

January 24, 2001

Mr. Jerry Clark  
North Star Yachts  
1265 N. Hendrickson Dr.  
Kalama, WA 98625

Subject: Approval for Increase in Emissions, Installation of a Spray Booth and Title V Opt Out

Dear Mr. Clark:

A preliminary determination to issue Order of Approval SWCAA 01-2337 has been completed for your Notice of Construction CO-681 pursuant to Section 400-110(3) of the General Regulations of the Southwest Clean Air Agency (SWCAA). This determination is available in our office for public review. The original is enclosed for your files.

SWCAA's General Regulations require that publication of your project be made in a newspaper of general circulation in the area of the proposed project. The cost of this publication will be paid by SWCAA. Enclosed is a copy of the notice that will be published one time in the legal notice section of The Daily News. If you are not satisfied with this public notice, please contact SWCAA within three business days of receiving this letter. A final Order of Approval will not be issued until the end of the 30 day public comment period after publication of the notice and resolution of comments, if any. Comments which your company wants to offer regarding the preliminary Order of Approval need to be submitted to SWCAA during the 30 day comment period.

If you have any comments, or desire additional information, please contact me or Vanessa McClelland at (360) 574-3058, extension 29.

Sincerely,

Robert D. Elliott  
Executive Director

RDE:vm  
Enclosures

1 IN THE MATTER OF COMPLIANCE WITH RCW )  
2 70.94 AND THE GENERAL REGULATIONS FOR )  
3 AIR POLLUTION SOURCES OF THE )  
4 SOUTHWEST CLEAN AIR AGENCY )  
5 North Star Yachts RESPONDENT )  
6 Kalama, Washington )

SWCAA 01-2337  
ORDER OF APPROVAL

---

8 **BACKGROUND**

- 9 1. Respondent submitted Notice of Construction (NOC) CO-681 to the Southwest Clean Air  
10 Agency (SWCAA) on September 11, 2000 to install a spray booth, increase hours of  
11 operation and emission limits and establishing voluntary emissions limits below Title V  
12 thresholds for the facility located at 1265 N. Hendrickson Drive, Kalama, Cowlitz County,  
13 Washington.
- 14 2. Information contained in NOC CO-681, and additional information submitted December 6,  
15 2000, January 9 and 15, 2001 indicated the following:
- 16 a. Respondent intends to add a second operating shift, which will increase air  
17 emissions approximately 75-80%. Hours of operation per year will be increased to  
18 4,420.
- 19 b. Respondent proposes to install a Standard Tools and Equipment model CF-1000  
20 cross flow spray booth to be located in the extended part of Building 3. No new  
21 types of materials will be sprayed. There will be no emissions increase due to this  
22 equipment installation.

- 1           1.     The proposed spray booth will be used to paint the small parts installed in  
2                     the boat that are currently being painted in place within the boats. These  
3                     include wooden drawers, cabinets, shelves, baseboards and other similar boat  
4                     components.
- 5           2.     The proposed spray booth is a Standard Tools and Equipment CF-1000 flow  
6                     paint booth 26 feet 9 inches long, 14 feet 3 inches wide and 9 feet 6 inches  
7                     tall. The airflow rate is 12,600 actual cubic feet per minute (acfm) with a fan  
8                     size of 3 hp and speed of 1,750 rpm.
- 9           3.     The proposed spray booth is equipped with 24 ATI model W512 filters  
10                    which are 2 feet by 2 feet by 2 inches thick with an exhaust filtration area of  
11                    96 sq. ft. The filters are made of PR media and have a capture efficiency of  
12                    92%.
- 13          4.     Three new spray guns are proposed to be used and were identified as  
14                    Devilbiss GTI 1701 40 HVLP-11 pressure feed spray guns with transfer  
15                    efficiencies of 65%.
- 16          5.     No new coatings are being proposed at this time. The existing materials and  
17                    quantities were permitted in Order of Approval SWCAA 99-2235 or were  
18                    later approved by SWCAA.
- 19          6.     The spray booth will exhaust through a vertical exhaust stack with a  
20                    diameter of 4 inches approximately 6 feet above the building roof and  
21                    approximately 26 feet above ground level.
- 22   3.     Previous information contained in NOC CO-639 and approved in Order of Approval  
23                    SWCAA 99-2235, indicated that the Respondent operates a yacht manufacturing facility  
24                    which utilizes fiberglass hand lay-up, hand panting and sanding, and wood working

1 equipment. The process is performed in the following three buildings containing the  
2 following equipment:

3 a. Building 1 is approximately 32 feet high at the eave and 40 feet high at the peak, and  
4 contains the finish assembly area which includes:

5 1. The mill shop containing the following mobile woodworking equipment:

6 a. One planer

7 b. One jointer

8 c. One table saw

9 d. One radial arm saw

10 e. One shaper

11 f. Two band saws

12 The mill shop and other mill equipment is filtered by four 1 hp Grizzly  
13 model G1028 dust collectors rated at 610 cfm. The dust collectors are also  
14 mobile and will be moved along with the wood working equipment to the  
15 other buildings. They are vented to the inside of the buildings.

16 2. The finishing bay includes painting and wood sanding operations. Both  
17 spray and hand painting is performed on installed pieces inside of the boat.

18 All sanding is performed by hand. There is no stack out of this building, all  
19 emissions are fugitive.

20 b. Building 2 is approximately 20 feet high at the eave and 40 feet high at the peak.

21 This building uses an open floor layout where the yacht's initial design and  
22 construction is completed. Molds are also stored in this building, along with some  
23 woodworking equipment. Some lay-up will be performed in two four week periods

1 each year. An acetone recycling system will be utilized and stored in this building.  
2 There is no stack out of this building, all emissions are fugitive.

3 1. Mobile woodworking equipment in this building includes:

- 4 a. One jointer
- 5 b. Three table saws
- 6 c. Two radial arm saws
- 7 d. Two shapers
- 8 e. Two band saws

9 c. Building 3 is approximately 20 feet high at the eave and 30 feet high at the peak, and  
10 will contain most of the lay-up operations. One TRU-1000 Intruder Gun, a Flo-Coat  
11 Wet-Out System, is used to apply materials in the molding process for the reduction  
12 of styrene vapors. The Intruder gun has been tested and documented by the  
13 Research Triangle Institute, to maintain styrene vapors below 50 ppm. It uses a  
14 cyclone mixing technology so the resin and MEKP are mixed in a small chamber  
15 within the gun itself. Emissions from the building will be exhausted through one  
16 stack approximately 6 ft above the roof line at an airflow of 15,000 cfm. One band  
17 saw is also located in Building 3.

18 4. Emissions to the atmosphere from operations proposed under NOC CO-681 consist of  
19 volatile organic compounds (VOC), toxic air pollutants (TAP), and hazardous air pollutants  
20 (HAP) from yacht manufacturing, particulate matter (PM) from sanding and painting, and  
21 VOCs, HAPs, and TAPs from painting.

22 a. Facilitywide emissions from yacht building operations (mainly in building #3) based  
23 on material balance methodology, annual material (paint, resin, solvent, etc.) usage,  
24 and emission factors, for styrene calculations, from Version 2.1 of the Composite

Fabricator's Association (CFA) "Styrene Emissions Determination Models for Open Molding Operations" dated May 1998 are calculated to be:

<u>Pollutant</u>	<u>Emissions (tpy)</u>
VOC	18.89
Styrene	8.53

The following emission factors will be used to determine styrene emissions, additional emission factors can be found in Appendix D:

Styrene Content from MSDS (%)	<u>Emission Factor: Hand Lay-up (non-vapor suppressed) (%)</u>	<u>Emission Factor: Controlled Spray Lay-up (non-vapor suppressed) (%)</u>	<u>Emission Factor: Gel Coat Controlled Spray (non-vapor suppressed) (%)</u>
33	4.1	4.3	10.7
34	4.4	4.8	11.5
35	4.7	5.4	12.2
36	5.0	5.9	13.0
37	5.3	6.5	13.7
38	5.6	7.0	14.5
39	5.9	7.6	15.3
40	6.2	8.1	16.0
41	6.4	8.7	16.8
42	6.7	9.2	17.5
43	7.0	9.8	18.3
44	7.3	10.3	19.0
45	7.6	10.9	19.8
46	7.9	11.4	20.6
47	8.2	12.0	21.3
48	8.4	12.5	22.1
49	8.7	13.1	22.8
50	9.0	13.6	23.6

Emissions of styrene are to be calculated by multiplying the appropriate emissions factor by the amount of each material consumed during the year. VOC emissions are determined by first multiplying the VOC content of the product (lb/gal), provided on the MSDS sheet, by the number of gallons used of the product. Styrene

1 and dimethyl phthalate emissions which remain in the product are not included with  
 2 the VOC emissions. Example: The product contains 45% styrene and 48% VOCs  
 3 according to the MSDS sheet. To determine VOC emissions calculate the amount of  
 4 styrene remaining in the product and subtract that from the total VOCs contained in  
 5 the product. If 100 pounds of the product is used:  $100 * 48\% \text{ VOCs} = 48 \text{ lbs of}$   
 6  $\text{VOC in the product}$ ;  $100 * 45\% \text{ styrene} = 45 \text{ lbs of styrene in the product at 7.6\%}$   
 7  $\text{emission factor due to hand lay-up non-vapor suppressed} = 7.6 \text{ lbs of styrene}$   
 8  $\text{emitted}$ .  $45 \text{ lbs of styrene in the product} - 7.6 \text{ lbs of styrene emitted} = 37.4 \text{ lbs of}$   
 9  $\text{styrene that did not emit to the atmosphere}$ .  $48 \text{ lbs of VOC in the product} - 37.4 \text{ lbs}$   
 10  $\text{of styrene (a VOC)} = 10.6 \text{ lbs of VOC emitted}$ . Appendix C provides some  
 11 examples of current products and information derived from the current MSDS  
 12 sheets. The VOC emission limit includes styrene emissions.

13 b. PM emissions from spray coating operations based on an average coating solids  
 14 content of 30% by weight, 65% transfer efficiency for HVLP spray guns at 10 psi  
 15 cap pressure or less, and 92% arresstance are estimated to be 0.03 tons of PM per  
 16 year.

17 c. There is no particulate matter emitted from fiberglass lay-up because only hand lay-  
 18 up is performed. All hand sanding and wood working is controlled by Grizzly dust  
 19 collectors which are exhausted inside of the buildings.

20 d. Previous emissions limits and current emissions limits are as follows:

<u>Pollutant</u>	<u>New Emission Limit (tpy)</u>	<u>Previous Emission Limit (tpy)</u>
VOC	22.00	35.00
Styrene	9.90	5.00
PM	0.05	0.00

1 Due to the increase in emissions for doubling the hours of operation and the  
2 potential to include another work shift, the source as the potential to emit over 10  
3 tons of styrene.

4 5. Potential emissions from the facility include more than 10 tons per year of styrene which is a  
5 hazardous air pollutant (HAP). Washington Administrative Code (WAC) 173-401  
6 "Operating Permit Regulation" requires any source which emits greater than 10 tons per  
7 year of any single HAP to obtain an Air Operating Permit (AOP) consistent with the  
8 requirements of Title V of the 1990 Federal Clean Air Act (FCAA). Respondent is  
9 requesting to establish voluntary emission limits to ensure that federally enforceable plant  
10 site emission limits are less than the thresholds for the FCAA Title V Air Operating Permit  
11 Program.

12 6. Respondent certifies that, based upon the above described parameters:

- 13 a. The equipment and systems as herein described are acceptable to other agencies  
14 with jurisdiction;
- 15 b. No other emission sources, activities, or points of atmospheric discharge or  
16 contemporaneous emission increases are being proposed for installation at this time.

17 **APPLICABLE REGULATIONS**

18 7. Regulations have been established for the control of air pollutants to the ambient air.  
19 Regulations applicable to the proposed facility which have been used to evaluate the  
20 acceptability of the proposed facility and establish emission limits and control requirements  
21 include, but are not limited to, the following regulations, codes or requirements. These  
22 items establish maximum emissions limits that could be allowed and are not to be exceeded  
23 for new or existing facilities. More stringent limits are established in this Order consistent  
24 with Best Available Control Technology (BACT):

- 1 a. Revised Code of Washington (RCW) 70.94.152 requires that no approval to  
2 construct or alter an air contaminant source shall be granted unless all known  
3 available and reasonable means of emission control are provided and that the  
4 operation will not aid in the contravention of ambient air quality standards.
- 5 b. RCW 70.94.152 provides for the inclusion of conditions of operation as are  
6 reasonably necessary to assure the maintenance of compliance with the applicable  
7 ordinances, resolutions, rules and regulations when issuing an Order of Approval for  
8 installation and establishment of an air contaminant source.
- 9 c. Washington Administrative Code (WAC) 173-401-300(7) "Federally Enforceable  
10 Limits" provides that any source with the potential to emit exceeding the tonnage  
11 thresholds defined in WAC 173-401-200(18) can be exempted from the  
12 requirement to obtain an Operating Permit when federally enforceable conditions  
13 are established which limit that source's potential to emit to levels below the  
14 relevant tonnage thresholds.
- 15 d. WAC 173-470 "Ambient Air Quality Standards for Particulate Matter" establishes  
16 ambient air quality standards for total suspended particulate matter and for  
17 particulate matter smaller than 10 microns (PM<sub>10</sub>), which may not be exceeded more  
18 than one day per year.
- 19 e. SWCAA 400-040 "General Standards for Maximum Emissions" requires all new  
20 and existing sources and emission units to meet certain performance standards with  
21 respect to Reasonably Available Control Technology (RACT), visible emissions,  
22 fallout fugitive emissions, odors, emissions detrimental to persons or property, sulfur  
23 dioxide, concealment and masking and fugitive dust.

- 1 f. SWCAA 400-040(1) "Visible Emissions" requires that reasonable precautions shall  
2 be taken to prevent any emission which exceeds 20% opacity for more than three  
3 minutes, in any one hour.
- 4 g. SWCAA 400-040(3) "Fugitive Emissions" requires that reasonable precautions shall  
5 be taken to prevent the release of air contaminants to the atmosphere.
- 6 h. SWCAA 400-040(4) "Odors" requires any source which generates odors which  
7 unreasonably interfere with any other property owner's use and enjoyment of their  
8 property to use recognized good practice and procedures to reduce these odors to a  
9 reasonable minimum.
- 10 i. SWCAA 400-060 "Emission Standards for General Process Units" requires that all  
11 new and existing sources not emit particulate matter in excess of 0.1 grains per dry  
12 standard cubic foot of exhaust gas.
- 13 j. SWCAA 400-091 "Voluntary Limits on Emissions" provides for the issuance of a  
14 regulatory order which reduces a source's potential to emit to an amount agreed upon  
15 by the owner/operator and the Agency.
- 16 k. SWCAA 400-110 "New Source Review" requires that a Notice of Construction  
17 application be filed with SWCAA prior to the establishment of any new source or  
18 emission unit or modification and that an Order of Approval be issued prior to  
19 establishment of the new source or emission point.
- 20 l. SWCAA 400-113 "Requirements for New Sources in Attainment or Nonclassified  
21 Areas" requires that no approval to construct or alter an air contaminant source shall  
22 be granted unless it is evidence that:
  - 23 1. The equipment or technology is designed and will be installed to operate  
24 without causing a violation of the emission standards;



- 1 9. The spray booth and related emission control equipment and provisions, as proposed in  
2 NOC CO-681, will not cause the ambient air quality levels established by WAC 173-470  
3 "Ambient Air Quality Standards for Particulate Matter" and title 40 Code of Federal  
4 Regulations Part 50 (40 CFR 50), "National Primary and Secondary Ambient Air Quality  
5 Standards" to be violated.
- 6 10. The spray booth and related emission control equipment and provisions, as proposed in  
7 NOC CO-681, if properly maintained, can be operated without causing a violation of  
8 emission standards for sources as established under SWCAA 400-040 "General Standards  
9 for Maximum Emissions" and SWCAA 400-060 "Emission Standards for General Process  
10 Units."

11 **EMISSION LIMITS/REQUIREMENTS**

12 NOW HAVING CONSIDERED THIS MATTER AND BEING DULY ADVISED, IT IS  
13 HEREBY ORDERED:

14 **OPERATIONAL REQUIREMENTS**

- 15 11. THAT, Order of Approval SWCAA 99-2235 shall be superseded in its entirety by this  
16 Order.
- 17 12. THAT, emission limits as proposed in Notice of Construction number CO-681, be  
18 established, subject to the requirements presented below and in Appendix A. Where two or  
19 more requirements are in conflict, the most stringent shall apply except where expressly  
20 authorized by this Order:
- 21 a. Facilitywide VOC emissions from yacht manufacturing operations based on  
22 methodology described in section 4.a. (material balance methodology, annual  
23 material usage, and emissions factors from Version 2.1 of the Composite  
24 Fabricator's Association (CFA) "Styrene Emissions Determination Models for Open

1 Molding Operations" dated May 1998), shall not exceed 22.0 tons per year, and does  
2 not include acetone.

3 b. Particulate matter emissions from spray coating based on material consumption, an  
4 average material solids content of 30% by weight, 65% transfer efficiency with use  
5 of HVLP guns at 10 psi or less, and 92% particulate matter arrestance shall not  
6 exceed 0.05 tons per year.

7 c. Facilitywide emissions of styrene from fiberglass products manufacturing operations  
8 based on methodology described in section 4.a (material balance methodology,  
9 annual material usage, and emission factors from Version 2.1 of the CFA's "Styrene  
10 Emissions Determination Models for Open Molding Operations" dated May 1998)  
11 shall not exceed 9.9 tpy. Emissions are to be calculated by multiplying the  
12 appropriate emissions factor by the amount of each material consumed during the  
13 previous twelve months. The VOC emissions limit includes styrene emissions.

14 d. To remain exempt from the provisions of Title V of the Federal Clean Air Act  
15 emissions of hazardous air pollutants as defined in Section 112(b) of the 1990  
16 Federal Clean Air Act (FCAA) shall not exceed 10.0 tons per year of any single  
17 HAP on an annual average rolled monthly and 25.0 tons per year of any  
18 combination of HAPs on an annual average rolled monthly.

19 e. Emissions of toxic air pollutants (TAPs) to the atmosphere shall not exceed the types  
20 and quantities as shown in Appendix B nor shall they collectively cause the  
21 facilitywide VOC emissions limit contained in section 12.a. to be exceeded. Those  
22 TAPs not in Appendix B shall not exceed the individual respective Small Quantity  
23 Emission Rate provided in WAC 173-460 on an annual average rolled monthly nor  
24 collectively result in an exceedance of the VOC limit. Emissions of dimethyl

1 phthalate shall be calculated in the same manner as styrene. Emissions of methyl  
2 ethyl ketone peroxide are considered negligible because it is assumed to react  
3 completely with the catalyst.

4 f. Opacity shall not exceed zero percent for more than 3 minutes in any one-hour  
5 period as determined by a Certified Observer certified in accordance with 40 CFR  
6 60, Appendix A, Method 9 "Visual Determination of the Opacity of Emissions from  
7 Stationary Sources" for all emission points with data reduction as provided in  
8 SWCAA 400-040 (SWCAA 400 Appendix A).

9 g. All windows and doors shall be kept closed during surface finishing and lay-up  
10 operations except when moving products into or out of production buildings.

11 h. Spray booth exhaust from the new booth shall be discharged vertically at a  
12 minimum height of 6 feet above roof peak and 26 feet above ground. Any raincap  
13 which interferes with vertical dispersion of exhaust gases is prohibited.

14 i. All spray coating shall be performed with high transfer efficiency equipment  
15 including, but not limited to, HVLP spray guns.

16 j. Solvent cleaning of lay up tools shall be conducted in a closed container as  
17 procedures allow.

18 k. A differential pressure gauge shall be installed and maintained on each filter bank to  
19 continuously measure differential pressure across the particulate filters during  
20 operations.

21 l. All containers of materials containing VOCs shall be kept securely closed except  
22 when materials are being added, mixed, or removed. All materials containing VOCs  
23 which are used to clean and/or flush spray equipment or lines during cleanup shall  
24 be collected in a closed container.

- 1 m. Respondent shall maintain an operations and maintenance (O/M) log containing the  
2 date and name of person making each entry. The O/M log shall include:
- 3 1. Types and quantities of substances used and MSDS information for these  
4 substances recorded monthly. Purchase receipts shall be used to demonstrate  
5 compliance;
- 6 2. Amounts and types of hazardous waste disposed recorded monthly;
- 7 3. Pressure gauge reading for the spray booth recorded weekly;
- 8 4. Upset conditions recorded for each occurrence; and
- 9 5. Control equipment maintenance activities recorded for each occurrence.
- 10 n. The following records shall be reported to SWCAA as indicated below:
- 11 1. Upset conditions reported immediately in accordance with SWCAA 400-  
12 107;
- 13 2. Throughput of evaporative products reported monthly by the last day of the  
14 following month. For example, January's report will be due on February 28;  
15 and
- 16 3. Air emissions, calculated on an annual average rolled monthly, reported  
17 monthly by the last day of the following month. For example, January's  
18 report will be due on February 28.
- 19 o. All records required by this Order shall be retained in a readily retrievable format for  
20 inspection for a minimum of five years.
- 21 13. THAT, emissions control systems shall be operated at all times during spray painting  
22 operations with the exception to minor touch-up and finishing operations.
- 23 14. THAT, Respondent shall provide written notice to SWCAA at least seven days in advance  
24 of the use of any material which contains toxic or hazardous air pollutants not listed in

1 Appendix B to this Order, except when product is being tested for potential use, does not  
2 meet their requirements and will not be used. If the product tested does meet the  
3 requirements, notice must be given seven days in advance before being used in regular  
4 production. The testing period shall not exceed a few weeks. The written notice shall  
5 include the following:

- 6 a. A description of the proposed changes in coating with a MSDS for each new  
7 material.
- 8 b. The date the change in coating is to be made.
- 9 c. The change in emissions of VOCs, HAPs, and TAPs occurring as a result of the  
10 change.
- 11 d. A summary of any applicable requirements that would apply as a result of the  
12 changes.

13 If the proposed emission rate of a new TAP exceeds its SQER and/or the VOC limits  
14 established by this Order or otherwise circumvents an applicable requirement including  
15 those established by this Order, New Source Review shall be required prior to making the  
16 proposed change.

17 15. THAT, new equipment or configurations which may change the type or quantity of  
18 emissions, shall not be added or modified, respectively, without prior approval from  
19 SWCAA.

20 16. THAT, operations which cause or contribute to odors which unreasonably interfere with any  
21 other property owner's use and enjoyment of their property shall use recognized good  
22 practice and procedures to reduce these odors to a reasonable minimum.

23 17. THAT, the emission units specified in Notice of Construction CO-681 shall be maintained  
24 and operated in total and continuous conformity with the emissions levels identified in this

1 order. If the requirements specified in this section and Appendix A cannot be maintained,  
2 then the operation of the specific equipment involved shall be terminated until corrective  
3 action has been completed.

#### 4 GENERAL REQUIREMENTS

5 18. THAT, for the purpose of ensuring compliance with this Order, duly authorized  
6 representatives of the Southwest Clean Air Agency shall be permitted access to  
7 Respondent's premises and the facilities being constructed, owned, operated and/or  
8 maintained by Respondent for the purpose of inspecting said facilities. These inspections  
9 are required to determine the status of compliance with the terms of this Order and  
10 applicable regulations and to perform or require such tests as may be deemed necessary.

11 19. THAT, the provisions, terms and conditions of this Order shall be deemed to bind  
12 Respondent, its officers, directors, agents, servants, employees, successors and assigns, and  
13 all persons, firms, and corporations acting under or for it.

14 20. THAT, this Order does not supersede requirements of other Agencies with jurisdiction and  
15 further, this Order does not relieve Respondent of any requirements of any other  
16 governmental Agency. In addition to this Order, Respondent may be required to obtain  
17 other permits and approvals for other Agencies with jurisdiction.

18 21. THAT, compliance with the terms of this Order shall not relieve Respondent from the  
19 responsibility of compliance with Southwest Clean Air Agency "General Regulations for  
20 Air Pollution Sources", any previously issued Regulatory Orders unless provisions  
21 established in such previously issued Regulatory Orders are specifically superseded by this  
22 Order, Title 173 Washington Administrative Code, or any other applicable emission control  
23 requirements, nor from the resulting liabilities and/or legal remedies for failure to comply.

- 1 22. THAT, if any provision of this Order is held to be invalid, all unaffected provisions of this  
2 Order shall remain in effect and shall be enforceable.
- 3 23. THAT, no change in this Order shall be made or be effective except as may be specifically  
4 set forth by written order of the Southwest Clean Air Agency upon written application by  
5 the Respondent for the relief sought.
- 6 24. THAT, the requirements of this Regulatory Order shall survive any transfer of ownership of  
7 the plant or any portion thereof.
- 8 25. THAT, the Southwest Clean Air Agency may, in accordance with RCW 70.94 impose such  
9 conditions as are reasonably necessary to assure the maintenance of compliance with the  
10 terms of this Order, the Washington Clean Air Act, and the applicable rules and regulations  
11 adopted under the Washington Clean Air Act.
- 12 26. THAT, this Order shall be posted conspicuously at or near the source or maintained within  
13 easy access to be able to identify operating and emissions limitations.

1 27. THAT, Respondent shall have the burden of proof regarding unavoidable conditions that  
2 lead to excess emissions in accordance with SWCAA 400-107 "Excess Emissions". Excess  
3 emissions shall be reported to SWCAA as soon as possible. Respondent shall call in the  
4 upset condition as initial notification to SWCAA; a message may be left on the answering  
5 machine for conditions outside of normal business hours. Respondent shall record the upset  
6 condition in the operations log for periodic inspection by SWCAA. A comprehensive report  
7 may be required by SWCAA if determined necessary.

8 DATED this XXth day of March, 2001

9  
10 Reviewed by: \_\_\_\_\_

11 Paul T. Mairose, P.E.

12 Chief Engineer

13  
14 Authorized by: \_\_\_\_\_

15 Robert D. Elliott

16 Executive Director

17 Southwest Clean Air Agency

## Condensed Summary of Operational Requirements

### North Star Yachts Order of Approval No. 01-2337 Installation of Spray Booth and Emission Limit Increase

This Order supersedes SWCAA Order of Approval 99-2235 in its entirety.

<b>1. Emission Limitations:</b>	<b><u>Approval Limit / Requirements:</u></b>
a. Emissions of styrene	Shall not exceed 9.9 tpy
b. Facilitywide VOC emissions (Not including acetone)	Shall not exceed 22.0 tpy
c. Emissions of PM from spray painting	Shall not exceed 0.05 tpy
d. Facilitywide emissions of toxic air pollutants (TAP) as defined in WAC 173-460	Shall not exceed the limit in Appendix B nor individually exceed the SQER nor collectively cause the VOC emissions limit in 1.b to be exceeded
e. Facilitywide emissions of hazardous air pollutants (HAP)	Shall not individually exceed 10.0 tons per year, nor collectively exceed 25.0 tons per year so as to be exempt from the requirements of Title V of the Act
f. Opacity (not to exceed for 3 minutes in any one hour period as determined by a Certified Observer certified in accordance with EPA Method 9)	Zero percent from all emission points (SWCAA 400 Appendix A)
g. Emissions to the atmosphere which cause odors or contribute to a nuisance odor	Shall use recognized good practice and procedures to reduce these odors to a reasonable minimum
 <b>2. Operating Limitations:</b>	
a. Operation of emission control systems	In operation at all times during spray painting operations
b. All VOC containing materials used to clean and/or flush spray equipment and/or lines	Shall be collected in an enclosed container
c. Hours of operation	8,760 hours per year

## Condensed Summary of Operational Requirements

### North Star Yachts Order of Approval No. 01-2337 Installation of Spray Booth and Emission Limit Increase

#### 2. Operating Limitations (con't):

#### Approval Limit / Requirements:

- |    |   |   |
|----|---|---|
| d. | Changes in VOC, TAP or HAP containing materials | Written notice shall be provided to SWCAA at least seven days in advance of the change(s) with a description of the proposed change(s), MSDS for each new material, date the change(s) are to be made, change(s) in emissions of VOCs, HAPs and TAPs and a summary of any applicable requirement(s) that would apply as a result of the change(s). Test products are exempt unless they will be used in regular production. |
| e. | Differential pressure gauge                     | Shall be installed and maintained on each filter bank   |
| f. | Minimize fugitive emissions to the atmosphere   | All doors and windows shall remain closed during production and cleanup except when moving product  |

#### 3. Monitoring/Record Keeping Requirements:

- |    |   |   |
|----|---|---|
| a. | Operations and maintenance log            | Shall be maintained for the plant and contain date and name of person making each entry |
| b. | Purchase receipts and MSDS information    | Documented for each purchase and maintained onsite in a readily accessible form         |
| c. | Upset conditions                          | Recorded in O/M log for each occurrence   |
| d. | Hazardous waste shipments                 | Recorded in O/M log for each month  |
| e. | Filter changed and maintenance activities | Recorded in O/M log for each occurrence   |
| f. | Pressure drop across filter media         | Recorded in O/M log for each week   |
| g. | All records required by this Order        | Retained for no less than 5 years   |

#### 4. Reporting Requirements:

- |    |                                      |  |
|----|--------------------------------------|--|
| a. | Emissions of VOCs, PM HAPs, and TAPs | Submitted to SWCAA monthly by the last day of the following month. |
|----|--------------------------------------|--|

**Condensed Summary of Operational Requirements****North Star Yachts Order of Approval No. 01-2337  
Installation of Spray Booth and Emission Limit Increase**

<b>4. Reporting Requirements (con't):</b>	<b><u>Approval Limit / Requirements:</u></b>
b. Types and amounts of coatings and solvents consumed, and hazardous waste disposed	Submitted to SWCAA monthly by the last day of the following month.
c. Upset conditions	Notify SWCAA immediately via telephone in accordance with SWCAA 400-107

## Summary of Toxic Air Pollutants/Hazardous Air Pollutants

### North Star Yachts Order of Approval No. 01-2337 Installation of Spray Booth and Emission Limit Increase

Toxic Compound	CAS Number	ASIL ( $\mu\text{g}/\text{m}^3$ )	SQER (lbs/yr)	Emissions (lbs/yr) <sup>1</sup>	Limit (lb/yr)
Acetic Acid	64-19-7	83.00	10,500.00	280.00	560.00
Acetone	67-64-1	5,900.00	43,748.00	33,937.67	43,748.00
Amyl Acetate	628-63-7	1,800.00	43,748.00	42.50	100.00
Benzoyl Peroxide	94-36-0	17.00	1,750.00	893.00	1,750.00
n-Butyl Acetate	123-86-4	2,400.00	43,748.00	837.50	1,900.00
n-Butyl Alcohol	71-36-3	500.00	43,748.00	207.63	420.00
Carbon Black	1333-86-4	12.00	1,750.00	220.00	500.00
Chromium Compounds*	7440-47-3	1.70	175.00	50.00	100.00
Cobalt Compounds*	7440-48-4	0.17	175.00	78.60	175.00
Cumene*	98-82-8	820.00	43,748.00	80.00	160.00
Cyclohexane	110-82-7	3,400.00	43,748.00	80.00	160.00
Diethanolamine*	111-42-2	43.00	5,250.00	1.15	100.00
Diisobutyl Ketone	108-83-8	480.00	43,748.00	0.20	100.00
Dimethylaniline*	121-69-7	83.00	10,500.00	25.34	100.00
Dimethyl Phthalate*	131-11-3	17.00	1,750.00	202.00	475.00
Ethyl Acetate	141-78-6	4,800.00	43,748.00	65.64	400.00
Ethyl Alcohol	64-17-5	6,300.00	43,748.00	474.76	1500.00
Ethyl Benzene*	100-41-4	1,000.00	43,748.00	399.99	800.00

## Summary of Toxic Air Pollutants/Hazardous Air Pollutants

### North Star Yachts Order of Approval No. 01-2337 Installation of Spray Booth and Emission Limit Increase

Toxic Compound	CAS Number	ASIL ( $\mu\text{g}/\text{m}^3$ )	SQER (lbs/yr)	Emissions (lbs/yr) <sup>1</sup>	Limit (lb/yr)
Ethylene Glycol*	107-21-1	420.00	43,748.00	4.58	100.00
Formaldehyde*	50-00-0	0.077	20.00	4.00	20.00
Glycol Ethers*	-----	-----	-----	71.36	200.00
Hexane*	110-54-3	200.00	22,750.00	324.00	650.00
Hydrogen Peroxide	7722-84-1	4.70	175.00	0.20	100.00
Iron Oxide	67-63-0	3,300.00	43,748.00	42.50	100.00
Isobutyl Acetate	110-19-0	2,400.00	43,748.00	50.00	100.00
Isopropanol	67-63-0	3,300.00	43,748.00	442.49	1000.00
Methanol	67-56-1	870.00	43,748.00	200.00	400.00
Methyl Ethyl Ketone*	78-93-3	1,000.00	43,748.00	850.05	1,700.00
Methyl Isobutyl Carbinol	108-11-2	350.00	43,748.00	6.00	100.00
Methyl Isobutyl Ketone*	108-10-1	680.00	43,748.00	1,612.50	3,220.00
Methyl Methacrylate*	80-62-6	1,400.00	43,748.00	988.50	2,400.00
Methyl Styrene	98-83-9	810.00	43,748.00	431.00	850.00
Methyl Propyl Ketone	107-87-9	2,300.00	43,748.00	200.00	400.00
Methylene Chloride	75-09-2	0.56	50.00	47.41	50.00
Methylene Diphenyl Diisocyanate (MDI)*	101-68-8	0.20	175.00	0.22	20.00
Naphthalene*	91-20-3	170.00	22,750.00	40.00	100.00
Phenol*	108-95-2	63.00	10,500.00	50.00	100.00

## Summary of Toxic Air Pollutants/Hazardous Air Pollutants

### North Star Yachts Order of Approval No. 01-2337 Installation of Spray Booth and Emission Limit Increase

Toxic Compound	CAS Number	ASIL ( $\mu\text{g}/\text{m}^3$ )	SQER (lbs/yr)	Emissions (lbs/yr) <sup>1</sup>	Limit (lb/yr)
Phosphoric Acid	7664-38-2	3.30	175.00	0.75	100.00
Sodium Hydroxide	1210-73-2	6.70	175.00	25.00	175.00
Styrene*	100-42-5	1,000.00	43,748.00	17,565.44	19,800.00
Toluene*	108-88-3	400.00	43,748.00	1,963.48	4,000.00
111-Trichloroethane	71-55-6	6,400.00	43,748.00	170.09	350.00
124-Trimethylbenzene	95-63-6	420.00	43,748.00	599.99	1,200.00
Turpentine	8006-64-2	1,900.00	43,748.00	3.60	2,000.00
Vinyl Acetate*	108-05-4	200.00	22,750.00	30.00	100.00
Xylene*	1330-20-7	1,500.00	43,748.00	2,262.48	4,500.00

1. The annual Small Quantity Emission Rate was compared with the actual emission rate to confirm compliance.

\* Labeled compounds are also classified as Federal Hazardous Air Pollutants.

CAS = Chemical Abstract Service registry number

ASIL = Acceptable Source Impact Level established under WAC 173-460

SQER = Small Quantity Emission Rate established under WAC 173-460

Material consumption information provided by the Respondent

### Example of VOC Calculations

**North Star Yachts Order of Approval No. 01-2337  
Installation of Spray Booth and Emission Limit Increase**

Product Name/Manufacturer	Use (gal/yr)	VOC Content (lb/gal)	Total VOC emissions (VOC Content * Use) (lb)
Burtin 400 A	32	0	0.00
Burtin 400 B	31	2.04	63.24
Cook 944W005	648	0.89	576.72
Cook 949AJ217	37	3.89	143.93
Divincell 600 Blue	600	2.0	1200.00
DuPont thinner	482	8.3	4000.60
Dupont paint	500	4	2000.00
Lan-o-Sheen	80	4.8	384.00
Lilly 67-11	28	2.28	6.84
Lilly 67-3964	113	3.43	387.59

The above is an example of how to calculate VOCs based on a sample of the Respondents paints. This is not intended to limit the products the Respondent can use. If a new material is used that has a new TAP not listed in Appendix B the Respondent shall provide written notice to SWCAA at least seven days in advance of the use of the substance to assure the SQER will not be exceeded as described in section 10.

**CFA Styrene Emissions Factors Table**

**North Star Yachts Order of Approval No. 01-2337  
Installation of Spray Booth and Emission Limit Increase**

(Attached)

**Southwest Clean Air Agency**

**State Environmental Policy Act**

**DETERMINATION OF NONSIGNIFICANCE (DNS)**

**Description of proposal:**

NOC CO-68: Approval for an addition of a second work shift and installation of a new spray booth. Fabric filtration will be used to control sanding and wood working operations. HVLP, or equivalent, spray guns will be used. Emissions are limited to 43.0 tpy VOCs, 9.9 tpy styrene, 0.05 tpy PM and all TAPS limited to applicable SQER.

**Proponent:** North Star Yachts  
(Jerry Clark, Chief Operating Officer)

**Location of proposal, including street address if any:**

1265 N. Hendrickson Drive  
Kalama, WA 98625

**Lead agency:** Southwest Clean Air Agency

The lead agency for this proposal has determined that it does not have a probable significant impact on the environment. An environmental impact statement (EIS) is not required under RCW 43.21C.030(2)(c). This decision was made after review of a completed environmental checklist and other information on file with the lead agency. This information is available to the public on request.

- There is no comment period for this DNS.
- This DNS is issued under WAC 197-11-340(2); the lead agency will not act on this proposal for 15 days from the date below. Comments must be submitted by \_\_\_\_\_.

**Responsible official:** Paul T. Mairose, P.E.

**Position/title:** Chief Engineer

**Address:** Southwest Clean Air Agency  
1308 NE 134th Street  
Vancouver, WA 98685-2747

**Phone:** (360)574-3058

**Signature:** \_\_\_\_\_

**Date** \_\_\_\_\_

## **PUBLIC NOTICE**

Notice to the public is hereby given that the Southwest Clean Air Agency (SWCAA) has made a preliminary determination to issue Order of Approval number 01-2337 to North Star Yachts to opt out of the Title V Air Operating Permit program for the facility located at 1265 N. Hendrickson Drive, Kalama, Cowlitz County, Washington. The facility proposed to increase their hours of operation and install a paint booth to control emissions from paint spray. Emissions from the facility shall not exceed 43.0 tpy VOCs, 0.05 tpy PM and 9.9 tpy Styrene. Determination of Nonsignificance (DNS) has been made in accordance with the State Environmental Policy Act (SEPA) for this process.

The public has an opportunity to review and comment on the preliminary Order of Approval. This preliminary Order of Approval will be made available in other media, if necessary. All written or oral comments must be received by SWCAA within 30 days after this publication. Final action by SWCAA to approve, modify, or deny the proposal will be taken within 10 days after the close of the comment period. If there is a demonstrated significant public interest, a public hearing may be held with the required 30 day notification. The material is available for review at 1308 NE 134th Street, Vancouver, Washington, Monday through Friday from 8:00 AM to 4:30 PM.