Commonwealth of Kentucky
Division for Air Quality

PERMIT STATEMENT OF BASIS

CONDITIONAL MAJOR (DRAFT PERMIT) NO. F-06-014
VUTEQ CORPORATION
GEORGETOWN, KY.
JUNE 9, 2006
BRIAN BALLARD, REVIEWER

SOURCE I.D. #: 021-209-00050
SOURCE A.I. #: 48605
ACTIVITY #: APE20060001

SOURCE DESCRIPTION:

The Division received a Title V application from Vuteq Corporation on December 6, 2005. The facility had not previously applied with the Division even though it has been an existing emission source since 1987. It was determined that the facility would be a major source of HAP emissions and would therefore be subject to 40 CFR 63.40 to 63.56 (Subpart B), "Requirements for Control Technology Determinations for Major Sources in Accordance with Clean Air Act Sections 112(g) and 112(j)". The facility elected to request Conditional Major emission(s) limits established through a Federally Enforceable State-Origin Permit in a letter received by the Division on February 20, 2006.

The emission sources included in the December 2005 application are as follows:

ID	Description	Date Constructed
EP1	Old Sunroof Line	January 1987
EP2	New Sunroof Encapsulation Line	February 1999
EP3	New Sunroof Assembly Line	February 1999
EP4	Sunshade Line	January 2003
EP5	GM Line: GM 315 Liftgate/Windshield	June 2005
EP5a	GM Line: GM 381 Windshield	February 2006
EP5b	GM Line: GM 215/245 Windshield	June 2005
EP6	Door Line: 120N FD FL & RD 315 FL & RD 315 RL & RD 700 N F & L 044L FL&RD	 February 1999 June 2005 June 2005 July 2003 January 2006
EP6a	Door Line: 770 N RD	January 2006
EP6b	Door Line: 120N RD	February 1999
EP7	Windshield Pin Line	April 1995
EP8	SMC Press Line	September 1998
EP9	HP Soldering Line	January 1987
EP10	Spare Tire Cover Line	November 2005
EP11	DAP Line: BW	July 2005
EP11a	DAP Line: WS	July 2005
EP12	R.I.M. & Frame Lines	February 2006
EP13	Miscellaneous Cleaning Operation	January 1987

SOURCE DESCRIPTION (CONTINUED):
The Division received correspondence on April 20, 2006 from Smith Management Group on behalf of Vuteq which indicated that EP9, the HP Soldering Line ceased operation on February 16, 2006. The correspondence indicates that EP1 and EP9 are in the process of being removed. EP1 and EP9 are not included in permit F-06-014 but were added to the emission inventory database so that emissions from these units in 2006 can be documented in the emissions inventory survey. The April 20, 2006 correspondence indicates that Sparkle Solder 500 which was included as solder material used by the facility in the December 2005 application is no longer used and that all solder used now is lead-free.

COMMENTS:
Emissions are released from the activities associated with the process lines including, but not limited to glass cleaning and priming, injection molding, sonic welding, soldering, drying, and cutting to produce automotive glass window subassemblies or other automotive accessories, such as spare tire covers and sunshades. The emissions of VOC and volatile HAP result from the use of cleaners, adhesives, resins, solders and other materials utilized in the above-mentioned activities. It is assumed that the entire content of VOC and volatile HAP present in the materials are emitted with one exception noted below. There are little to no emissions of PM/PM_{10} from these activities and therefore 401 KAR 59:010 does not apply. This assertion is based on there being no spraying of materials in any of these processes, resulting in what little PM/PM_{10} material that may be emitted settling out in the workspace.

The emissions of volatile HAP from the Polyfast® and Isofast® materials used at EP12 – R.I.M. & Frame Lines, is zero since these two materials react completely to form a polyurethane elastomer based on information supplied from the manufacturer of these materials. The emissions of VOC from the reaction of these two materials is significantly less than that originally projected in the December 6, 2005 application. This determination is based on an emission report from the manufacturer submitted by Vuteq, received on May 26, 2006.

The application of solder at EP5, EP7 and EP11 is assumed to emit some PM/PM_{10}. Based on the hourly usage rate of solder identified in the application and specified in the permit, these emission points will be in compliance with the mass standard specified in 401 KAR 59:010. In order to demonstrate compliance with the opacity standard specified in 401 KAR 59:010, a qualitative visual observation of the opacity of emissions shall be performed from the stacks on a weekly basis and a log of the observations maintained when the units are operating. If visible emissions from the stacks are seen (not including condensed water vapor within the plume), then the opacity shall be determined by Reference Method 9. If emissions are in excess of the applicable opacity limit, then an inspection shall be initiated of control equipment for all necessary repairs.

Emissions from the boiler and furnaces are calculated using emission factors referenced from EPA, AP-42, Fifth Edition, Chapter, "External Combustion Sources," Section 1.4, "Natural Gas Combustion," Tables 1.4-1 and 1.4-2. The boiler is subject to the particulate and SO_2 standards in 401 KAR 59:015. Compliance with the standards is assumed as long as the boiler is burning pipeline grade natural gas.

COMMENTS (CONTINUED):
An analysis of toxic emissions was conducted to assess the applicability of 401 KAR 63:020. The emissions from the process lines were modeled using the SCREEN3 air dispersion model. The emissions were modeled as a single volume source using additional information submitted by Smith Management Group on behalf of Vuteq Corporation by e-mail on March 14, 2006. The results of the model showed that diethanolamine (CAS # 111-42-2) exceeded the Prioritized Dose Response Value (PDRV) recommended by the EPA Office of Air Quality Planning and Standards (OAQPS). Diethanolamine is present in Polyfast® 3905/14. The emissions of diethanolamine modeled were based on the assumption that the entire content of diethanolamine in the material was emitted.

The consultant obtained information from the manufacturer of Polyfast® 3905/14 and submitted it on behalf of Vuteq by e-mail on April 11, 2006. The manufacturer states that the Polyfast® 3905/14 is mixed with a product called Isofast® and that the two liquids fully react to form a polyurethane elastomer, resulting in no emissions of diethanolamine into the air. An emission report from the manufacturer verifying this was submitted by Vuteq to the Division on May 26, 2006. The Division concurs with this assessment and therefore 401 KAR 63:020 is found not to apply at this time.

The February 20, 2006 letter submitted by Vuteq originally requested emission caps of 95 tons for VOC, 23.75 tons for combined HAPs and 9.5 tons for individual HAP. All emission caps requested were for any twelve consecutive month period. It was later verified as described above that there were no HAP emissions and less than one-tenth ton per year of VOC emissions from EP12. The December 6, 2005 application estimated VOC emissions from EP12 to be 16.54 tons per year and combined HAP emissions to be 4.2 tons per year. The revised source-wide potential VOC emissions are 87.11 tons per year and the revised source-wide potential combined HAP emissions are 22.37 tons per year. Therefore it was determined that a 95 ton per year VOC emission cap and a 23.75 ton per year combined HAP emission cap were not warrantable. Vuteq submitted a letter received by the Division on May 30, 2006 retracting the previously requested emissions caps for VOC and combined HAP.

EMISSION AND OPERATING CAPS DESCRIPTION:
The source is subject to an emission cap of 9.5 tons per any twelve consecutive month period for any individual HAP due to potential emissions of hexane exceeding the major source threshold.

PERIODIC MONITORING:
The usage of cleaners, adhesives, resins or any other VOC/HAP emitting material shall be monitored monthly. The source-wide VOC and HAP emissions shall be calculated and recorded monthly. The twelve-month rolling average VOC and HAP emissions shall be monitored and recorded monthly. A qualitative visual observation of the opacity of emissions shall be performed weekly on the stacks associated with EP5, EP7 and EP11 and a log of the observations shall be maintained. If visible emissions from the stacks are seen (not including condensed water vapor within the plume), then the opacity shall be determined by Reference Method 9. If emissions are in excess of the applicable opacity limit, then an inspection shall be initiated of control equipment for all necessary repairs.

CREDIBLE EVIDENCE:

This permit contains provisions which require that specific test methods, monitoring or recordkeeping be used as a demonstration of compliance with permit limits. On February 24, 1997, the U.S. EPA promulgated revisions to the following federal regulations: 40 CFR Part 51, Sec. 51.212; 40 CFR Part 52, Sec. 52.12; 40 CFR Part 52, Sec. 52.30; 40 CFR Part 60, Sec. 60.11 and 40 CFR Part 61, Sec. 61.12, that allow the use of credible evidence to establish compliance with applicable requirements. At the issuance of this permit, Kentucky has only adopted the provisions of 40 CFR Part 60, Sec. 60.11 and 40 CFR Part 61, Sec. 61.12 into its air quality regulations.