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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION VI
1201 ELM STREET
DALLAS, TEXAS 75270

12 MAY 1981

CERTIFIED MAIL: RETURN RECEIPT REQUESTED P21 7841142

Mr. John Friend, Plant Manager
Conoco Chemicals Company
Division of Conoco, Inc.
P.O. Box 15360
Oklahoma City, Oklahoma 73155

RE: National Emission Standards for Hazardous Air Pollutants (NESHAP)
Standard for Emergency Relief Discharges of Vinyl Chloride,
40 CFR, §61.65(a)

Dear Mr. Friend:

Conoco Chemicals Company has informed the Environmental Protection Agency (EPA) of certain emissions of vinyl chloride to the atmosphere from its polyvinyl chloride plant in Oklahoma City, Oklahoma. These emissions were called emergency relief discharges and were reported in Conoco's letters of August 18 and December 1 of 1978, of July 27 and October 26 of 1979, and of April 1 of 1980, pursuant to 40 CFR, §61.65 (a).

We are in the process of determining whether or not each of the five reported relief discharges could have been avoided by preventive measures. To assist us in making this determination, I invite you to meet with my staff in the next two to four weeks before a determination is made as to the nature of the discharges. A meeting is not required, but will provide you with the opportunity to further discuss the causes of the reported discharges of vinyl chloride and to present additional information that will support any preventive action which Conoco took both before and after each of the discharges.

Unless a relief discharge of vinyl chloride can be established as an emergency relief discharge that could not have been avoided by taking preventive measures, it is considered a violation of the federal emission standard for vinyl chloride as contained in 40 CFR, §61.65(a) of the National Emission Standards for Hazardous Air Pollutants. Each discharge which constitutes a violation is subject to enforcement sanctions under Section 113 of the Clean Air Act, as amended (42 U.S.C. 7413, hereafter called "the Act").

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In addition, as the owner and/or operator of a polyvinyl chloride manufacturing facility which is subject to the regulatory requirements of Section 112 of the Act, Conoco Chemicals Company is hereby required, pursuant to the authority of Section 114 and subject to the sanctions of Section 113 of the Act, to submit the information described in Enclosure I concerning discharges of vinyl chloride from its facility on S.E. 59th Street in Oklahoma City, Oklahoma. This investigation inquiry to collect information is considered to be exempt from the requirements of the Paperwork Reduction Act of 1980 as provided in 44 U.S.C. §3518(c)(1)(B). The information described in Enclosure I must be submitted to me at the above address within forty five days of your receipt of this letter. Please follow the enclosed instructions in responding to Enclosure I.

There is also enclosed with this letter a statement regarding information which is considered to be a trade secret or confidential. In any confidentiality claim, you should follow the guidance in the enclosure. You may claim confidentiality for part or all of the information, other than emission data, which you submit. If a document contains some information which is not confidential, please mark the confidential portions to aid EPA in identifying and handling this information. Whether or not you regard part of the information submitted to be a trade secret or confidential, you are required to provide it in response to this letter.

To arrange a mutually convenient time for the proposed meeting, please contact Ms. Rebecca Conrad at (214) 767-2760 within the next two weeks. Any question regarding the required information in Enclosure I should be addressed to Mr. Martin Brittain at (214) 767-2755.

Sincerely,

Diana Dutton, Director
Enforcement Division (6AE)

Enclosures

cc: Mr. John Gallion
Chief, Air Quality Service
Oklahoma State Department of Health
P.O. Box 53551
Oklahoma City, Oklahoma 73105

Mr. Linn Wainner
Oklahoma City/County Health Department
Air Quality Section
921 N.E. 23rd Street
P.O. Box 53445
Oklahoma City, Oklahoma 73115

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Instructions for Responding to Enclosure I

For purposes of responding to the requirements of Enclosure I, the following instructions apply:

1. Each copy of the documents submitted should be marked or labeled with reference to the number and subsection of the question in response to which it is submitted.

2. In responding to questions requiring that Conoco identify a person, the answer should include:

   A. the name and business address if the "person" is a company or other business or governmental agency, and

   B. a code name or number selected by Conoco and the functional position and business address if the "person" is an individual.

3. In providing an answer to those questions requiring information for more than one discharge, please indicate clearly to which discharge you are referring.

In responding to the requirements of Enclosure I, the following definitions apply:

1. "Document" means all writings, whether printed or recorded or reproduced by any other mechanical process, or written or produced by hand including files, records, logs, studies, working papers, hearings and reports, correspondence, telegrams, inter- and intra-office memoranda and communications, summaries or records of telephone conversations, summaries or records of personal conversations or interviews, graphs, reports, notebooks, note charts, plans, drawings, sketches, maps, summaries or records of meetings and conferences, summaries or reports of investigations or negotiations, opinions or reports of consultants, photographs and letters.

2. "Conoco" means the Conoco Chemicals Company and any office or branch thereof, any subsidiary and holding company, and any person employed by or under contract (or any other agreement) to Conoco Chemicals Company.

3. "The Plant" means the polyvinyl chloride production facility owned and operated by Conoco at 5200 Southeast 59th Street in Oklahoma City, Oklahoma.

4. "Person" means an individual, firm, partnership, association, corporation or other business or governmental entity.

5. "VCM" means vinyl chloride monomer.

6. "PVC" means polyvinyl chloride.

7. "Emergency relief discharge(s) of VCM" has the same meaning as defined in 40 CFR, §§61.64(a)(3) and 61.65(a).

8. "Relief discharge of VCM" means a discharge of VCM to the atmosphere from equipment in vinyl chloride service that occurs (1) unintentionally for any reason or (2) in any manner which is designed or intended to relieve, reduce or prevent pressure that is considered to be excessive within the equipment.

ENCLOSURE I

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Conoco Chemicals Company shall submit to EPA, Region 6 the following information and supporting documentation regarding its PVC production facility located at 5200 Southeast 59th Street in Oklahoma City, Oklahoma.

1. Please provide a list of all relief discharges of VCM which occurred at the plant for the period beginning January 21, 1977 through September 1, 1978. Data demanded in the following, which has already been submitted, should be referenced and need not be resubmitted. The list should include the following information for each discharge:

   A. Identification of the source and relief device(s).

   B. Description of the nature and cause of the discharge.

   C. Date and time (start/finish) of the discharge.

2. Please provide a list of all relief discharges of VCM which occurred at the plant subsequent to August 1, 1978. Data demanded in the following, which has already been submitted or included in the response to Question 1, above, should be referenced and need not be resubmitted. The list should include the following data for each discharge:

   A. Identification of source and relief device(s). Include a process flow diagram of source relative to discharge point and ground level.

   B. Description of the nature and cause of the discharge.

   C. Date and time (start/finish) of the discharge.

   D. Approximate total quantity of VCM discharged and a copy of the calculations of the emission estimate in sufficient detail to assess the validity of such calculations.

   E. The date of the notification letter, reporting the discharge to EPA. If the discharge was not reported to EPA, please indicate why not.

   F. A description of all corrective steps taken before and during each discharge to prevent and/or minimize the release of VCM to the atmosphere including, but not limited to, such steps as:

      (1) efforts to increase cooling rate on PVC reactor,

      (2) efforts to terminate reaction in PVC reactor,

      (3) efforts to vent PVC reactor to a recovery process or other containment, or

      (4) with loss of incineration capability, efforts to reroute VCM emission vents to a holding or collection vessel, temporarily, until incineration is restored or plant is shut down.

what we already have

one file

file for each.

incident specific files

- names of people involved

G. Describe all measures taken to prevent a future occurrence of each discharge listed including, but not limited to, corrective measures regarding equipment changes, changes in operating and maintenance procedures, operator training and disciplinary actions. State the dates when each action was initiated and completed. Where information on the corrective measures has not been submitted to date, explain why this information has not been provided to EPA as required by 40 CFR, §61.10(c).

this is it

separate file for this.

3 different items file each.

H. Provide a copy of all documents relating to each discharge. This should include all related portions of reports regarding each discharge incident including, but not limited to, daily plant logs (e.g. reactor operating logs and general plant and shift foreman logs).

I. For each discharge, state whether Conoco believes it was or was not a violation of 40 CFR, §§61.64(a)(3) or 61.65(a) and include the basis for that position.

J. For each relief discharge of VCM from a PVC reactor, please provide the following additional information:

(1) Reactor temperature and pressure at start of discharge.

(2) Copy of reactor temperature chart and pressure chart, at least one hour before discharge occurred and one hour after discharge was terminated.

(3) Describe the status of other PVC reactors before, during and after each discharge incident.

(4) Describe external conditions concerning such items as weather, utlilty supplies and other process upsets requiring attention during each discharge.

3. For each VCM discharge in Question 2, above, which involved premature failure of rupture disk(s) or a discharge from double rupture disks, provide the following information to the extent that it was not addressed in Question 2:

A. Describe the type of rupture disks and rupture disk material being used on the affected equipment and explain why it was different from rupture disks on similar equipment used in the same service at the plant.

B. Do all PVC reactors at the plant now utilize the same type of rupture disks? If so, state the type and manufacturer of the disk, and the date of change. If not, state the type and kind used, and explain the reasons for use of different types of rupture disks.

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C. For each discharge state the length of time the rupture disk(s) was in service prior to its failure. If this in-service time of the affected rupture disk is not consistant with the currently established procedure for replacement, describe the inconsistancy and explain why.

D. Do all of the initial PVC reactors at the plant still have double rupture disk assemblies as well as safety relief valves? If not, explain why and describe their current status, including date that applicable revision was completed.

E. Based on Conoco's investigation, what does Conoco believe to be the primary cause of the premature failure of respective rupture disks that resulted in VCM discharges.

4. For each discharge listed in the response to Question 2-B as being caused, in whole or in part, by operator or maintenance error, please provide the following information:

   A. Identify each operator, maintenance person and supervisor responsible for the error and provide the following for each:

      1. Date and total time worked on the day of the discharge and on each of the 7 days prior to the discharge.

      2. Briefly identify all duties for which responsible at the time of each discharge.

      3. Describe history of training in emergency procedures to prevent or minimize VCM discharges. Include dates and subject matter of all such training periods.

      4. A copy of personnel records relating to all disciplinary actions and job performance evaluations since January 21, 1977.

incident specific basis

5. Please provide a dated copy of all documents or portions thereof regarding (1) standard operating and maintenance (O & M) procedures, (2) testing and installation procedures and (3) training manuals (or other instructions) which have been employed at the plant since January 21, 1977 which:

general

   A. specify how frequent and on what basis rupture disks on equipment in VCM service are replaced before failure,

   B. specify procedures for pretesting, post-testing and installation of rupture disks on PVC reactors, and

   C. relate to prevention of relief discharges of VCM from PVC reactors at the plant.

6. Short-Stop System

A. By letters dated December 8, 1976 and March 29, 1977, Conoco requested waivers of compliance, pursuant to 40 CFR §61.11, for certain equipment located at the plant. In requesting a waiver of compliance with 40 CFR §61.65(a) for the relief valves and other relief devices on each PVC reactor, Conoco stated that "an upgraded short-stop injection system will be installed to improve reliability of reaction termination capability" to control reactor relief valve discharges in an abnormal situation. With regard to this waiver request, please provide a copy of the engineering design, process description and standard operating procedures for the short-stop injection system installed by September 1, 1977.

B. By letter of December 1, 1978, from John Friend to Howard G. Bergman, Conoco reported to the Environmental Protection Agency that it had revised the injection system design on each PVC reactor at the plant for reaction termination (referred to herein simply as "short-stop injection system").

(1) Explain why Conoco did not consider and make this revision to short-stop injection system during their approved waiver of compliance period for the applicable standard, §61.65(a).

(2) Describe all the alternatives considered by Conoco prior to its decision to revise the existing short-stop injection system after October 21, 1978.

(3) Submit a copy of the written emergency power failure procedures identified by the December 1, 1978 letter and any modifications to this document to avoid relief discharges of VCM from the PVC reactors.

(4) State date when Conoco first became aware that the existing short-stop injection system was not adequate to avoid operator error that could result in discharges of VCM from PVC reactors prohibited by §61.65(a).

C. Confirm whether or not the back-up short-stop injection system, which you proposed in your letter to me dated December 12, 1979 and which was approved for the new PVC reactor, has now been installed on all other PVC reactors at the plant. Explain why this back-up injection system was not considered for PVC reactors before September 1, 1977 to prevent relief discharges of VCM.

D. State whether the revisions identified in Questions 6-A, B and C for the PVC reactors at the plant are used at any other Conoco plant. State the location of each plant, the respective revision employed, and the date and reason for the revision.

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7. Studies and Other Alternatives Considered

A. Prior to September 1, 1978, did Conoco, or its consultant or contractor, prepare any memoranda, reports, analyses, or documents other than those described in Question 6-A, which related to the occurrence, cause or prevention of releases of VCM from relief valves or other relief devices on PVC reactors at the plant? If so, provide a dated copy of all such documents.

B. State all the alternatives considered by Conoco prior to and during the waiver period (October 21, 1976 to September 1, 1978) to achieve compliance with 40 CFR, §61.64(a)(3) and 61.65(a) for manual vent valves, the relief valves and other relief devices on the PVC reactors at the plant.

C. At the time Conoco considered these alternatives did Conoco evaluate systems used in any other plants? If so, identify the systems evaluated, the plant, and provide a dated copy of all relevant documentation for each evaluation.

D. Provide a dated copy of all studies regarding the efficiency and reliability of the equipment Conoco has installed for avoidance of relief discharges from the PVC reactors at the plant.

8. A. State whether Conoco's other plants have experienced (1) power failures, (2) premature failures of rupture disks, and (3) operator errors similar to those reported in Conoco's letters of August 18 and December 1, 1978, July 27 and October 26 of 1979 and April 1 of 1980.

need clarification

send the copies soon please

B. Describe any different equipment, procedures and methods used at Conoco's other plants to prevent VCM discharges. State the reasons that such measures are not employed at the Oklahoma City plant.

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Enclosure 1.

STATEMENT ON CLAIMS OF CONFIDENTIALITY

1. Section 114(c) of the Clean Air Act [42 U.S.C. 7414(c)] provides that any records, reports or information obtained by the Environmental Protection Agency under the authority of Section 114(a) shall be made available to the public. However, that section further provides that, EXCEPT FOR EMISSION DATA, access to such records, reports or information, or particular part thereof, will be denied to the public under the following circumstances. If any person makes a showing satisfactory to the Administrator of the Environmental Protection Agency that the records, reports or information, or any particular part thereof, would, if made public, divulge methods or processes entitled to protection as trade secrets of such person, then the Environmental Protection Agency (EPA) is required to consider such record, report or information, or particular part thereof, as confidential in accordance with the purposes of 18 U.S.C. 1905. Nevertheless, Section 114(c) further provides that even though access to the public is denied, such record, report or information may be disclosed to other officers, employees, or authorized representatives of the United States concerned with carrying out the Clean Air Act or when relevant in any proceeding under the Clean Air Act.

2. Public availability is also required by the Freedom of Information Act, 5 U.S.C. 552. That Act requires public availability generally of all documents in the possession of the government, with certain very narrow exceptions. One of these exceptions is for trade secrets and commercial or financial information if they have been obtained from a person and if they are privileged or confidential.

3. The regulations under which EPA handles requests by the public for information and requests by persons for confidential treatment of information are found in Part 2 of Title 40 of the Code of Federal Regulations. These regulations were published in the Federal Register, pages 36902 to 36918, on September 1, 1976. Subpart B of Part 2, beginning on page 36906, specifically addresses "Confidentiality of Business Information."

4. If you wish, you may assert a business confidentiality claim covering part or all of the records, reports, or information which you provide to EPA. Such a claim of confidentiality should be made at the time the record, report, or information is provided to EPA. If no claim has been made when the material is received by EPA, the records, reports or information may be made available to the public without further notice to you. If you do make a claim of confidentiality when providing the material to EPA, the records, reports or information covered by the claim will not be disclosed to the public, except to the extent and by means of the procedures set forth in Subpart B of Part 2 of Title 40 of the Code of Federal Regulations.

5. You should give clear NOTICE at the time you provide the material --

(a) That you claim confidentiality and

(b) Which specific records, reports or information, or part thereof, you claim to be confidential. No particular form of words is required as long as it is clear that a claim is being made and the confidential portion is so marked; for example, each page of a document on which confidential information is found should be marked. To the extent feasible, a justification should be provided with every claim of confidentiality.

6. "Emission data," which cannot be considered confidential, means, with reference to any source of emission of any substance into the air --

(a) Information necessary to determine the identity, amount, frequency, concentration, or other characteristics (to the extent related to air quality) of any emission which has been emitted by the source (or of any pollutant resulting from any emission by the source), or any combination of the foregoing;

(b) Information necessary to determine the identity, amount, frequency, concentration, or other characteristics (to the extent related to air quality) of the emissions which, under an applicable standard or limitation, the source was authorized to emit (including, to the extent necessary for such purposes, a description of the manner or rate of operation of the source); and

(c) A general description of the location and/or nature of the source to the extent necessary to identify the source and to distinguish it from other sources (including, to the extent necessary for such purposes, a description of the device, installation, or operation constituting the source).