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PATRICIA L. NORTON
SECRETARY

OFFICE OF AIR QUALITY AND NUCLEAR ENERGY

GREG J. GASPERECZ
ASSISTANT SECRETARY

September 23, 1986

Mr. Michael Hayes
Vista Chemical Company
Post Office Box 727
Westlake, Louisiana 70669

Dear Mr. Hayes:

RE: Revision of Bubble Permit - Vista Chemical Company
(Formerly, Conoco Chemicals Company), Westlake, Calcasieu
Parish, Louisiana.

This is to confirm that the permit request for the above referenced project at Vista Chemical Company (Formerly, Conoco Chemicals Company), Westlake, Calcasieu Parish, has been approved under Section 6.1 of the Louisiana Air Quality Regulations. The submittal was approved on the basis of the emissions reported. The approval in no way guarantees that the design scheme presented will be capable of controlling the emissions as to the types and quantities stated. A new application must be submitted if the reported emissions are exceeded after operation begins. The synopsis, data sheets and conditions are attached herewith.

It will be considered a violation of the permit if all proposed control measures and/or equipment are not installed and properly maintained as specified in the application.

The permit number cited below should be referenced in future correspondence regarding this project.

Done this 25th day of September, 1986.

Permit Number: 1828, M-2

Very truly yours,


Greg J. Gasperecz
Assistant Secretary

GJG/RD/bpw

cc: Ms. Roopa Dalal
Southwest Regional Office
U.S. Environmental Protection Agency-Mr. Bill Hathaway
Conoco, Inc.

DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
BRIEFING SHEET

Vista Chemicals Company
(Formerly, Conoco Chemicals Company)
Lake Charles Chemical Plant
Lake Charles, Calcasieu Parish, Louisiana

I. BACKGROUND:

Vista Chemical Company (Formerly, Conoco Chemicals Company) operates a chemical plant near Lake Charles, Calcasieu Parish, Louisiana. The plant has hydrocarbon sources regulated under Sections 22.3, 22.4, 22.5, 22.6, 22.8 and 22.14 of the Louisiana Air Quality Regulations for the control of emissions of organic compounds. Nineteen (19) parishes in the State of Louisiana have been designated nonattainment with respect to the ozone standard by the U.S. Environmental Protection Agency. However, Calcasieu Parish is one of the parishes listed by the EPA on Thursday, February 3, 1983 (48 FR 4977) as likely to attain the standard.

CHANGE OF OWNERSHIP:

On July 20, 1984 Conoco sold its Lake Charles Chemical Complex to Vista Chemical Company.

II. ORIGIN:

In March, 1981, the Air Quality Division sent hydrocarbon compliance schedule forms to several industries in the state. These efforts were for the enhancement of ozone standards attainment in the state. Conoco Chemicals submitted the compliance schedule on July 8, 1981. Additional information was supplied on November 29, 1982; December 2, 1982; January 21, 1983 and February 8, 1983. There were several meetings between the company officials and the staff of the Air Quality Division, including an inspection of the facility.

An alternate emission reduction plan (Bubble) for the Conoco, Inc. Chemical Plant, Westlake, Louisiana was published in the Federal Register, Vol. 50, No. 116 on June 17, 1985 for comments. No comments were received.

On May 21, 1985 the Air Quality Division received a letter from EPA Region 6 regarding the Conoco Chemicals "Bubble" permit, which initiated the review of this permit.

III. DESCRIPTION:

EPA Region 6 has forwarded the proposed Alternative Emission Reduction Plan (Bubble) for the Conoco Chemicals facility at Westlake, Louisiana to EPA Headquarters with a recommendation of partial approval.

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Lake Charles, Calcasieu Parish, Louisiana
(Continued)

In revising the bubble permit, EPA Region 6 proposed two options as follows:

- 1) Withdraw the Clifton Ridge portion of the bubble entirely (February 8, 1983 through March 31, 1983).
- 2) Split the permit into two parts:
 - a) The first part would cover the approximately seven week period from February 8, 1983 to March 31, 1983 and would utilize Clifton Ridge credits.
 - b) The second part would begin after the first permit expired, (effective March 31, 1983) and would utilize oxychlorination vent credits.

After consultation with Conoco, Inc. and Vista Chemicals (the present owner) it was decided to proceed with Option No. 1.

Vista operates four oil-water separators subject to Section 22.6 of the Air Quality Regulations. Hydrocarbon emissions from two of these, the holding pond scraper section and the ethylene/alcohol API, were 190.0 and 243.5 tons per year, respectively. These have been taken out of service permanently and replaced with a covered Corrugated Plate Interceptor (CPI) Separator (S-2) by December 31, 1983. The emissions from this unit are estimated to be 3.66 tons per year. This compliance activity was addressed in a compliance schedule approved by the Louisiana Environmental Control Commission on December 16, 1982.

Since the schedule extended beyond the regulatory deadline of December 31, 1982, Conoco petitioned the state for a permit modification and SIP revision for these two separators. In an agreement submitted February 8, 1983, Conoco agreed to offset, by use of a bubble strategy, all hydrocarbon emissions from the water separators. The bubble strategy meets all requirements of the Environmental Protection Agency. A "bank" belonging to Conoco's Lake Charles VCM Plant was used to offset the emissions from the separators, effective March 31, 1983 through December 31, 1983. This bubble is permanent and one-way, i.e. the 434 TPY will not be returned to Conoco, Inc., but retained by the Air Quality Division.

The normal paraffin unit and quench unit separators with emissions

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of 11.42 and 37.08 tons per year respectively, were covered by December 31, 1983, as per the approved compliance schedule. The emissions after controls are estimated to be 0.05 and 0.63 tons per year, respectively.

By controlling emissions from the separators and also utilizing emission reduction credits as approved in this bubble strategy, Conoco Chemicals has actually achieved twice the reduction required by the regulations.

Vista Chemical operates the Alcohol Plant Batch Oxidation Reactors which are subject to the requirements of Section 22.8. These two sources, DC-401A and DC-401C, emit 676.8 tons per year. Conoco (now, Vista) has petitioned the State for a permit modification and SIP revision for these items. In a written agreement submitted December 2, 1982 and revised September 9, 1983, Conoco agreed to offset, by use of a bubble strategy, 744.4 tons per year. The hydrocarbon emissions will be offset by 744.4 tons per year taken from Conoco's "bank". This bubble is permanent and one-way, and is a means of achieving compliance with Section 22.8. The offset of 744.8 TPY includes a surcharge of 10% of the actual emission rate and thus represents a net benefit to air quality.

Conoco Chemicals (now Vista Chemical) was also credited 1,088.6 tons per year for the control of the continuous oxidation reactor vent, DC-401B. These reductions were approved by the Louisiana Environmental Control Commission on February 21, 1980, (permit no. 1335T and modified September 15, 1983, permit no. 1838 (M-1)). However, in a meeting on June 15, 1984, EPA indicated that hydrocarbon Emission Reduction Credits (ERC) from continuous Oxidation Reactor (DC-401B) granted to Conoco Chemicals (now Vista Chemicals) did not qualify for use in bubble trades since the vent should have been incinerated as required by Section 22.8 of the Louisiana Air Quality Regulations.

Conoco Chemicals (now Vista Chemical) had a bank of 4,422 tons per year from the voluntary control of the oxychlorination vent (C-500) at the VCM plant. This ERC from C-500 was recalculated and the adjusted VOC available for emission trading was 3936.8 tons per year.

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The Air Quality Division had proposed use of the credits from the oxychlorination vent, C-500 for all bubble trades. These credits have been determined by EPA to be valid, (meeting and correspondence of June 15, 1984). A summary of the revised banking transactions is shown in Attachment I & II.

All other sources as listed in the Hydrocarbon Compliance Schedule of July 7, 1982 with amendments of November 29, 1982 are in compliance.

IV. RECOMMENDATION:

The staff recommends approval of the SIP revisions. The Air Quality Division will also issue an administrative permit to enforce these revisions.

V. PUBLIC NOTICE:

No public notice is required for this modification. Public Notice for the original permit (No. 1828) appeared in newspapers in Baton Rouge, New Orleans, Shreveport and Monroe, 30 days prior to the Public Hearing, which took place on December 16, 1982.

Alternative Emission Reduction Plan for Conoco Inc.; Chemical Plant, Westlake, Louisiana, was published in Federal Register, Vol. 50, No. 116, on June 17, 1985.

LOUISIANA AIR EMISSION PERMIT
GENERAL CONDITIONS

- I. This permit is issued on the basis of the emissions reported in the application for approval of emissions and in no way guarantees that the design scheme presented will be capable of controlling the emissions to the type and quantities stated. Failure to install, properly operate and/or maintain all proposed control measures and/or equipment as specified in the application and supplemental information shall be considered a violation of the permit and regulation 6.0. If the emissions are determined to be greater than those allowed by the permit or if proposed control measures and/or equipment are not installed or do not perform according to design efficiency, an application to modify the permit must be submitted.
- II. The permittee is subject to all applicable provisions of the Louisiana Air Quality Regulations. Violation of the terms and conditions of the permit constitutes a violation of these regulations.
- III. The permit application and the attached data sheets establish the emission and operating limitations and are a part of the permit. This is based on EPA's Region 6 letter of May 21, 1985.
- IV. This permit shall become invalid, for the sources not constructed, if:
 - (a) construction is not commenced, or binding agreements or contractual obligations to undertake a program of construction of the project are not entered into, within two (2) years (18 months for PSD permits) after issuance of this permit, or;
 - (b) if construction is discontinued for a period of two (2) years (18 months for PSD permits) or more.

The administrative authority may extend this time period upon a satisfactory showing that an extension is justified.

This provision does not apply to the time period between construction of the approved phases of a phased construction project. However, each phase must commence construction within two (2) years (18 months for PSD permits) of its projected and approved commencement date.

- V. The permittee shall submit semi-annual reports of progress outlining the status of construction, noting any design changes, modifications or alterations in the construction schedule which have or may have an effect on the emission rates or ambient air quality levels. These reports shall continue to be submitted until such time as construction is certified as being complete. Furthermore, for any significant change in the design, prior approval shall be obtained from the Louisiana Air Quality Division.
- VI. The permittee shall notify the Department of Environmental Quality, Air Quality Division within ten (10) calendar days from the date that construction is certified as complete and the estimated date of start-up of operation. The appropriate Regional Office shall also be so notified within the same time frame.

LOUISIANA AIR EMISSION PERMIT
GENERAL CONDITIONS

- VII. Any emissions testing performed for purposes of demonstrating compliance with the limitations set forth in paragraph III shall be conducted in accordance with the methods described in the Division's test manual or any other methods approved by the U.S. EPA. Any deviation from or modification of the methods used for testing shall have prior approval from the Louisiana Air Quality Division.
- VIII. The emission testing described in paragraph VII above, or established in the specific conditions of this permit, shall be conducted within sixty (60) days after achieving normal production rate, but in no event later than 180 days after initial start-up (or restart-up after modification). The Air Quality Division Surveillance Section shall be notified at least thirty (30) days prior to testing and shall be given the opportunity to conduct a pretest meeting and observe the emission testing. The test results shall be submitted to the Air Quality Division within forty-five (45) days after the complete testing. As required by Section 8.7 and 17.5 of the Louisiana Air Quality Regulations, the permittee shall provide necessary sampling ports in stacks or ducts and such other safe and proper sampling and testing facilities for proper determination of the emission limits.
- IX. The permittee shall, within 180 days after start-up of each project or unit, report to the Louisiana Air Quality Division any significant difference in operating emission rates as compared to those limitations specified in paragraph III. This report shall also include, but not be limited to, malfunctions and upsets.
- X. The permittee shall retain records of all information resulting from monitoring activities and information indicating operating parameters as specified in the specific conditions of this permit for a minimum of at least two (2) years.
- XI. If for any reason the permittee does not comply with, or will not be able to comply with, the emission limitations specified in this permit, the permittee shall provide the Air Quality Division with the following information in writing within five (5) days of such conditions:
- a. Description of noncomplying emission(s);
 - b. Cause of noncompliance;
 - c. Anticipated time the noncompliance is expected to continue, or, if corrected, the duration of the period of noncompliance;
 - d. Steps taken by the permittee to reduce and eliminate the noncomplying emissions; and
 - e. Steps taken by the permittee to prevent recurrences of the noncomplying emissions.
- XII. Permittee shall allow the authorized officers and employees of the Department of Environmental Quality, at all reasonable times and upon presentation of identification, to:
- 1) Enter upon the permittee's premises where regulated facilities are located, regulated activities are conducted or where records required under this permit are kept;

LOUISIANA AIR EMISSION PERMIT
GENERAL CONDITIONS

- 2) Have access to and copy any records that are required to be kept under the terms and conditions of this permit, the Louisiana Air Quality Regulations, or the Act;
 - 3) Inspect any facilities, equipment (including monitoring methods and an operation and maintenance inspection), or operations regulated under this permit; and,
 - 4) Sample or monitor, for the purpose of assuring compliance with this permit or as otherwise authorized by the Act or regulations adopted thereunder, any substances or parameters at any location.
- XIII. If samples are taken under Section XII. 4) above, the officer or employee obtaining such samples shall give the owner, operator or agent in charge a receipt describing the sample obtained. If requested prior to leaving the premises, a portion of each sample equal in volume or weight to the portion retained shall be given to the owner, operator or agent in charge. If an analysis is made of such samples, a copy of the analysis shall be furnished promptly to the owner, operator or agent in charge.
- XIV. The permittee shall allow authorized officers and employees of the Department of Environmental Quality, upon presentation of identification, to enter upon the permittee's premises to investigate potential or alleged violations of the Act or the rules and regulations adopted thereunder. In such investigations, the permittee shall be notified at the time entrance is requested of the nature of the suspected violation. Inspections under this subsection shall be limited to the aspects of alleged violations. However, this shall not in any way preclude prosecution of all violations found.
- XV. The permittee shall comply with the reporting requirements specified under Section 17.13 as well as notification requirements specified under Section 17.11 of the Louisiana Air Quality Regulations.
- XVI. In the event of any change in ownership of the source described in this permit, the permittee and the succeeding owner shall notify the Louisiana Air Quality Division, within ninety (90) days after the event, to amend this permit.

ATTACHMENT I

VOC Bubble Calculations
Bubble Credits Established

1. Emission Reduction Credits from Vinyl Chloride Monomer (VCM) Unit

The following emissions data concerning the Conoco VCM Unit were submitted by the company:

<u>Compound</u>	<u>VOC Emissions Tons/Yr</u>
Methane	173.268
Ethane	20.
Ethylene	479.
Propylene	8.2
Ethyl Chloride	2001.
Ethylene Dichloride	1701.05
Vinyl Chloride Monomer	60.2
Other	<u>193.08</u>
Total (Unadjusted)	4635.8

In determining the emission reduction credits (ERC's) available for use in this emissions trade, the following adjustments were made on the VOC total given above:

Unadjusted VOC Total	4635.8 Tons/Yr
Minus exempt VOC's (methane and ethane)	-193.3
Minus VOC's required to be controlled under LECC Rule 22.8 (ethylene and propylene)	-487.2
Minus increase in non-exempt VOC's due to modernization (permitted in Louisiana DEQ Permit No. 1451T)	<u>- 18.5</u>
Adjusted VOC total Available for Emissions Trading	3936.8 Tons/Yr

ATTACHMENT II

Vista Chemical Company
 (Formerly, Conoco Chemicals Company)
 Summary of Bubble Transactions

	TPY <u>Hydrocarbon</u>
Available ERC's at Conoco Chemicals Company, (now, Vista Chemical Company) VCM Plant, Lake Charles (Calcasieu) effective March 31, 1983	3936.8
Permanent offset (March 31, 1983 through December 31, 1983)	
a. holding pond scraper section described above	-190.0
b. ethylene/alcohol API separator described above	<u>-243.5</u>
Remaining offset (VCM Plant)	3503.3
Permanent offset of two (2) Alcohol Plant Batch Oxidation Reactors, DC-401A and DC-401C effective December 2, 1982	-676.8
10% surcharge	<u>- 67.7</u>
Remaining offset (Oxidation Reactor)	2758.8

AIR QUALITY DATA SHEET
PAGE 1

VISTA CHEMICAL COMPANY
(Formerly, Conoco Chemicals Company)
LAKE CHARLES CHEMICAL PLANT
LAKE CHARLES, CALCASIEU PARISH, LOUISIANA

Location of plant: 15 UTM: 473.5 Km E 3346.1 Km N

Description of location: Located at Old Spanish Trail, Westlake, Louisiana.

Estimated starting date of construction: N/A Estimated date operation will begin: N/A

Type of Dispersion Calculations Used: N/A

EFFECTS ON AMBIENT AIR

Pollutant	Time Period	Calculated Maximum Ground Level Concentration	Louisiana Air Quality Standard

NEW <input type="checkbox"/>	OR MODIFIED <input checked="" type="checkbox"/>	EMISSION SOURCES	Chemical Plant (Type of Source)		
Stack I.D.#	Description	Operating Rate (Maximum)	Operating Schedule Hrs/Day	Days/Wk	Wks/Yr
DC-401A	Batch Oxidation Reactor		24	7	52
DC-401C	Batch Oxidation Reactor		24	7	52
S ₂	Ethyl-Alcohol Separator		24	7	52
IV-A	C-500 (Main Plant Vent Stack)	DELETED			

AIR QUALITY DATA SHEET - PAGE 2

Vista Chemical Company
(Company's Name)

Lake Charles
(Nearest Town)

Calcasieu
(Parish)

MAXIMUM/AVERAGE EMISSIONS ARE LISTED USING THE UNITS LBS/HR

STACK	PERMITTED EMISSIONS					FEET	°F	CFM
ID	TSP	SO ₂	NO _x	HC	CO	HEIGHT	TEMP.	FLOW RATE
DC-401A	-	-	-	103.3/51.5	-	41	90	1586
DC-401C	-	-	-	206.2/103.1	-	45	90	3172
S 2	-	-	-	0.084/0.084	-	N/A	NA	NA
IV-A (C-500)	DELETED							

AIR QUALITY DATA SHEET
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VISTA CHEMICAL COMPANY
(Formerly, CONOCO CHEMICALS COMPANY)
LAKE CHARLES CHEMICAL PLANT
LAKE CHARLES, CALCASIEU PARISH, LOUISIANA

TONS PER YEAR						
STACK I.D.	TSP	SO ₂	NO _x	HC	CO	OTHER
DC-401A	-	-	-	225.4	-	-
DC-401C	-	-	-	451.4	-	-
S2	-	-	-	3.6	-	-
IV-A (C-500)	DELETED					