Prevention of Significant Air Quality Deterioration Review
Chaparral Boats, Inc.,
located in Nashville, Georgia (Berrien County)

FINAL DETERMINATION

SIP/Title V Permit Application No. 16624
March 2007

State of Georgia
Department of Natural Resources
Environmental Protection Division

Air Protection Branch

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BACKGROUND

On February 27, 2006, Chaparral Boats, Inc. (hereafter Chaparral) submitted an application for an air quality permit to relax all previous PSD limits and construct and operate a new plant and a new wood coating operation. The facility is located at 300 Industrial Park Boulevard in Nashville, Berrien County. The permit will remove all previous PSD avoidance limits for Plant Nos. 1 - 5, the construction and operation of Plant No. 7, and the construction and operation of a Wood Coating Operation in Plant No. 3. The proposed project will remove the 249 ton per year VOC limit for Plant Nos. 1, 2, 3 and 4; remove the 150 ton per year VOC limit for Plant No. 5; remove the 49.9 ton per year limit for Plant No. 4 Resin Operations; and remove the 12.0 ton per year VOC limit for Plant No. 4 Gel Coat Booth No. 2. The project also proposes the construction and operation of Plant No. 7, which will include Resin/Lamination Operations, Deck Gel Coat Operations, Hull Gel Coat Operations, Adhesive Operations, Mold Cleaning Operations, Equipment Cleaning Operations, and Material Mixing Operations. The project also proposes the construction and operation of a Wood Coating Operation in Plant No. 3.

On January 22, 2007, the Division issued a Preliminary Determination stating that the modifications described in Application No. 16624 should be approved. The Preliminary Determination contained a draft Air Quality Permit for the construction and operation of the modified equipment.

The Division requested that Chaparral place a public notice in a newspaper of general circulation in the area of the existing facility notifying the public of the proposed construction and providing the opportunity for written public comment. Such public notice was placed in *The Berrien Press* (legal organ for Berrien County) on January 22, 2007. The public comment period expired on March 23, 2007.

During the comment period, comments were received from U.S. EPA Region 4. There were no comments received from the facility or general public.

A copy of the final permit is included in Appendix A. A copy of written comments received during the public comment period is provided in Appendix B.

U.S. EPA REGION 4 COMMENTS

Comments were received from Gregg M. Worley, Chief, Air Permits Section, U.S. EPA Region 4, by email and fax on February 22, 2007. The comments are typed, verbatim, below and were the result of reviews by Jim Little and Stan Kukier of U.S. EPA Region 4.

Comment 1

From page 5 of the permit application, the total potential emissions of VOC from the facility after the modification is 2,678.5 tons per year (tpy). Of this total, 2,276.7 tpy would be emissions of styrene, a hazardous air pollutant. To help put this quantity of styrene emissions in perspective, we obtained reported styrene emissions from the 2003 and 2004 Toxics Release Inventory (TRI) database for the eight southeastern states in EPA Region 4. (Years 2003 and 2004 are the most recent years for which TRI data are readily available.) The potential Chaparral styrene emissions rate represents about 25 percent of all styrene emissions reported in 2003 and 2004 for the entire southeastern U.S. Furthermore, a styrene emissions rate of 2,276.7 tpy (if it actually occurred), would be more than twice as high as the largest amount of styrene emissions reported in 2003 and 2004 for any single facility in the southeastern U.S. (In fact, since the highest 2004 styrene emitter anywhere in the U.S. was in Region 4, the potential styrene emissions from Chaparral are more than twice as high as those emitted in 2004 from any single facility in the entire U.S.)

We make this comparison simply to point out that the estimated potential VOC emissions from the expanded Chaparral facility seem artificially high. We generally discourage source owners from requesting allowable emissions that are not likely to be realized in practice. The mitigating factor in this instance, however, is that the VOC emissions limit in the draft permit restricts allowable emissions on the basis of the actual amount of materials used in boat production. If actual material usage is less than the theoretical maximum on which the potential VOC emissions estimate is based, then allowable VOC emissions will be less than the potential VOC emissions rate of 2,276.7 tpy. Were it not for this, we would recommend some sort of tiered emissions limits tied to actual production achieved.

EPD Response:

The potential emissions, reported by Chaparral, represent an "ideal" operating scenario, equipment operating at maximum capacity for 8,760 hours per year. This "ideal" scenario was used to represent worst-case emissions facility wide. The facility did not request these "ideal" levels to be allowable emission rates, but only to show the facility's ability to comply with BACT at a worst-case state. The level of BACT deemed appropriate for these levels of emissions would certainly be true for a more realistic case where emissions were calculated on plant actual operating scenarios.

Further more, a toxic impact assessment was performed for styrene emissions at this "ideal" rate from the facility. The assessment showed the Chaparral could comply with the Georgia Toxic Guidelines, so there should be no hesitation that the facility could comply at lower emission levels.

Comment 2

You have determined that best available control technology (BACT) for VOC emissions from the points of greatest potential VOC emissions (open molding resin and gel coat operations) is use of "pollution prevention." The BACT VOC limit for these operations combined is a formula consisting of the sum of five material usage rates, each multiplied by a specific coefficient. We have the following comments about this BACT approach:

a. You state (on page 23 of the preliminary determination) that the BACT VOC limit formula is from 40 CFR part 63, subpart VVVV, the national emissions standards for hazardous air pollutants (NESHAP) for boat manufacturing. The final determination would be strengthened by an explanation of why you believe a generic NESHAP formula issued in 2001 is appropriate for a case-by-case BACT determination for a 2007 project. An explanation of the derivation of the five coefficients in the emissions limit formula and the reason why these coefficients are specifically applicable to Chaparral Boats would also be helpful.

EPD Response:

The nature of fiberglass boat manufacturing has not changed substantially since 2001, therefore, the process used to develop the Boat MACT (40 CFR 60 Subpart VVVV) is appropriate as the development of the standard implemented a top down technology review that determined that the HAP limits to be effective control of HAP and constitute MACT for new sources which is similar in nature to BACT. Furthermore, the MACT limits represent BACT for similar sources as shown in the RACT, BACT, LAER Clearinghouse.

b. The selected VOC BACT approach for open molding resin and gel coat operations is described as the "pollution prevention" option. However, setting a one-time formula for calculation of VOC emissions based on solvent content data considered current in 2001 will not necessarily reflect improving pollution prevention possibilities if solvent contents decrease in the future. You could consider adding a re-opener condition such that the VOC BACT emissions limit in the permit is an upper limit to be re assessed periodically and adjusted downward consistent with the VOC solvent content of generally available materials at the time of each re assessment.

EPD Response:

This comment is inconsistent with the concept of BACT and previous PSD determinations issued in the State of Georgia such the DaimlerChrysler permit issued in June 2003. This PSD permit has pollution prevention for several coating operations and the permit does not contain any re-opener condition. Additionally, USEPA did not object to the BACT limits contained in the Plant No. 3 PSD permit issued to Chaparral Boats in April 2005. BACT is a technology review that considers all available control technology up until permit issuance, therefore, technologies introduced after permit issuance are not considered and the PSD permit should not be reopened.

Comment 3

On page 19 of the permit application, the applicant discusses costs that would be incurred from purchasing adding equipment for existing operations and for retraining of workers. The same discussion is repeated on page 17 of the preliminary determination to support elimination of the closed molding option. Please keep in mind that existing operations are being permitted under the "relaxation" provision of 40 CFR 52.21(r)(4) and, accordingly, should be treated "as though construction had not yet commenced on the source or modification." Costs such as the addition of equipment for existing operations and retraining of workers are not consistent with the concept of construction having not yet commenced.

EPD Response:

Closed-molding operations were ruled out because BACT should not change the inherent process of the facility. Chaparral maintains product quality by the process of open molding. To implement closed-molding as BACT would change the process of the facility.

The additional cost of closed molding was added as support to the argument. The costs of additional equipment and the re-training of workers were not considered in the cost per ton numbers in the BACT analysis.

Comment 4

On pages 25 and 26 of the permit application, the applicant refers to "California BACT" as being more like lowest achievable emission rate technology (LAER) than federal best available control technology as though LAER technology is ineligible for selection as a BACT option. Technically feasible LAER technology is eligible for consideration as a BACT option for PSD projects anywhere in the U.S. and can not be dismissed out of hand without consideration of economic, energy, and environmental factors.

EPD Response:

EPA is referring to Navigator Yachts' use of a thermal oxidizer as BACT control for VOC. Thermal oxidation was considered as technically feasible for the BACT review, but was ruled out as economically infeasible. One reason that costs of thermal oxidation for Chaparral are so high is that the VOC emissions are low concentration and high airflow rate, requiring a large and costly oxidizer. Navigator Yachts was mentioned in the preliminary determination and application only to emphasize the differences in application method and air flow needs between Chaparral and Navigator Yachts.

Comment 5

On page 1 of the preliminary determination you list various regulated NSR pollutants. One of the regulated NSR pollutants not listed that could be emitted from the facility is PM2.5. We recommend that you acknowledge PM2.5 in the final determination and state that PM2.5 emissions would not be significant based on use of PM10 emissions as a surrogate.

EPD Response:

The Division agrees with EPA's comment. PM2.5 emissions are not significant based on the use of PM10 emission as a surrogate.

Comment 6

The requirements of 40 CFR part 63, subpart VVVV apply to the Chaparral boat manufacturing operations. In permit conditions 3.3.16, 6.2.32, and 6.2.33, which are based on the requirements of subpart VVVV, we recommend that you use the term "Maximum Achievable Control Technology model point value" rather than "Best Available Control Technology model point value."

EPD Response:

The Division will change the above mentioned conditions to ""Maximum Achievable Control Technology model point value" rather than "Best Available Control Technology model point value," as requested by EPA.

APPENDIX A

AIR QUALITY PERMIT
3732-019-0003-V-02-5

APPENDIX B

WRITTEN COMMENTS
RECEIVED DURING
COMMENT PERIOD