. Environmental Protection Agency pursuant to Reorganization Plan No. 3 of 1970; reconstituted by the Administrator on June 8, 1971, pursuant to sections 108(b)(1) and (2), and 117(f) of the Clean Air Act, as amended; rechartered January 5, 1973, to include requirements of section 9(c) of the Federal Advisory Committee Act, P.L. 92-463; revised April 24, 1973, to assign an additional function; and terminating January 4, 1975, unless extension beyond that date is authorized in accordance with section 14 of the Federal Advisory Committee Act.

STRUCTURE

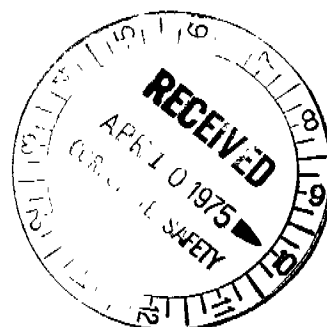
Consists of the Deputy Assistant Administrator, Office of Air Quality Planning and Standards, or his designee, as Chairman and 16 members appointed by the Administrator for overlapping terms of one to four years. Members are selected from the chemical, engineering, biomedical, and socioeconomic disciplines resident in universities, State and local governments, research institutions, and industry. Members are selected also for their technical expertise and/or interest in the development of air pollution control techniques.

FUNCTIONS

Advises the Deputy Assistant Administrator, Office of Air Quality Planning and Standards on the latest available technology and economic feasibility of alternative methods to prevent and control air contamination to be published in air quality control techniques documents. Also advises on informational documents regarding air pollution control techniques and testing and monitoring methodology for categories of new sources and air pollutants subject to the provisions of sections 111 and 112 of the Clean Air Act, as amended. In addition, the Committee, through a subcommittee, periodically reviews Air Quality Planning and Standards program accomplishment plans and the associated contracts and grants awarded to carry out these plans.

ACCOMPLISHMENTS

The Committee held two open meetings during 1973. The average non-member attendance at both meetings was between 50-80. In February, the Committee reviewed with EPA staff technical data upon which new source performance standards for the following industries are to be based: kraft pulp mills; coal preparation plants; ferroalloy plants; stationary gas turbines; electric arc furnaces; primary aluminum smelters; and phosphate fertilizer plants including wet process phosphoric acid, superphosphoric acid, diammonium phosphate, granular triple superphosphate, granular triple superphosphate storage, and run-of-pile triple superphosphate. In May, EPA had new source performance standards for coal preparation plants, kraft pulp mills, phosphate fertilizer plants, and primary aluminum plants and briefed the Committee on the proposed regulations. Standards for stationary gas turbines, ferroalloy plants, and electric arc furnaces were reviewed in detail with the Committee, including much new data which had recently been collected from the industry and from EPA source tests. They also reviewed the Group IIA new source performance standards for copper, lead and zinc smelters. EPA's final position on new source performance standards for these sources was approved by the Committee. Regulations were reviewed and published by the Committee on (1) National Emission Standards for Hazardous Air Pollutants; (2) The Group II New Source Performance Standards; and (3) Regulations covering emissions during startup, shutdown, and malfunction for all sources covered under standards of performance for new stationary sources.



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