

**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE**

UNITED STATES OF AMERICA,)

Plaintiff,)

and)

STATE OF DELAWARE,)

Plaintiff/Intervener,)

v.)

FORMOSA PLASTICS CORPORATION,)
DELAWARE,)

Defendant.)

) Civil Action No. _____

CONSENT DECREE

Plaintiff United States of America, on behalf of the United States Environmental Protection Agency ("EPA"), has filed a Complaint in this action concurrently with this Consent Decree alleging that Defendant Formosa Plastics Corporation, Delaware ("Formosa") violated certain provisions of the Clean Air Act (CAA), 42 U.S.C. § 7401 et seq.; the Clean Water Act (CWA), 33 U.S.C. § 1251 et seq.; the Resource Conservation and Recovery Act (RCRA), 42 U.S.C. § 6901 et seq.; the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), 42 U.S.C. § 9601 et seq.; and the Emergency Planning and Community Right to Know Act (EPCRA), 42 U.S.C. § 11001 et seq. The statutes named in the preceding sentence are hereinafter collectively referred to as "the Acts."

The State of Delaware (State) through its Department of Natural Resources and Environmental Control (DNREC) has filed a Complaint in intervention alleging that Formosa

violated certain provisions of 7 Del.C. Ch. 60 and 7 Del.C. Ch. 63, and certain provisions of State issued regulations and permits enforceable pursuant to the Clean Air Act (CAA), 42 U.S.C. § 7401 et seq.; the NPDES permit for the facility issued in accordance with the Clean Water Act (CWA), 33 U.S.C. § 1251 et seq.; and State issued hazardous waste regulations enforceable in lieu of the Federal regulations as provided in the Resource Conservation and Recovery Act (RCRA), 42 U.S.C. § 6901 et seq.

Plaintiffs' Findings of Fact

The violations alleged in the Complaints occurred at Formosa's Delaware City plant ("Facility") where dispersion polyvinyl chloride (PVC) is manufactured from vinyl chloride using a batch reactor polymerization process to make dispersion resin. The Facility is located on approximately 113 acres. The Facility has a nominal capacity of 144 million pounds of PVC per year.

The Facility contains two concrete lined aerated lagoons that were remediated pursuant to a CERCLA Remedial action. The remediation consisted of removing existing PVC sludge, cleaning and repairing the existing concrete liner, and installing a double synthetic liner and monitoring wells. Specifically, the double synthetic liner consists of a clay liner as subbase, a secondary liner, fill material/leak detection system, geotextile fabric, and a primary liner, conforming to RCRA Subpart K requirements.

Vinyl chloride's production and use in the manufacture of PVC and other chlorinated compounds may result in its release to the environment through various waste streams.

EPA has made the following determinations regarding vinyl chloride: Vinyl chloride is carcinogenic to humans meaning the evidence of carcinogenicity in both humans and animals is sufficient. Under the Proposed Guidelines for Carcinogen Risk Assessment (U.S. EPA, 1996), it is concluded that vinyl chloride is a known human carcinogen by the inhalation route of

exposure, based on human epidemiological data, and, by analogy, the oral route because of positive animal bioassay data as well as pharmacokinetic data allowing dose extrapolation across routes. Vinyl chloride is also considered highly likely to be carcinogenic by the dermal route because it is well absorbed and acts systemically. In light of the very high percentage of angiosarcomas worldwide that are associated with vinyl chloride exposure, the evidence for vinyl chloride carcinogenicity is considered strong.

The violations of the CAA alleged in the Complaints involve generally emission standard exceedances of vinyl chloride to the environment; improper methods of sampling, testing, calculating and reporting the levels of such emissions; inadequate detection and elimination of manufacturing process leaks of vinyl chloride; unauthorized or improper discharges of vinyl chloride to the atmosphere; untimely repairs of leaking industrial refrigeration equipment containing chlorofluorocarbons (CFCs), a controlled ozone depleting substance harmful to the ozone layer; and failure to maintain records as required by 40 C.F.R. Part 82.

The violations of RCRA alleged in the Complaints involve generally failing to make proper hazardous waste determinations; improper storage of hazardous waste without a permit or interim status; and improper placement of hazardous waste.

The CWA violations alleged in the Complaints generally involve unauthorized storm water discharge, inadequate secondary containment for tanks containing oil, improper sampling methods for determining levels of pollutants in effluent discharges, and exceedance of a National Pollutant Discharge and Elimination System (NPDES) permit limit.

The CERCLA and EPCRA violations alleged in the Complaints involve failure to give proper, timely notice of releases of vinyl chloride and failure properly to calculate Toxic Release Inventory data.

Defendant neither admits nor denies the Plaintiffs' Findings of Fact stated in the preceding Paragraphs and does not admit any fact alleged in the Complaints or liability to the United States or the State arising out of the transactions or occurrences alleged in the Complaints.

The Parties hereto desire through this Consent Decree to resolve the civil claims stated in the Complaints; to assure consistent, reliable compliance with the Acts; to enhance the health and safety of the surrounding community; and to reduce emissions of vinyl chloride from the Facility to levels well below those permitted by law.

The Parties recognize, and the Court by entering this Consent Decree finds, that this Consent Decree has been negotiated by the Parties in good faith and will avoid litigation among the Parties and that this Consent Decree is fair, reasonable, and in the public interest.

NOW, THEREFORE, before the taking of any testimony, without the adjudication or admission of any issue of fact or law except as provided in Section I, below, and with the consent of the Parties, IT IS HEREBY ADJUDGED, ORDERED, AND DECREED as follows:

I. JURISDICTION AND VENUE

1. This Court has jurisdiction over the subject matter of this action, pursuant to 28 U.S.C. §§ 1331, 1345, and 1355, 42 U.S.C. § 7413(b), 42 U.S.C. § 6928(a) and (g), 33 U.S.C. §§ 1319(b) and 1321(b), 42 U.S.C. §§ 9609(c) and 9613(b), and 42 U.S.C. § 11045(b)(3). This Court has personal jurisdiction over the Parties. Venue lies in this District pursuant to 28 U.S.C. §§ 1391 and 1395(a); 33 U.S.C. §§ 1319(b) and 1321(b); and 42 U.S.C. §§ 7413(b), 6928(a) and (g), 9609(c), 9613(b), and 11045(b)(3) because the violations alleged occurred within this judicial district and the Facility at issue is located here. For purposes of this Consent Decree, or any action to enforce this Consent Decree, Defendant consents to the Court's jurisdiction over

this Consent Decree or such action and over Defendant, and consents to venue in this judicial district.

II. APPLICABILITY

2. The obligations of this Consent Decree apply to and are binding upon the United States and the State, and upon Defendant and any successors, assigns, or other entities or persons otherwise bound by law.

3. No transfer of ownership or operation of the Facility, whether in compliance with this Paragraph or otherwise, shall relieve Defendant of its obligation to ensure that the terms of the Consent Decree are implemented. Unless otherwise agreed to by the United States and the State, any transfer of ownership or operation of the Facility to any other person must be conditioned upon the transferee's agreement to undertake the obligations required by Sections V, VIII and IX of this Consent Decree, as provided in a written agreement between Defendant and the proposed transferee, enforceable by the United States and the State as third-party beneficiaries of such agreement. At least 30 days prior to such transfer, Defendant shall provide a copy of this Consent Decree to the proposed transferee and shall simultaneously provide written notice of the prospective transfer, together with a copy of the written agreement, to EPA Region III, the United States Attorney for the District of Delaware, the United States Department of Justice, and the State in accordance with Section XVII of this Consent Decree (Notices). Any attempt to transfer ownership or operation of the Facility without complying with this Paragraph constitutes a violation of this Consent Decree.

4. Defendant shall advise all officers, supervisory employees, and agents whose duties might reasonably include compliance with any provision of this Consent Decree of the existence and general nature of this Decree and shall provide each such person with either (i)

written instructions as to how the requirements of this Decree affect his or her duties and responsibilities or (ii) a copy of this Decree, or the portions of this Decree that affect his or her duties and responsibilities. Defendant shall also advise each contractor, other than those who only supply materials or equipment and do no installation or other work at the facility, whose work is affected by this Decree of the existence and general nature of this Decree and shall include as enforceable terms in each contract with each such contractor all requirements of this Decree that affect the work to be performed by that contractor.

5. In any action to enforce this Consent Decree, Defendant shall not raise as a defense the failure by any of its officers, directors, employees, agents, or contractors to take any actions necessary to comply with the provisions of this Consent Decree.

III. DEFINITIONS

6. Terms used in this Consent Decree that are defined in the Acts or in regulations promulgated pursuant to the Acts shall have the meanings assigned to them in the Acts or such regulations, unless otherwise provided in this Consent Decree. Whenever the terms set forth below are used in this Consent Decree, the following definitions shall apply:

a. "Complaint" shall mean the complaint filed by the United States in this action. "Complaints" shall mean the complaint filed by the United States and complaint in intervention filed by the State in this action;

b. "Consent Decree" or "Decree" shall mean this Consent Decree and all appendices attached hereto (listed in Section XXVI);

c. "Day" shall mean a calendar day unless expressly stated to be a working day. In computing any period of time under this Consent Decree, where the last day would fall on a Saturday, Sunday, or federal holiday, the period shall run until the close of business of the next working day;

- d. "Defendant" shall mean Formosa Plastics Corporation, Delaware;
- e. "EPA" shall mean the United States Environmental Protection Agency and any of its successor departments or agencies;
- f. "Facility" shall mean Defendant's PVC manufacturing facility located at 780 Schoolhouse Road, P.O. Box 320, in Delaware City, Delaware, 19706, and shall include all land, buildings, equipment, machinery, fixtures, documents, data, chemicals and wastes located within the boundaries marked on Appendix N;
- g. "Paragraph" shall mean a portion of this Consent Decree identified by an arabic numeral;
- h. "Parties" shall mean the United States, the State and Defendant;
- i. "Section" shall mean a portion of this Consent Decree identified by a roman numeral;
- j. "State" or "Delaware" shall mean the State of Delaware;
- k. "United States" shall mean the United States of America, acting on behalf of EPA;
- l. "PVC" shall mean polyvinyl chloride;
- m. "RVCM" shall mean residual vinyl chloride monomer;
- o. "Title V Permit" shall mean State of Delaware permit no. AQM-00300027, as it may from time to time be amended or renewed, issued for the Facility pursuant to Regulation 30 of the Delaware Regulations Governing the Control of Air Pollution;
- p. "NESHAP" shall mean National Emission Standard for Hazardous Air Pollutants;
- q. "Authorized Official" shall be a person meeting the criteria of 40 C.F.R. § 270.11 (a);

r. "Seed Resin" shall mean any material generated for the purpose of being initially charged into product batches to control particle size distribution.

IV. CIVIL PENALTY

7. Defendant shall pay a total civil penalty of \$450,000, as set forth in Paragraphs 8 and 9 below.

8. (a) Within 30 days after the Effective Date of this Consent Decree, Defendant shall pay to the United States the sum of \$125,000, together with interest accruing from the Effective Date of this Consent Decree, at the rate specified in 28 U.S.C. § 1961 as of the date of lodging.

(b) No later than (i) 180 days after Effective Date of this Consent Decree, or (ii) January 15, 2006, whichever date is later, Defendant shall pay to the United States the sum of \$100,000, together with interest accruing from the Effective Date of this Decree, at the rate specified in 28 U.S.C. § 1961 as of the lodging of this Decree.

(c) Payment of the above sums shall be made by FedWire Electronic Funds Transfer ("EFT") to the U.S. Department of Justice in accordance with instructions available from the Financial Litigation Unit of the U.S. Attorney's Office for the District of Delaware. At the time of payment, Defendant shall simultaneously send written notice of payment and a copy of any transmittal documentation (which should reference DOJ case number 90-5-2-1-08297 and the civil action number of this case) to the United States in accordance with Section XVII of this Consent Decree (Notices).

9. (a) No later than 30 days after the Effective Date of this Consent Decree, Defendant shall pay \$125,000 to the State together with interest accruing from the Effective Date of this Consent Decree, at the rate specified in 28 U.S.C. § 1961 as of the date of lodging.

(b) No later than (i) 180 days after Effective Date of this Consent Decree, or (ii) January 15, 2006, whichever date is later, Defendant shall pay to the State the sum of \$100,000, together with interest accruing from the Effective Date of this Decree, at the rate specified in 28 U.S.C. § 1961 as of the lodging of this Decree.

(c) Payment shall be made by funds available same day by certified or cashier's check delivered by hand or overnight delivery to the Department of Natural Resources and Environmental Control, Fiscal Office, Richardson and Robbins Building, 89 King's Highway, Dover, Delaware 19901.

10. Defendant shall not deduct the civil penalties paid under this Section in calculating its federal income tax.

V. COMPLIANCE REQUIREMENTS

Clean Air Act

11. Defendant shall comply with the vinyl chloride emission standard of 2.02g of vinyl chloride monomer per Kg of PVC on a dry solids basis set forth in 40 C.F.R. § 61.64(f)(1)(i). In determining compliance with this standard, Defendant shall include all batches of dispersion resin, including Seed Resin in its calculation.

12. Defendant shall comply with the daily average RVCM limits set forth in the Title V Permit. In determining compliance with these limits, batches of Seed Resin need not be included in the calculation of the daily average RVCM.

13. Defendant shall carry out a program of enhanced operator training as set forth in Appendix A of this Consent Decree designed to prevent unauthorized or improper releases of vinyl chloride and to reduce the RVCM remaining in PVC after stripping. Defendant shall complete the training of all current, qualified stripping operators no later than 180 days after the

Effective Date of this Consent Decree and shall thereafter cause new qualified stripping operators to undergo such training before they begin to work as qualified stripping operators.

14. Defendant shall conduct a layer of protection analysis (LOPA) based upon its 2006 process hazard analysis, as described in Appendix B of this Consent Decree. The LOPA shall be designed to identify recommendations as to ways in which the equipment and operations at the Facility can be improved to reduce the possibility of releases of vinyl chloride. The LOPA shall be completed and a final report ("LOPA Report") fully describing the LOPA, including all recommendations of the team conducting the LOPA and all responses of the Plant Manager thereto submitted to EPA and the State no later than the second anniversary of the Effective Date of this Consent Decree. The LOPA Report may be incorporated into, or be a supplement to the Final PHA Report on which the LOPA is based. Defendant shall, within the time periods specified in the LOPA Report, implement all recommendations in the LOPA Report unless it provides EPA and the State a written explanation, signed by the Plant Manager, for not implementing specific recommendations. If Defendant provides such an explanation, it shall nonetheless implement all recommendations as to which it does not offer such an explanation within the time frames stated in the LOPA Report. Defendant shall implement those recommendations as to which it does offer such an explanation if directed to do so by EPA and the State unless Defendant invokes Dispute Resolution (Section XIII) to challenge such direction. The time period for implementing recommendations at the direction of EPA and the State shall be as stated in the LOPA Report plus the time between the date of submission of that report to EPA and the State and the date of the direction to implement those recommendations. As to recommendations that are the subject of Dispute Resolution, Defendant shall comply with the decision resulting from Dispute Resolution as to both the actions to take and the time period within which to take them. Defendant shall not be in violation of this Section as to

recommendations subject to Dispute Resolution unless and until it fails to comply timely with the decision resulting from Dispute Resolution.

15. (a) Defendant shall comply with 40 C.F.R. Part 63, Subpart UU (National Emission Standards for Equipment Leaks-Control Level 2 Standards) upon the Effective Date of this Consent Decree as provided in this Paragraph. Within 120 days of the Effective Date of this Consent Decree, Defendant shall submit an Initial Compliance Status Report as required in 40 C.F.R. § 63.1039(a). Defendant shall submit 40 C.F.R. Part 63 Subpart UU Periodic Reports as required in 40 C.F.R. § 63.1039(b) as part of the Vinyl Chloride NESHAP quarterly reporting requirements of 40 C.F.R. § 61.70.

(b) Defendant shall also ensure that no leak detection instrument is used for compliance with 40 C.F.R. Part 63, Subpart UU without being calibrated in accordance with EPA Method 21 and that Subpart. Defendant shall certify compliance with this calibration requirement no later than 45 days after the Effective Date of this Consent Decree.

(c) Defendant shall take all steps necessary to apply for and effect a modification of its Title V Permit to incorporate into that permit the requirement to comply with Subpart UU. When such a requirement becomes enforceable under the Title V Permit, it shall no longer be enforceable under this Decree. This Decree shall not terminate before Subpart UU becomes enforceable under the Title V Permit.

16. Defendant shall comply with the requirements of Appendix C.

17. Defendant shall (i) operate all equipment identified in Appendix D of this Consent Decree in accordance with the manufacturers' specifications and recommendations; (ii) comply with the record keeping and reporting requirements of 40 C.F.R. Part 82; and (iii) integrate responsibility for compliance with 40 C.F.R. Part 82 between the Facility Maintenance Manager and the Environmental Manager such that the Facility Environmental Manager is able to assure

compliance with 40 C.F.R. Part 82. Defendant shall certify compliance with this requirement no later than the first anniversary of the Effective Date of this Consent Decree.

18. Within 30 days of the Effective Date of this Decree, Defendant shall submit to the State an application with supporting information for a modification of the vinyl acetate emission limit in its Title V permit. Within 30 days of any request by the State for additional data, analysis and other information, if any, needed for the State to act on the application, Formosa shall submit the same to the State. When a revised Title V vinyl acetate limit becomes effective, Defendant shall comply with that limit.

Sampling, Analysis and Reporting.

19. Defendant shall comply with the reporting requirements of 40 C.F.R. 61.70(c)(4)(iv).

20. In determining concentrations of residual vinyl chloride for purposes of this Consent Decree or compliance with 40 C.F.R. Part 61, Subpart F, or the Title V Permit, Defendant shall comply with EPA Test Method 107 as set forth in 40 C.F.R. Part 61, Appendix B. Within 30 days of the Effective Date of this Consent Decree, Defendant shall begin and thereafter continue to implement a program, as described in Appendix G of this Consent Decree.

RCRA Compliance.

21. Defendant shall comply with Appendix E (Waste Analysis and Management Plan).

22. Defendant shall purchase and install only low mercury level fluorescent light bulbs at the Facility. This requirement shall not apply to applications for which no such low mercury bulbs are not reasonably available. Defendant shall dispose of all used light bulbs properly and in accordance with applicable Federal and State environmental requirements,

including hazardous waste requirements if applicable. Defendant shall certify compliance with the requirements of this Paragraph prior to termination of this Consent Decree.

23. Defendant shall comply with the PVC Solids Management Plan set forth in Appendix O.

Aeration Basins.

24. (a) Defendant shall operate the in-process wastewater stripping tanks (PT-416/417 and DT-360) at the Facility for stripping in-process wastewater to a vinyl chloride limit of 3 ppm (or less). In the event of a proposed change in the in-process wastewater stripping operation or equipment configuration that would result in an increase of the vinyl chloride concentration of in-process wastewater leaving such tanks or entering the atmosphere, Defendant will seek and obtain a modification of the Title V Permit (or this Consent Decree, if applicable), prior to implementing such change.

(b) Any change in operations that will result in a material change to the volume of or constituents in the flows of waste water to the waste water treatment plant shall require Defendant to perform an analysis to determine whether the 3 ppm limit remains effective to prevent hazardous waste from entering the waste water treatment plant and, if not, to identify what level would be effective in doing so.

(c) Defendant shall take all steps necessary to apply for and effect a modification of the Title V Permit to incorporate into that permit the above-stated stripping requirement. When such requirement becomes enforceable under the Title V Permit, it shall no longer be enforceable under this Decree. This Decree shall not terminate before that stripping requirement becomes enforceable under the Title V Permit.

25. Defendant shall remove all PVC solids from the Aeration Basins and make any necessary repairs to the liners of the Aeration Basins within twelve months of entry of this Consent Decree. This deadline may be extended by agreement of the Parties for good cause shown. Defendant shall dispose of the PVC solids removed from the Aeration Basins under the requirements of this Paragraph in compliance with Federal and State environmental law.

26. Defendant shall inspect the Facility in conformance with the inspection plan and schedule attached as Appendix F and comply with that Appendix. Defendant shall repair or correct any problems identified during such inspections. In the event such inspections identify a situation that is reoccurring or preventable, Defendant shall update the Contingency Plan in Appendix F to include procedures that address such situations.

27. Within thirty days prior to the termination of this Consent Decree, Defendant shall enter into an enforceable agreement with the State in substantially the form attached as Appendix P to continue to carry out the requirements of Paragraphs 21, 23, and 26, of this Consent Decree and Appendices E, F and O.

CWA Compliance.

28. Defendant shall comply with Appendix L (SPCC Plan).

29. Defendant shall comply with the requirements of NPDES permit DE 0000612 pertaining to phenol, storm water and sampling and analysis with respect to total suspended solids (TSS).

EPCRA 313 Compliance.

30. For reports required to be submitted after the Effective Date of this Decree, Defendant shall comply with the methodology set forth in Appendix H of this Consent Decree for determining and reporting the Toxic Release Inventory data for vinyl chloride and vinyl

acetate released into the environment, transferred offsite, and treated onsite pursuant to Section 313 of EPCRA.

31. Laboratory Audit. No later than 180 days after the Effective Date of this Consent Decree, Defendant shall conduct an audit of its laboratory to ensure that proper analytical and quality assurance/quality control procedures are followed for Vinyl Chloride NESHAP samples in accordance with EPA Method 107.

(a) The audit shall be performed by a team of persons selected by Formosa who do not work at, and do not have direct responsibility for activities at the Facility. The members of the team shall be knowledgeable of general laboratory procedures and be familiar with EPA Method 107.

(b) The audit shall include a file review. The audit shall also include a site visit in which members of the audit team review the written procedures used to perform Method 107 sampling and analysis; observe the performance of typical Method 107 sampling and analysis; and inspect all equipment and supplies used for such sampling and analysis. EPA and the State shall be given, at least 30 days in advance, written notice of the date, time and places of the site visit and shall have the opportunity to observe that visit.

(c) The audit team shall prepare a written report of the audit, which shall include a description of all activities comprising the audit, the Method 107 sampling and analysis procedures used at the Facility, any deviations from the procedures required by Method 107 observed or discovered, and all recommendations for improvement the team believes are appropriate. A copy of the report shall be submitted to EPA and the State within 30 days after the audit is completed. If personnel at the Facility disagree with any findings or recommendations in the report, such disagreements may be described in an appendix to the report.

EPCRA 304/CERCLA 103 Compliance.

32. Defendant shall comply with the notification requirements of Appendix I.

VI. APPROVAL OF DELIVERABLES

33. Approval of Deliverables. After review of any plan, report, or other item that is required to be submitted pursuant to this Consent Decree, EPA and the State, except as provided in Paragraphs 42-50, shall in writing: (a) approve the submission; (b) approve the submission upon specified conditions; (c) approve part of the submission and disapprove the remainder; or (d) disapprove the submission.

34. If the submission is approved pursuant to Paragraph 33(a), Defendant shall take all actions required by the plan, report, or other document, in accordance with the schedules and requirements of the plan, report, or other document, as approved. If the submission is conditionally approved or approved only in part, pursuant to Paragraph 33(b) or (c), Defendant shall, upon written direction of EPA and the State, take all actions required by the approved plan, report, or other item that EPA and the State determine are technically severable from any disapproved portions, subject to Defendant's right to dispute only the specified conditions or the disapproved portions, under Section XIII of this Consent Decree (Dispute Resolution).

35. If the submission is disapproved in whole or in part pursuant to Paragraph 33(c) or (d), Defendant shall, within 45 days or such other time as the Parties agree to in writing, correct all deficiencies of which it has been notified by EPA and the State in writing and resubmit the plan, report, or other item, or disapproved portion thereof, for approval, in accordance with the preceding Paragraphs. If the re-submission is approved in whole or in part, Defendant shall proceed in accordance with the preceding Paragraph.

36. Any Stipulated Penalties applicable to the original submission, as provided in Section XI of this Consent Decree, shall accrue during the 45-day period or other specified period, but shall not be payable unless the re-submission is untimely or is disapproved in whole or in part; provided that, if the original submission was so deficient as to constitute a material breach of Defendant's obligations under this Consent Decree, the Stipulated Penalties applicable to the original submission shall be due and payable notwithstanding any subsequent re-submission.

37. If a resubmitted plan, report, or other item, or portion thereof, is disapproved in whole or in part, EPA and the State may again require Defendant to correct any deficiencies, in accordance with the preceding Paragraphs, or may themselves correct any deficiencies, subject to Defendant's right to invoke Dispute Resolution and the right of EPA and the State to seek Stipulated Penalties as provided in the preceding Paragraphs.

VII. PERMITS.

38. Where any compliance obligation under this Consent Decree requires Defendant to obtain a federal, state, or local permit or approval, Defendant shall submit timely and complete applications and take all other actions necessary to obtain all such permits or approvals. Defendant may seek relief under the provisions of Section XII of this Consent Decree (Force Majeure) for any delay in the performance of any such obligation resulting from a failure to obtain, or a delay in obtaining, any permit or approval required to fulfill such obligation, if Defendant has submitted timely and complete applications and has taken all other actions necessary to obtain all such permits or approvals. Defendant will supply a copy of any applications for permits under Federal or State environmental laws to EPA in accordance with Section XVII (Notices).

VIII. REDUCING EMISSIONS OF VINYL CHLORIDE.

39. Formosa shall calculate the rolling 12-month weighted average concentration of residual vinyl chloride monomer (RVCM) at the Formosa Delaware City plant in accordance with the following:

(a) As used herein, the term "RVCM Average" shall mean the rolling 12-month weighted average calculated as described in this Paragraph for the Formosa Delaware City plant.

(b) The first RVCM Average shall be calculated for the period of 12 consecutive calendar months ending with the first full calendar month after the Effective Date of this Consent Decree.

(c) Thereafter an RVCM Average shall be calculated for each successive rolling 12-month period established by adding the next consecutive calendar month to the prior period and dropping the first month of that prior period. Formosa shall continue to calculate such RVCM Averages until this Consent Decree is terminated pursuant to Section XXI.

(d) Each RVCM Average shall be weighted on a dry solids basis of PVC produced in each calendar month; shall include all batches of resin across the Facility, other than Seed Resin, manufactured during the 12 month period of the average; shall use results from Method 107 analysis for the RVCM concentration; and shall be calculated in accordance with the formula and methodology set forth in Appendix K of this Consent Decree.

(e) Within 30 days after the end of the first calendar quarter after the Effective Date of this Consent Decree and within 30 days after the end of every calendar quarter thereafter, Formosa shall complete the calculation of the RVCM Averages for each of the three rolling 12 month periods that ended within the preceding calendar quarter and shall report in writing the results of those calculations to EPA Region III and to Delaware. Formosa shall retain for a period of five years from the date a calculation is submitted to EPA and the State and make

available for inspection and copying on request of EPA or Delaware all data and work papers used in making the calculation.

40. There is hereby established a limit of 750 ppm for the RVCM Average. As used herein "750 ppm" refers to 0.75 grams of vinyl chloride per kilogram on a dry solids basis of PVC produced. This limit shall remain in effect and be enforceable under this Consent Decree until and unless a lower limit comes into effect pursuant to Paragraph 41(c), below.

41. The Parties hereto establish a goal of reducing the RVCM Average to 550 ppm. This goal shall not be enforceable except as provided in this Section.

(a) Formosa shall exercise its reasonable best efforts over a period of three years immediately following the Effective Date of this Consent Decree to reduce the RVCM Average to the lowest practicable levels and achieve the goal of 550 ppm.

(b) Within 45 days of the third anniversary of the Effective Date of this Consent Decree, Formosa shall submit to EPA and Delaware a report describing its efforts to reduce concentrations of RVCM and stating the lowest, enforceable limit that Formosa chooses to accept for the RVCM Average. The limit Formosa so chooses shall be effective as described below without any review or approval by the United States or the State.

(c) Beginning with the RVCM Average calculated for the period ending with the first full calendar month after the fourth anniversary of the Effective Date of this Consent Decree, the limit accepted by Formosa (provided it is less than 750 ppm) shall be incorporated by reference into this Consent Decree and shall be enforceable in place of the limit stated in Paragraph 40 above.

(d) Within 180 days of submitting the report described in sub-paragraph (b) above, Formosa shall take all steps necessary to apply for and effect a modification of its Title V Permit to incorporate into that permit either (i) the limit described in subparagraph (b) provided

that limit is less than 750 ppm, or (ii) a limit of 750 ppm if the limit described in subparagraph (b) is not less than 750 ppm. At such time as such limit becomes enforceable pursuant to Regulation 30 of Delaware's Regulations Governing Control of Air Pollution, the limits described in this Section shall cease to be enforceable under this Consent Decree.

IX. SUPPLEMENTAL ENVIRONMENTAL PROJECT

42. Defendant shall implement a Supplemental Environmental Project ("SEP") to automate certain process controls to minimize the possibility of releases of vinyl chloride to the atmosphere in accordance with all provisions of Appendix J of this Consent Decree. The SEP shall be completed in accordance with the schedule contained in Appendix J. In implementing the SEP, Defendant shall spend not less than \$842,847 in eligible SEP costs. Eligible SEP costs include the costs of planning and implementing the SEP, but do not include any operating or construction costs that Formosa would incur if the SEP were not performed.

43. Defendant is responsible for the satisfactory completion of the SEP in accordance with the requirements of this Consent Decree. "Satisfactory completion" means that Defendant shall complete the work in accordance with Appendix J of this Consent Decree. Defendant may use contractors or consultants in planning and implementing the SEP.

44. With regard to the SEP, Defendant certifies the truth and accuracy of each of the following:

a. that all cost information provided to EPA in connection with EPA's approval of the SEP is complete and accurate and represents a fair estimate of the costs necessary to implement the SEP;

b. that, as of the date of executing this Consent Decree, Defendant is not required to perform or develop the SEP by any federal, state, or local law or regulation and is not

required to perform or develop the SEP by agreement, grant, or as injunctive relief awarded in any other action in any forum;

c. that the SEP is not a project that Defendant was planning or intending to construct, perform, or implement other than in settlement of the claims resolved in this Consent Decree;

d. that Defendant has not received, and is not negotiating to receive, credit for the SEP in any other enforcement action; and

e. that Defendant will not receive any reimbursement for any portion of the SEP from any other person.

45. SEP Completion Report

a. Within 45 days after the date set per the approved schedule for completion of the SEP, Defendant shall submit a SEP Completion Report to the United States and the State, in accordance with Section XVII of this Consent Decree (Notices). The SEP Completion Report shall contain the following information:

- i. a detailed description of the SEP as implemented;
- ii. a description of any problems encountered in completing the SEP and the solutions thereto;
- iii. an itemized list of all eligible SEP costs;
- iv. certification that the SEP has been fully implemented pursuant to the provisions of this Consent Decree; and
- v. a description of the direct and indirect environmental benefits and quantification of any pollutant reductions of the SEP.

46. EPA may, in its sole discretion, require information in addition to that described in the preceding Paragraph, in order to determine the adequacy of SEP completion or eligibility of SEP costs, and Defendant shall provide such information.

47. After receiving the SEP Completion Report, the United States shall notify Defendant whether or not Defendant has satisfactorily completed the SEP. If the SEP has not been satisfactorily completed, or if the amount expended on performance of the SEP is less than the amount set forth in Paragraph 42, above, Stipulated Penalties may be assessed under Section XI of this Consent Decree.

48. Disputes concerning the satisfactory performance of the SEP and the amount of eligible SEP costs shall be resolved under Section XIII of this Consent Decree (Dispute Resolution). No other disputes arising under this Section shall be subject to Dispute Resolution.

49. Each submission required under this Section shall be signed by an Authorized Official of Defendant with knowledge of the SEP and shall bear the certification language set forth in Paragraph 53, below.

50. Any public statement, oral or written, in print, film, or other media, made by Defendant making reference to the SEP under this Consent Decree shall include the following language: "This project was undertaken in connection with the settlement of an enforcement action, United States and State of Delaware v. Formosa Plastics Corporation, Delaware, taken in the District of Delaware under environmental protection laws."

X. REPORTING REQUIREMENTS

51. Defendant shall submit the following reports:

a. Within 45 days after the end of the first full calendar month after the Effective Date of this Consent Decree and within 30 days after the end of every third calendar month

thereafter until termination of this Consent Decree pursuant to Section XXI, Defendant shall submit a written report to EPA and the State which contains

- (i) a progress report on the implementation of the requirements of Section IX (Supplemental Environmental Project) at the Facility, including, at a minimum, a narrative description of activities undertaken;
- (ii) a progress report on the implementation of requirements of Paragraphs 13, 14, 20 as relating to Lab Technician Training (Appendix G), and 25;
- (iii) a description of all violations of this Consent Decree that have occurred since the last report and the reasons therefore; and
- (iv) additional items required by another Paragraph of this Consent Decree to be submitted with a quarterly report, including the information required by Paragraph 39(e) above.

b. If Defendant violates any requirement of this Consent Decree, Defendant shall notify the United States and the State of such violation and its likely duration, in writing, within ten working days of the day Defendant first becomes aware of the violation, with an explanation of the violation's likely cause and of the remedial steps taken, or to be taken, to prevent or minimize such violation. If the cause of a violation cannot be fully explained at the time the report is due, Defendant shall so state in the report. Defendant shall investigate the cause of the violation and shall then submit an amendment to the report, including a full explanation of the cause of the violation, within 30 days of the day Defendant becomes aware of the cause of the violation. Nothing in this Paragraph or the following Paragraph relieves Defendant of its obligation to provide the notice required by Section XII of this Consent Decree (Force Majeure).

c. Within 45 days of the third anniversary of the Effective Date of this Consent Decree, Defendant shall submit the report required by sub-paragraph 41(b) above.

d. Defendant shall submit the SEP completion report as required by Paragraph 45.

52. The entity or entities to which a particular report shall be submitted is governed by the provision(s) of this Decree requiring that report. When submitted, reports shall be addressed as provided in Section XVII of this Consent Decree (Notices).

53. Each report submitted by Defendant under this Section shall be signed by an Authorized Official of the Defendant and include the following certification:

I certify under penalty of law that I have examined and am familiar with the information submitted in this document and all attachments and that this document and its attachments were prepared either by me personally or under my direction or supervision in a manner designed to ensure that qualified and knowledgeable personnel properly gather and present the information contained therein. I further certify, based on my personal knowledge or on my inquiry of those individuals immediately responsible for obtaining the information, that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowingly and willfully submitting a materially false statement.

This certification requirement does not apply to an emergency or notifications where compliance would be impractical. Certification shall be made by Defendant within five days of any such event, with an explanation of why certification was not practical.

54. The reporting requirements of this Consent Decree do not relieve Defendant of any reporting obligations required by the Acts or implementing regulations, or by any other federal, state, or local law, regulation, permit, or other requirement.

55. Any information provided pursuant to this Consent Decree may be used by the United States or the State in any proceeding to enforce the provisions of this Consent Decree and as otherwise permitted by law.

XI. STIPULATED PENALTIES

56. If Defendant fails to pay the civil penalty required to be paid under Paragraph 8 above when due, Defendant shall pay the United States a stipulated penalty of \$1,000 per day for the first ten days after the payment is due and \$3,000 per day beginning on the eleventh day after the payment is due. Late payment of the civil penalty shall be made in accordance with the payment instructions set forth in Paragraph 8, above. All transmittal correspondence shall state that any such payment is for late payment of the civil penalty due under this Consent Decree, or for Stipulated Penalties for late payment, as applicable, and shall include the identifying information set forth in Paragraph 8, above.

57. If Defendant fails to pay the civil penalty required to be paid under Paragraph 9 above when due, Defendant shall pay the State a stipulated penalty of \$1,000 per day for the first ten days after the payment is due and \$3,000 per day beginning on the eleventh day after the payment is due. Late payment of the civil penalty shall be made in accordance with the payment instructions set forth in Section IV, Paragraph 9, above. All transmittal correspondence shall state that any such payment is for late payment of the civil penalty due under this Consent Decree, or for Stipulated Penalties for late payment, as applicable, and shall include the identifying information set forth in Paragraph 9, above.

58. Subject to Paragraph 36, Defendant shall be liable to the United States and the State for Stipulated Penalties for violations of this Consent Decree as specified below, unless excused under Section XII (Force Majeure). Payment of each stipulated penalty described in this Paragraph shall be made 50% to the United States and 50% to the State. A violation includes failing to perform any obligation required by the terms of this Consent Decree, including any Appendix to this Decree and any work plan or schedule approved under this Consent Decree, according to all applicable requirements of this Consent Decree and within the specified time schedules established by or approved under this Consent Decree.

59. The United States, or the State, or both may seek Stipulated Penalties under this Section. Regardless of whether one or both sovereigns seek Stipulated Penalties, Defendant shall pay 50% percent to the United States and 50% percent to DNREC.

60. For a violation of either of the vinyl chloride emission standards with which Defendant is required to comply by Paragraphs 11 and 12 above, Defendant shall pay a stipulated penalty of \$2,500 per violation. In the event of a violation of Paragraphs 11 and 12 on the same day, Defendant shall pay a stipulated penalty of \$5,500.

61. For failure to complete enhanced operator training by the deadlines imposed by Paragraph 13 above, Defendant shall pay a stipulated penalty of \$2,000 for each day past the deadline until such training is completed.

62. For failure to complete the layer of protection analysis as required by Paragraph 14 above, Defendant shall pay a stipulated penalty of \$500.00 per day for the first fifteen days after the deadline imposed by Paragraph 14 until a layer of protection analysis is submitted, and \$1,000 per day beginning with the sixteenth day after the deadline imposed by Paragraph 14 until a layer of protection analysis is submitted. For each failure to implement a recommendation as required by Paragraph 14, Defendant shall pay a stipulated penalty of \$10,000.

63. For each violation of the Subpart UU (National Emission Standards for Equipment Leaks-Control Level 2 Standards) requirements of Paragraph 15 above, Defendant shall pay a stipulated penalty of \$1,500.

64. For each failure to comply with Appendix C as required by Paragraph 16 above, (Leak Detection), Defendant shall pay a stipulated penalty of \$1,000.

65. For each failure to comply with the 40 C.F.R. Part 82 requirements imposed by Paragraph 17 above, Defendant shall pay a stipulated penalty of \$2,000.

66. For failure to comply with the requirements for determining the Title V Vinyl Acetate Emission Limitation imposed in Paragraph 18 above, Defendant shall pay a stipulated penalty of \$5,000.

67. For each failure to comply with the following requirements of Appendix E (Waste Analysis and Management Plan) as required by Paragraph 21, Defendant shall pay a stipulated penalty of \$1,500 for each violation that occurs: 1) Failure to determine the waste constituents of waste streams; 2) Failure to document the waste analysis of a waste stream; 3) Failure to conduct an annual review of each waste stream at the Facility; and 4) Failure to analyze a waste stream after a process change.

68. For each failure to comply with the PVC Solids Plan attached hereto as Appendix O, Defendant shall pay a stipulated penalty of \$1,000.

69. For each violation of the requirements regarding light bulbs imposed by Paragraph 22, Defendant shall pay a stipulated penalty of \$75.

70. For each violation of the storm water requirements of the NPDES permit referenced in Paragraph 29, Defendant shall pay a stipulated penalty of \$1,500.

71. For day of each violation of the stripping requirement of Paragraph 24, Defendant shall pay a stipulated penalty of \$2,000.

72. For each violation of any requirement of Paragraph 26 or Appendix F, Defendant shall pay a stipulated penalty of \$3,000.

73. For failure to implement the SPCC Plan attached hereto as Appendix L, Defendant shall pay a stipulated penalty of \$1,500 for each day that each violation occurs or continues; provided, however, that the total stipulated penalty for any one violation shall not exceed \$10,000.

74. For each violations of the NPDES limit for Phenol, Defendant shall pay a stipulated penalty of \$1,500. An instance in which an effluent sample analyzed for phenol in accordance with the testing and analysis requirements of the NPDES permit for the Facility contains phenol in excess of the limit prescribed in that permit shall constitute one violation. Each calendar month thereafter that passes before a further sample analyzed for phenol in accordance with the testing and analysis requirements of the NPDES permit for the Facility contains phenol below the limit allowed by the permit shall constitute one additional violation.

75. For violations of the Total Suspended Solids (TSS) Sampling SOP attached as Appendix M to this Consent Decree, Defendant shall pay a stipulated penalty of \$500 for each such violation.

76. For each failure to comply with the reporting requirements specified in Paragraphs 51 through 55 above Defendant shall pay a stipulated penalty of \$750 for each day that each violation occurs or continues; provided, however, that the stipulated penalty payable with respect to Paragraph 51(b) shall not exceed \$25,000 for any one violation of that Paragraph.

77. For each failure to comply with the requirements of Method 107 as required by Paragraph 20 of this Consent Decree, Defendant shall pay a stipulated penalty of \$2,000.

78. For each failure to comply with the methodology specified by Paragraph 30 and Appendix H of this Consent Decree for estimating and reporting the quantities of vinyl chloride and vinyl acetate, Defendant shall pay a stipulated penalty of \$5,000 per chemical.

79. For each instance in which any of the notifications of releases required Appendix I is not given timely, Defendant shall pay a stipulated penalty of \$1,000 for each 30 minutes or part thereof that each required notification is late, but the penalty under this Paragraph shall not exceed \$25,000 for a single release.

80. With respect to each RVCM Average which is calculated pursuant to Paragraph 39, Formosa shall pay stipulated penalties as follows:

(a) During the period in which the 750 ppm limit set forth in Paragraph 40 is in effect, Formosa shall pay stipulated penalties as follows:

(i) During the first 12 month period immediately following the Effective Date of this Consent Decree, \$150 for every ppm by which an RVCM Average exceeds 750 ppm.

(ii) During the second 12 month period after the Effective Date of this Consent Decree, \$250 for every ppm by which an RVCM Average exceeds 750 ppm.

(iii) During the third 12 month period after the Effective Date of this Consent Decree, \$500 for every ppm by which an RVCM Average exceeds 750 ppm.

(b) During the period in which the limit established under Paragraph 41(b) is enforceable under this Consent Decree, Formosa shall pay a stipulated penalty of \$250 for every one ppm by which each RVCM Average calculated exceeds that limit.

81. For every one ppm by which the limit accepted by Formosa pursuant to Paragraph 41(b) exceeds 550 ppm, Formosa shall pay a stipulated penalty as follows:

(i) If the limit accepted by Formosa is equal to or greater than 701 ppm but equal to or less than 750, Formosa shall pay a stipulated penalty of \$1500 for every one ppm by which the limit accepted exceeds 550 ppm.

(ii) If the limit accepted by Formosa is equal to or greater than 651 ppm but equal to or less than 700, Formosa shall pay a stipulated penalty of \$750 for every one ppm by which the limit accepted exceeds 550 ppm.

(iii) If the limit accepted by Formosa is equal to or greater than 601 ppm but equal to or less than 650, Formosa shall pay a stipulated penalty of \$500 for every one ppm by which the limit accepted exceeds 550 ppm.

(iv) If the limit accepted by Formosa is equal to or greater than 551 ppm but equal to or less than 600, Formosa shall pay a stipulated penalty of \$250 for every one ppm by which the limit accepted exceeds 550 ppm.

82. SEP Compliance

a. If Defendant has completed the SEP but spent less than 90% of the amount set forth in Paragraph 42, above, Defendant shall pay a stipulated penalty equal to the difference between the amount of total eligible SEP costs incurred by Defendant and 90% of the amount set forth in Paragraph 42 or, Defendant may elect to perform another SEP (hereafter Secondary SEP) with the remaining funds provided that: (i) the primary SEP has been satisfactorily completed; (ii) the remaining funds will be totally expended on the Secondary SEP; (iii) a satisfactory SEP proposal for a pollution prevention or pollution reduction Secondary SEP is submitted to EPA within twenty days of the submission of the primary SEP Completion Report; and (iv) the Secondary SEP will be completed within one year from the date of EPA's

approval of that SEP. Whether Defendant has satisfied the conditions (ii), (iii) and (iv) of the preceding sentence and whether Defendant will be permitted to perform a Secondary SEP shall be the sole discretion and final determination of EPA and not judicially reviewable through the Dispute Resolution provisions of this Consent Decree or otherwise.

b. If Defendant has completed the SEP, but such completion does not constitute "satisfactory completion" as defined in Paragraph 43, above, Defendant shall pay \$25,000 in addition to any penalty required under Subparagraph a, above.

c. If Defendant halts or abandons work on the SEP, the Defendant shall pay a stipulated penalty of \$300,000 in addition to any penalty required under Subparagraph a, above and beyond any penalties owing under Subparagraph d. The penalty under this Subparagraph shall accrue as of the date specified for completing the SEP or the date performance ceases, whichever is earlier.

d. If Defendant fails to complete the SEP within two years of the Effective Date of the Consent Decree, Defendant shall pay a stipulated penalty of \$1,000 per day until (i) Defendant has satisfactorily completed the SEP, or (ii) Defendant halts or abandons work on the SEP, provided the penalty imposed by Subparagraph c is ultimately paid.

83. Subject to the provisions of Paragraph 85, below, Stipulated Penalties under this Section shall begin to accrue on the day after performance is due or on the day a violation occurs, whichever is applicable, and shall continue to accrue until performance is satisfactorily completed or until the violation ceases. Stipulated Penalties shall accrue simultaneously for separate violations of this Consent Decree. Defendant shall pay any Stipulated Penalty within 30 days of receiving written demand from the United States or the State.

84. The United States or the State may, in the unreviewable exercise of their discretion, reduce or waive Stipulated Penalties otherwise due that sovereign under this Consent

Decree. The determination by one sovereign not to seek Stipulated Penalties, or subsequently to waive or reduce the amount it seeks, shall not preclude the other sovereign from seeking the full amount of Stipulated Penalties owed to it.

85. Subject to Paragraph 102, Stipulated Penalties shall continue to accrue as provided in Paragraph 83 above, during any Dispute Resolution, but need not be paid until the following:

a. If the dispute is resolved by agreement or by a decision of EPA or the State that is not appealed to the Court, Defendant shall pay accrued penalties determined to be owing, together with interest, within 30 days of the Effective Date of the agreement or the receipt of EPA's or the State's decision or order.

b. If the dispute is appealed to the Court and the United States or the State prevails in whole or in part, Defendant shall pay all accrued penalties determined by the Court to be owing, together with interest, within 60 days of receiving the Court's decision or order, except as provided in subparagraph c, below.

c. If any Party appeals the District Court's decision, Defendant shall pay all accrued penalties determined to be owing, together with interest, within 15 days of receiving the final appellate court decision.

86. Defendant shall pay Stipulated Penalties owing to the United States by certified or cashier's check in the amount due, payable to the "U.S. Department of Justice," referencing DOJ No. 90-5-2-1-08297 and United States Attorney's Office file number, and delivered to the office of the United States Attorney, District of Delaware, 1007 Orange Street, Suite 700, Wilmington, DE 19899-2046. Defendant shall pay Stipulated Penalties owing to the State by funds available same day by certified or cashier's check delivered by hand or overnight delivery to the

Department of Natural Resources and Environmental Control, Fiscal Office, Richardson and Robbins Building, 89 King's Highway, Dover, Delaware 19901.

87. Defendant shall not deduct Stipulated Penalties paid under this Section in calculating its federal income tax.

88. If Defendant fails to pay Stipulated Penalties according to the terms of this Consent Decree, Defendant shall be liable for interest on such penalties, as provided for in 28 U.S.C. § 1961, accruing as of the date payment became due.

89. Subject to the provisions of Section XV of this Consent Decree (Effect of Settlement/Reservation of Rights), the Stipulated Penalties provided for in this Consent Decree shall be in addition to any other rights, remedies, or sanctions available to the United States for Defendant's violation of this Consent Decree or applicable law. Where a violation of this Consent Decree is also a violation of one or more of the Acts, Defendant shall be allowed a credit, for any Stipulated Penalties paid, against any statutory penalties imposed for such violation.

XII. FORCE MAJEURE

90. A "force majeure event" is any event beyond the control of Defendant, its contractors, or any entity controlled by Defendant that delays the performance of any obligation under this Consent Decree despite Defendant having exercised due diligence to fulfill the obligation. "Due diligence" includes making diligent efforts to anticipate any potential force majeure event and to address the effects of any such event (a) as it is occurring and (b) after it has occurred, to prevent or minimize any resulting delay to the greatest extent possible. "Force Majeure" does not include Defendant's financial inability to perform any obligation under this Consent Decree.

91. Defendant shall provide notice orally or by electronic or facsimile transmission as soon as possible, but not later than five business days after the time Defendant first knew of, or by the exercise of due diligence, should have known of, a claimed force majeure event. Defendant shall also provide written notice, as provided in Section XVII of this Consent Decree (Notices), within ten days of the time Defendant first knew of, or by the exercise of due diligence, should have known of, the event. The notice shall state the anticipated duration of any delay; its cause(s); Defendant's past and proposed actions to prevent or minimize any delay; a schedule for carrying out those actions; and Defendant's rationale for attributing any delay to a force majeure event. Failure to provide oral and written notice as required by this Paragraph shall preclude Defendant from asserting any claim of force majeure unless Defendant demonstrates that its failure to give such notice was due to excusable neglect or other good cause, and that neither the United States nor the State has been prejudiced by that delay.

92. If the United States and the State agree that a force majeure event has occurred, the United States and the State shall agree to extend the time for Defendant to perform the affected requirements for the time necessary to complete those obligations. An extension of time to perform the obligations affected by a force majeure event shall not, by itself, extend the time to perform any other obligation. Where the United States and the State agree to an extension of time, the appropriate modification shall be made pursuant to Section XX of this Consent Decree (Modification). Defendant shall not be liable for stipulated penalties for the period of any such extension.

93. If the United States and the State do not agree that a force majeure event has occurred, or do not agree to the extension of time sought by Defendant, the position of the United States and the State shall be binding, unless Defendant invokes Dispute Resolution under Section XIII of this Consent Decree. Defendant must submit the matter to the Court for

resolution and prevail thereon to avoid payment of stipulated penalties. In any such dispute, Defendant bears the burden of proving, by a preponderance of the evidence, that each claimed force majeure event is a force majeure event, that Defendant met the requirements of Paragraph 91, that the force majeure event caused any delay Defendant claims was attributable to that event, and that Defendant exercised due diligence to prevent or minimize any delay caused by the event. If the Court determines that the delay or impediment to performance has been or will be caused by circumstances beyond the control of Defendant, and that delay could not have been prevented by exercise of due diligence, Defendant shall be excused as to that event and delay (including stipulated penalties), for all requirements affected by the delay for a period of time equivalent to the delay caused by such circumstances or such other period as may be determined by the Court.

XIII. DISPUTE RESOLUTION

94. Unless otherwise expressly provided for in this Consent Decree, the Dispute Resolution procedures of this Section shall be the exclusive mechanism to resolve disputes arising under or with respect to this Consent Decree. Defendant's failure to seek resolution of a dispute under this Section shall preclude Defendant from raising any such issue as a defense to an action by the United States or the State to enforce any obligation of Defendant arising under this Consent Decree.

95. Informal Dispute Resolution. Any dispute subject to Dispute Resolution under this Consent Decree shall first be the subject of informal negotiations. The dispute shall be considered to have arisen when Defendant sends the United States and the State written Notice of Dispute. Such Notice of Dispute shall state clearly the matter in dispute. The period of informal negotiations shall not exceed 30 days from the date the dispute arises, unless that period is modified by written agreement. If the Parties cannot resolve a dispute by informal

negotiations, then the position advanced by the United States shall be considered binding unless, within 20 days after the conclusion of the informal negotiation period, Defendant invokes formal Dispute Resolution procedures as set forth below.

96. Formal Dispute Resolution. Defendant shall invoke formal Dispute Resolution procedures, within the time period provided in the preceding Paragraph, by serving on the United States and the State a written Statement of Position regarding the matter in dispute. The Statement of Position shall include, but may not necessarily be limited to, any factual data, analysis, or opinion supporting Defendant's position and any supporting documentation relied upon by Defendant.

97. The United States and the State shall serve their Statements of Position within 30 days of receipt of Defendant's Statement of Position. The Statements of Position of the United States and the State shall include, but may not necessarily be limited to, any factual data, analysis, or opinion supporting that position and any supporting documentation relied upon by the United States or the State. The United States' Statement of Position shall be binding on Defendant, unless Defendant files a motion for judicial review of the dispute in accordance with the following Paragraph.

98. Defendant may seek judicial review of the dispute by filing with the Court and serving on the United States and the State, in accordance with Section XVII of this Consent Decree (Notices), a motion requesting judicial resolution of the dispute. The motion must be filed within 20 days of receipt of the United States' and the State's Statements of Position pursuant to the preceding Paragraph. The motion shall contain a written statement of Defendant's position on the matter in dispute, including any supporting factual data, analysis, opinion, or documentation, and shall set forth the relief requested and any schedule within which the dispute should be resolved for orderly implementation of the Consent Decree.

99. The United States and the State shall respond to Defendant's motion within the time period allowed by the Local Rules of this Court. Defendant may file a reply memorandum, to the extent permitted by the Local Rules.

100. In any dispute in which Defendant's compliance or non-compliance with this Decree or any Act, regulation or permit is at issue, Defendant shall bear the burden of demonstrating that it complied with this Consent Decree and any Acts, regulations or permits at issue. In any dispute in which Defendant seeks any affirmative relief Defendant shall bear the burden of demonstrating that it is entitled to such relief under applicable law. The Parties request that, in interpreting the terms of this Decree, the Court give due consideration to the purposes of the Parties as set forth at page 4, above. The United States reserves the right to argue that its position is reviewable only on the administrative record and must be upheld unless arbitrary and capricious or otherwise not in accordance with law and Defendant reserves the right to argue to the contrary.

101. The invocation of Dispute Resolution procedures under this Section shall not, by itself, extend, postpone, or affect in any way any obligation of Defendant under this Consent Decree, unless and until the court so orders. Except as provided in Paragraph 102, stipulated penalties with respect to the disputed matter shall continue to accrue from the first day of noncompliance. But, payment shall be stayed pending resolution of the dispute. If Defendant does not prevail on the disputed issue, Stipulated Penalties shall be assessed and paid as provided in Section XI (Stipulated Penalties).

102. When Dispute Resolution is invoked, stipulated penalties shall not accrue during the following periods (including the days those periods begin and end):

(a) The period beginning on the first day of any agreed extension, as allowed by Paragraph 95, of the 30 day period for informal dispute resolution and ending on the last day of such agreed extension.

(b) The period beginning on the 15th day after service of Defendant's Statement of Position as provided for in Paragraphs 96 and 97 and ending on the date of service of the Statement of Position of the United States.

(c) The period beginning on the date of service of the last of the court filings provided for in Paragraph 99 (the United States' response to the Defendant's motion requesting judicial review, the State's response to that motion, or the Defendants reply memorandum, if any) and ending on the date the District Court renders its final decision on the matter disputed.

(d) Such other time as the Parties agree.

XIV. INFORMATION COLLECTION AND RETENTION

103. The United States, the State, and their representatives, including attorneys, contractors, and consultants, shall have the right of entry into any facility covered by this Consent Decree, at all reasonable times, upon presentation of credentials, to:

- a. monitor the progress of activities required under this Consent Decree;
- b. verify any data or information submitted in accordance with the terms of this Consent Decree;
- c. obtain samples and, upon request, splits of any samples taken by Defendant or its representatives, contractors, or consultants;
- d. obtain documentary evidence, including photographs and similar data; and
- e. assess Defendant's compliance with this Consent Decree.

104. Upon request, Defendant shall provide EPA and the State or their authorized representatives splits of any samples taken by Defendant. Upon request, EPA and the State shall provide Defendant splits of any samples taken by EPA or the State.

105. Until the termination of this Consent Decree, Defendant shall retain, and shall instruct all of its contractors and agents engaged to perform work required by the Consent Decree to preserve, all non-identical copies of all documents, records, or other information (including documents, records, or other information in electronic form) in its or its contractors' or agents' possession or control, or that come into its or its contractors' or agents' possession or control, and that relates in any manner to Defendant's performance of its obligations under this Consent Decree. This information-retention requirement shall apply regardless of any contrary corporate or institutional policies or procedures. At any time during this information-retention period, the United States or the State may request copies of any documents, records, or other information required to be maintained under this Paragraph.

106. At the conclusion of the information-retention period provided in the preceding Paragraph, Defendant shall notify the United States and the State at least 90 days prior to the destruction of any documents, records, or other information in Defendant's possession, custody or control that are subject to the requirements of the preceding Paragraph and, upon request by the United States or the State, Defendant shall deliver any such documents, records, or other information to EPA or the State. Defendant shall include in the contract of each contracting entity performing any work in connection with this Consent Decree an explicit requirement to comply with this Paragraph as to any such documents, records or other information in that contractor's possession, custody or control. Defendant or a contractor may assert that certain documents, records, or other information are privileged under the attorney-client privilege or any other privilege recognized by federal law. If Defendant asserts such a privilege, it shall provide

the following: (1) the title of the document, record, or information; (2) the date of the document, record, or information; (3) the name and title of each author of the document, record, or information; (4) the name and title of each addressee and recipient; (5) a description of the subject of the document, record, or information; and (6) the privilege asserted by Defendant. However, no documents, records, or other information required to be created or generated pursuant to this Consent Decree shall be withheld on grounds of privilege.

107. Defendant may also assert that information required to be provided under this Section is protected as Confidential Business Information ("CBI") under 40 C.F.R. Part 2 and/or under 29 Del. C. Ch. 100 or 7 Del. C. § 6014. As to any information for which Defendant seeks such protection, Defendant shall follow the procedures set forth in 40 C.F.R. Part 2 or 29 Del. C. Ch. 100 or 7 Del. C. § 6014 and their implementing regulations as applicable. Failure to make a confidentiality claim, including the submission of a redacted copy of the document in question, at the time the document is submitted shall constitute a waiver of such claim.

108. This Consent Decree in no way limits or affects any right of entry and inspection, or any right to obtain information, held by the United States or the State pursuant to applicable federal or state laws, regulations, or permits, nor does it limit or affect any duty or obligation of Defendant to maintain documents, records, or other information imposed by applicable federal or state laws, regulations, or permits.

XV. EFFECT OF SETTLEMENT/RESERVATION OF RIGHTS

109. This Consent Decree resolves the civil claims of the United States and the State for the violations alleged in the Complaints filed in this action through the date of lodging.

110. The United States and the State reserve all legal and equitable remedies available to enforce the provisions of this Consent Decree, except as expressly stated in Paragraph 109. This Consent Decree shall not be construed to limit the rights of the United States or the State to

obtain penalties or injunctive relief under the Acts or implementing regulations, or under other federal or state laws, regulations, or permit conditions, except as expressly specified in Paragraph 109. The United States and the State further reserve all legal and equitable remedies to address any imminent and substantial endangerment to the public health or welfare or the environment arising at, or posed by, Defendant's Facility, whether related to the violations addressed in this Consent Decree or otherwise.

111. This Consent Decree is not a permit, or a modification of any permit, under any federal, State, or local laws or regulations. Defendant is responsible for achieving and maintaining complete compliance with all applicable federal, State, and local laws, regulations, and permits; and Defendant's compliance with this Consent Decree shall be no defense to any action commenced pursuant to any such laws, regulations, or permits. The United States and the State do not, by their consent to the entry of this Consent Decree, warrant or aver in any manner that Defendant's compliance with any aspect of this Consent Decree will result in compliance with provisions of the Acts or with any other provisions of federal, State, or local laws, regulations, or permits.

112. This Consent Decree does not limit or affect the rights of Defendant or of the United States or the State against any third parties, not party to this Consent Decree, nor does it limit the rights of third parties, not party to this Consent Decree, against Defendant, except as otherwise provided by law.

113. This Consent Decree shall not be construed to create rights in, or grant any cause of action to, any third party not party to this Consent Decree.

XVI. COSTS

114. The Parties shall bear their own costs of this action, including attorneys' fees, except that the United States and the State shall be entitled to collect the costs (including

attorneys' fees) incurred in any action necessary to collect any portion of the civil penalty or any Stipulated Penalties due but not paid by Defendant. Defendant waives any claims it may have under the Equal Access to Justice Act (including the Small Business Regulatory Enforcement Fairness Act), 28 U.S.C. § 2412, against the United States or the State arising out of the institution or prosecution of this action.

XVII. NOTICES

115. Unless otherwise specified herein, whenever notifications, submissions, or communications are required by this Consent Decree, they shall be made in writing and addressed as follows:

To the United States:

Chief, Environmental Enforcement Section
Environment and Natural Resources Division
U.S. Department of Justice
Box 7611 Ben Franklin Station
Washington, D.C. 20044-7611
Re: DOJ No. 90-5-2-1-08297
Fax: 202-616-6583

And

Civil Chief
Office of the United States Attorney
District of Delaware
1007 North Orange Street
Suite 700
Wilmington, DE 19899-2046
File No. 2004V00194
Fax: 302-573-6220

and

Jeffrey Boylan
Mail Code 3EC00
U.S. Environmental Protection Agency
Region III
1650 Arch Street

Philadelphia, PA 19103
Fax: 215-814-2905

and

(cover letter only)
Joyce Howell
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To EPA:

Jeffrey Boylan
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and

(cover letter only)
Joyce Howell
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1650 Arch Street
Philadelphia, PA 19103
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[To the State:]

James Werner, Director
Division of Air and Waste Management
Department of Natural Resources and Environmental Control
89 King's Highway
Dover, DE 19901

Kevin P. Maloney
Deputy Attorney General

Department of Justice
102 W. Water Street, 3rd Floor
Dover, DE 19904
Fax: 302-577-5866

To Defendant:

Robert B.D. Chou
Vice President, Specialty PVC Division
Formosa Plastic Corporation, USA
9 Peachtree Hill Road
Livingston, NJ 07039
Fax: 973-716-7483

Plant Manager
Formosa Plastic Corporation, Delaware
780 Schoolhouse Road
Delaware City, DE 19706
Fax: 302-836-1909

and

Robert W. Whetzel, Esq.
Richards, Layton & Finger, P.A.
One Rodney Square
P.O. Box 551
Wilmington, DE 19899-0551
Fax: 302-651-7701

116. Any Party may, by written notice to the other Parties, change its designated notice recipient or notice address provided above.

117. Notices submitted pursuant to this Section shall be deemed submitted upon dispatch, unless otherwise provided in this Consent Decree or by mutual agreement of the Parties in writing.

XVIII. EFFECTIVE DATE

118. The Effective Date of this Consent Decree shall be the date upon which this Consent Decree is entered by the Court.

XIX. RETENTION OF JURISDICTION

119. The Court shall retain jurisdiction over this case until termination of this Consent Decree, for the purpose of resolving disputes arising under this Consent Decree or entering orders modifying this Consent Decree or effectuating or enforcing compliance with the terms of this Consent Decree.

XX. MODIFICATION

120. The terms of this Consent Decree may be modified only by a subsequent written agreement signed by all the Parties except as provided in the last sentence of this Section. Where the modification constitutes a material change to any term of this Consent Decree, it shall be effective only upon approval by the Court. Similarly, material changes to the terms and schedules contained in Appendices A through M, O and P of this Consent Decree may be modified only upon written agreement of the Parties with Court approval. Non-material modifications of those Appendices may be made as follows:

(a) Defendant shall give written notice of the proposed change to EPA and the State;

(b) The change shall become effective on the 31st day following dispatch of such notice, provided that prior to that day neither EPA nor the State has given written notice of objection to Defendant;

(c) If either EPA or the State gives written notice of objection within 30 days after dispatch of the notice, the proposed change shall become effective only with the written agreement of EPA, the State and Defendant.

XXI. TERMINATION

121. After Defendant has completed the injunctive relief contained in this Consent Decree, and complied with all other requirements of this Consent Decree, including those relating to the SEP required by Section IX of this Consent Decree and has paid the civil penalty

and any accrued Stipulated Penalties as required by this Consent Decree, Defendant may serve upon the United States and the State a Request for Termination, stating that Defendant has satisfied those requirements, together with all necessary supporting documentation.

122. Following receipt by the United States and the State of Defendant's Request for Termination, the Parties shall confer informally concerning the Request and any disagreement that the Parties may have as to whether Defendant has satisfactorily complied with the requirements for termination of this Consent Decree. If the United States after consultation with the State agrees that the Consent Decree may be terminated, the Parties shall submit, for the Court's approval, a joint stipulation terminating the Consent Decree.

123. If the United States after consultation with the State does not agree that the Consent Decree may be terminated, Defendant may invoke Dispute Resolution under Section XIII of this Consent Decree. However, Defendant shall not seek Dispute Resolution of any dispute regarding termination, under Section XIII, until 60 days after service of its Request for Termination.

124. At any time prior to termination of this Consent Decree in accordance with the preceding Paragraphs, Defendant may petition the United States and the State to terminate one or more of the specific requirements imposed by Paragraphs 11, 12, 15, 16, 17(ii), 19, 20 (first sentence only), 22, 28, 29, 30 and 32. To be entitled to terminate such a requirement, Defendant must demonstrate each of the following:

(i) It has been in continuous compliance with that requirement for a period of 24 consecutive months immediately prior to the date the petition is submitted.

(ii) It has, during the entire 24 month period in question, implemented a system of monitoring, inspections, testing and analysis or other measures as appropriate

that would have detected and recorded all violations of the requirement in question if any had occurred.

The petition must be supported by a writing certified in accordance with Paragraph 53 stating that the forgoing requirements have been met and describing the factual basis supporting that assertion. Defendant shall make available to the United States and the State on request any relevant, non-privileged documents, and shall make any employees with relevant knowledge available on request to the United States or the State for interviews. If the United States and the State both advise Defendant that they agree to the petition, the requirement at issue, and any notice, record keeping and stipulated penalty obligations that derive from that requirement, shall cease to be enforceable under this Decree as of the date of the petition. If either the United States or the State denies the petition, the requirement in question shall continue in effect. A failure by the United States or the State to act on the petition within 60 days of the date Defendant submitted the petition shall constitute disapproval by the sovereign that failed so to act. Defendant may seek review of a denial (whether by action or inaction) through the procedures of Section XIII (Dispute Resolution).

XXII. PUBLIC PARTICIPATION

125. This Consent Decree shall be lodged with the Court for a period of not less than 30 days for public notice and comment in accordance with 28 C.F.R. § 50.7. The United States reserves the right to withdraw or withhold its consent if the comments regarding the Consent Decree disclose facts or considerations indicating that the Consent Decree is inappropriate, improper, or inadequate. Defendant consents to entry of this Consent Decree without further notice.

XXIII. SIGNATORIES/SERVICE

126. Each undersigned representative of Defendant, the State and the Assistant Attorney General for the Environment and Natural Resources Division of the Department of Justice certifies that he or she is fully authorized to enter into the terms and conditions of this Consent Decree and to execute and legally bind the Party he or she represents to this document.

127. This Consent Decree may be signed in counterparts, and its validity shall not be challenged on that basis.

128. Defendant agrees not to oppose entry of this Consent Decree by the Court or to challenge any provision of the Consent Decree, unless the United States has notified Defendant in writing that it no longer supports entry of the Consent Decree.

129. Defendant agrees to accept service of process by mail with respect to all matters arising under or relating to this Consent Decree and to waive the formal service requirements set forth in Rules 4 and 5 of the Federal Rules of Civil Procedure and any applicable Local Rules of this Court including, but not limited to, service of a summons.

XXIV. INTEGRATION

130. This Consent Decree and its Appendices constitute the final, complete, and exclusive agreement and understanding among the Parties with respect to the settlement embodied in the Consent Decree and supersede all prior agreements and understandings, whether oral or written, concerning the settlement embodied herein. Other than the Appendices, which are attached to and incorporated in this Consent Decree, and deliverables that are subsequently submitted and approved pursuant to this Consent Decree, no other document, nor any representation, inducement, agreement, understanding, or promise, constitutes any part of this Consent Decree or the settlement it represents, nor shall it be used in construing the terms of this Consent Decree.

XXV. FINAL JUDGMENT

131. Upon approval and entry of this Consent Decree by the Court, this Consent Decree shall constitute a final judgment of the Court as to the United States, the State and Defendant.

XXVI. APPENDICES

132. The following appendices are attached to and incorporated into this Consent Decree:

Appendix A – Operator Training Program-RVCM Reduction

Appendix B – Layer of Protection Analysis

Appendix C – Vinyl Chloride Continuous Monitoring System Program

Appendix D – Manufacturer's Recommendations for Cooling Equipment

Appendix E – Waste Analysis and Management Plan

Appendix F – Hazardous Materials Contingency Plan

Appendix G – Lab Technician Training Program

Appendix H – TRI Estimation Method

Appendix I – E, H & S Incident Management Excerpt

Appendix J – Supplemental Environmental Project

Appendix K - RVCM Average Calculation

Appendix L- SPCC Plan

Appendix M - Total Suspended Solids Sampling and Testing Standard Operating Procedure Excerpt

Appendix N – Map of Facility

Appendix O – PVC Solids Management Plan

Appendix P – Model for Formosa/Delaware Agreement

Dated and entered this day of _____, ____.

UNITED STATES DISTRICT JUDGE
District of Delaware

WE HEREBY CONSENT to the entry of this Consent Decree, subject to the public notice and comment provisions of 28 C.F.R. § 50.7:

FOR PLAINTIFF UNITED STATES OF AMERICA (con't):

THOMAS V. SKINNER
Assistant Administrator
Office of Enforcement & Compliance Assurance
U.S. Environmental Protection Agency

WE HEREBY CONSENT to the entry of this Consent Decree subject to the public notice and comment provisions of 28 C.F.R. § 50.7:

FOR PLAINTIFF UNITED STATES OF AMERICA (con't):

DONALD S. WELSH
Regional Administrator
U.S. Environmental Protection Agency
Region III

SAMANTHA PHILLIPS FAIRCHILD
Director
Office of Compliance, Enforcement and
Environmental Justice
U.S. Environmental Protection Agency
Region III

WILLIAM C. EARLY
Regional Counsel
U.S. Environmental Protection Agency
Region III

JOYCE A. HOWELL
Senior Counsel
Office of Compliance, Enforcement and
Environmental Justice
U.S. Environmental Protection Agency
Region III

WE HEREBY CONSENT to the entry of this Consent Decree:


FOR PLAINTIFF THE DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL, an agency of the State of Delaware:

JOHN A. HUGHES
Secretary
Department of Natural Resources and
Environmental Control

KEVIN MALONEY
Deputy Attorney General
Delaware Department of Justice

WE HEREBY CONSENT to the entry of this Consent Decree:

**FOR DEFENDANT FORMOSA PLASTICS CORPORATION,
DELAWARE:**



ROBERT B.D. CHOU
Vice President
Formosa Plastics Corporation, Delaware

ROBERT W. WHETZEL
Richards, Layton & Finger, PA