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April 25, 2011

Mr. Ralph Bryant  
AVX Corporation  
P.O. Box 867  
Myrtle Beach, SC 29578

**RE: Revised Title V Permit Application for AVX Corporation**

Dear Mr. Bryant:

The above revised permit application received April 1, 2011, has undergone a preliminary review by the appropriate staff member. In order to continue the review, the following items below are requested pursuant to SC DHEC Regulation 61-62.70.5(c)(5). Please return the information below with a copy of this letter.

1. Section 2.3 – revise last sentence of the second paragraph to include 100% loss as some compounds are estimated at 100% loss.
2. Section 2.4 – the text refers to the deletion of xylene in the manufacturing process, yet the emission calculations include xylene. Please either delete these emissions from the forms and calculations or discuss in this section why they are still included.
3. Section 2.5 – the second sentence of the third paragraph should be revised to “The majority of dicing is accomplished using a wet process where there are no emissions.”
4. Section 2.6.1 – the section discusses the decommissioning of the Autoline Plater in 2011-2012, yet Table 7 states the plater will remain in operation through 2010. Please resolve the discrepancy by either revising the text or table accordingly.
5. Section 3.1 – The following sentence is an incomplete sentence: “AVX estimates that 70% of the slip used in the buildup process is applied to the chips since and 15% returns back as material reclaim.” Please remove the word “since.”
6. Section 4.1.2 – The text discusses a 16.7 MMBTU/hr boiler, yet emissions are based on 16.4 MMBTU/hr and the TV Application Form C states the boiler is 13.4 MMBTU/hr. Please verify the nameplate capacity of the boiler and revise the text, calculation, and form accordingly.
7. Section 4.1.3 – There is no discussion of the applicability of 40 CFR 63, Subpart WWWW. Please include a discussion of the plating NESHAP in this section and include its applicability on Form K.
8. Section 4.2.5 – There is no discussion as to the 1979 Baseline to determine regulatory applicability.
9. Form C, Unit ID 15 - Exhaust ID points are labeled as fugitive on the form and labeled as SM-1 on the diagram. Please revise the diagram or the TV application form accordingly.
10. Form C, Unit IDs 17, 18, and portions of 19 - Exhaust ID points are inconsistently labeled between the form and the diagram. Please revise the diagram or the TV application form accordingly.
11. Form C, page 4 of 5, Unit ID 19 - The Autoline Plater is missing from the application. Please include.

12. Form C, Line Item 4, Process Weight Rate - Any changes in process weight rates from the current (albeit expired) TV should be explained in Section 4.2.4 of the text. All calculations for the process weight rates should be included in Appendix E, Supporting Emission Calculations.

*Definitions from SC Regulation 61-62.1-*

*67. Process Weight - The total weight of all materials introduced into a source operation, including air and water where these materials become an integral part of the product, and solids used as fuels but excluding liquids and gases used solely as fuels.*

*68. Process Weight Rate - A rate established as follows:*

*a. For continuous or long-run steady-state source operations, the total process weight for the entire period of continuous operation or for a typical portion thereof, divided by the number of hours of such period or portion thereof.*

*b. For cyclical or batch unit operations, or unit processes, the total process weight for a period that covers a complete operation or an integral number of cycles, divided by the hours of actual process operation during such a period.*

*Where the nature of any process or operation or the design of any equipment is such as to permit more than one interpretation of this definition, the interpretation that results in the minimum value for allowable emission shall apply.*

13. Form D – Please include greenhouse gas emissions on this form for the respective Unit IDs.
14. Form D, Unit ID 14 - PM<sub>2.5</sub> should also be included.
15. Form D, Unit ID 16 – The PM/PM<sub>10</sub> emissions should be revised to reflect the changes in Table 15. PM<sub>2.5</sub> should also be included.
16. Form D, Unit ID 17 - PM<sub>2.5</sub> should also be included.
17. Form D, Unit 17 – There is no longer a supporting calculation table for the 2 CMAP Machines in MB1. If these machines have been removed and are no longer in MB1, the TV application should be revised accordingly.
18. Form D, Unit ID 17 – VOC emissions do not match those on Table 17 for fugitive emissions. Please verify all HAP/TAP emissions are also reported correctly.
19. Form D, Unit ID 18 – VOC emissions are quantified, yet the equipment (burnout ovens) is not on Form C. The equipment should either be included on Form C or the emissions should be deleted from Form D.
20. Form D, Unit ID 18 – The PM Uncontrolled lb/hr and TPY appear to be incorrectly calculated from the PM generated reported on Table 18. Please revise the calculation and correct the form accordingly.
21. Form D, Unit ID 18 - PM<sub>2.5</sub> should also be included.
22. Form D, Unit ID 20 - PM<sub>2.5</sub> should also be included.
23. Form D, Unit ID 21 – Include total VOC emissions for the Stripping Tower. Include PM/PM<sub>10</sub>/PM<sub>2.5</sub> emissions for Soldering.
24. Tables 12 & 15 – The resulting Standard 4 PM limits indicate a process weight rate much higher than those indicated on the Title V form C, Item 4. Please explain the difference and/or correct accordingly.
25. Table 16 – Please include the derivation of the lb/hr rates for this Unit ID. Since these activities are batch or semi-continuous, please indicate the worse case short term emission rate.

26. Table 17 – The CO<sub>2</sub> emissions are calculated incorrectly. These emissions are off by three orders of magnitude.
27. Table 18 – The TV Application Form C indicates there are five (5) dicing machines, yet the emission calculations are performed using 6 machines. The supporting calculation should be revised or an explanation for using 6 machines should be included in Section 3.1.
28. Table 18 – The process weight rate does not match that rate listed in form C, Item 4, Unit ID 18. Please revise the table or form appropriately.
29. Table 21 – Please discuss why the “Other Metal Factor (Unc.)” was not used for the uncontrolled emissions. Please revise the Table and/or Form D accordingly.
30. Table 22 – Please include all HAPs in the HAP/TAP Emissions from the Thin Film Process. There are some compounds in the VOC table that are HAP/TAPs and should be included in the HAP/TAP calculation. Example = 1-Methoxy-2-propanol
31. Table 24 – The CO<sub>2</sub> emissions are calculated incorrectly. These emissions are off by three orders of magnitude.
32. Table 25 – Please add the appropriate reference footnote for the emissions.

If confidential information is submitted, two packages should be provided. One package shall contain the confidential information and be clearly marked “Confidential” on every page. The second package shall be a sanitized version. Information not labeled as confidential will be managed and filed as non-confidential material.

Again, in order to continue the review and processing of your application, please submit the requested information within 15 calendar days of the date of this letter.

If you have any comments or questions, you may contact me at 803-898-4072 or by email at [clarkfaw@dhec.sc.gov](mailto:clarkfaw@dhec.sc.gov).

Sincerely,



Fatina Ann Washburn Clark  
Engineering Services Division  
Bureau of Air Quality

cc: Matt Maxwell, Region 6, Myrtle Beach, EQC Office  
TV File: 1340-0002