

UNITED STATES DISTRICT COURT
WESTERN DISTRICT OF LOUISIANA

UNITED STATES OF AMERICA,	)	
	)	
Plaintiff,	)	
	)	
V.	)	Civil Action No. 83-2518
	)	
CONOCO INC.,	)	
	)	
Defendant,	)	
	)	
	)	
VISTA CHEMICAL COMPANY,	)	
	)	
Intervenor.	)	
	)	
	)	

CONSENT DECREE

Plaintiff, United States of America, on behalf of the United States Environmental Protection Agency ("EPA"), filed a complaint herein on October 13, 1983, seeking injunctive relief and civil penalties. The complaint alleges that Conoco Inc. ("Conoco") violated the Clean Air Act, 42 U.S.C. § 7401 et seq., ("CAA") and the vinyl chloride National Emission Standard for Hazardous Air Pollutants ("NESHAP"), 40 C.F.R. § 61.60 et seq., by discharging vinyl chloride from relief valves and other equipment at its ethylene dichloride/vinyl chloride ("EDC/VC") plant in Westlake, Louisiana.

At the time of filing of the complaint, Conoco was the owner and operator of the EDC/VC plant in question. On

July 20, 1984, Conoco sold the assets comprising the EDC/VC plant to Vista Chemical Company ("Vista"). Consequently, Vista is voluntarily entering into this Consent Decree ("Decree") to avoid the costs of prolonged litigation and to effectuate the injunctive relief sought by the United States in this litigation.

The parties agree that settlement of the disputed issues arising from the United States' complaint without further litigation is in the public interest and that entry of this Decree is the most appropriate means of resolving these issues.

NOW THEREFORE, before the taking of any testimony, without this Decree or any action taken to comply with the terms of this Decree constituting any evidence or waiver or admission by any party with respect to any issue of fact or law, with the consent of the parties, by their respective attorneys, and the Court having considered the matter and being duly advised, IT IS HEREBY ORDERED, ADJUDGED AND DECREED as follows:

I.

JURISDICTION

This Court has jurisdiction over the subject matter and over the parties consenting hereto pursuant to 28 U.S.C.

§§ 1331, 1345 and 1355, and 42 U.S.C. § 7413. The complaint states a claim upon which relief can be granted.

II.

BOUND PARTIES

The provisions of this Consent Decree shall apply to and be binding upon the above-named parties and upon their officers, agents, servants, employees, successors, assigns and all persons, firms and corporations under, through or for it, and upon those persons, firms and corporations in active concert or participation with them. When this Decree requires that "Conoco and Vista" undertake an identified task or comply with the NESHAP for vinyl chloride, this shall mean that each party is responsible for the completion of the task and/or compliance. Either or both may agree among themselves as to who shall undertake a specific task, but such agreement shall not relieve each of the responsibility under this Decree. Defendants shall give notice in writing of the Consent Decree to any successors in interest prior to a change in ownership or a transfer of right to operate any source covered by this Decree. A copy of such notice shall be simultaneously provided to EPA and to the U.S. Department of Justice ("DOJ").

Nothing contained herein shall be construed to affect the existing rights of the State of Louisiana with

respect to its claims against Conoco and Vista for discharges of vinyl chloride at the EDC/VC plant in Westlake, Louisiana.

III.

COMPLIANCE

Upon entry of this Decree, Conoco and Vista shall comply with the NESHAP for vinyl chloride, 40 C.F.R. § 61.60 et seq. Towards that end, Conoco and Vista shall do the following:

A. Within thirty ^{9/12/85} (30) days after entry of this Decree submit to EPA the following information:

1. Classify each incinerator bypass that has occurred between May 11, 1983 and March 13, 1985 by category, according to the cause of the incident. Provide a detailed description of the nature and cause of the incinerator bypass for each category named.
2. For each incinerator bypass that has occurred between May 11, 1983 and March 13, 1985 provide:
 - (a) Identification of each bypass incident by the date of occurrence, time duration, description of the category of affected equipment from which exhaust gas(es) were released uncontrolled, and the applicable

category listed in III. A. 1, which properly describes the nature and cause of the bypass, and for purposes of this disclosure, "affected equipment" "means that category of equipment from which exhaust gases were initially collected by the vent headers or were released directly into the atmosphere". Accordingly, the respective vent headers do not constitute "affected equipment".

(b) Description of the mechanism, device, method and measure that was/were employed to bypass or reroute either the individual vent(s) or collective exhaust gases from the vent headers around the incinerator and through C-500 scrubber and stack or directly to atmosphere uncontrolled.

B. Within sixty (60) days of entry of this Decree shall submit to EPA a compliance plan ("Plan") which includes a disclosure of the status of compliance with the NESHAP for vinyl chloride and which outlines the measures Conoco and Vista have taken or any that will be taken to ensure compliance with each section of the the NESHAP for Vinyl Chloride 40 C.F.R. § 61.60 et seq., with a timetable for completion of

the measures identified. Such a Plan shall address, at a minimum, incinerator by-passes, relief valve discharges and emissions of vinyl chloride from the HCl column during start-up, shut-down, and malfunction. The portion of the Plan on relief valve discharges shall specifically address, inter alia, improvements in operator training, process design, inspection and preventive maintenance programs, quality assurance program for installation of new valve assemblies, process design for alarm system, controlled removal of nitrogen in process equipment before or during start-up, instrumentation for local pressure indication at inlet valve points on each check tank, and a quality assurance program for rupture discs. Conoco and Vista shall append appropriate technical data to the Plan, so that EPA personnel can fully evaluate the merits of the Plan. The Plan may refer to documents in plaintiff's possession.

C. Within forty-five (45) days of submission of the Plan, EPA shall inform Conoco and Vista, in writing, whether or not it approves or disapproves all or part of said Plan. Any disapproval shall include EPA's reasons for the disapproval, and additional or alternative measures EPA believes need to be undertaken in order to ensure compliance with the NESHA for vinyl chloride. If at any stage of review, consideration, or reconsideration EPA approves the Plan, the parties shall submit the Plan to the Court by

stipulation. Such Plan shall become an enforceable addendum to this Decree. If EPA disapproves the Plan, Conoco and Vista shall notify EPA within thirty days of receipt of EPA's disapproval whether or not they agree to the amendments by EPA, and will resubmit the Plan accordingly, or desire to petition the Court for resolution of the issue. In the event Conoco and Vista desire to petition the Court, such a petition shall be submitted within 60 days of EPA's written notification of disapproval. If Conoco and Vista do not file a petition within sixty (60) days of EPA's written notification of disapproval, they shall adhere to EPA's determination.

D. Conoco and Vista shall complete the measures outlined in the Plan within the time periods specified therein. However, if any circumstance arises which will cause a delay in meeting the schedule for completion of any of the measures in the Plan, Conoco and Vista shall submit written notification to EPA and this Court no later than fourteen (14) calendar days after the date Conoco and Vista conclude that such circumstance will cause a delay in meeting the schedule, describing in detail the anticipated length of the delay, the precise circumstances causing the delay, the measures taken or to be taken to prevent or minimize the delay, and the schedule for implementation of the measures to be taken. Conoco and Vista shall take

reasonable measures to prevent or minimize any delay. If Plaintiff agrees with Conoco and Vista that delay in meeting the schedule for completion of any of the measures in the Plan will be or has been caused by an act of God, fire, flood, strike, or other circumstances entirely beyond the control of and without the fault of Conoco and Vista, the deadline may be extended to a period no longer than the delay actually caused by such circumstance. In that event, the parties shall stipulate to an extension of the particular deadline affected and shall file a joint motion with this Court requesting an appropriate modification of this Decree. In the event that the parties do not agree, any party may at any time submit the matter to this Court for resolution. Financial, economic or business conditions or changes in same, or increased costs or expenses associated with the implementation of actions called for by this Decree shall not in any event be a basis for changes in this Decree or extensions of time.

E. The plaintiff does not, by its consent to the entry of this Decree, warrant or aver in any manner that defendants' completion of the measures outlined in this section will result in compliance with the provisions of the NESHA for vinyl chloride. Notwithstanding EPA's review or approval of any Plan, the defendants shall remain solely

responsible for compliance with the terms of this Decree and the NESHAPS for vinyl chloride.

IV.

STIPULATED PENALTIES

Conoco and Vista shall take all measures to perform their obligations pursuant to this Decree. If Conoco and Vista fail to comply with the requirements of this Decree, Conoco and Vista shall pay the following stipulated penalties:

A. If Conoco and Vista fail to submit the Plan described in and in the time required by Section III, Conoco and Vista shall pay \$1,000.00 per day of noncompliance.

B. If Conoco and Vista fail to take or complete the tasks within the timetable outlined in the Plan of Section III, Conoco and Vista shall pay \$1,000.00 for each day in excess of the scheduled time period for each task.

C. All payments of stipulated penalties under this Section shall be paid within thirty (30) days of the event by certified check made payable to the Treasurer of the United States and mailed to the United States Attorney for the Western District of Louisiana. A copy of the letter forwarding such check, together with a brief description of the noncompliance should be mailed to EPA.

D. Nothing contained herein shall be construed to prevent or limit the rights of the plaintiff to obtain any other injunctive relief or civil penalties under the Act in order to obtain compliance with the Clean Air Act and the regulations promulgated thereunder.

V.

REPORTING AND PROGRESS REPORTS

A. During the pendency of this Decree, Conoco and Vista shall submit directly to EPA copies of all semiannual, quarterly, and relief valve discharge reports which are required to be submitted by the applicable laws and regulations to the State of Louisiana pursuant to EPA delegation of the NESHAP program to the State. Defendants shall also include in the semiannual reports all discharges, leaks, and/or emissions reported to the National Response Center pursuant to the Comprehensive Environmental Response, Compensation and Liability Act ("CERCLA"). Conoco and Vista are each obligated to submit these reports only for the period of time during which each owned and operated or continues to own and operate the EDC/VC plant.

B. Commencing on the first calendar quarter after entry of the Plan as an addendum to this Decree, Conoco and Vista shall also submit quarterly progress reports within fifteen (15) days of the end of such quarter detailing all

actions taken toward completion of the tasks enumerated in the Plan pursuant to Section III.

C. All reports or other communications required to be in writing under this Decree shall be addressed as follows:

Change per SCF memo 12/11/85 which became effective 10/10/85

Pesticides, and Toxics Division
Director, Air, and Waste
~~Management Division~~
United States Environmental
Protection Agency
Region VI
1201 Elm Street
Dallas, Texas 75270

~~Assistant Attorney General~~
Land and Natural Resources Division
~~United States Department of Justice~~
10th & Constitution Avenue, N.W.
Washington, D.C. 20530

~~Conoco Inc.~~
Environmental and Engineering Group
Legal Department
Post Office Box 2197
Houston, Texas 77252

~~General Counsel~~
Vista Chemical Company
15990 Barker's Landing Road
Houston, Texas 77079

D. For the purposes of this section, documents are to be deemed delivered when postmarked.

VI.

CIVIL PENALTY

Conoco shall pay a civil penalty in the amount of \$100,000.00 in full satisfaction of plaintiff's civil claims for all violations of the NESHAP for vinyl chloride prior to August 1, 1984, except for violations which should have been reported to either EPA or the appropriate state agency but were not. Payment of \$100,000.00 shall be made within thirty (30) days of entry of this Decree, by certified check payable to the "Treasurer of the United States", and tendered to the Plaintiff at the Office of the United States Attorney for the Western District of Louisiana.

VII.

OBLIGATION TO COMPLY WITH ALL LAWS

Nothing in this Decree shall be construed to relieve the defendants or their officers, agents, servants, employees, successors or assigns of their obligations to comply with all applicable federal, state, and local statutes or regulations. Implementation of the Plan provided for in Section III of this Decree shall not relieve defendants of their obligation to comply with the National Emission Standard

for Vinyl Chloride, 40 C.F.R. § 61.60 et seq., and the Clean Air Act, 42 U.S.C. § 7401 et seq.

VIII.

ENTRY AND INSPECTION

During the pendency of this Decree the Administrator of EPA, or his authorized representative, shall have authority to enter the Westlake EDC/VC facility upon reasonable notice for purposes of examining remedial measures and inspecting and copying records, logs, contracts, or other documents which are necessary to assess compliance with this Decree.

IX.

CONFIDENTIALITY

All documents or information identified as confidential by Vista or Conoco in accordance with 40 C.F.R. Part 2, which are submitted to EPA, shall be disclosed only in accordance with 40 C.F.R. Part 2.

X.

RETENTION OF JURISDICTION

The Court shall retain jurisdiction to enforce the terms and conditions of this Decree and to resolve disputes arising hereunder until termination of this Decree.

XI.

TERMINATION OF DECREE

This Decree will terminate either: (1) three calendar months after plaintiff and defendants have notified the Court that the physical measures identified in the Plan described in Section III have been completed or (2) one year from the date an approved Plan is submitted to the Court as an addendum to this Decree, whichever shall occur later, provided that this Decree shall not terminate until all penalties under this Decree are paid.

XII.

COSTS OF ACTION

Each party shall bear its own costs and attorneys fees of this action.

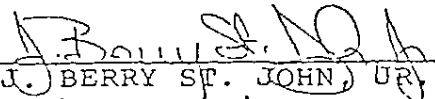
Date

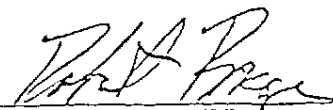
United States District Judge

WE HEREBY CONSENT to the entry of this Decree
subject to the public notice requirements of 28 C.F.R.
§ 50.7.

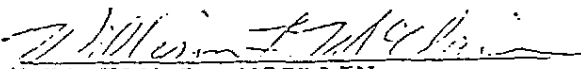
FOR CONOCO INC.


ESTELA S. WACKERBARTH
Counsel for Conoco

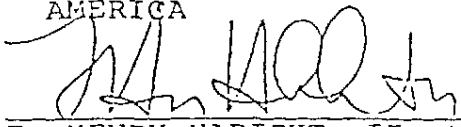

J. BERRY ST. JOHN, JR.
Liskow & Lewis
One Shell Square,
50th Floor
New Orleans, Louisiana 70139


ROBERT BRAGER
Beveridge & Diamond, P.C.
1333 New Hampshire Ave., N.W.
Washington, D.C. 20036

FOR VISTA CHEMICAL COMPANY

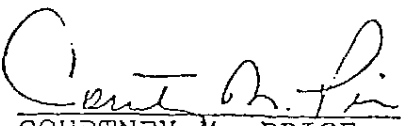

WILLIAM L. MCCLAIN
Counsel for Vista

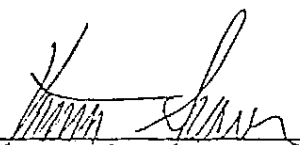
FOR THE UNITED STATES OF
AMERICA

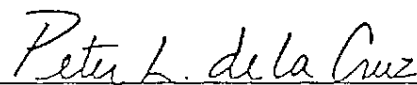

F. HENRY HABICHT, II
Assistant Attorney General
Land and Natural Resources
Division
Department of Justice
Washington, D.C. 20530

JOSEPH S. CAGE, JR.
United States Attorney
Western District of Louisiana

By: 
DAVID A. TITMAN
Assistant United States
Attorney


COURTNEY M. PRICE
Assistant Administrator
Office of Enforcement and
Compliance Monitoring
U.S. Environmental Protection
Agency
Washington, D.C. 20460


KEN SPEARS
Jones, Tete, Nolan, Hanchey,
Swift & Spears
First Federal Building
Post Office Box 910
Lake Charles, Louisiana 70602


PETER L. de la CRUZ
Keller and Heckman
Suite 1000
1150 17th Street, N.W.
Washington, D.C. 20036



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION VI
1201 ELM STREET
DALLAS, TEXAS 75270

February 27, 1987

REPLY TO: 6W-E0

CERTIFIED MAIL: RETURN RECEIPT REQUESTED (P 303 857 972)

Mr. R. A. Conrad, Plant Manager
Vista Chemical Corporation
Lake Charles VCM Plant
P.O. Box 727
Westlake, Louisiana 70669

Re: Administrative Order Docket No. VI-87-1405
NPDES Permit No. LA0003336

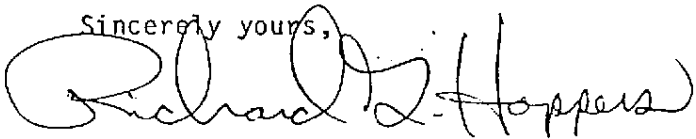
Dear Mr. Conrad:

Violation of a Federal NPDES permit requires the Environmental Protection Agency to take appropriate enforcement action to assure compliance. Pursuant to the Clean Water Act (33 U.S.C. 1251 et seq.), the enclosed Administrative Order is hereby served on you and Vista Chemical Corporation for the violations described therein and hereby replaces Administrative Order Docket No. VI-86-1409, which is hereby closed.

Compliance with the provisions of this Order is expected within the maximum time periods established by each part of the Order. Your cooperation and prompt attention will be appreciated. In response hereto, please reference Docket No. VI-87-1405 and your NPDES permit number and send correspondence to the attention of Ms. Bernadine Gordon (6W-EA).

It is the policy of the Environmental Protection Agency to achieve full compliance with the NPDES permit program as rapidly as possible. This office is prepared to help you in any way it can. If you have any questions, please contact Ms. Ann C. Dartez, EPA, Dallas, Texas at (214) 767-2756.

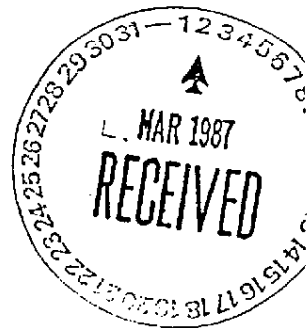
Sincerely yours,


for Myron O. Knudson, P.E.
Director
Water Management Division (6W)

Enclosure

cc: Mr. Marion Fannaly
Enforcement Coordinator
Louisiana Department of Environmental Quality
P.O. Box 44066, Capital Station
Baton Rouge, Louisiana 70804-4066

CWH 000011669



MRK

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION 6

IN THE MATTER OF	§	DOCKET NO. VI-87-1405
	§	
VISTA CHEMICAL CORPORATION	§	
	§	
PROCEEDINGS UNDER SECTION 309(a)(3)	§	
and (a)(4), CLEAN WATER ACT,	§	
[33 U.S.C. 1319(a)(3) and (a)(4)],	§	ADMINISTRATIVE ORDER
in RE: NPDES PERMIT NO. LA0003336	§	

The following FINDINGS are made and ORDER issued pursuant to the authority vested in the Administrator of the Environmental Protection Agency by the above referenced statute (hereinafter the Act) and duly delegated to the Regional Administrator, Region 6, and duly redelegated to the undersigned Director, Water Management Division, Region 6.

I.

The Vista Chemical Corporation (hereinafter the Permittee) is a company doing business in the State of Louisiana and located in Calcasieu Parish, the mailing address for which is P.O. Box 727, Westlake, Louisiana 70669.

II.

Pursuant to the authority of Section 402(a)(1) of the Act [33 U.S.C. 1342(a)(1)], Region 6 issued National Pollutant Discharge Elimination System (NPDES) Permit No. LA0003336 to the Permittee on August 29, 1986, with an effective date of September 30, 1986. The permit authorizes the discharge of specified qualities and quantities of effluent to Bayou Verdine, thence to the Calcasieu River. The permit also requires the submission of Discharge Monitoring Reports and Noncompliance Reports. At present, the EPA is reissuing the permit.

CWH 000011670

III.

Part I.A. of the reissued permit places certain limitations on the quantity and quality of effluent discharged through outfall 001. The relevant limitation is as follows:

<u>Effluent Characteristic</u>	<u>Discharge Limitations</u>			
	<u>Mass (lbs/day)</u>		<u>Other Units (Specify)</u>	
	<u>Daily Avg.</u>	<u>Daily Max.</u>	<u>Daily Avg.</u>	<u>Daily Max.</u>
1,2 - Dichloroethane (EDC)	3.18	4.14	N/A	N/A

IV.

FINDINGS OF FACT

According to the EPA and the Permittee, the Permittee is unable to comply with the above listed effluent limitations imposed by the reissued permit using the existing treatment facilities. Failure to comply with the effluent limits would constitute a violation of the permit.

V.

The Permittee, in a meeting with the EPA on September 12, 1986, indicated that the proposed EDC limits would be met after a three (3) phase, twenty-one (21) month construction project was completed. This construction project entails:

- 1) Outfall relocation phase;
- 2) Stormwater segregation phase; and
- 3) Revised Closed Process Sewer phase.

VI.

ORDER

Based on the foregoing FINDINGS OF VIOLATION and pursuant to the authority vested in the Administrator under Section 309(a)(3) of the Act [33 U.S.C. 1319(a)(3)], and duly delegated to the Regional Administrator, Region 6, and duly redelegated to the undersigned Director, Water Management Division, Region 6, it is ORDERED:

A. That during the period from the effective date of this Order through July 1, 1988, the Permittee shall comply with the following interim effluent limitations for EDC through outfall 001:

<u>Effluent Characteristic</u>	<u>Discharge Limitation</u>	
	<u>Mass (lbs/day)</u>	
	<u>Daily Avg.</u>	<u>Daily Max.</u>
1,2 - Dichloroethane (EDC)	Report	Report
Chlorinated Hydrocarbons (as ethylene dichloride)	1500	3375

B. The above interim effluent limitations shall remain in effect only if it can be demonstrated that the Permittee is operating and maintaining the existing facility as efficiently as possible and is in compliance with all other terms and conditions of this Administrative Order. The Environmental Protection Agency will continue to monitor the situation and if appropriate, will revise the interim effluent limitations. In any event, the interim limitations will expire July 1, 1988.

C. That while the above interim effluent limitations are in effect the Permittee need not report instances of noncompliance with the effluent limitations specified in Part I.A. of the permit for EDC. All other permit limitations shall remain in effect. Occurrences of noncompliance with permit or interim limitations shall be reported in accordance with requirements in the NPDES permit.

D. That the Permittee shall comply with the following schedule:

Complete construction of the Outfall
Relocation and Revised Closed Process
Sewer phases no later than April 15, 1987

Complete final design plans for the
stormwater segregation phase and submit
a copy of them to the EPA no later than October 1, 1987

Achieve sustained compliance with the
final effluent limitations no later than July 1, 1988

E. That the Permittee report compliance or noncompliance with the requirements of D, above, no later than fourteen (14) calendar days following the date of a specific action.

F. That the Permittee shall submit construction progress reports in accordance with the following schedule.

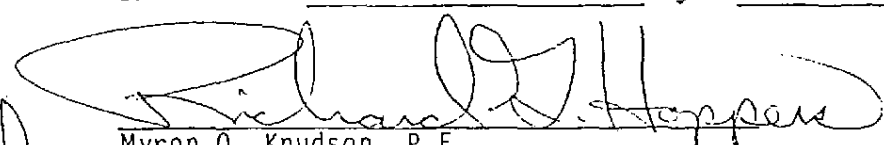
<u>Report Number</u>	<u>Due Date</u>
1	June 1, 1987
2	September 1, 1987
3	December 1, 1987
4	March 1, 1988
5	June 1, 1988

These reports shall include, but not be limited to, all construction activities that have been completed and an update of those activities yet to be completed.

G. That all other terms and conditions of the permit are effective as issued and require full compliance.

The effective date of this ORDER shall be the date the permit being reissued becomes effective.

DATED: This 27th day of February, 1987.



for Myron O. Knudson, P.E.
Director, Water Management Division (6W)

CONFIDENTIAL

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

October 16, 1985

Director, Air, Pesticides
and Toxics Division
U.S. Environmental Protection
Agency, Region VI
1201 Elm Street
Dallas, TX 75270

Re: STATUS OF COMPLIANCE AND EMISSION CONTROL PLAN -
LAKE CHARLES VCM PLANT

Dear Sir:

This letter and the attached material is being sent by Conoco Inc. and Vista Chemical Company in full satisfaction of Section III.B of the Consent Decree entered with the United States District Court for the Western District of Louisiana on August 19, 1985, in Civil Action No. 83-2518.

All of the pages in this information package which are stamped "confidential" are claimed confidential in their entirety pursuant to the provisions of 40 C.F.R. Part 2. It is our understanding that EPA will protect this information as confidential and will not divulge it to any other party.

After you have reviewed this material please advise Conoco and Vista, in accordance with the terms of the Consent Decree, whether the Emission Control Plan meets with your approval. If you have any questions about the information contained herein, please call Estela Wackerbarth

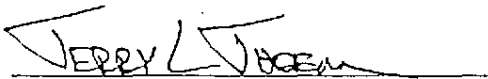
CWH 000011675

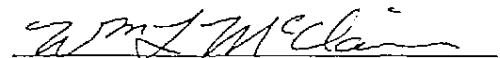
October 16, 1985
Page 2

CONFIDENTIAL

(713/293-3403) and William McClain (713/531-3278) for clarification.

Sincerely,


Terry L. Thoem, Manager
Environmental Conservation
For Conoco Inc.


William L. McClain, Counsel
For Vista Chemical Company

ESW/dla
Att.

CWH 000011676

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Appendixes

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EMISSION CONTROL PLAN
VINYL CHLORIDE MONOMER PLANT
LAKE CHARLES, LOUISIANA

INTRODUCTION

This Emission Control Plan (hereafter "Plan") is being submitted by Conoco, Inc. and Vista Chemical Co. in full satisfaction of Section III.B. of the Consent Decree ("Decree") entered with the United States District Court for the Western District of Louisiana on August 19, 1985, in Civil Action No. 83-2518.

The Plan has a threefold purpose: (1) to describe measures, procedures and equipment already in place at the VCM Plant aimed at reducing, preventing, abating or otherwise controlling emissions of vinyl chloride from equipment in vinyl chloride service; (2) to describe proposed changes in methods and procedures and proposed additional training for Plant personnel, aimed at improving compliance with the requirements of the National Emission Standard for Hazardous Air Pollutants (NESHAP) for vinyl chloride; (3) to describe proposed equipment revisions for improved compliance with the NESHAP requirements for vinyl chloride.

Nothing in this Plan, its Attachments or Appendixes constitutes an admission, direct or implied, that equipment, methods, procedures, training programs, etc. heretofore

implemented are or have been insufficient to meet the requirement of the Clean Air Act and/or the regulations governing the emission of vinyl chloride (40 CFR 61 Subpart F).

The format of the Plan is based on the applicable portions of the vinyl chloride NESHAP; i.e., for each requirement that applies to the VCM plant, the Plan contains a description of measures, procedures, etc. under headings and subheadings by the same numbering system as the vinyl chloride regulations themselves. In addition, Attachment 1 addresses measures taken and to be taken to minimize incinerator bypasses and Attachment 2 addresses HCl column emissions of vinyl chloride. Supporting documents, with the exception of those referenced and in the EPA's possession (Attachment 3), are provided in the Appendixes.

40 C.F.R.61. Subpart F - National Emission Standard for
Vinyl Chloride.

§61.62 Emission standard for ethylene
dichloride plants.

(a) Ethylene dichloride purification:

Ethylene dichloride purification equipment exhaust gases capable of having a vinyl chloride concentration greater than 10 ppm are ducted to a thermal incinerator from which the concentration of vinyl chloride in the exhaust gases does not exceed 10 ppm. Measures taken and to be taken to minimize incinerator bypasses are addressed in Attachment 1.

(b) Oxychlorination reactor:

The oxychlorination process was voluntarily converted from air-based to oxygen-based technology in 1983. The conversion eliminated vinyl chloride emissions from the oxychlorination process during normal operation. Emissions of vinyl

chloride to the atmosphere during scheduled and unscheduled shutdowns do not exceed 0.2g/kg of the 100 percent ethylene dichloride product from the oxychlorination process.

§61.63 Emission standard for vinyl chloride plants.

(a) Vinyl chloride formation and purification:

Vinyl chloride formation and/or purification equipment exhaust gases capable of having a vinyl chloride concentration greater than 10 ppm are ducted to a thermal incinerator from which the concentration of vinyl chloride in the exhaust gases does not exceed 10 ppm. Measures taken and to be taken to minimize incinerator bypasses are addressed in Attachment 1.

§61.65 Emission standard for ethylene dichloride, vinyl chloride and polyvinyl chloride plants.

(a) Relief valve discharge.

From November 8, 1982 until March 15, 1985 four emergency discharges to the atmosphere from relief valves on equipment in vinyl chloride service have occurred. Of the four emergencies, three (November 8, 1982, August 26, 1983, and February 7, 1984) were due to thermal expansion of blocked in liquid vinyl chloride. Since installation of the Thermal Relief Valve Discharge Containment design in June of 1984 there have been no further thermal relief valve discharges to the atmosphere. No future thermal relief valve discharges to the atmosphere are expected because the new containment system routes the discharge to the incinerator. The fourth emergency discharge (May 6, 1983) occurred when a pump was started with its discharge line blocked in. Since installation of warning signs near the start buttons of 5 pumps in vinyl chloride service (see Appendix B for details) there have been no further occurrences.

Results of a study conducted in 1983 (see Appendix B for details) show that past measures plus those recommended by the study and since implemented will prevent non-emergency relief valve discharges. Furthermore, all plant policies/procedures have been, and will continue to be, scrutinized for areas where improvements can be made. A summary of measures taken to minimize relief valve discharges follows:

I. Operator Training

1. Annual relief valve release avoidance training sessions have been, and continue to be, implemented (see Appendix B).
2. Special counseling of operators has been, and continues to be, implemented following any incident which did lead, or could have led, to a relief valve discharge. Refer to page 85 of reference 1 in Attachment 3.
3. A specialized training program for operations personnel was conducted. It included discussion of the properties of liquid-full systems with specific emphasis on how those properties relate to overpressuring caused by failure to properly

align block valves while putting a flake caustic dryer on line and while switching check tanks. Refer to page 78 of reference 1 in Attachment 3.

4. Each operator undergoes comprehensive training and testing while progressing from one position to another. Refer to page 73 of reference 1 in Attachment 3.

II. Process Design

1. Installation of a Caustic Decanter Relief Valve Containment project was completed in 1982. Refer to page 87 of reference 1 in Attachment 3. This project would have contained 80% of all relief valve discharges of vinyl chloride occurring prior to its completion. It has successfully contained all discharges from relief valves on the caustic decanter and flake caustic dryers since commissioning and start-up.
2. Installation of a Thermal Relief Valve Discharge Containment project was completed in June of 1984. Sixteen thermal relief valves located in the tank farm area have been tied into the system.
3. A thermal relief valve that discharges to vinyl chloride product storage was installed in 1980. Refer to page 87 of reference 1 in Attachment 3. This change prevents a discharge to atmosphere

from the vinyl chloride flake caustic dryer relief valve should thermal expansion of liquid in the loading line and dryer occur.

4. A redundant pressure transmitter and high pressure alarm were installed on the vinyl column. This measure ensures that operators are warned of situations which could lead to a vinyl column relief valve discharge. Refer to page 56 of reference 1 in Attachment 3.

III. Inspection and Preventive Maintenance Programs.

1. Copies of all documents regarding standard operating and maintenance procedures and testing and installation procedures employed at the VCM plant which relate to prevention of relief valve discharges of VCM from equipment in VCM service were submitted to the EPA. See page 80 of reference 1 in Attachment 3.
2. Routine monitoring of the pressure drop across the flake caustic dryers (and appropriate corrective action when increased pressure drop is observed) has been, and continues to be implemented. Refer to page 51 of reference 1 in Attachment 3.
3. The caustic decanter high pressure alarm switch was added to the "blind list" (used to ensure blinds are removed prior to start-up following

turnarounds) in July, 1982. Refer to page 86 of reference 1 in Attachment 3.

4. A periodic check of relief valves is conducted during turnarounds by an outside contractor. Refer to page 18 of reference 2 in Attachment 3. This check ensures that all relief valves operate at their rated pressure and that they are in good mechanical condition.
5. All in-plant maintenance on relief valves is overseen by a certified relief valve inspector employed by the plant. Refer to page 18 of reference 2 in Attachment 3.
6. Following construction and installation of new equipment and/or replacement of existing equipment, the maintenance department's check-out procedure includes a visual inspection along with hydrotesting and/or weld x-rays, as applicable. Refer to page 18 of reference 2 in Attachment 3.
7. Pre-start-up inspections are conducted by the Operations Department prior to putting new equipment in service. Refer to page 18 of reference 2 in Attachment 3.
8. The VCM Plant's preventive maintenance program includes instrumentation calibration as required to ensure that process instrumentation is functioning properly and will alert of possible

overpressure conditions. Refer to page 18 of reference 2 in Attachment 3.

IV. Quality Assurance Program for Installation of New Valve Assemblies.

See items III.6. and III.7. above.

V. Process Design for Alarm System.

1. See item II.4. above.
2. Installation of high pressure alarms on the check tanks was considered. This measure was not implemented because it was determined that existing alarms on upstream equipment were adequate. Also, the new pressure recorder installed on the caustic decanter more effectively indicates an impending overpressure condition. Refer to page 84 of reference 1 in Attachment 3.

VI. Controlled Removal of Nitrogen in Process Equipment Before or During Start-up.

1. The start-up sequence procedure for removing nitrogen from the HCl column prior to start-up following an inventory control shutdown was modified. Refer to page 29 of reference 1 in Attachment 3.

2. A new furnace clearing procedure for venting nitrogen prior to start-up was developed. Refer to page 45 of reference 1 in Attachment 3.
3. The general procedure for removal of nitrogen in process equipment before, or during, start-up is summarized on page 10 of reference 2 in Attachment 3.

VII. Instrumentation for Local Pressure Indication at Inlet Valve Points on each Check Tank.

This measure is unnecessary since the Caustic Decanter Relief Valve Containment project (item II.1. above) will contain relief valve discharges caused by valve misalignment during check tank switching. In addition, training and administrative procedures have essentially eliminated valve misalignments during check tank switching.

VIII. Quality Assurance Program for Rupture Discs.

1. Rupture disc assemblies are pre-torqued to prevent damage to the disc during installation. Refer to page 14 of reference 3 in Attachment 3.
2. Bi-weekly inspections of tell-tale pressure gauges

on relief valve rupture disc assemblies have been, and continue to be, conducted. Refer to page 17 of reference 3 in Attachment 3.

IX. Miscellaneous Administrative Actions

1. Warning signs have been installed near the start buttons of five pumps in vinyl chloride service (see Appendix B). These signs warn operators to check valve line-up before starting the pump to prevent a possible VCM relief valve discharge.

\$61.65 (continued)

(b) Fugitive emission sources -

(1) Loading and unloading lines:

Before opening to the atmosphere, railcar loading and unloading lines are cleared to a thermal incinerator from which the concentration of vinyl chloride in the exhaust gases does not exceed 10 ppm.

(2) Slip gauges

Magnetic dip sticks having no seals where fugitive emissions might escape are used for level indication on vinyl chloride railcars.

(3) Leakage from pump, compressor, and agitator seals:

(i) Rotating pumps.

All centrifugal pumps in vinyl chloride service are sealless or are equipped with tandem mechanical seals. If they have seals, the area between the seals is connected to an oil reservoir which is vented to a thermal incinerator from which the concentration of vinyl chloride in the exhaust gases does not exceed 10 ppm.

(ii) Reciprocating pumps.

There are no reciprocating pumps in vinyl chloride service in the VCM plant.

(iii) Rotating compressor.

There are no rotating compressors in vinyl chloride service in the VCM plant.

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(iv) Reciprocating compressors.

The only reciprocating compressor in vinyl chloride service has two packing seals. The area between the seals is vented to a thermal incinerator from which the concentration of vinyl chloride in the exhaust gases does not exceed 10 ppm.

(v) Agitator

There are no agitators in vinyl chloride service in the VCM plant.

(4) Leakage from relief valves.

All relief valves in vinyl chloride service are either equipped with a rupture disc or discharge to a process line, containment vessel, or a thermal incinerator from which the concentration of vinyl chloride in the exhaust gases does not exceed 10 ppm. In addition, the tell-tale pressure gauges on rupture disc assemblies are inspected bi-weekly to verify that all discs are intact (see item §61.65 (a) VIII.2. above).

(5) Manual venting of gases.

Manual vents from equipment in vinyl chloride service are ducted to a thermal incinerator from which the concentration of vinyl chloride in the exhaust gases does not exceed 10 ppm.

(6) Opening of equipment.

Equipment to be opened is first purged until the concentration of vinyl chloride is no more than 2 percent (by volume at standard temperature and pressure). The gases from the purging process are vented to a thermal incinerator from which the concentration of vinyl chloride in the exhaust gases does not exceed 10 ppm.

(7) Samples.

All samples containing 10 percent (by weight) or more vinyl chloride are obtained from a closed process sampling system. Any unused portions of these samples are returned to the process vent header.

(8) Leak detection and elimination.

A copy of the formal leak detection and elimination plan currently in effect is appended (See Appendix A).

(9) Inprocess wastewater.

Wastewater containing greater than 10 ppm (by weight) vinyl chloride is steam stripped to reduce the vinyl chloride concentration to less than 10 ppm before being mixed with any other wastewater containing less than 10 ppm vinyl chloride; before being exposed to the atmosphere; or before being discharged to a wastewater treatment process. Vinyl chloride stripped from wastewater is ducted to a thermal incinerator from which the concentration of vinyl chloride in the exhaust gases does not exceed 10 ppm.

- (c) Requirements prescribed by §61.65 (c) have been incorporated into standard operating procedures and are available for inspection by the Administrator.

§61.66 Equivalent equipment and procedures.

The VCM Plant does not use equipment or procedures other than those prescribed for compliance with this subpart.

§61.67 Emission tests.

Emission tests required by this subpart were conducted and the results reported to the EPA as prescribed in §61.67.

§61.68 Emission monitoring.

Monitoring of vinyl chloride emissions as prescribed in §61.68 has been and continues to be, conducted on a continuous basis.

§61.69 Initial report.

The initial report for the VCM Plant as prescribed in §61.69 was submitted to the EPA.

§61.70 Semiannual report.

Prior to granting authorization to the State of Louisiana, semiannual reports were prepared and submitted to the EPA as prescribed in §61.70. Since authorization, quarterly reports as prescribed by §77.11 of the Louisiana Emission

Standards for Hazardous Air Pollutants (LESHAP), have been, and continue to be, submitted to the Louisiana Department of Environmental Quality.

\$61.71 Recordkeeping

Records prescribed by \$61.71 are retained at the source and are available for inspection by the Administrator.

Attachment 1. Minimization of Incinerator Bypasses.

ATTACHMENT 1.Minimization of Incinerator Bypasses

Reduction in the frequency and quantity of vinyl chloride emitted due to incinerator bypasses has been, and continues to be, evaluated. Efforts have been increased to effect a positive reduction in the frequency of incinerator bypasses. Measures taken as a result are summarized below.

ADMINISTRATIVE MEASURES

- 1) More formal incinerator bypass investigations by operations supervisory personnel have been instituted. These investigations include a detailed report of each bypass incident and a written corrective action plan. The objective is to better define the causes and methods of prevention of all bypasses.
- 2) To minimize the potential for incinerator bypasses resulting from impurities in the ethylene used as reactor feedstock, specific procedures have been established by the ethylene feedstock supplier at the request of the VCM Plant.
- 3) To minimize the potential for incinerator bypasses resulting from impurities in the chlorine used as

reactor feedstock, provisions have been included in the supply contract whereby the supplier must notify Vista prior to any start-up that could result in delivery of chlorine that is less than 96% pure by volume.

PHYSICAL MEASURES

- 1) To reduce sudden surges in flow to the incinerator during purging operations, a restriction orifice was installed on the vent line of the Vinyl Flake Caustic Dryers, S-207A&B.
- 2) Bypasses due to excessive header pressures have been minimized by installing new pressure transmitters, for the Direct Chlorination and Wet Vent Header pressure controllers, on the HCl Absorbers. Also, the control schemes for both vent bypass loops have been modified.
- 3) Potential bypass situations are detected by monitoring the Direct Chlorination and Wet Vent Header flows with flow recorders.
- 4) Bypasses of the incinerator due to Tank Farm Vent Blower surge are minimized through the use of anti-surge control instrumentation on the blowers.

- 5) To alert main plant operators of conditions which could adversely impact incinerator operation, alarms were installed in the main control room. These alarms sound when the direct chlorination reactor vent flow, direct chlorination vent header pressure, or wet vent header pressure is excessively high. (This measure addresses the Nature and Cause category II.B. identified in reference document 4 in Attachment 3).
- 6) To minimize low lube oil pressure tripout of the steam turbine driving the incinerator combustion air blower, and subsequent automatic incinerator shutdown on low combustion air flow, the lube oil filters were changed from the throw-away type to a permanent self-cleaning type. (This measure addresses the Nature and Cause Category VIII.A. identified in reference document 4 in Attachment 3).
- 7) To alert plant operators of low instrument power supply voltage which could lead to automatic incinerator shutdowns, low voltage alarms were installed.

In addition to the above, the following measures will be taken:

ADMINISTRATIVE MEASURES

- 1) To minimize the risk of incinerator bypasses due to instrument and/or mechanical problems, the existing plant-wide routine preventive maintenance program will be reviewed and updated to specifically include instrument and mechanical items related to incinerator shut-down prevention. See Appendix C for an outline of the proposed program.
- 2) Operating procedures for minimizing the potential for incinerator bypasses due to routine and emergency/non-routine vents will be reviewed and updated. See Appendix C for measures to be included.
- 3) A training program designed to prevent incinerator bypasses will be formalized. It will include discussions of past bypasses, their cause, and appropriate preventive measures. See Appendix C for an outline of the proposed program.
- 4) To ensure that administrative measures identified herein are conducted in a timely manner, a formal Notification of Status program will be instituted.

PHYSICAL MEASURES

- 1) To minimize incinerator bypasses due to flameouts, the following measures will be taken. (These measures address Nature and Cause categories I.A.8., I.B.2., I.B.3.a.1., I.C., II.A., VI. and VIII.B. identified in reference document 4 in Attachment 3).
 - a) ✓ New in-situ oxygen analyzers will be installed in the incinerator firebox to provide reliable indication of oxygen requirements.
 - b) The current incinerator combustion air flow control scheme will be revised to include: 1) vent header flow feedforward (or ratio); 2) liquid byproduct flow feedforward (or ratio); 3) natural gas flow feedforward (or ratio); and 4) firebox oxygen concentration feedback. These will be cascaded with the existing combustion air flow control. These revisions will ensure that ample excess oxygen is available for complete combustion.
 - c) Automatic controls to start a standby blower when the on-line blower approaches maximum capacity will be installed.

- d) New burner assemblies will be installed to improve mixing of oxygen, fuel gas, and vent streams and thus prevent incomplete combustion due to insufficient mixing.
 - e) Feedback control of flame or firebox temperature cascaded with natural gas flow control will be installed. This measure will maintain incinerator temperature high enough to insure complete combustion of all vent gas components.
- ✓
- 2) To minimize incinerator bypasses resulting from impurities in the chlorine and ethylene feedstocks to the direct chlorination reactor, reactor vent flow control instrumentation will be installed. (This measure addresses the Nature and Cause category I.B.3.a.2. identified in reference document 4 in Attachment 3).
 - 3) To minimize incinerator bypasses due to a low incinerator liquid seal flame arrestor level, position alarms will be installed on the emergency make-up water valve. (This measure addresses the Nature and Cause category II.D. identified in reference document 4 in Attachment 3).

- 4) To minimize incinerator bypasses due to tank farm vent blower mechanical failure, a tank farm vent eductor and associated piping and instrumentation will be installed. (This measure addresses Nature and Cause categories III.B. and V. identified in reference document 4 in Attachment 3).
- 5) To minimize incinerator bypasses due to electric power failures, an automatic tie-breaker will be installed. (This measure addresses the Nature and Cause category V. identified in reference document 4 in Attachment 3).
- 6) To minimize incinerator bypasses due to high vent flow from the vinyl column condensers, a modified HCl column control scheme will be installed. This will minimize the amount of HCl reaching the vinyl column. (This measure addresses the Nature and Cause category I.B.2. identified in reference document 4 in Attachment 3).
- 7) To minimize incinerator bypasses caused by high vent flow from the flake caustic dryers, the restriction orifice in the dryer vent line will be resized. (This measure addresses the Nature and Cause category I.A.4. identified in reference document 4 in Attachment 3).

- 8) ✓ To alert main plant operators of excessive vent flow from the Light Ends Column Accumulator, local flow indication will be converted to remote indication (in the main control room) with a high flow alarm. (This measure addresses the Nature and Cause category I.C. identified in reference document 4 in Attachment 3).
- 9) ✓ To alert the incinerator operator of potential excessive wet and/or direct chlorination vent header flow, adjustable high flow alarms will be installed. (This measure addresses the Nature and Cause category I.C. identified in reference document 4 in Attachment 3).

All documentation, designs, etc. for measures to be taken are in the conceptual stage. All revisions, modifications, etc. to this stage will be incorporated in definitive designs, for physical measures, and formal policy, for administrative measures, within six (6) months after the Plan becomes an enforceable addendum to the Decree. All physical measures to be taken will be mechanically complete, i.e., all construction will be complete, within fourteen (14) months after the Plan becomes an enforceable addendum to the Decree.

Attachment 2. HCl Column Emissions of Vinyl Chloride.

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ATTACHMENT 2.HCl Column Emissions of Vinyl Chloride

Emissions associated with venting of the HCl column overhead product stream are not covered by the NESHAP regulations under expected conditions of operation. The top section of the column, where the relief valves are located, is not in vinyl chloride service as defined in 40 CFR 61.61(1) except under highly unlikely and unanticipated conditions. Therefore, the requirements of 40 CFR 61.65(a) do not apply to these relief valves unless and until such relief valves are in vinyl chloride service as defined in 40 CFR 61.61 (1).

The requirements of 40 CFR 61.63(a) do not apply to the HCl column because no "exhaust gases" are discharged to the atmosphere. See Judge Veron's opinion (republished) in United States v Conoco, (Civil Action No. 83-2518) upholding Conoco's contention that exhaust gas emission limits do not apply to episodic and unintended emissions of marketable product (copy attached as Appendix D).

In the past, Conoco unnecessarily, and therefore erroneously, reported HCl column overhead product stream emissions in the NESHAP semiannual and LESHAP quarterly reports. Vista does not intend to include HCl column

overhead product stream emissions on future NESHAP/LESHAP reports unless the relief valve discharge occurs during the unexpected period that the equipment would be in vinyl chloride service.

Attachment 3. Referenced Documents In EPA's Possession.

ATTACHMENT 3.Referenced Documents In EPA's Possession

1. CONOCO Inc. reply, dated September 20, 1982, to the Environmental Protection Agency's (EPA) CAA Section 114 Request for Information.
2. CONOCO Inc. reply, dated February 8, 1983, to the EPA's questions received under cover letter dated January 24, 1983.
3. CONOCO Inc. reply, dated February 25, 1983, to the EPA's questions received under cover letter dated January 24, 1983.
4. CONOCO INC. and VISTA CHEMICAL COMPANY information submitted to the EPA under cover letter dated September 12, 1985 responding to Section III.A. of the Consent Decree entered with the United States District Court for the Western District of Louisiana on August 19, 1985, in Civil Action No. 83-2518.

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Appendix A. Current Leak Detection and Elimination Plan.

PLANT AREA
LEAK DETECTION & ELIMINATION
PLAN FOR LESHAP

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The Conoco VCM Plant Area Leak Detection and Elimination Plan is designed to provide a formalized procedure for detecting and controlling leaks from equipment in vinyl chloride service in the plant area. The plan is organized following the requirements of the leak detection and elimination section of the Louisiana emission standard for vinyl chloride. This plan will be reviewed periodically to determine if the plan meets the original purpose.

Continuous Monitoring System

A. Purpose

A continuous monitoring system provides a permanent, dependable means to detect leaks and identify the general area of the plant where a leak is located.

B. Definition of a Leak

A leak shall be defined as two VCM analyses over 10 ppm from any fixed points in the same area (i.e., one analysis over 10 ppm followed by a second analysis over 10 ppm, not necessarily from the same fixed point but in the same general vicinity) during two consecutive 10 minute scans in the process and offsites areas.

C. Description

Two multipoint area analyzers, Honeywell Model 1000 gas chromatographs (CAR), or equivalent, are used for detection of leaks and identification of the general area of the plant where a leak is located. The monitors will sample the air at each sample point on a continuous sequential basis, with each point being sampled once every 10 minutes. These chromatographs are CAR-171 for the plant process area and CAR-401 for the offsites area. The CAR's are presently being utilized for VCM monitoring and have proven to be reliable area monitors. Honeywell has stated that their accuracy is $\pm 5\%$ at VCM concentrations over 1.0 ppm. The background concentration of vinyl chloride in the plant area is approximately 0.5 ppm.

The output from each of the monitoring points of CAR-171 and CAR-401 is printed on a recording chart. The number corresponding to each sampling location is indicated as well as the vinyl chloride concentration in ppm. An analog output from CAR-171 and CAR-401 is also transmitted to a computer located in the main control room. The computer is programmed to print out a defined leak at the time it occurs and the number of such occurrences on an hourly basis for each point at the end of a 24 hour period.

An audio and a visual alarm will be given with each analysis of 10 ppm or greater. When the first alarm occurs a check by operations personnel will be made. If a leak is found, the action plan will be implemented. If a second alarm occurs in the same area during consecutive 10 minute scans, then by definition, a leak has occurred and the action plan will be implemented.

D. Location of Monitoring Points

The plant area vinyl chloride monitoring points are located in the plant process and offsites areas as shown in Figures 1 and 2 respectively. A description of the location of each point is given in Table 1.

E. Calibration and Maintenance

The plant area vinyl chloride monitoring system, CAR-171 and 401, will be maintained, calibrated, and span checked on a daily schedule, and all work will be reported in a log book. Calibration will be done with a certified standard gas cylinder containing a concentration of vinyl chloride in nitrogen of 10 ppm $\pm$ 5 percent. The standard gas cylinder will have affixed to it the date of preparation, the certified vinyl chloride concentration and the recommended shelf life. At least one quarter of the plant area vinyl chloride monitoring points will be tested each year on a rotating basis using a standard vinyl chloride gas to ensure proper detection. Records of the testing will be kept.

Weekly Leak Patrol

A. Purpose

The weekly leak patrol will be used to find leaks in the plant area that have not been identified by the vinyl chloride monitoring system, as described below.

B. Definition of a Leak

A leak shall be defined as 10 ppm measured within six inches of a pump or valve seal interface, or 10 ppm in the general area over the background concentration.

C. Description

An HNU Model 101 portable analyzer, or equivalent, will be used to check for leaks during the weekly leak patrol. The HNU Model 101 portable analyzer has a sensitivity of 1 ppm vinyl chloride. The weekly leak patrol will follow the routes shown in Figures 4 and 5. During the patrol the general area, and specifically pump seals and control valves in vinyl chloride service, will be checked. Other fugitive sources will be added to the weekly check list as necessary. If a leak is detected, the operators involved in the leak patrol must then implement the action plan.

Persons conducting the patrol will sign each log entry, record the date and time of each leak patrol whether leaks are detected or not. If a leak is found, the person conducting the patrol must also enter the following information in the log: location of the leak, cause of the leak, and action taken to correct the leak.

D. Calibration and Maintenance

The portable detector will be maintained, calibrated, and span-checked on a weekly schedule. Calibration will be done with a certified standard gas cylinder containing a concentration of vinyl chloride in nitrogen of 10 ppm $\pm$ 5 percent. The standard gas cylinder will have affixed to it the date of

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preparation, the certified vinyl chloride concentration and the recommended shelf life. A log book will be kept of this calibration and signed by the person calibrating the detector.

Cooling Water Sampling

A. Purpose

The daily sampling of the cooling water effluent streams from several heat exchangers will be used as a check for internal leaks of exchangers in vinyl chloride service.

B. Definition of a Leak

A sample indicating a level of 10 ppm or more vinyl chloride in an exchanger effluent requires that a second sample be taken and analyzed. If an exchanger is determined to be leaking, the Action Plan will be implemented.

C. Description

The effluent cooling water from the Quench Column Condensers, H-202 A/B, and the Vinyl Column Condensers, H-207A and H-207B which are in vinyl chloride service will be sampled once per day. The water will be tested for vinyl chloride and the results recorded daily in weight ppm. A gas chromatograph, or equivalent instrumentation, will be used to test the cooling water samples.

D. Calibration and Maintenance

The analytical equipment will be calibrated periodically and maintained as necessary for reliable data.

Main Plant Vent Scrubber Stack Monitoring (C-500 Vent)

A. Purpose

An analysis of the C-500 Vent will be used as a check on a number of vent tie-ins to the vent scrubber (C-500) that are normally isolated by rupture disks, valves and relief valves.

B. Definition of a Leak

A leak investigation will begin if a significant trend or concentration of VCM is indicated on the daily analysis. When a leak is determined to exist, the Action Plan will be implemented. The source of the leak will be identified on the Leak Detection Form.

C. Description

Grab samples taken three times per week of the C-500 Vent Gas will help identify if streams not routinely discharged to C-500 begin to leak into the scrubber. A Varian Model 3700 Gas Chromatograph with flame ionization

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detector, or equivalent equipment, is used to identify vinyl chloride. A vent analysis sheet is completed for each test day and filed.

D. Calibration and Maintenance

The gas chromatograph will be calibrated and maintained as necessary for reliable data.

Action Plan

The action plan upon detection of a leak will be as follows:

- 1) The person investigating the leak will attempt to locate and control the leak.
- 2) If that person is unable to control the leak, the Operations Shift Supervisor will be notified. The Shift Supervisor will take one of the following actions.
 - a) Control the leak, or
 - b) Notify the Maintenance Department to take corrective action to control the leak.
- 3) Each leak found should be accounted for on the Leak Detection Form, along with the action taken to control the leak. The Shift Supervisor will then forward the Leak Detection Form(s) to the Process Superintendent who will in turn forward the form(s) to the Environmental Engineer. These leak detection forms will be kept on file.
- 4) If a leak can not be controlled without a process unit shutdown, it will be noted on the Leak Detection Form along with the expected date of repair. The corrective action taken will be documented upon control of the leak.
- 5) A record of the leaks detected by the leak detection plan shall be retained and made available for inspection by the Assistant Secretary for a minimum of two years or such longer period as ordered by the Assistant Secretary.

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TABLE 1

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DESCRIPTION OF LOCATION OF MONITORING POINTS FOR PROCESS AND OFFSITES AREASFIXED POINT NO.LOCATION DESCRIPTIONPROCESSING AREA, CAR-171

1	VCM Column Reflux Pumps, P-201 A/B
2	Between VCM Dryers, S-207 A/B
3	North of VCM Dryers Area
4	VCM/Caustic Containment
5	VCM to Storage Control Valve, FR-209
6	Laboratory
7	Light Ends Column Reflux Pumps, P-104 A/B
8	Quench Column Reflux Pumps, P-202 A/B
9	Direct Chlorination Reactor Area
10	VCM Column Feed Pumps, P-203 A/B

OFFSITES AREA, CAR-401

1	Light Ends Transfer Pump, P-402
2	VCM Loading Pumps, P-411 A, B, C
3	VCM Loading Rack No. 1, West
4	VCM Loading Rack No. 1, East
5	VCM Loading Rack No. 2, East
6	VCM Vent Recovery Unit
7	VCM Storage Tanks, Mid-Farm
8	VCM Loading Rack No. 2, West
9	VCM Check Tanks, West
10	VCM Transfer Pumps, P-401 A/B

FIGURE 6
VISTA VCM PLANT
LEAK DETECTION PLAN

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Name of person finding the leak:

Date:

Time:

I. To be completed by person finding the leak.

1) Location of Leak:

2) Cause of Leak:

3) Action Taken to Eliminate Leak:

1) Action Taken:

2) Leak Controlled?

3) Leak Not Controlled?

4) Other

II. To be completed by Shift Supervisor if leak has not been controlled.

1) Action taken to control leak.

a) Maintenance Department notified to correct leak?

b) Other.

2) Leak repair delayed until process unit shutdown?

a) Reason:

b) Expected date of repair.

Name of Shift Supervisor:

What time was the leak reported to the Shift Supervisor?

NOTE: Give this form to the Process Superintendent, who in turn, will give it to Engineering for inclusion in our environmental file.

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Appendix B. Administrative Actions to Prevent Relief Valve
Discharges, IOC from M.J. Allen to R.A. Conrad,
dated August 31, 1983.