

**AIR EMISSION PERMIT NO. 09700025-002
(AQD NO. 2311-99-I/O-1)
FOR THE CONSTRUCTION AND OPERATION
OF ADDITIONAL BOAT DECK AND HULL LAMINATION LINES
IS ISSUED TO**

GENMAR INDUSTRIES, INC.
100 South 5th Street, Suite 2400
Minneapolis, Minnesota 55402

The emission units, control equipment and emission stacks at the stationary source authorized in this permit are described in the following permit applications:

Permit Type	Application Date
Total Facility FlexCap Operating Permit	June 15, 1995
Major Amendment	July 23, 1999

The Permittee is issued an Air Emission Permit by the Minnesota Pollution Control Agency (MPCA). The permit authorizes the Permittee to modify the stationary source located at 700 Paul Larson Memorial Drive, in Little Falls, Morrison County, Minnesota.

The permit authorizes a change in the calculation method used in determining compliance with a facility-wide emissions limit for volatile organic compounds, particulate matter and particulate matter smaller than ten microns; and also authorizes the construction and operation of two additional boat deck and hull lamination lines and under the conditions set forth herein. The Permittee must comply with all the conditions of the permit. Any changes or modifications to the stationary source must be made in compliance with Minn. R. 7007.1150 to 7007.1500. Terms used in the permit are as defined in the state air pollution control rules, unless the term is explicitly defined in the permit.

Permit Type: Major Amendment; Synthetic Minor under 40 CFR §§ 63.40 to 63.44

Issue Date: <u>September 28, 1998</u>	Major Amendment
	Issue Date: <u>November 29, 1999</u>

Expiration: Upon issuance of a Total Facility Permit

Donald Smith for

Rodney E. Massey
Manager
South District
for
Karen A. Studders
Commissioner
Minnesota Pollution Control Agency

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NOTICE TO THE PERMITTEE:

Your stationary source may be subject to the requirements of the MPCA's solid waste, hazardous waste, and water quality programs. If you wish to obtain information on these programs, including information on obtaining any required permits, please contact the MPCA general information number at:

Metro Area (651) 296-6300

Outside Metro Area (800) 657-3864

TTY (651) 282-5332

The rules governing these programs are contained in Minn. R. chs. 7000-7105. Written questions may be sent to: Minnesota Pollution Control Agency, 520 Lafayette Road North, St. Paul, Minnesota 55155-4194.

Questions about this air emission permit or about air quality requirements can also be directed to the telephone numbers and address listed above.

PERMIT SHIELD:

Subject to the limitations in Minn. R. 7007.1800, compliance with the conditions of this permit shall be deemed compliance with the specific provisions of the applicable requirements identified in the permit as the basis of each condition.

FACILITY DESCRIPTION:

Larson-Glastron is a fiberglass boat manufacturing facility. This stationary source consists of six buildings, numbered one through six. Spray guns are used to apply fiberglass/resin, gelcoat and paint to open molds during boat hull and deck production. Other types of guns are used during gluing operations and foam seat production, and several woodshops prepare wooden parts for the boat interiors. Pre-assembled engines and various electronic components are purchased and installed at the facility. Buildings are heated with furnaces fueled by natural gas and propane.

MODIFICATION DESCRIPTION:

This permit amendment authorizes:

- A change in the calculation method used in demonstrating compliance with a facility-wide New Source Review cap based upon an evaluation of the best currently available emissions data for this type of manufacturing facility;
- The installation of two groups of emission units made up of two new boat mold processes, and eight additional gelcoat sprayguns, assigned emission unit ID numbers 113-122, and;
- The replacement and relocation of the listed emission units, and the addition of new emission units.

For the proposed modification, the Permittee is planning to adopt federally enforceable synthetic minor limits of nine tons/year for a single hazardous air pollutant (HAP), and 25 tons/year for combined HAPs. The limits will be adopted so that the installation of each group of the new emission units remains a non-major source under 40 CFR §§ 63.40 to 63.44 (Section 112(g) of the Clean Air Act). Emissions from the new equipment will be tracked directly from usage and delivery/purchase records.

TABLE A: LIMITS AND OTHER REQUIREMENTS

11/29/99

Facility Name: Larson-Glastron Boats Inc

Permit Number: 09700025 - 002

Table A contains limits and other requirements with which your facility must comply. The limits are located in the first column of the table (What To do). The limits can be emission limits or operational limits. This column also contains the actions that you must take and the records you must keep to show that you are complying with the limits. The second column of Table A (Why to do it) lists the regulatory basis for these limits. Appendices included as conditions of your permit are listed in Table A under total facility requirements.

Subject Item: Total Facility

What to do	Why to do it
A. VOC/PM/PM10 FLEX CAP EMISSION LIMITS	hdr
Total Particulate Matter: less than or equal to 90 tons/year using 12-month Rolling Sum on a monthly basis as specified below in Equation 1.	Title I Condition: Limit to avoid major source and modification classification under 40 CFR pt. 52.21.
Equation 1: $PM = [(PfgEFfg) + (PgcCgc((100 - TEgc) / 100)((100 - \%control) / 100)) + (PpCp((100 - TEp) / 100)((100 - \%control) / 100)) + (PfngEFfng) + (PfpEFfp)] \times (0.0005)$ Where, Pfg = amount of fiberglass purchased for spray-up operations, lb/month EFfg = PM emission factor from fiberglass chopping process, 0.005 percent weight Pgc = amount of gelcoat purchased, lb/month Cgc = percent composition of PM in Pgc as applied, 70 percent weight TEgc = gelcoating transfer efficiency, 45 percent Pp = amount of paint purchased, lb/month Cp = percent composition of PM in Pp as applied, 55 percent weight TEp = painting transfer efficiency, 30 percent	Title I Condition: Recordkeeping for limit to avoid major source and modification classification under 40 CFR pt. 52.21.
and where, Pfng = amount of natural gas burned as delivered/purchased, MM cf/month EFfng = PM emission factor for natural gas burning furnaces, 6.2 lb/MM cf Pfp = amount of propane burned as delivered/purchased, M gal/month EFfp = PM emission factor for propane burning furnaces, 0.6 lb/M gal %control = control efficiency of the particulate control equipment with 100% capture 0.0005 = conversion factor, ton/lb	Title I Condition: Recordkeeping for limit to avoid major source and modification classification under 40 CFR pt. 52.21 (continued).
Particulate Matter < 10 micron: less than or equal to 90 tons/year using 12-month Rolling Sum on a monthly basis as specified below in Equation 2.	Title I Condition: Limit to avoid major source and modification classification under 40 CFR pt. 52.21.
Equation 2: $PM10 = [(PfgEFfg) + (PgcCgc((100 - TEgc) / 100)((100 - \%control) / 100)) + (PpCp((100 - TEp) / 100)((100 - \%control) / 100)) + (PfngEFfng) + (PfpEFfp)] \times (0.0005)$ Where, Pfg = amount of fiberglass purchased for spray-up operations, lb/month EFfg = PM10 emission factor from fiberglass chopping process, 0.005 percent weight Pgc = amount of gelcoat purchased, lb/month Cgc = percent composition of PM10 in Pgc as applied, 70 percent weight TEgc = gelcoating transfer efficiency, 45 percent Pp = amount of paint purchased, lb/month Cp = percent composition of PM10 in Pp as applied, 55 percent weight TEp = painting transfer efficiency, 30 percent	Title I Condition: Recordkeeping for limit to avoid major source and modification classification under 40 CFR pt. 52.21.
and where, Pfng = amount of natural gas burned as delivered/purchased, MM cf/month EFfng = PM10 emission factor for natural gas burning furnaces, 6.2 lb/MM cf Pfp = amount of propane burned as delivered/purchased, M gal/month EFfp = PM10 emission factor for propane burning furnaces, 0.6 lb/M gal %control = control efficiency of the particulate control equipment with 100% capture 0.0005 = conversion factor, ton/lb	Title I Condition: Recordkeeping for limit to avoid major source and modification classification under 40 CFR pt. 52.21 (continued).
Volatile Organic Compounds: less than or equal to 245 tons/year using 12-month Rolling Sum on a monthly basis as specified below in Equation 3.	Title I Condition: Limit to avoid major source and modification classification under 40 CFR pt. 52.21.

TABLE A: LIMITS AND OTHER REQUIREMENTS

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Facility Name: Larson-Glastron Boats Inc

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<p>Equation 3: $\text{VOC} = [(\text{UrCrEFrs}) + (\text{UrCrEFrcm}) + (\text{PgcCgcEFgcvns}) + (\text{PgcCgcEFgcnvs}) + (\text{PpCp}) + (\text{PhpChpEFhp}) + (\text{VOCff}) + (\text{PmCm}) + (\text{PfngEFfng}) + (\text{PfpEFfp})] \times (0.0005)$</p> <p>Where, Ur = amount of VOC containing resin as used by process, lb/month Cr = percent composition of VOC in Ur as applied, percent weight EFrs = emission factor for spray layup of non-vapor-suppressed resin as referenced in Appendix A of this Permit, or latest EPA-approved emission factor, as appropriate (lb/lb monomer) EFrcm = emission factor for closed molding of non-vapor-suppressed resin as referenced in Appendix A of this Permit, or latest EPA-approved emission factor, as appropriate (lb/lb monomer)</p>	<p>Title I Condition: Limit to avoid major source and modification classification under 40 CFR pt. 52.21.</p>
<p>and where,</p> <p>Pgc = amount of VOC containing gelcoat as delivered/purchased, lb/month Cgc = percent composition of VOC in Pgc as applied, percent weight EFgcvns = emission factors for spray layup of vapor-suppressed gelcoat as referenced in Appendix A of this Permit or latest EPA-approved emission factor, as appropriate (lb/lb monomer) EFgcnvs = emission factors for spray layup of non-vapor-suppressed gelcoat as referenced in Appendix A of this Permit or latest EPA-approved emission factor, as appropriate (lb/lb monomer)</p>	<p>(continued from above)</p>
<p>and where,</p> <p>s: spray layup application cm: closed molding application vs: vapor-suppressed nvs: non-vapor-suppressed</p>	<p>(continued from above)</p>
<p>and where,</p> <p>Pp = amount of VOC-containing paint as delivered/purchased, lb/month Cp = percent composition of VOC in Pp as applied, percent weight Php = amount of VOC-containing hand-applied putty as delivered/purchased, lb/month Chp = percent composition of VOC in Php as applied, percent weight EFhp = emission factor for non-vapor-suppressed hand layup of putty, 0.13 lb/lb monomer VOCff = amount of fugitive VOC emissions from foam seat process, lb/month Pm = amount of miscellaneous VOC-containing materials as delivered/purchased, lb/month Cm = percent composition of VOC in Pm as applied, percent weight Pfng = amount of natural gas burned as delivered/purchased, MM cf/month EFfng = emission factor for natural gas burning furnaces, 2.784 lb/MM cf Pfp = amount of propane burned as delivered/purchased, M gal/month EFfp = emission factor for propane burning furnaces, 0.5lb/M gal 0.0005 = conversion factor, lb/ton</p>	<p>(continued from above)</p>
<p>The Permittee shall calculate the 12-month Rolling Sum each month for PM, PM10 and VOC emissions. The calculations must be completed by the 15th day of each month for the preceding month. The 12-month Rolling Sum shall be calculated by adding the total emissions of the current month (in tons) to the sum of the previous eleven months' total emissions (in tons).</p>	<p>Title I Condition: Monitoring for limit to avoid classification as a major source or modification under 40 CFR Section 52.21 and 40 CFR pt. 51, Appendix S, where applicable</p>
<p>For the first 11 months after this permit is issued, the Permittee shall calculate the 12-month Rolling Sum using the previous 11 months of monthly fuel and materials used or purchased (determined prior to permit issuance). All calculations and usages shall be based on verifiable records maintained by the Permittee.</p>	<p>Title I Condition: Monitoring for limit to avoid classification as a major source or modification under 40 CFR Section 52.21 and 40 CFR pt. 51, Appendix S, where applicable</p>
<p>The Permittee shall not begin construction of any single project or projects that are connected or phased which will cause a total increase in actual emissions of greater than 99 tons per year VOC without first getting a permit amendment to authorize the project. Connected and phased have meanings as defined in Minn. R. 4410.0200, subps. 9(b) and 60. Such projects(s) may require the completion of an Environmental Assessment Worksheet prior to the amendment being issued.</p>	<p>Minn. Stat. 116D.04, subd. 2b. Minn. R. 4410.3100, subp. 1</p>
<p>B. NESHAP REQUIREMENTS</p>	<p>hdr</p>
<p>The Permittee shall comply with the Maximum Achievable Control Technology (MACT) Standard for Fiberglass Boat Manufacturing scheduled for promulgation November 15, 2000.</p>	<p>40 CFR pt. 63</p>
<p>The Permittee shall not "construct or reconstruct" a major source of hazardous air pollutants as defined in 40 CFR part 63, subpart B, section 63.2 without first obtaining a preconstruction permit.</p>	<p>Title I Condition: Limit to avoid 40 CFR part 63, Sections 63.40 to 63.44 and Minn. R. 7007.3010.</p>
<p>C. OPERATIONAL REQUIREMENTS</p>	<p>hdr</p>

TABLE A: LIMITS AND OTHER REQUIREMENTS

11/29/99

Facility Name: Larson-Glastron Boats Inc

Permit Number: 09700025 - 002

Operation and Maintenance Plan: Retain at the stationary source an operation and maintenance plan for all air pollution control equipment.	Minn. R. 7007.0800, subp. 14 and Minn. R. 7007.0800, subp. 16(J)
Circumvention: Do not install or use a device or means that conceals or dilutes emissions, which would otherwise violate a federal or state air pollution control rule, without reducing the total amount of pollutant emitted.	Minn. R. 7011.0020
Air Pollution Control Equipment: Operate all pollution control equipment whenever the corresponding process equipment and emission units are operated, unless otherwise noted in Table A.	Minn. R. 7007.0800, subp. 2; Minn. R. 7007.0800, subp. 16(J)
Fugitive Emissions: Do not cause or permit the handling, use, transporting, or storage of any material in a manner which may allow avoidable amounts of particulate matter to become airborne. Comply with all other requirements listed in Minn. R. 7011.0150.	Minn. R. 7011.0150
Noise: The Permittee shall comply with the noise standards set forth in Minn. R. 7030.0010 to 7030.0080 at all times during the operation of any emission units. This is a state only requirement and is not enforceable by the Administrator or citizens under the Clean Air Act..	Minn. R. 7030.0010 - 7030.0080
The Permittee shall comply with the General Conditions listed in Minn. R. 7007.0800, subp. 16	Minn. R. 7007.0800, subp. 16
Inspections: Upon presentation of credentials and other documents as may be required by law, allow the Agency, or its representative, to enter the Permittee's premises to have access to and copy any records required by this permit, to inspect at reasonable times (which include any time the source is operating) any facilities, equipment, practices or operations, and to sample or monitor any substances or parameters at any location.	Minn. R. 7007.0800, subp. 9(A)
D. NOTIFICATION REQUIREMENTS	hdr
Shutdowns: Notify the Commissioner at least 24 hours in advance of a planned shutdown of any control equipment or process equipment if the shutdown would cause any increase in the emissions of any regulated air pollutant. If the owner or operator does not have advance knowledge of the shutdown, notification shall be made to the Commissioner as soon as possible after the shutdown. However, notification is not required in the circumstances outlined in Items A, B and C of Minn. R. 7019.1000, subp. 3. At the time of notification, the owner or operator shall inform the Commissioner of the cause of the shutdown and the estimated duration. The owner or operator shall notify the Commissioner when the shutdown is over.	Minn. R. 7019.1000, subp. 3
Breakdowns: Notify the Commissioner within 24 hours of a breakdown of more than one hour duration of any control equipment or process equipment if the breakdown causes any increase in the emissions of any regulated air pollutant. The 24-hour time period starts when the breakdown was discovered or reasonably should have been discovered by the owner or operator. However, notification is not required in the circumstances outlined in Items A, B and C of Minn. R. 7019.1000, subp. 2. At the time of notification or as soon as possible thereafter, the owner or operator shall inform the Commissioner of the cause of the breakdown and the estimated duration. The owner or operator shall notify the Commissioner when the breakdown is over.	Minn. R. 7019.1000, subp. 2
Notification of Deviations Endangering Human Health or the Environment: In the event of any deviation, as defined in part 7007.0100, subpart 8a, which could endanger human health or the environment, notify, orally or by facsimile, the commissioner or the state duty officer as soon as possible after discovery of the deviation. Within two working days of the discovery, submit to the commissioner a written description of the deviation stating: A. the cause of the deviation; B. the exact dates of the period of the deviation, if the deviation has been corrected; C. whether or not the deviation has been corrected; D. the anticipated time by which the deviation is expected to be corrected, if not yet corrected; and E. steps taken or planned to reduce, eliminate, and prevent reoccurrence of the deviation.	Minn. R. 7007.0800, subp. 6(A) and Minn. R. 7019.1000, subp. 1
See Table B for additional notification requirements.	hdr
E. MONITORING REQUIREMENTS	hdr
Monitoring Equipment: Install or make needed repairs to monitoring equipment within 60 days of issuance of the permit if monitoring equipment is not installed and operational on the date the permit is issued. This requirement shall apply to the monitoring equipment used for weight measurement on the facility's base resin tanks which includes sight glasses, flow meters and/or scales.	Minn. R. 7007.0800, subp. 4(D)

TABLE A: LIMITS AND OTHER REQUIREMENTS

11/29/99

Facility Name: Larson-Glastron Boats Inc

Permit Number: 09700025 - 002

Monitoring Equipment Calibration: Annually calibrate all required monitoring equipment. This requirement shall apply to the equipment used for monitoring the weight of base resin in the facility's resin storage tanks which includes sight glasses, flow meters and/or scales.	Minn. R. 7007.0800, subp. 4(D)
Operation of Monitoring Equipment: Unless otherwise noted in Tables A, B, and/or C, monitoring a process or control equipment connected to that process is not necessary during periods when the process is shutdown, or during checks of the monitoring systems, such as calibration checks and zero and span adjustments. If monitoring records are required, they should reflect any such periods of process shutdown or checks of the monitoring system	Minn. R. 7007.0800, subp. 4(D)
F. RECORDKEEPING REQUIREMENTS	hdr
Equipment List: The Permittee shall maintain a written list of all emission units on site that are not insignificant activities. The list shall include the type of equipment; identifying number; dates of installation, modification and/or reconstruction; and reference to applicable Standards of Performance for New Stationary Sources (40 CFR pt. 60) and National Emission Standards for Hazardous Air Pollutants (40 CFR pt. 63).	Title I Condition: Record keeping for limit to avoid classification as a major source or modification under 40 CFR Section 52.21 and 40 CFR pt. 51, Appendix S, where applicable
Updating the Equipment List: The list shall be updated to include new or modified equipment before making a change. New emission units may be installed if they are of a type already listed in this permit, and existing units may be modified or moved, without obtaining a permit amendment, provided total facility emissions remain within the limits specified in the permit.	Title I Condition: Record keeping for limit to avoid classification as a major source or modification under 40 CFR Section 52.21 and 40 CFR pt. 51, Appendix S, where applicable
Record keeping: The Permittee shall maintain records of the total amount of resins used during each month of operation as specified below in Resin Usage: Equation 4, based on sight glass, flow meter or scale readings. These records shall be used to calculate the monthly totals and 12-month rolling sums as required by other parts of this permit.	Title I Condition: Record keeping for limit to avoid classification as a major source or modification under 40 CFR Section 52.21 and 40 CFR pt. 51, Appendix S, where applicable.
Resin Usage: Actual resin usage each month shall be determined using Equation 4 below. Equation 4: $Ur = Urst + Urdp - Urlo$ Where, Ur = total amount of VOC-containing resin as used, lb/month $Urst$ = quantity of resin inventoried at the start of each month using flow meter, sight glass or scale readings for each storage tank, lb/month $Urdp$ = quantity of resin delivered to the facility during the month based upon delivery and/or purchase records, lb/month $Urlo$ = quantity of resin left over at the start of the following month using flow meter, sight glass or scale readings for each storage tank, lb/month	Title I Condition: Record keeping for limit to avoid classification as a major source or modification under 40 CFR Section 52.21 and 40 CFR pt. 51, Appendix S, where applicable
Record keeping: The Permittee shall maintain records of the total amount of all VOC containing material, other than resins, used each month based on purchase records. These records shall be used to calculate the monthly totals and 12-month rolling sums as required by other parts of this permit.	Title I Condition: Record keeping for limit to avoid classification as a major source or modification under 40 CFR Section 52.21 and 40 CFR pt. 51, Appendix S, where applicable
Record keeping: For PM/PM10, and VOC, the solids and VOC content of purchased materials shall be determined by the Material Safety Data Sheet (MSDS) provided by the supplier for each material used. If a material content range is given on the MSDS, all compliance calculations must use either the highest number in the range, or the Permittee shall obtain a certification from the supplier as to the accuracy of the MSDS, and the material's exact solids and VOC content shall be used. Other methods approved by the MPCA may be used to determine the material content. The Division Manager reserves the right to require the Permittee to take samples of the materials, and to conduct analysis of material content using EPA reference methods. If an EPA reference method is used for material content determination, the data obtained shall supercede the MSDS.	Title I Condition: Record keeping for limit to avoid classification as a major source or modification under 40 CFR Section 52.21 and 40 CFR pt. 51, Appendix S, where applicable
Record keeping: Maintain records describing any insignificant modifications (as required by Minn. R. 7007. 1250, subp. 3) or changes contravening permit terms (as required by Minn. R. 7007.1350 subp. 2), including records of the emissions resulting from those changes. The Permittee is not required to keep records for modifications defined as "Insignificant Activities Not Required to Be Listed" under Minn. R. 7007.1300, subp. 2.	Minn. R. 7007. 0800, subp. 5(B)
Record keeping: Retain all records at the stationary source for a period of five (5) years from the date of monitoring, sample, measurement, or report. Records which must be retained at this location include all calibration and maintenance records, all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit. Records must conform to the requirements listed in Minn. R. 7007.0800, subp. 5(A).	Minn. R. 7007.0800, subp. 5(C)
G. REPORTING REQUIREMENTS	hdr
Application for Permit Amendment: If a permit amendment is needed, submit an application in accordance with the requirements of Minn. R. 7007.1150 through Minn. R. 7007.1500. Submittal dates vary, depending on the type of amendment needed.	Minn. R. 7007.1150 through Minn. R. 7007.1500

TABLE A: LIMITS AND OTHER REQUIREMENTS

11/29/99

Facility Name: Larson-Glastron Boats Inc

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Extension Requests: The Permittee may apply for an Administrative Amendment to extend a deadline in a permit by no more than 120 days, provided the proposed deadline extension meets the requirements of Minn. R. 7007.1400, subp. 1(H)	Minn. R. 7007.1400, subp. 1(H)
Emission Fees: due 60 days after receipt of an MPCA bill.	Minn. R. 7002.0005 through Minn. R. 7002.0095
See Table B for additional reporting requirements.	hdr

TABLE A: LIMITS AND OTHER REQUIREMENTS

11/29/99

Facility Name: Larson-Glastron Boats Inc

Permit Number: 09700025 - 002

Subject Item: GP 001 Post-1968 Indirect Heating (Bldg. Furnaces)

Associated Items: EU 001 Plant 1 Furnace 1
EU 002 Plant 1 Furnace 2
EU 003 Plant 1 Furnace 3
EU 005 Plant 1 Furnace 5
EU 006 Plant 1 Furnace 6
EU 007 Plant 1 Furnace 7
EU 008 Plant 1 Furnace 8
EU 009 Plant 1 Furnace 9
EU 010 Plant 1 Furnace 10
EU 011 Plant 1 Furnace 11
EU 012 Plant 1 Furnace 12
EU 013 Plant 1 Furnace 13
EU 014 Plant 1 Furnace 15
EU 015 Plant 1 Furnace 16
EU 016 Plant 2 Furnace 1
EU 017 Plant 2 Furnace 2
EU 019 Plant 2 Furnace 4
EU 020 Plant 2 Furnace 5
EU 021 Plant 2 Furnace 6
EU 022 Plant 2 Furnace 7
EU 028 Plant 3 Furnace
EU 029 Plant 4 Furnace
EU 030 Plant 5 Furnace 1
EU 031 Plant 5 Furnace 2
EU 032 Plant 6 Furnace
EU 035 Warehouse 2 Furnace 1
EU 036 Warehouse 2 Furnace 2
EU 037 Warehouse 3 Furnace 1
SV 001
SV 002
SV 003
SV 005
SV 006
SV 007
SV 008
SV 009
SV 010
SV 011
SV 012
SV 013
SV 014
SV 015
SV 016
SV 017
SV 019

TABLE A: LIMITS AND OTHER REQUIREMENTS

11/29/99

Facility Name: Larson-Glastron Boats Inc

Permit Number: 09700025 - 002

Associated Items: SV 020
SV 021
SV 022
SV 028
SV 029
SV 030
SV 031
SV 032
SV 035
SV 036
SV 037

What to do	Why to do it
Total Particulate Matter: less than or equal to 0.4 lbs/million Btu heat input . This limit applies to each emission unit in this group individually.	Minn. R. 7011.0515, subp. 1 Minn. R. 7011.0550
Opacity: less than or equal to 20 percent ; except that a maximum of 60 percent opacity shall be permissible for four minutes in any 60-minute period, and a maximum of 40 percent opacity shall be permissible for four additional minutes in any 60-minute period. This limit applies to each emission unit in this group individually.	Minn. R. 7011.0515, subp. 2

TABLE A: LIMITS AND OTHER REQUIREMENTS

11/29/99

Facility Name: Larson-Glastron Boats Inc

Permit Number: 09700025 - 002

Subject Item: GP 002 Pre-1968 Indirect Heating (Bldg. Furnaces)

Associated Items: EU 004 Plant 1 Furnace 4
 EU 018 Plant 2 Furnace 3
 EU 023 Plant 2 Furnace 8
 EU 024 Plant 2 Furnace 9
 EU 025 Plant 2 Furnace 10
 EU 026 Plant 2 Furnace 11
 EU 027 Plant 2 Furnace 12
 EU 033 Windshield Shop Furnace 1
 EU 034 Windshield Shop Furnace 2
 EU 038 Warehouse 3 Furnace 2
 SV 004
 SV 018
 SV 023
 SV 024
 SV 025
 SV 026
 SV 027
 SV 033
 SV 034
 SV 038

What to do	Why to do it
Total Particulate Matter: less than or equal to 0.6 lbs/million Btu heat input . This limit applies to each emission unit in this group individually.	Minn. R. 7011.0510, subp. 1 Minn. R. 7011.0545
Opacity: less than or equal to 20 percent ; except that a maximum of 60 percent opacity shall be permissible for four minutes in any 60-minute period, and a maximum of 40 percent opacity shall be permissible for four additional minutes in any 60-minute period. This limit applies to each emission unit in this group individually.	Minn. R. 7011.0510, subp. 2

TABLE A: LIMITS AND OTHER REQUIREMENTS

11/29/99

Facility Name: Larson-Glastron Boats Inc

Permit Number: 09700025 - 002

Subject Item: GP 003 Panel Filters**Associated Items:** CE 001 Mat or Panel Filter

CE 002 Mat or Panel Filter

CE 003 Mat or Panel Filter

CE 004 Mat or Panel Filter

CE 005 Mat or Panel Filter

CE 006 Mat or Panel Filter

CE 007 Mat or Panel Filter

CE 008 Mat or Panel Filter

What to do	Why to do it
Control Equipment Efficiency: The panel filters must at all times attain at least 92% control efficiency for PM and PM10.	Minn. R. 7011.0700, subp 1 and Minn. R. 7007.0800, subp. 14 to avoid major sources classification under 40 CFR pt. 70.2
Control Equipment Monitoring: The panel filters' alignment and condition (saturation, tears, holes) shall be monitored every 24 hours if in operation.	Minn. R. 7011.0075, subp. 2(F) Minn. R. 7007.0800, subp. 4
Control Equipment Recordkeeping: The panel filters' alignment and condition (saturation, tears, holes) shall be recorded every 24 hours if in operation.	Minn. R. 7011.0075, subp. 2(H) Minn. R. 7007.0800, subp. 5
Control Equipment Maintenance: The Permittee shall maintain an inventory of spare parts that are subject to frequent replacement, as required by the manufacturing specifications.	Minn. R. 7011.0075, subp. 2(A)
Control Equipment Maintenance: The Permittee shall train staff on the operation and monitoring of the panel filters and troubleshooting, and train and require staff to respond to indications of malfunctioning equipment. Torn or plugged filters shall be replaced immediately.	Minn. R. 7011.0075 subp. 2(B)
Control Equipment Maintenance: The Permittee shall maintain a record of parts replaced, repaired, or modified for the previous five years.	Minn. R. 7011.0075 subp. 2(I)
The Permittee may replace listed emission units, move emission units or add new emission units to those listed in GP 003, provided PM and PM less than 10 microns emissions are tracked according to Table A, Section A, Emission Limits; and Table A, Section F, Recordkeeping Requirements. All replaced or added emission units must meet the requirements for GP 003.	Title I Condition: Limit to avoid classification as major source or modification under 40 CFR Section 52.21.

TABLE A: LIMITS AND OTHER REQUIREMENTS

11/29/99

Facility Name: Larson-Glastron Boats Inc

Permit Number: 09700025 - 002

Subject Item: GP 004 Resin Spray Guns

Associated Items: EU 040 Spraygun 002 (resin)
 EU 041 Spraygun 003 (resin)
 EU 044 Spraygun 006 (resin)
 EU 045 Spraygun 007 (resin)
 EU 046 Spraygun 008 (resin)
 EU 049 Spraygun 011 (resin)
 EU 050 Spraygun 012 (resin)
 EU 051 Spraygun 013 (resin)
 EU 053 Spraygun 015 (resin)
 EU 055 Spraygun 017 (resin)
 EU 056 Spraygun 018 (resin)
 EU 057 Spraygun 019 (resin)
 EU 058 Spraygun 020 (resin)
 EU 059 Spraygun 021 (resin)
 EU 061 Spraygun 023 (resin)
 EU 064 Spraygun 026 (resin)
 EU 065 Spraygun 027 (resin)
 EU 066 Spraygun 028 (resin)
 EU 067 Spraygun 029 (resin)
 EU 070 Spraygun 032 (resin)
 EU 071 Spraygun 033 (resin)
 EU 072 Spraygun 034 (resin)
 EU 073 Spraygun 035 (resin)
 SV 045
 SV 046
 SV 047
 SV 069
 SV 070
 SV 071
 SV 072
 SV 073
 SV 074
 SV 075
 SV 076
 SV 077
 SV 078
 SV 079
 SV 080
 SV 081

What to do	Why to do it
Total Particulate Matter: less than or equal to 0.30 grains/dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735.	Minn. R. 7011.0715, subp. 1(A); Minn. R. 7011.0730 and 7011.0735
Opacity: less than or equal to 20 percent .	Minn. R. 7011.0715, subp. 1(B)

TABLE A: LIMITS AND OTHER REQUIREMENTS

11/29/99

Facility Name: Larson-Glastron Boats Inc

Permit Number: 09700025 - 002

The Permittee may replace listed emission units, move emission units or add new emission units to those listed in GP 004, provided VOC, PM and PM less than 10 microns emissions are tracked according to Table A, Section A, Emission Limits; and Table A, Section F, Recordkeeping Requirements. All replaced or added emission units must meet the requirements for GP 004.

Title I Condition: Limit to avoid classification as major source or modification under 40 CFR Section 52.21.

TABLE A: LIMITS AND OTHER REQUIREMENTS

11/29/99

Facility Name: Larson-Glastron Boats Inc

Permit Number: 09700025 - 002

Subject Item: GP 005 Gelcoat Spray Guns

Associated Items: EU 042 Spraygun 004 (gelcoat)
 EU 043 Spraygun 005 (gelcoat)
 EU 052 Spraygun 014 (gelcoat)
 EU 054 Spraygun 016 (gelcoat)
 EU 060 Spraygun 022 (gelcoat)
 EU 062 Spraygun 024 (gelcoat)
 EU 063 Spraygun 025 (gelcoat)
 EU 076 Spraygun 038 (gelcoat)
 EU 077 Spraygun 039 (gelcoat)
 EU 078 Spraygun 040 (gelcoat)
 EU 106 31 Gelcoat Touch-up Guns
 SV 045
 SV 046
 SV 047
 SV 054
 SV 056
 SV 057
 SV 058
 SV 059
 SV 060
 SV 061
 SV 062
 SV 064
 SV 065
 SV 066
 SV 067
 SV 068
 SV 069
 SV 070
 SV 071
 SV 072
 SV 073
 SV 074
 SV 075
 SV 076
 SV 077
 SV 078
 SV 079
 SV 080
 SV 081

What to do	Why to do it
Total Particulate Matter: less than or equal to 0.30 grains/dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735.	Minn. R. 7011.0715, subp. 1(A); Minn. R. 7011.0730 and 7011.0735
Opacity: less than or equal to 20 percent .	Minn. R. 7011.0715, subp. 1(B)

TABLE A: LIMITS AND OTHER REQUIREMENTS

11/29/99

Facility Name: Larson-Glastron Boats Inc

Permit Number: 09700025 - 002

The Permittee may replace listed emission units, move emission units or add new emission units to those listed in GP 005, provided VOC, PM and PM less than 10 microns emissions are tracked according to Table A, Section A, Emission Limits; and Table A, Section F, Recordkeeping Requirements. All replaced or added emission units must meet the requirements for GP 005.

Title I Condition: Limit to avoid classification as major source or modification under 40 CFR Section 52.21.

TABLE A: LIMITS AND OTHER REQUIREMENTS

11/29/99

Facility Name: Larson-Glastron Boats Inc

Permit Number: 09700025 - 002

Subject Item: GP 006 Paint Spray Guns

Associated Items: EU 074 Spraygun 036 (paint)

EU 075 Spraygun 037 (paint)

EU 081 Spraygun 100 (paint)

EU 082 Spraygun 101 (paint)

EU 083 Handheld Spraygun (paint)

EU 084 Handheld Spraygun (paint)

EU 085 Handheld Spraygun (paint)

EU 086 Handheld Spraygun (paint)

EU 087 Spraygun 201 (paint)

EU 088 Spraygun 202 (paint)

SV 045

SV 046

SV 047

SV 050

SV 055

SV 063

SV 069

SV 070

SV 071

SV 072

SV 073

SV 074

SV 075

SV 076

SV 077

SV 078

SV 079

SV 080

SV 081

What to do	Why to do it
Total Particulate Matter: less than or equal to 0.30 grains/dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735.	Minn. R. 7011.0715, subp. 1(A); Minn. R. 7011.0730 and 7011.0735
Opacity: less than or equal to 20 percent .	Minn. R. 7011.0715, subp. 1(B)
The Permittee may replace listed emission units, move emission units or add new emission units to those listed in GP 006, provided VOC, PM and PM less than 10 microns emissions are tracked according to Table A, Section A, Emission Limits; and Table A, Section F, Recordkeeping Requirements. All replaced or added emission units must meet the requirements for GP 006.	Title I Condition: Limit to avoid classification as major source or modification under 40 CFR Section 52.21.

TABLE A: LIMITS AND OTHER REQUIREMENTS

11/29/99

Facility Name: Larson-Glastron Boats Inc

Permit Number: 09700025 - 002

Subject Item: GP 007 Miscellaneous Emission Sources

Associated Items: EU 090 Glue gun 101
 EU 091 Glue gun 102
 EU 092 Glue gun 103
 EU 093 Glue gun 104
 EU 094 Glue gun 105
 EU 095 General Solvent Cleaning
 EU 096 Flexible Foam Machine
 EU 097 Gluebooth 001
 EU 098 Gluebooth 002
 EU 099 Hand-applied glue
 EU 100 Glue gun 605
 EU 101 Glue gun 606
 EU 102 Glue gun 607
 EU 103 Glue gun 608
 EU 104 Glue gun 609
 EU 105 Glue gun 610
 SV 046
 SV 047
 SV 050
 SV 051
 SV 052
 SV 053
 SV 054
 SV 055
 SV 064
 SV 065
 SV 066
 SV 067
 SV 068
 SV 069
 SV 070
 SV 071
 SV 072
 SV 073
 SV 074
 SV 075
 SV 076
 SV 077
 SV 078
 SV 079
 SV 080
 SV 081

What to do	Why to do it
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TABLE A: LIMITS AND OTHER REQUIREMENTS

11/29/99

Facility Name: Larson-Glastron Boats Inc

Permit Number: 09700025 - 002

Total Particulate Matter: less than or equal to 0.30 grains/dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735.	Minn. R. 7011.0715, subp. 1(A); Minn. R. 7011.0730 and 7011.0735
Opacity: less than or equal to 20 percent .	Minn. R. 7011.0715, subp. 1(B)
The Permittee may replace listed emission units, move emission units or add new emission units to those listed in GP 007, provided VOC, PM and PM less than 10 microns emissions are tracked according to Table A, Section A, Emission Limits; and Table A, Section F, Recordkeeping Requirements. All replaced or added emission units must meet the requirements for GP 007.	Title I Condition: Limit to avoid classification as major source or modification under 40 CFR Section 52.21.

TABLE A: LIMITS AND OTHER REQUIREMENTS

11/29/99

Facility Name: Larson-Glastron Boats Inc

Permit Number: 09700025 - 002

Subject Item: GP 008 Boat Deck and Hull Lamination Line

Associated Items: EU 113 Spraygun 41 (gelcoat)
EU 114 Spraygun 42 (gelcoat)
EU 115 Spraygun 43 (gelcoat)
EU 116 Spraygun 44 (gelcoat)
EU 117 Boat Mold Process Cell 01
SV 065

What to do	Why to do it
A. EMISSION LIMITS	hdr
Hazardous Air Pollutants (HAPs): less than or equal to 9 tons/year of a single HAP or 24 tons/year of combined HAPs using 12-month Rolling Sums on a monthly basis as specified below in Equation 5.	Title I Condition: Limit to avoid major source classification under 40 CFR pt. 63, Sections 63.40 to 63.44 (Section 112(g) of the Clean Air Act) and Minn. R. 7007.3010.
Equation 5: $\text{HAPs} = [(\text{HrCrEFrs}) + (\text{HrCrEFrcm}) + (\text{HgcHCgcEFgc}) + (\text{HgcHCgcEFgc})] \times (0.0005)$ <p>Where, Hr = amount of HAP-containing resin as used by each process, lb/month Cr = percent composition of HAP in Hr as applied, percent weight EFrs = emission factor for spray layup of non-vapor-suppressed resin as referenced in Appendix A of this Permit, or latest EPA-approved emission factor, as appropriate (lb/lb monomer) EFrcm = emission factor for closed molding of non-vapor-suppressed resin as referenced in Appendix A of this Permit, or latest EPA-approved emission factor, as appropriate (lb/lb monomer)</p>	Title I Condition: Limit to avoid major source classification under 40 CFR pt. 63, Sections 63.40 to 63.44 (Section 112(g) of the Clean Air Act) and Minn. R. 7007.3010.
and where, <p>Hgc = amount of HAP-containing gelcoat as delivered/purchased, lb/month Hgc = percent composition of HAP in Hgc as applied, percent weight EFgcvs = emission factor for spray layup of vapor-suppressed gelcoat as referenced in Appendix A of this Permit, or latest EPA-approved emission factor, as appropriate (lb/lb monomer) EFgcncvs = emission factor for spray layup of non-vapor-suppressed gelcoat as referenced in Appendix A of this Permit, or latest EPA-approved emission factor, as appropriate (lb/lb monomer) 0.0005 = conversion factor, lb/ton</p>	continued from above
The Permittee shall calculate the 12-month rolling sum each month for all HAPs emissions. The calculations must be completed by the 15th day of each month for the preceding month. The 12-month Rolling Sum shall be calculated by adding the total emissions of the current month (in tons) to the sum of the previous eleven months' total emissions (in tons).	Title I Condition: Monitoring for limit to avoid classification as a major source under 40 CFR pt. 63, Sections 63.40 to 63.44 (Section 112(g) of the Clean Air Act) and Minn. R. 7007.3010.
Total Particulate Matter: less than or equal to 0.30 grains/dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735.	Minn. R. 7011.0715, subp. 1(A); Minn. R. 7011.0730 and 7011.0735
Opacity: less than or equal to 20 percent .	Minn. R. 7011.0715, subp. 1(A);
B. RECORDKEEPING REQUIREMENTS	hdr
Record keeping: The Permittee shall maintain records of the total amount of resins used during each month of operation as specified in Equation 4 (Resin Usage) on Page A-3, based on sight glass, flow meter or scale readings. These records shall be used to calculate the monthly totals and 12-month rolling sums as required by other parts of this permit.	Title I Condition: Record keeping for limit to avoid major source classification under 40 CFR pt. 63, Sections 63.40 to 63.44 (Section 112(g) of the Clean Air Act) and Minn. R. 7007.3010.
Resin Usage: Actual resin usage each month shall be determined using Equation 4 (Resin Usage) on Page A-3 of this Permit.	Title I Condition: Record keeping for limit to avoid classification as a major source under 40 CFR pt. 63, Sections 63.40 to 63.44 (Section 112(g) of the Clean Air Act) and Minn. R. 7007.3010.
Record keeping for HAPs: The Permittee shall maintain records of the total amount of all HAP-containing material, other than resins, used each month based on purchase records. These records shall be used to calculate the monthly totals and 12-month rolling sums as required by other parts of this permit.	Title I Condition: Record keeping for limit to avoid classification as a major source under 40 CFR pt. 63, Sections 63.40 to 63.44 (Section 112(g) of the Clean Air Act) and Minn. R. 7007.3010.

TABLE A: LIMITS AND OTHER REQUIREMENTS

11/29/99

Facility Name: Larson-Glastron Boats Inc

Permit Number: 09700025 - 002

Record keeping for HAPs: the HAPs content of purchased materials shall be determined by the Material Safety Data Sheet (MSDS) provided by the supplier for each material used. If a material content range is given on the MSDS, all compliance calculations must use either the highest number in the range, or the Permittee shall obtain a certification from the supplier as to the accuracy of the MSDS, and the material's exact HAPs content shall be used. Other methods approved by the MPCA may be used to determine the material content. The Division Manager reserves the right to require the Permittee to take samples of the materials, and to conduct analysis of material content using EPA reference methods. If an EPA reference method is used for material content determination, the data obtained shall supercede the MSDS.

Title I Condition: Record keeping for limit to avoid classification as a major source under 40 CFR pt. 63, Sections 63.40 to 63.44 (Section 112(g) of the Clean Air Act) and Minn. R. 7007.3010.

TABLE A: LIMITS AND OTHER REQUIREMENTS

11/29/99

Facility Name: Larson-Glastron Boats Inc

Permit Number: 09700025 - 002

Subject Item: GP 009 Boat Deck and Hull Lamination Line

Associated Items: EU 118 Spraygun 45 (gelcoat)
 EU 119 Spraygun 46 (gelcoat)
 EU 120 Spraygun 47 (gelcoat)
 EU 121 Spraygun 48 (gelcoat)
 EU 122 Boat Mold Process Cell 02
 SV 066

What to do	Why to do it
A. EMISSION LIMITS	hdr
Hazardous Air Pollutants (HAPs): less than or equal to 9 tons/year of a single HAP or 24 tons/year of combined HAPs using 12-month Rolling Sums on a monthly basis as specified in Equation 5 on Page A-16 of this Permit.	Title I Condition: Limit to avoid major source classification under 40 CFR pt. 63, Sections 63.40 to 63.44 (Section 112(g) of the Clean Air Act) and Minn. R. 7007.3010.
The Permittee shall calculate the 12-month rolling sum each month for all HAPs emissions. The calculations must be completed by the 15th day of each month for the preceding month. The 12-month Rolling Sum shall be calculated by adding the total emissions of the current month (in tons) to the sum of the previous eleven months' total emissions (in tons).	Title I Condition: Monitoring for limit to avoid classification as a major source under 40 CFR pt. 63, Sections 63.40 to 63.44 (Section 112(g) of the Clean Air Act) and Minn. R. 7007.3010.
Total Particulate Matter: less than or equal to 0.30 grains/dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735.	Minn. R. 7011.0715, subp. 1(A); Minn. R. 7011.0730 and 7011.0735
Opacity: less than or equal to 20 percent .	Minn. R. 7011.0715, subp. 1(A);
B. RECORDKEEPING REQUIREMENTS	hdr
Record keeping: The Permittee shall maintain records of the total amount of resins used during each month of operation as specified in Equation 4 (Resin Usage) on Page A-3, based on sight glass, flow meter or scale readings. These records shall be used to calculate the monthly totals and 12-month rolling sums as required by other parts of this permit.	Title I Condition: Record keeping for limit to avoid major source classification under 40 CFR pt. 63, Sections 63.40 to 63.44 (Section 112(g) of the Clean Air Act) and Minn. R. 7007.3010.
Resin Usage: Actual resin usage each month shall be determined using Equation 4 (Resin Usage) on Page A-3 of this Permit.	Title I Condition: Record keeping for limit to avoid classification as a major source under 40 CFR pt. 63, Sections 63.40 to 63.44 (Section 112(g) of the Clean Air Act) and Minn. R. 7007.3010.
Record keeping for HAPs: The Permittee shall maintain records of the total amount of all HAP-containing material, other than resins, used each month based on purchase records. These records shall be used to calculate the monthly totals and 12-month rolling sums as required by other parts of this permit.	Title I Condition: Record keeping for limit to avoid classification as a major source under 40 CFR pt. 63, Sections 63.40 to 63.44 (Section 112(g) of the Clean Air Act) and Minn. R. 7007.3010.
Record keeping for HAPs: the HAPs content of purchased materials shall be determined by the Material Safety Data Sheet (MSDS) provided by the supplier for each material used. If a material content range is given on the MSDS, all compliance calculations must use either the highest number in the range, or the Permittee shall obtain a certification from the supplier as to the accuracy of the MSDS, and the material's exact HAPs content shall be used. Other methods approved by the MPCA may be used to determine the material content. The Division Manager reserves the right to require the Permittee to take samples of the materials, and to conduct analysis of material content using EPA reference methods. If an EPA reference method is used for material content determination, the data obtained shall supercede the MSDS.	Title I Condition: Record keeping for limit to avoid classification as a major source under 40 CFR pt. 63, Sections 63.40 to 63.44 (Section 112(g) of the Clean Air Act) and Minn. R. 7007.3010.

TABLE B: SUBMITTALS

11/29/99

Facility Name: Larson-Glastron Boats Inc
Permit Number: 09700025 - 002

Table B lists most of the submittals required by this permit. Please note that some submittal requirements may appear in Table A or, if applicable, within a compliance schedule located in Table C. Table B is divided into two sections in order to separately list one-time only and recurrent submittal requirements.

Each submittal must be postmarked or received by the date specified in the applicable Table. Those submittals required by parts 7007.0100 to 7007.1850 must be certified by a responsible official, defined in Minn. R. 7007.0100, subp. 21. Other submittals shall be certified as appropriate if certification is required by an applicable rule or permit condition.

Send any application for a permit or permit amendment to:

Permit Technical Advisor
Permit Section
Air Quality Division
Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, Minnesota 55155-4194

Also, where required by an applicable rule or permit condition, send to the Permit Technical Advisor notices of:

- accumulated insignificant activities,
- installation of control equipment,
- replacement of an emissions unit, and
- changes that contravene a permit term.

Unless another person is identified in the applicable Table, send all other submittals to:

Supervisor
Compliance Determination Unit
Air Quality Division
Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, Minnesota 55155-4194

Send submittals that are required to be submitted to the U.S. EPA regional office to:

Mr. George Czerniak
Air and Radiation Branch
EPA Region V
77 West Jackson Boulevard
Chicago, Illinois 60604

Send submittals that are required by the Acid Rain Program to:

U.S. Environmental Protection Agency
Clean Air Markets Division
1200 Pennsylvania Avenue NW (6204N)
Washington, D.C. 20460

TABLE B: ONE TIME SUBMITTALS OR NOTIFICATIONS

11/29/99

Facility Name: Larson-Glastron Boats Inc
Permit Number: 09700025 - 002

What to send	When to send	Portion of Facility Affected
Application for Permit Reissuance	due 180 days before expiration of Existing Permit	Total Facility

TABLE B: RECURRENT SUBMITTALS

11/29/99

Facility Name: Larson-Glastron Boats Inc

Permit Number: 09700025 - 002

What to send	When to send	Portion of Facility Affected
Semiannual Deviations Report	due 30 days after end of each calendar half-year following Permit Issuance . The first semiannual report submitted by the Permittee shall cover the calendar half-year in which the permit is issued. The first report period of each calendar year covers January 1 - June 30. The second report period of each calendar year covers July 1 - December 31. If no deviations have occurred, the Permittee shall submit the report stating no deviations.	Total Facility
Annual Report	due 30 days after end of each calendar year following Permit Issuance . This report must include the 12 month rolling sum of VOCs, PM and PM10 emitted.	Total Facility
Compliance Certification	due 30 days after end of each calendar year following Permit Issuance (for the previous calendar year). To be submitted on a form approved by the Commissioner. The report covers all deviations experienced during the calendar year.	Total Facility
Emissions Inventory Report	due 91 days after end of each calendar year following Permit Issuance (April 1). To be submitted on a form approved by the Commissioner.	Total Facility
Equipment List	due 30 days after end of each calendar year following Permit Issuance to be submitted with the Compliance Certification. This report shall describe changes made to the stationary source without applying for an amendment. Such changes may include installation of new emission units of the same type described in this permit, and modification of emission units.	Total Facility

APPENDIX A

Facility Name: Larson-Glastron Boats Inc
Permit Number: 09700025-002

Table 1 – Emission Factors for Compliance Demonstration
(lb/lb of monomer)

Process	Non-Vapor-Suppressed	Vapor-Suppressed
Spray layup of resin	0.11	0.08
Spray layup of gelcoat	0.50	0.36
Closed molding of resin	0.03	0.02

TECHNICAL SUPPORT DOCUMENT
for
DRAFT AIR EMISSION PERMIT NO. 09700025-002

This Technical Support Document (TSD) is for all the interested parties of the permit. The purpose of this document is to set forth the legal and factual basis for the permit conditions, including references to the applicable statutory or regulatory provisions.

1. General Information

1.1 Applicant and Stationary Source Location:

Owner and Operator Address and Telephone Number	Facility Address (SIC Code: 3732)
Genmar Industries, Inc. 100 South 5th Street, Suite 2400 Minneapolis, Minnesota 55402 (612) 337-1859	Larson/Glastron Boats, Inc. 700 Paul Larson Memorial Drive Little Falls, Minnesota 56345 (320) 632-5481

1.2 Description of the facility

Larson-Glastron is a fiberglass boat manufacturing facility. This stationary source consists of six buildings, numbered one through six. Spray guns are used to apply fiberglass/resin, gelcoat and paint to open molds during boat hull and deck production. Other types of guns are used during gluing operations and foam seat production, and several woodshops prepare wooden parts for the boat interiors. Pre-assembled engines and various electronic components are purchased and installed at the facility. Buildings are heated with furnaces fueled by natural gas and propane.

The facility has previously adopted federally enforceable synthetic minor limits of 90 tons/year for PM and PM₁₀, and 245 tons/year for volatile organic compounds (VOCs) to remain a non-major source under 40 CFR § 52.21.

1.3 Description of any changes allowed with this permit issuance

This permit amendment authorizes:

- A change in the calculation method used in demonstrating compliance with a facility-wide New Source Review cap based upon an evaluation of the best currently available emissions data for this type of manufacturing facility;
- The installation of two groups of emission units made up of two new boat mold processes, and eight additional gelcoat sprayguns, assigned emission unit ID numbers 113-122, and;
- The replacement and relocation of the listed emission units, and the addition of new emission units.

For the proposed modification, the Permittee is planning to adopt federally enforceable synthetic minor limits of nine tons/year for a single hazardous air pollutant (HAP) and 24 tons/year for combined HAPs. The limits will be adopted so that the installation of each group of the new emission units remains a non-major source under 40 CFR §§ 63.40 to 63.44 (Section 112(g) of the Clean Air Act). Emissions from the new equipment will be tracked directly from usage and delivery/purchase records.

Table 1 summarizes the increase in potential air emissions for the proposed modification, and Table 2 summarizes the applicability of federal air quality programs.

2. Facility Emissions

Table 1-- Potential Emissions Associated With the Modification

Pollutant	PM tpy	PM ₁₀ tpy	SO ₂ tpy	NO _x tpy	CO tpy	VOC tpy	Lead tpy	Single HAP tpy	Combined HAPs tpy
GP 008	NA	NA	NA	NA	NA	NA	NA	9.0	24.0
GP 009	NA	NA	NA	NA	NA	NA	NA	9.0	24.0

* These are the limited potential emissions from column three in GI-07 from Delta. They may differ from those in the permit application sent in by Permittee, in that they have been verified and corrected as needed by MPCA staff.

Where, PM = Particulate Matter
 SO₂ = Sulfur Dioxide
 CO = Carbon Monoxide
 HAPs = Hazardous Air Pollutants

PM₁₀ = PM smaller than 10 microns
 NO_x = Nitrogen Oxides
 VOCs = Volatile Organic Compounds

Table 2 -- Permit Amendment Classification

Classification (list pollutant)	Major/Affected Source	Synthetic Minor*	Minor*
Prevention of Significant Deterioration	NA	NA	NA
Non-Attainment Area Review	NA	NA	NA
Section 112(g) of the Clean Air Act	NA	HAPs	NA

*Refers to potential emissions that are less than those specified as major by 40 CFR § 52.21, 40 CFR pt. 51 Appendix S, and 40 CFR §§ 63.40 to 63.44.

3. Regulatory and/or Statutory Basis

Table 3 -- Summary Regulatory and/or Statutory Basis of the Emission or Operational Limit

TF, EU, GP, or SV:	Applicable Regulations	Comments:
Total Facility	40 CFR § 52.21	New Source Review. Limit set for VOCs to avoid major source and modification classification for prevention of significant deterioration.
GPs 008 and 009	40 CFR §§ 63.40 to 63.44	Limit set for HAPs to avoid major source classification under Section 112(g) of the Clean Air Act (9 tpy single HAP, 24 tpy combined HAPs).
GPs 008 and 009	Minn. R. 7011.0715, subps. 1(A) and (B)	State Standards of Performance for New Industrial Process Equipment: Limits particulate matter and opacity.

4. Technical Information

3.1 Available Emission Factors

When the total facility operating permit was issued in September 1998, the Permittee indicated a willingness to revise their methods of calculating emissions based on U. S. Environmental Protection Agency's (EPA's) future efforts, as every other permitted boat manufacturing facility would be asked to do the same. The U. S. EPA no longer recognizes emission factors for the spray layup of resin and gelcoat because they have been determined to significantly underestimate VOC (mostly styrene) emissions from certain application operations. In response, the MPCA sent letters to manufacturing facilities in Minnesota currently using the AP-42 emission factors, notifying them that they would need to revise their method of calculating emissions for their reinforced fiberglass processes.

U. S. EPA has since stated that "at this time there is no 'AP-42' factor" (referring to AP-42, Section 4.4: Evaporation Loss Sources, 1/95) or estimation method for this category. Performance test data from a facility is usually used in place of emission factors published in U. S. EPA documents because of the assumption that site-specific data best represents actual conditions. In the absence of AP-42 emission factors or performance test data, U. S. EPA is currently recognizing three sources of information as the "best available data" for use in permitting.

The first set of materials is a report, prepared in August 1997, by Stelling Engineering, Air-Tech Environmental, and Radian International for the National Marine Manufacturers Association (NMMA), entitled "*Baseline Characterization of Emissions from Fiberglass Boat Manufacturing*" which compared many different combinations of fiberglass boat manufacturing operations with each other.

The second set of materials is a report, entitled "*CFA Emission Models for the Reinforced Plastics Industries*," prepared by Dr. Robert Haberlein of Engineering Environmental, on behalf of the Composite Fabricators Association (CFA), the International Cast Polymer Association, and the Composites Institute. This report has associated with it a spreadsheet of a one-variable model that predicts emissions based on the styrene content of the resin.

The third set of materials is a nine-variable model entitled "*FRP Model, version 1.0*," developed by the Research Triangle Institute for EPA's Office of Research and Development, which includes documentation of the data used to develop that model.

After discussions with staff from U. S. EPA and the Permittee, MPCA staff have concluded that the CFA model would not be an appropriate source of emission factors for this facility, as that particular process applies mainly to much smaller parts where the potential for overspray is a great deal higher. Overspray is the term for the material which is sprayed off the edge of the mold, allowing substantially more emissions per lb. of resin/gelcoat used, as compared to the resin or gelcoat that lands on the mold.

After discussions with staff from U. S. EPA, MPCA staff have concluded that the FRP model would also not represent the best available source of emission factors, at this time, as there are multiple variables for which there has not been any published guidance for use in entering data into the model (styrene content, temperature of facility during application, etc.) In past discussions with the Permittee however, MPCA staff have learned that inputting several variables into the FRP model as they would appear at a typical fiberglass boat manufacturing facility, has resulted in emission factors similar to those as published in the August 1997, NMMA report.

MPCA staff believe that, in the interim, using the data in Table 4 for determining compliance with the facility-wide VOC and PM/PM10 emissions cap and the synthetic minor limit for 112(g), is the

best available method because most of the data (i.e., spray layup of resin and gelcoat) represents actual performance test data from several similar emission units at a several similar facilities.

Table 4 – Emission Factors for Fiberglass Boat Manufacturing Processes (lb./lb. of monomer)

Process	Non-Vapor Suppressed	Vapor-Suppressed
Spray layup of resin	0.11 ²	0.08
Spray layup of gelcoat	0.50 ³	0.36
Closed molding of resin	0.03 ⁴	0.02

¹ Assumes factors are 70% of those for non-vapor-suppressed resins and gelcoats.

² Table 2-5, Page 2-17, NMMA Report, August 1997

³ Table 2-3, Page 2-14, NMMA Report, August 1997

⁴ AP-42, Section 4.4: Evaporation Loss Sources, January 1995

MPCA staff also believes using the data in Table 4 will satisfy the requirements of Minn. R. 7005.0100, subp. 10a., which determines what constitutes the most accurate and representative emission data when no data is available from sources such as U. S. EPA's Factor Information Retrieval Database System (FIRE) or the Compilation of Air Pollutant Emission Factors (AP-42).

Minn. R. 7005.0100, subp. 10a(C)(1)(e) states in relevant part that where no emission factor is available in an EPA-published document or a more representative factor is available, emission factor means a factor derived from performance test data from the same or a similar emission unit at the same or a similar facility.

EPA staff's future efforts are aimed at bringing all available data together (i.e., AP-42, NMMA report, and also non-boat fabricating data from Research Triangle Park and the Composite Fabricators Association) into one consistent, explanatory model. Until that information becomes available in FIRE, a new edition or supplement to AP-42, or Larson/Glastron chooses to do performance testing on its own processes; calculation methods will use the emission factors from the NMMA's August 1997, report along with material usage and delivery/purchase to determine emissions.

3.2 Recordkeeping for Synthetic Minor Limits on New Equipment

Base resin storage tanks are outfitted with weight measurement equipment, therefore daily usage records are kept based on sight glass, flow meter or scale readings. Calculations of HAP emissions generated from base resin use will be made on a monthly basis. However, after a review of the facility's operation's MPCA staff believe there is currently no practical way to track the actual usage of other HAP containing raw materials at the point of usage (i.e., at each emission unit). It would be onerous to weigh every single container from which product is removed daily (i.e., gelcoats, glues, solvents). For this reason, purchasing and/or delivery records will be used to track emissions from gelcoat and other HAP containing materials used in the process. Calculations of HAP emissions generated from the use of other HAP containing raw materials will also be made on a monthly basis.

3.3 Pollutants Other Than HAPs

Limited potential emissions for the other criteria pollutants mainly associated with fiberglass boat manufacturing processes (VOCs and PM/PM₁₀), were not provided with the application materials. This is because the potential emissions of these pollutants will continue to remain under the major source thresholds listed in 40 CFR § 52.21 due to the permit's facility-wide synthetic minor limits of 245 tons VOCs/year and 90 tons PM/PM₁₀/year. The facility is already a major source under 40 CFR pt. 70, for individual HAP (styrene) and combined HAPs emissions. This permit amendment does not change the facility's source classification under 40 CFR § 52.21 or 40 CFR pt. 70. This amendment does not increase the permit's existing synthetic minor emission limits set for VOCs, PM and PM₁₀. This amendment imposes synthetic minor limits on two groups of emission units to remain a non-major source under 40 CFR §§ 63.40 to 63.44 (Section 112(g) of the Clean Air Act).

3.4 Updating the Equipment List When Emission Units are Relocated

The Permittee will continue to update the equipment list when new spray guns (resin, gelcoat and paint) or glue guns are added to a process, as well as when existing sprayguns or glue guns are replaced. Nearly 80 percent of the facility's total VOC emissions come from spray guns that are not relocatable.

Of the spray guns that are movable, they are usually relocated for only a short time while a specific process is completed or while a problem gun is repaired. MPCA staff agrees that operators should not have to record the temporary relocation of a spray gun, especially for the smaller handheld touchup spray guns which may be moved several times per day.

3.5 Future MACT Promulgation

The Permittee's facility described in this permit is a major stationary source for which EPA will promulgate a MACT standard to be found in 40 CFR pt. 63. The source category's (Fiberglass Boat Manufacturing) MACT standard is expected to be promulgated November 15, 2000.

3.6 Applicability of 112(g) to GPs 008 and 009

MPCA staff have concluded that the synthetic minor limits (nine tons/year single HAP, 24 tons/year combined HAPs), apply to the construction of each group of emission units separately. Sec. 112(g) applies to either a major new source constructed at a greenfield site, or a new or reconstructed production unit at an existing plant site. 'Construct a major source' at an existing facility is defined in 40 CFR § 63.41 to mean:

"To fabricate, erect, or install at any developed site a new process or production unit which in and of itself emits or has the potential to emit 10 tons per year of any HAP or 25 tons per year of any combination of HAPs . . ."

U. S. EPA later defines a 'process or production unit' in 40 CFR § 63.41 to mean:

"... any collection of structures and/or equipment, the processes, assemblies, applies or otherwise uses material inputs to produce an intermediate or final product."

The preamble to the federal rule published in the Federal Register, dated December 27, 1996, (volume 61, number 250, page 68390), attempts to further clarify the definition, emphasizing that:

“By requiring that the unit produce a product, the EPA intends section 112(g) to apply to units which are discrete, not units which are just one essential part of a larger function.”

The preamble to the federal rule discusses several examples to illustrate their definition of production unit (see page 68392). In the first example, the U. S. EPA concluded that adding individual spray guns to an existing fabrication line did not meet the definition of a production unit. In the second example, the addition of spray guns and a lamination process which allowed the owner to laminate a second model of boat hulls, did not meet the definition of a production unit. This was because the addition of the second lamination process did not lead to an intermediate product, and therefore did not qualify as a production unit. In the third example the owner added a gel coat spray booth, spray gun and supporting equipment, which could reasonably operate alone and could produce an intermediate product. Example three met U. S. EPA's definition of a production unit, and was subject to Section 112(g) of the Clean Air Act.

U. S. EPA's definition in 40 CFR § 63.41, and their supporting discussion in the preamble appear to stress the ability of a process or production unit to produce an intermediate or final product. Each of the two groups of emission units is a discrete unit capable of producing an intermediate or final product and can reasonably operate alone.

MPCA staff believe the equipment described in Larson's permit application closely resembles example three. Based on U. S. EPA's discussion, each of the proposed new lamination units met the U. S. EPA's definition of production unit. MPCA staff therefore believe that emission limits in the permit should apply to each group of emission units, rather than both groups combined.

5. Conclusion

Based on the information provided by Genmar and Larson-Glastron Boats, the MPCA has reasonable assurance that the proposed operation of the emission facility, as described in the Air Emission Permit No. 09700025-002 and this technical support document, will not cause or contribute to a violation of applicable federal regulations and Minnesota rules.

Staff member on Permit Team Dave Crowell, Enforcement Staff
Dan Sullivan, Permit Engineer

Enclosures: Emission Calculations
CD-01 Forms

DS:dms