Commonwealth of Kentucky
Division for Air Quality

PERMIT STATEMENT OF BASIS

MINOR REVISION TO THE
TITLE V/SYNTHETIC MINOR PERMIT #V-05-001 (REVISION 1)
TG KENTUCKY, LLC
LEBANON, KENTUCKY
APRIL 28, 2006
FROUGH SHERWANI, REVIEWER
PLANT ID #21-155-00026
Activity ID #APE20060001
AI #2910

Revision 1:

On March 9, 2006 the TG Kentucky, LLC, has applied to the Division for Air Quality for a revision to their Title V operating permit, #V-05-001, for the operation of a facility in Lebanon, Kentucky, which manufactures plastic and rubber parts for the automotive industry.

40 CFR 63 Subpart PPPP, National Emission Standards for Hazardous Air Pollutants for Surface Coating of Plastic Parts and Products, is applicable to the source on April 19, 2007. To preclude the applicability of this MACT as per permit, # V-05-001 the source was given a source wide Individual HAP and combined HAP emissions limitations. These limitation were applicable at the issuance of the permit (February 03, 2006).

In this revision the source is requesting that the HAP limits to be implemented on April 1, 2007, and also requesting that HAP emissions limits associated with the paint Line C from the Title V Permit V-98-006 (Revision1), (expired on April 6, 2003) be retained until the source wide HAP limits are fully implemented on April 1, 2007

The U.S. EPA was notified of the issuance of the revised permit on May 16, 2006 via e-mail. The U.S EPA comment period expired 45 days from the date of the email. No comments were received during this period. Therefore, the permit is now being issued final.

SOURCE DESCRIPTION:

TG Kentucky, LLC, has applied to the Division for Air Quality for a renewal of their Title V operating permit, #V-98-006 (Revision 1), for the operation of a facility in Lebanon, Kentucky, which manufactures plastic and rubber parts for the automotive industry.

TG Kentucky currently manufactures several plastic and rubber components. The existing equipment to manufacture and process rubber includes mixing, kneading and milling, rubber extrusion and molding, vulcanization and final processing. The existing equipment for plastic includes extrusion and molding, and spray painting and clean up. There has been no major construction/modifications at the source since the issuance of permit #V-98-006 (Revision 1). This renewal does include the addition of 39 plastic and rubber molding machines, which are to be installed by 2007.

EMISSION AND OPERATING CAPS:

TG Kentucky has voluntarily accepted Synthetic Minor limits in order to preclude applicability of 401 KAR 51:017, Prevention of Significant Deterioration of Air Quality. Consequently, plantwide VOC emissions, including emissions from insignificant activities, are limited to 225 tons for any consecutive 12-month period. Exceedance of the major source emission level, as defined in 401 KAR 51:017, will trigger additional requirements.
In order to avoid applicability of Subpart PPPP, National Emission Standards for Hazardous Air Pollutants for Surface Coating of Plastic Parts and Products, has accepted a plantwide emissions limitation on hazardous air pollutants (HAP). Source wide, individual HAP emissions, including those from insignificant activities, shall not exceed 9.5 tons during any consecutive 12-month period, and total combined HAP emissions, including those from insignificant activities, shall not exceed 22.5 tons during any consecutive 12-month period.

Additionally, as required by 40 CFR Subpart PPPP, Section 63.4510, TG Kentucky has submitted their initial notification to the US EPA, stating that they are accepting source wide limits on HAP emissions in order to preclude applicability of this new MACT.

APPLICABLE REGULATIONS:

401 KAR 59:010, New Process Operations, applies to each affected facility commenced on or after July 2, 1975, with respect to particulate emissions.
401 KAR 63:020, Potentially Hazardous Matter or Toxic Substances, applies to each affected facility that emits or may emit potentially hazardous matter or toxic substances.

TYPES OF CONTROL AND CONTROL EFFICIENCY:

Emissions at point 01 (weighing, kneading, and milling) are vented through baghouses, mostly for comfort of the employees. The estimated control efficiency at this point it 90%.

There are three (3) paint booths at emission point 13, line A. Each booth utilizes a water wall to control particulate emissions. The paint booth at emission point 14, line B, also utilizes a water wall for particulate controls. Stack testing has demonstrated that the water wall control devices and transfer efficiency, combined, at each emission point, have an effective particulate control efficiency of 90%.
Emission point 15, line C, is equipped with two independent, automated lines within a single spray booth. Each automated line utilizes a water wall for particulate control. Stack testing has demonstrated that the water wall control devices and transfer efficiencies, combined, have an effective particulate control efficiency of 85%.
A toxics analysis was performed using the SCREEN3 model. TG Kentucky was modeled as a point source, at distances from 100 meters to 1,200 meters away from the emission point. Based on an emission rate of 1.0 gram/second, the maximum one-hour concentration was 141.4 $\mu g/m^3$ at a distance of 1,169 meters. The calculated concentrations of all of the air toxics at the source were below the levels specified by the Office of Air Quality Planning and Standards (OAQPS).

PERIODIC MONITORING

Monitoring, record keeping, and reporting, as specified in the conditional major permit, will ensure compliance with annual emission limits.

The permittee shall keep calendar month records of usage all VOC/HAP containing materials. At the end of each month, VOC/HAP emissions shall be calculated, in tons of VOC/HAP per twelve (12) consecutive month period, and recorded. This shall be a 12-month rolling total, representing the most recent year. Additionally, these records shall comply with the VOC/HAP emission limitations listed in this permit. These records, as well as purchase orders and invoices for all VOC/HAP containing materials, shall be made available for inspection upon request by any duly authorized representative of the Division for Air Quality.

COMMENTS:

In March 11, 2003, TG Kentucky submitted an application for a minor revision (log #55563) for the addition of new equipment. Permit #V-98-006 (Revision 1) permitted 75 plastic molding machines at emission point 09. In the minor revision application, the company requested the addition of 39 new plastic molding machines. However, this revision was never completed; therefore, this permit renewal includes the addition of 39 new machines, to be installed by 2007, for a total of 114 plastic molding machines.

TG Kentucky submitted a request to modify the existing water wall located at emission point 13, the line A paint booths. This modification is covered under 401 KAR 52:020, Title V Permits, Section 17, Off-Permit Changes. The source intends to begin this change in July 2005, which is permissible as long as they have notified the U.S. EPA in writing at least seven (7) days prior to making the change.

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.