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IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF LOUISIANA

UNITED STATES OF AMERICA,	\$	
	\$	
Plaintiff,	\$	
	\$	
vs.	\$	Civil Action No. 83-4494
	\$	
SHELL OIL COMPANY,	\$	
	\$	
Defendant.	\$	
	\$	

CONSENT DECREE

Plaintiff, United States of America, on behalf of the United States Environmental Protection Agency (EPA), has filed a complaint herein on September 9, 1983. This complaint alleged that the defendant violated the Clean Air Act, 42 U.S.C. §7401 et seq. and the vinyl chloride National Emission Standard for Hazardous Air Pollutants (NESHAP), 40 C.F.R. §61.60 et seq. at its vinyl chloride monomer ("VCM") production unit at its Norco Manufacturing complex in Norco, St. Charles Parish, Louisiana.

The parties by their respective attorneys, having consented to the entry of this decree without trial or adjudication of any issue of fact or law by either party, and acknowledging that the defendant timely reported all discharges alleged in the complaint, and without this Decree

constituting an admission of fact or law by either party, it is therefore ORDERED, ADJUDGED and DECREED as follows:

I.

JURISDICTION

This Court has jurisdiction over the subject matter and over the parties pursuant to 28 U.S.C. §§1331, 1345 and 1355, and 42 U.S.C. §7413. The Complaint filed herein states a claim for which relief can be granted.

II.

BOUND PARTIES

The Decree shall become effective upon the date of its entry and shall continue until termination of this Decree.

The provisions of this Consent Decree shall apply to and be binding upon the defendant, its 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 it. Defendant shall give notice in writing of this Consent Decree to any successors in interest prior to a change in ownership or a transfer of right to operate any vinyl chloride source in the Norco facility covered by this Decree. A copy of such letter shall be

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simultaneously provided to EPA and to the U.S. Department of Justice (DOJ).

III.

DEFINITIONS

The following terms used in this Consent Decree shall be defined as follows:

a. The term "restart" as used herein shall mean the date on which production of vinyl chloride monomer by the VCM production unit at the defendant's Norco manufacturing complex is first resumed.

b. The term "restart operations" shall have the same meaning as subsection (a) above.

c. The term "in vinyl chloride service" shall be defined by 40 C.F.R. § 61.61(1).

IV.

NOTIFICATION

Whenever, under the terms of this Decree, notice is required to be given by one party to another party and/or the Court, such notice shall be in writing and mailed or delivered to the addresses specified below:

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

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

General Attorney/Environment & Labor Department
Shell Oil Company
P. O. Box 2463
Houston, Texas 77001

V.

COMPLIANCE

A. As of the date of the lodging of this Decree, the defendant's VCM unit at its Norco facility is not in operation. However, defendant may restart operations at an unspecified date in the future. Accordingly, this Decree shall become effective upon the date of its entry but the implementation of the provisions in Section V. C. herein shall not be required unless and until initial restart of the VCM unit, and shall continue throughout all periods of operation until termination of this Decree.

B. Defendant shall notify the Court, EPA and DOJ, in writing, of its plans to restart operations at its VCM unit at its Norco facility, no less than 90 days prior to the date of restart of the Norco VCM unit.

C. Shell shall undertake and complete the following remedial measures at the Norco VCM unit.

1. Improvements to Process Design and Equipment. On or before the date of restart, Shell shall do the following:

- (a) Install Servo-Controlled level gauges on all run-down and shipping spheres.

- (b) Install a 3-inch diameter minimum flow control valve at the tank car loading station and change loading operating procedures to specify using only a single loading pump on any one tank car so that the maximum loading surge pressure is below the relief valve setting.
- (c) Add a secondary lower pressure relief system to the caustic treaters in the VCM finishing section so that small pressure upsets are relieved back to the HCl columns.
- (d) Install redundant instrumentation on the HCl column, the VCM column, and the HCl stripping column for monitoring the temperature and pressure, and install a high pressure alarm system for more timely and/or automatic corrective measures to prevent relief discharges from the HCl stripping, HCl, or VCM columns.
- (e) Improve the shutdown system time of the VCM column during upset conditions, such as power failures, by:
 - 1. Installing an automatic, positive shutoff, shutdown valve on the steam line to the VCM column reboiler to avoid any steam leak through the steam control valve.
 - 2. Installing an alternate cooling capability to the VCM column condensers. Such system must ensure that an adequate supply of water for a safe shutdown, from maximum design rates, will be supplied to the VCM column to allow a safe controlled shutdown, in compliance with all applicable NESHAP standards for vinyl chloride, in the event of disruption to the main electrical power supply. The power supply to the drivers for that water will not be electrically driven.

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2. Operating Procedures For Upset Conditions.

(a) Upon restart of the Norco VCM plant, and throughout all periods of operation of the plant, Shell shall have a manual of written operating procedures for upset conditions which contains information relating to prevention or control of relief valve discharges of vinyl chloride to the atmosphere. A copy of such manual shall be placed in the VCM unit control room, the shipping office, and the unit's process manager's office.

1. The written operating procedures as provided for in V(C)(2)(a) will contain instructions for the operators specifically covering the removal of nitrogen (inerts) in sufficient quantities from the VCM purification system and cracking furnaces during the VCM purification system start-up. The instructions will cover the controlling of the reaction rate in the cracking furnace and the purging of inerts from the HCl column.
2. The written operating procedures, as provided for in V(C)(2)(a), will contain information on abnormal and safe pressure levels present within the VCM purification system. Specifically the information contained in the written manual will provide operators with an effective and timely method to bring the HCl column to a safe condition (i.e. blocking in feed to column, blocking in steam to column reboiler) during process excursions and before HCl carryover to other columns occurs.
3. The written operating procedures, as provided for in V(C)(2)(a), will contain specific standard operating criteria and parameters by which early and timely recognition of "HCl carry over" resulting from HCl column upset can be assessed by operators such that expeditious

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corrective measures, such as contained venting or reduced VCM rates, can be taken to prevent discharges.

4. A computer program will be used to provide estimates of rundown sphere fill times as a check for instrument malfunction. Operators will record the estimated fill time on rundown sphere log sheets.
5. Shipping procedures will include a requirement that the inventory level of each shipping sphere will be calculated daily, and such calculated level will be used to check instrument readings.
6. A prestart-up checklist and operating instructions for the start-up of the VCM column will:
 - a. Review the operating procedure.
 - b. Identify potential upset conditions.
 - c. List all critical steps.

The unit foreman and operator(s) will be required to sign the start-up checklist and instructions as proof of a prestart-up review.

7. Installation checklist for installing rupture disks in vinyl chloride service which will be used and initialed by the maintenance craftsman performing each disk installation.
- (b) Defendant shall submit to EPA for comment a copy of its written operating procedures manual 60 days prior to the date of restart of the Norco VCM unit, noting specifically those portions which are required by subsection 2(a) of this section. EPA shall respond in writing within 30 days of receipt of Shell's manual, indicating any deficiencies in said manual. EPA shall be available, upon request, to meet with Shell to

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discuss such deficiencies, within 15 days thereafter. EPA agrees to treat said manual in accordance with the confidentiality provisions of 40 C.F.R. Part 2. Upon EPA approval of the manual, EPA agrees to return all copies of the manual to Shell.

- (c) The VCM unit operating procedures manual referred to in Subsection 2(a) of this Section shall be available for inspection by EPA at the Norco facility at all times, and shall be updated within thirty (30) days after any permanent change in operating or emergency procedures.

3. Employee Training.

- (a) Upon restart of the Shell Norco VCM plant, and for all periods during the unit's operation, Shell shall have a formal employee training program which shall include:

1. For new operators and foremen who have not been employed by defendant previously to perform work in the Norco vinyl chloride unit, training of 80 hours, within four months, including classroom and supervised field instruction in unit operating procedures. Such training shall cover:
 - a) Review and explanation of the Operating Procedures Manual for Upset Conditions.
 - b) Start-up, shutdown, and operating upset conditions response procedures.
 - c) Causes of past relief valve discharges, especially those involving operator error and equipment malfunctions.
2. For continuing permanent VCM unit operators and foremen, 8 hours of formal refresher training annually on relief valve discharges including review of past incidents, prevention, reduction, proper operating

procedures for upset conditions and NESHAPS regulations.

- a) All tank farm operators shall receive training, including annual refresher training, on fill rate estimating and instrumentation cross-checks.
 - b) All finishing operators shall receive training, including annual refresher training, on start-up procedures including prevention and response to potential upsets and past incidents, and on proper switching procedures to alternate cooling water sources for column pressure control during primary coolant shutdowns.
3. For new shipping employees responsible for VCM loading, who have not been previously employed by defendant to perform work dealing with vinyl chloride in the Norco shipping department, training of 80 hours, including classroom and field instruction in shipping procedures and operating procedures during upset conditions, including causes of past relief valve discharges.
4. For continuing permanent shipping employees dealing with vinyl chloride, 8 hours of formal refresher training on relief valve discharges including review of past incidents, prevention, reduction, proper operating procedures during upset conditions and NESHAPS regulations.
- (b) Applicable sections of the current operating and procedures manual shall be available to VCM unit employees at their respective work stations or control rooms.
 - (c) VCM unit operators and foremen shall receive specific notice of any major changes in equipment or operating procedures affecting their work stations OR

control rooms prior to implementing such changes.

- (d) Shell shall keep written records of the identity of each employee who receives new employee or refresher training in accordance with the provisions in Section V(C) (3), and the dates, times, and topics of each said classroom training session. Such records shall be kept for a period of three years and made available for EPA inspection.

4. Inspections and Preventive Maintenance. Upon restart and for all period of the VCM Unit's operation, Shell shall:

- (a) Continue its preventive maintenance program for all equipment in vinyl chloride service. The program includes inspection and fixed maintenance schedules for equipment in vinyl chloride service and associated instrumentation which would be used to detect conditions which could lead to potential relief valve discharges, based on manufacturer's recommendations and/or past operating history. This program shall specifically include:
 - 1. Quarterly inspection of all level indicators on rundown and shipping spheres.
 - 2. Monthly visual inspection of sphere pressure indicators, to check accuracy of instrument readings, on rundown and shipping spheres.
 - 3. Quarterly visual inspection with necessary identified maintenance, as well as annual maintenance of equipment and associated instrumentation of:
 - a) VCM column including:
 - 1) Pressure gauges and transmitters which would be used to detect conditions leading to a potential relief valve discharge.
 - 2) Level transmitters on condensers.

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3) Steam shutdown system and alarm.

4) Condenser level control system.

b) HCl column including:

1) Pressure gauges and transmitters which would be used to detect conditions leading to a potential relief valve discharge.

2) Level transmitters on condensers.

3) Remote operated vent valve to incinerator.

c) HCl stripping column including:

1) Pressure gauges and transmitters which would be used to detect conditions leading to a potential relief valve discharge.

2) Remote operated vent valve to incinerator.

d) Cooling water system including time delay pump starting instrumentation, used to avoid starting power surge.

4. Semi-annual inspections of alarm and shutdown system of the propylene refrigeration system.

(b) As part of the maintenance and inspection program, all inspections and maintenance work on equipment and systems identified in previous subsection 4.(a), shall be recorded on appropriate logsheets. The information to be recorded shall include:

1. Date of inspection or work.

2. Equipment/instrument.

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3. Reason for inspection/work (i.e., scheduled, failure).
4. Result of inspection (i.e., found in good order).
5. Work done (if any).

D. If the plant changes so that a specific requirement under this section may no longer be appropriate, Shell may petition for a modification of requirements under this section provided:

1. Such petition is made no less than 60 days prior to restart of the Norco VCM unit, or if after restart, then no less than 60 days prior to the date of which Shell desires to implement the change.
2. The petition sets out the proposed change(s) with specific reason(s) for, and the alternatives, if applicable.
3. Plaintiff through EPA shall review the submitted petition and indicate its acceptance or rejection of the proposal within 45 days of receipt of Shell's petition.
4. If plaintiff accepts Shell's proposal, the parties shall prepare a Stipulation setting forth the proposed change and submit it to the court for its consideration.

E. After restart of operations, defendant shall operate its VCM unit in such a manner that vinyl chloride emissions are in compliance with the then current vinyl chloride NESHAP regulations under the then current Clean Air Act.

F. In the event defendant has additional discharges in violation of 40 C.F.R. §61.65(a), the plaintiff reserves the right to seek further relief. Defendant reserves all defenses. Prior to the filing of any petition with the court, plaintiff will provide notice to the defendant.

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VI.

CIVIL PENALTY

Defendant shall pay a civil penalty in the amount of \$50,000.00 in full satisfaction of plaintiff's civil claims for civil penalties under section 113 of the Clean Air Act, 42 U.S.C. §7413 for unauthorized relief valve discharges of vinyl chloride to the atmosphere reported to EPA prior to the lodging of this decree. Payment of this sum represents a complete and total compromise and settlement with prejudice of all plaintiff's demands in the complaint for civil penalties against defendants. Payment of \$50,000.00 shall be made within thirty (30) days of the entry of this Decree, by cashier's check payable to "Treasurer, United States of America", delivered to the United States Attorney, for the Eastern District of Louisiana.

VII.

COMPLIANCE WITH OTHER LAWS

This Consent Decree in no way affects or relieves defendant of responsibility to comply with any other state, federal or local law or regulation. Implementation of Section V shall not relieve defendant of its obligation to comply with the then current National Emission Standard for Vinyl Chloride (currently 40 C.F.R. §61.60, et seq.) and the Clean Air Act, 42 U.S.C. §7401, et seq.

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VIII.

STIPULATED PENALTIES

A. If defendant fails to provide notification of restart as required by Section V(B), or fails to submit the operating procedures manual within the ten days required by Section V(C)(2)(b) it shall pay a stipulated penalty of \$1,000.00 per day of non-compliance.

B. If defendant fails to complete the task set forth in Section V(C)(1) prior to restart, or fails to comply with the operating procedures for upset conditions as required by Section V(C)(2)(a), it shall pay a stipulated penalty of \$500.00 per day of non-compliance.

C. If defendant fails to provide training for each employee as required by Section V(C)(3) or fails to make the inspections required by Section V(C)(4) and the associated identified maintenance, it shall pay a stipulated penalty of \$1,000.00 per violation.

D. If defendant fails to maintain quarterly and monthly inspection log sheets, as required by Section V(C)(4), it shall pay a stipulated penalty of \$500.00 per violation.

E. All payments of stipulated penalties under this section are payable within 30 days as follows:

Cashier's check payable to:

Treasurer, United States of America

Address for payment:

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U.S. Attorney
Eastern District of Louisiana
500 Camp Street
New Orleans, LA

F. Any dispute with respect to defendant's liability for a stipulated penalty shall be resolved by this Court. The provisions of this section shall not be construed to limit any other remedies, including but not limited to institution of proceedings for civil or criminal contempt, available to Plaintiff for violations of this Consent Decree or any other provision of law. The payment of stipulated penalties shall be in addition to and not in lieu of liability under any federal, state, or local law or regulation.

IX.

FORCE MAJEURE

A. Defendant shall take all available measures to perform its obligations pursuant to this Decree and shall minimize or avoid any delay or prevention of the performance of its obligation pursuant to this Consent Decree. If, however, any event occurs which causes or may cause delays in the achievement of compliance at defendant's facilities as provided in this Decree, defendant shall notify the Court, and EPA Region VI and DOJ in writing within 20 days of the delay or anticipated delay, as applicable. The notice shall describe in detail the anticipated length of the delay, the precise cause or causes of the delay, the measures taken and

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to be taken by defendant to prevent or minimize the delay, and the timetable by which those measures will be implemented. The defendant shall adopt all available measures to avoid or minimize any such delay. Failure by defendant to comply with the notice requirements of this paragraph shall render this section IX void and of no effect as to the particular incident involved and shall constitute a waiver of the defendant's right to request an extension of its obligation under this section of the Decree based on this incident.

B. If the parties agree that the delay or anticipated delay in compliance with this Decree has been or will be caused by circumstances entirely beyond the control of defendant, the time for performance hereunder may be extended for a period no longer than the delay resulting from such circumstances. In this event, the parties shall stipulate to such extension of time and so inform the Court. In the event the parties cannot agree, any party may submit the matter to this Court for resolution.

C. The burden of proving that any delay is caused by circumstances entirely beyond the control of the defendant shall rest with the defendant. Increased costs or expenses associated with the implementation of actions called for by this Decree and changed business conditions shall not, in any event, be a basis for changes in this Decree or extensions of time under paragraph B.

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X.

INSPECTION AND ENTRY

The Administrator or his authorized representative, upon presentation of his or her credentials, may enter upon the premises of Shell's Norco Manufacturing Complex at any time for the purpose of monitoring compliance with the provisions of this Consent Decree.

XI.

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.

XII.

TERMINATION OF DECREE

This Decree will terminate either: (1) one year from the date defendant initially restarts the VCM unit in compliance with this Decree, and the defendant has notified the Court at least ninety (90) days prior to such "restart", or (2) five years from entry of the decree if the defendant has not restarted the VCM unit at its Norco Manufacturing Complex by the fifth anniversary of the effective date of this Decree, whichever shall first occur, provided that this

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Decree shall not terminate until all penalties under this Decree are paid.

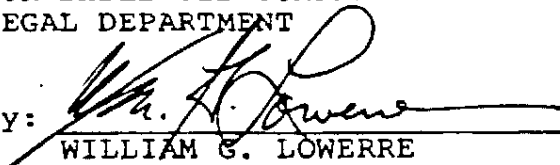
XIII.

COSTS OF ACTION

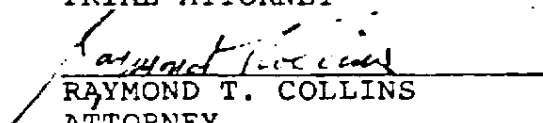
Each party in this action shall bear its own costs.

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

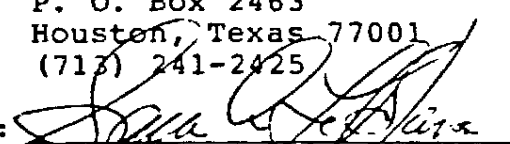
FOR SHELL OIL COMPANY
LEGAL DEPARTMENT

By: 

WILLIAM G. LOWERRE
TRIAL ATTORNEY


RAYMOND T. COLLINS
ATTORNEY

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By: 

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FOR THE UNITED STATES
OF AMERICA


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U.S. Department of Justice
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Washington, D.C. 20530

JOHN P. VOLZ
United States Attorney for the
Eastern District of Louisiana

By: 

WILLIAM F. BAITY
Assistant United States
Attorney

SO ORDERED THIS _____ day of _____, 1984.

United States District Judge
Eastern District of Louisiana

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