CDR Systems Corporation
Palatka Plant
Facility ID No.: 1070031
Putnam County

Title V Air Operation Permit Revision

DRAFT Permit No.: 1070031-007-AV
Revision to Title V Air Operation Permit No.: 1070031-004-AV

Permitting and Compliance Authority:

State of Florida
Department of Environmental Protection
Northeast District Air Program
7825 Baymeadows Way, Suite B200
Jacksonville, Florida 32256-7590

Telephone: 904/807-3300
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Jacksonville, Florida 32256-7590

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146 South Atlantic Avenue
Ormond Beach, Florida 32176

DRAFT Permit No.: 1070031-007-AV
Facility ID No.: 1070031
SIC No(s).: 30
Project: Title V Air Operation Permit Revision

This permit revision is being reopened for the purpose of incorporating amendments to 40 CFR 63 Subpart WWWW, National Emission Standards for Hazardous Air Pollutants: Reinforced Plastics Composites Production. This existing facility is located at east of St. Johns Avenue, on Kay Larkin Drive, NW of Palatka, Putnam County; UTM Coordinates: Zone 17, 433.1 km East and 3280.6 km North; and, Latitude: 29°39'20" North and Longitude: 81°41'27" West.

This Title V Air Operation Permit Revision is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-210 and 62-213. The above named permittee is hereby authorized to operate the facility shown on the application and approved drawing(s), plans, and other documents, attached hereto or on file with the permitting authority, in accordance with the terms and conditions of this permit.

Referenced attachments made a part of this permit:
Appendix I-1, List of Insignificant Emissions Units and/or Activities
APPENDIX TV-5, TITLE V CONDITIONS version dated 03/28/05
Appendix WWWW, NESHAPs requirements in 40 CFR 63 Subpart WWWW

Initial Effective Date: May 2, 2003
Revision Effective Date:
Renewal Application Due Date: November 2, 2007
Expiration Date: May 2, 2008

_____
Christopher L. Kirts, P.E.
District Air Program Administrator

CLK/rfs

Section I. Facility Information.

Subsection A. Facility Description.

CDR Systems Corporation manufactures Polymer Concrete and Fiberglass Reinforced Plastics polyester utility enclosure using two basic processes with ten variations. There are no physical processing units to which operating rates can be linked. Emissions from the plant are fugitive.

Polymer Concrete (PC) is a blend of coarse sand, fine sand and a fine filler, or aggregates, mixed with an unsaturated polyester resin in styrene monomer along with other minor additives. After mixing and placing in a mold, the PC hardens to an inert solid article, taking the shape of the mold. Under ideal conditions, all of the unsaturated polyester resin and the styrene polymerize to form the hardened plastics that in turn acts as binder to hold the aggregates together. During processing, the styrene containing resin is exposed to air for a period of time during which some of the styrene evaporates producing styrene emissions. The facility manufactures PC under four alternate methods of operations using different combinations of closed or open molded, and machine or hand mixed processes.

Fiberglass Reinforced Plastics (FRP) is fabricated from liquid polyester resin reinforced with glass fibers. With hand lay-up, the reinforcement is manually fitted to a mold wetted with catalyzed resin mix, after which it is saturated with more resin. The reinforcement is in the form of either fiberglass mat or a woven fabric. Layers of reinforcement and resin are added to build the desired laminate thickness. Squeegees, brushes, and rollers are used to smooth out and compact each layer as it is applied. With mechanical non-atomized application, a mechanical fluid delivery system, in this case the flow coater or the injection gun, is employed to apply resin to the glass reinforcement without atomizing the resin fluid stream. In most cases, the mixing, applying and curing are taken place with open molds, which is called open molded process, and styrene emissions occur during those processes. The closed molding process is vacuum bag molding, in which the surface is covered with a plastic film and vacuum is applied before rolling and styrene emissions are significantly reduced. The facility manufactures FRP under four alternate methods of operations using different combinations of closed or open molded, and machine or hand wetout processes.

Two processes involve using a non-atomizing gel coat spraying gun and a non-atomizing fiberglass chopping gun, which may involve either spraying a weather and UV light resistant gel coat onto a mold followed by chopping layers of structural fiberglass over the gel coat or chopping structural fiberglass onto a mold by spraying on a final layer of gel coat. Both these processes are carried out sequentially in one exhaust booth, and particulate matter emissions are controlled by a filter. Because Methyl Methacrylate is used as monomer in the gel coating operation in addition to styrene, Methyl Methacrylate and styrene emissions will occur during mixing, spraying, and curing.

Also included in this permit are insignificant emissions units and/or activities.

Based on the Title V Air Operation Permit Renewal application received August 16, 2002, this facility is a major source of hazardous air pollutants (HAPs).

Please reference the Permit No., Facility ID No., and appropriate Emissions Unit(s) ID No(s). on all correspondence, test report submittals, applications, etc.

Subsection B. Summary of Emissions Unit ID No(s). and Brief Description(s).

E.U. ID No.	Brief Description
001	Polymer Concrete & Fiberglass Reinforced Plastic Processes

Subsection C. Relevant Documents.

The documents listed below are not a part of this permit; however, they are specifically related to this permitting action.

These documents are provided to the permittee for information purposes only:
Table 1-1: Summary of Air Pollutant Standards and Terms
Table 2-1: Summary of Compliance Requirements
Appendix A-1, Abbreviations, Acronyms, Citations, and Identification Numbers
Appendix H-1, Permit History
Statement of Basis

These documents are on file with the permitting authority:
Title V Air Operation Permit Renewal issued May 6, 2003

Section II. Facility-wide Conditions.

The following conditions apply facility-wide:

1. APPENDIX TV-5, TITLE V CONDITIONS, is a part of this permit.
{Permitting note: APPENDIX TV-5, TITLE V CONDITIONS, is distributed to the permittee only. Other persons requesting copies of these conditions shall be provided a copy when requested or otherwise appropriate.}

2. General Pollutant Emission Limiting Standards. Objectionable Odor Prohibited. No person shall cause, suffer, allow, or permit the discharge of air pollutants that cause or contribute to an objectionable odor.
[Rule 62-296.320(2), F.A.C.]

3. General Particulate Emission Limiting Standards. General Visible Emissions Standard. Except for emissions units that are subject to a particulate matter or opacity limit set forth or established by rule and reflected by conditions in this permit, no person shall cause, let, permit, suffer or allow to be discharged into the atmosphere the emissions of air pollutants from any activity, the density of which is equal to or greater than that designated as Number 1 on the Ringelmann Chart (20 percent opacity). EPA Method 9 is the method of compliance pursuant to Chapter 62-297, F.A.C.
[Rules 62-296.320(4)(b)1. & 4., F.A.C.]

4. Special Compliance Tests. When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it shall require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the Department.
[Rule 62-297.310(7), F.A.C.; and, SIP approved]

5. Prevention of Accidental Releases (Section 112(r) of CAA).
a. The permittee shall submit its Risk Management Plan (RMP) to the Chemical Emergency Preparedness and Prevention Office (CEPPO) RMP Reporting Center when, and if, such requirement becomes applicable. Any Risk Management Plans, original submittals, revisions or updates to submittals, should be sent to:

RMP Reporting Center
Post Office Box 1515
Lanham-Seabrook, Maryland 20703-1515
Telephone: 301-429-5018

and,
b. The permittee shall submit to the permitting authority Title V certification forms or a compliance schedule in accordance with Rule 62-213.440(2), F.A.C.
[40 CFR 68]

6. Insignificant Emissions Units and/or Activities. Appendix I-1, List of Insignificant Emissions Units and/or Activities, is a part of this permit.
[Rules 62-213.440(1), 62-213.430(6) and 62-4.040(1)(b), F.A.C.]

7. General Pollutant Emission Limiting Standards. Volatile Organic Compounds Emissions or Organic Solvents Emissions. The permittee shall allow no person to store, pump, handle, process, load, unload or use in any process or installation, volatile organic compounds or organic solvents without applying known and existing vapor emission control devices or systems deemed necessary and ordered by the Department.

The following requirements are "not federally enforceable":

1. All solvents and raw materials are to be stored and handled in appropriate containers equipped with tight fitting lids.
2. Good housekeeping and continuously training personnel.
3. Continuously research new products that will allow reductions in solvent usage and new production methods or techniques that reduce the overall VOC emissions from the facility.

[Rule 62-296.320(1)(a), F.A.C.; and, proposed by applicant in the initial Title V Air Operation Permit application received June 14, 1996]

8. Emissions of Unconfined Particulate Matter. Pursuant to Rules 62-296.320(4)(c)1., 3. & 4., F.A.C., reasonable precautions to prevent emissions of unconfined particulate matter at this facility include the following requirements (see Condition 57. of APPENDIX TV-5, TITLE V CONDITIONS):

The following requirements are "not federally enforceable":

1. Paving of roads and other traffic areas in the facility. High traffic and work areas are paved in this facility.
2. General good housekeeping to reduce the amount of uncontrolled material around the facility. This includes periodic sweeping of areas with a vacuum sweeper vehicle. There is also a plant awareness to keep work areas clean of debris build up.
3. Mechanical conveyer systems are covered if necessary to reduce fugitive emissions.

[Rule 62-296.320(4)(c)2., F.A.C.; and, proposed by the applicant in the initial Title V permit application received June 14, 1996]

9. When appropriate, any recording, monitoring, or reporting requirements that are time-specific shall be in accordance with the effective date of the permit, which defines day one.
[Rule 62-213.440, F.A.C.]

10. Monitoring Reports. The permittee shall submit reports of any required monitoring at least every six (6) months. All instances of deviations from permit requirements must be clearly identified in such reports.
[Rule 62-213.440(1)(b)3.a., F.A.C.]

{Permitting Note: This condition implements the requirements of Rules 62-213.440(1)(b)3., F.A.C. (see Condition 43. of APPENDIX TV-5, TITLE V CONDITIONS.}"

11. Statement of Compliance. The annual statement of compliance pursuant to Rule 62-213.440(3)(a)2., F.A.C., shall be submitted to the Department and EPA within 60 (sixty) days after the end of the calendar year using DEP Form No. 62-213.900(7), F.A.C.
[Rules 62-213.440(3) and 62-213.900, F.A.C.]

{Permitting Note: This condition implements the requirements of Rules 62-213.440(3)(a)2. & 3., F.A.C. (see Condition 51. of APPENDIX TV-5, TITLE V CONDITIONS)}

12. The permittee shall submit all compliance related notifications and reports required of this permit to the Department's Northeast District, Air Section.

Department of Environmental Protection
Northeast District Air Program
7825 Baymeadows Way, Suite B200
Jacksonville, Florida 32256-7590
Telephone: 904/807-3300; FAX: 904/448-4363

13. Any reports, data, notifications, certifications, and requests required to be sent to the United States Environmental Protection Agency, Region 4, should be sent to:

United States Environmental Protection Agency
Region 4
Air, Pesticides & Toxics Management Division
Air and EPCRA Enforcement Branch
Air Enforcement Section
61 Forsyth Street
Atlanta, Georgia 30303-8960
Telephone: 404/562-9155; Fax: 404/562-9163

14. Certification by Responsible Official (RO). In addition to the professional engineering certification required for applications by Rule 62-4.050(3), F.A.C., any application form, report, compliance statement, compliance plan and compliance schedule submitted pursuant to Chapter 62-213, F.A.C., shall contain a certification signed by a responsible official that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. Any responsible official who fails to submit any required information or who has submitted incorrect information shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary information or correct information.
[Rule 62-213.420(4), F.A.C.]

Section III. Emissions Unit(s) and Conditions.

Subsection A. This section addresses the following emissions unit(s).

E.U. ID No.	Brief Description
001	Polymer Concrete & Fiberglass Reinforced Plastic Processes

Emission Unit 001 identifies PC (Polymer Concrete) and FRP (Fiberglass Reinforced Plastics) processes using two basic processes with ten variations. There are no physical processing units to which operating rates can be linked. Emissions are fugitive.

{Permitting note(s): This emissions unit is regulated under Rule 62-213, F.A.C., Operation Permits for Major Sources of Air Pollution. This emissions unit must comply with NESHAP - 40 CFR 63 Subpart WWWW by April 21, 2006, adopted and incorporated by reference in Rule 62-204.800, F.A.C.}

The following specific conditions apply to the emissions unit(s) listed above:

Essential Potential to Emit (PTE) Parameters

A.1. Permitted Capacity. The process rate shall not exceed 9,000 TPY of finished products.
[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.]

A.2. Alternate Methods of Operation. This Emissions Unit shall be operated in any of the following eight Methods of Operation:

Alternate Method Number	Description
001	Closed Molded, Machine Mixed PC
002	Open Molded, Hand Mixed PC
003	Closed Molded, Hand Mixed PC
004	Open Molded, Machine Mixed PC
005	Hand Lay-up, Manual Wetout FRP
006	Hand Lay-up, Machine Wetout FRP
007	Manual Wetout, Closed Molded FRP
008	Machine Wetout, Closed Molded FRP
009	Fiberglass Chopping
010	Gel Coating

[Rule 62-213.420(3)(j), F.A.C. and Construction permit No. 1070031-005-AC]

A.3. Hours of Operation. This emissions unit is allowed to operate continuously, i.e., 8,760 hours/year.
[Rule 62-210.200(PTE), F.A.C.]

Emission Limitations and Standards

{Permitting note: Table 1-1, Summary of Air Pollutant Standards and Terms, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

A.4. HAPs Emissions:

1) Total HAPs emissions including Styrene and Methyl Methacrylate from the Alternate Methods of Operation 009 & 010 shall not exceed 10 tons per consecutive 12 months.

2) Total HAPs emissions including Styrene and Methyl Methacrylate from the facility shall not exceed 70 tons per consecutive 12 months.

[Title V Air Operation Permit No. 1070031-003-AV and Construction permit No. 1070031-005-AC]

Test Methods and Procedures

{Permitting note: Table 2-1, Summary of Compliance Requirements, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

Recordkeeping Requirements

A.5. The owner or operator shall record the following data for each process used at the facility that contains Styrene and Methyl Methacrylate:

- Material balance reports
- Tons of final product processed by the facility
- Styrene and Methyl Methacrylate emissions [Ton/ any 12-month consecutive period]
- Manufacturer's certification of styrene and Methyl Methacrylate contents
- Bulk resin and Specialty resin usage records

and calculate Styrene and Methyl Methacrylate emissions in ton/yr using the most updated Emission Factors for each process as follows:

Alternate Method Number	Emission Factor
001	1.5% styrene **(Note 1)**
002	3.0% styrene **(Note 1)**
003	2.0% styrene **(Note 1)**
004	2.0% styrene **(Note 1)**
005	13.5% styrene **(Note 2)**
006	11.0% styrene **(Note 2)**
007	6.7% styrene **(Note 2)**
008	6.0% styrene **(Note 2)**

Alternate Method Number	Emission Factor
009	11.0% styrene **(Note 2)**
010	11.4% resin **(Note 2)**
	2.25% resin **(Note 2)**

Note 1: From AP-42. Although Section 4.4 of AP-42 was removed from EPA website, the emissions factors for **polymer casting are still valid.**
Note 2: From Composites Fabricators Association Unified Emission Factor

[Title V Air Operation Permit No. 1070031-003-AV and Construction Permit No. 1070031-005-AC]

A.6. Compliance with Specific Condition A.4. shall be determined by recording Styrene and Methyl Methacrylate emissions for Process 9 & 10 and facility-wide. This shall be based on material balance reports. The Emissions Report shall also include the following at a minimum:

- Material balance reports
- Tons of final product processed by the facility
- Styrene and Methyl Methacrylate emissions For Process 9 & 10 and facility-wide [Ton/ any 12-month consecutive period]

[Title V Air Operation Permit No. 1070031-003-AV and Construction Permit No. 1070031-005-AC]

Reporting Requirements

A.7. A DEP Form No. 62-210.900(5), "Annual Operating Report for Air Pollutant Emitting Facility", shall be completed for each calendar year on or before March 1 of the following calendar year and submitted to the air compliance section of this office.
[Rule 62-210.370(3), F.A.C.]

A.8. The Emissions Report required by Specific Condition A.6. shall be submitted to the Northeast District Office on a semi-annual basis. All semi-annual reports shall be postmarked no later than the 45th day following the end of the reporting period defined below:

Reporting Period	Report Due Date
January – June	August 15
July – December	March 1[1]

[1]The annual operating report for that calendar year shall be submitted in lieu of the July -December semi-annual report. The second semi-annual report shall be due on March 1 of the following calendar year (Same date as the AOR).

[Rules 62-4.070(3); 62-213.440, F.A.C.]

NESHAPs Requirements

A.9. 40 CFR 63, Subpart WWWW Requirements: The owner or operator of an existing affected source must comply with the requirements in Subsection B. National Emissions Standards for Hazardous Air Pollutants (NESHAPs) for Reinforced Plastic Composites Production of Subpart WWWW in 40 CFR 63 by April 21, 2006. Facilities meeting an organic HAP emissions standard based on a 12-month rolling average must begin collecting data on the compliance date in order to demonstrate compliance.
[Rule 62-213.440(1), F.A.C.; 40 CFR 63.5800 and 63.5840]

Subsection B. 40 CFR 63, Subpart WWWW

E.U. ID No.	Brief Description
001	Polymer Concrete & Fiberglass Reinforced Plastic Processes

B.0. The permittee shall comply with the following requirements of 40 CFR Part 63, Subpart WWWW by the dates specified in Table 2. Facilities meeting an organic HAP emissions standard based on a 12-month rolling average must begin collecting data on the compliance date in order to demonstrate compliance.
[40 CFR 63.5800]

The following specific conditions apply to the emissions unit listed above:

B.1. The permittee shall comply with the applicable requirements of 40 CFR 63, Subpart WWWW – National Emissions Standards for Hazardous Air Pollutants (NESHAPs) for Reinforced Plastic Composites Production (Attached).

B.2. This facility shall also comply with the General Provisions of 40 CFR 63 Subpart A, as applicable.