

# ALLEGHENY COUNTY HEALTH DEPARTMENT

## AIR QUALITY PROGRAM

September 9, 2011

**SUBJECT:** TYK America, Inc. - Large Plant  
301 Brickyard Road  
Clairton, PA 15025  
Allegheny County

Review of Synthetic Minor Operating Permit: No. 0312

**TO:** Sandra L. Etzel  
Chief Engineer

**FROM:** David D. Good  
Air Quality Engineer

### **FACILITY DESCRIPTION:**

TYK America, Inc. - Large Plant engages in the manufacture of non-clay refractory products for the iron and steel industry. Refractories made at the Large Plant include resin bonded Magnesia Carbon bricks, resin bonded Alumina Carbon bricks, pre-cast monolithic shapes, and wet mortars. Dry materials arrive onsite sized and in bags. Phenolic resin (5% phenol, 35% ethylene glycol, and 34% VOC) arrives onsite in 55 gallon drums.

In brick production, dry raw materials are weighed and loaded into one of three skip hoists. The hoists discharge the materials into one of three Simpson mixers. Mixers are equipped with dust collection hoods. After dry mixing, the phenolic resin is added and mixing is continued. Completed wet mix is discharged into bulk bags and stored. During storage, the mix is cured and aged. Particulate emissions from the weighing, skip hoists, mixers, and discharge points are controlled with baghouses. After aging, the material is placed on a conveyor feeder, weighed and charged by hand into one of nine (9) dry presses where it is shaped and compacted into bricks. The bricks are loaded into one of eight (8) curing ovens where they are cured for 48 hours at elevated temperatures. Cured bricks are removed from the ovens and stored for shipment. Particulate emissions from the wet material conveyor, weighing, and brick presses are controlled with baghouses. VOC emissions from the curing ovens are controlled with nine (9) natural gas-fired afterburners.

In pre-cast shape and wet mortar production, dry materials are weighed and loaded into a mixer. Water is added and the material is mixed. In pre-cast shape production, the wet mix is poured into molds and cured. The mold is removed; the pre-cast shape is air dried and then placed in a drying oven. Dried shapes are packed and shipped. Alternately, in mortar mix production, the wet mix is weighed and poured into five-gallon buckets, packed and shipped. Particulate emissions from the weighing and mixing are controlled with a baghouse.

Comfort heat is provided by natural gas-fired space heaters with a total heat input capacity of 0.48 MMBtu/hr.

TYK America, Inc. - Large Plant is a minor source for particulate matter (PM), particulate matter of 10 microns or less in diameter (PM<sub>10</sub>), sulfur oxides (SO<sub>x</sub>), nitrogen oxides (NO<sub>x</sub>), and carbon monoxide (CO), as defined in Article XXI, section 2101.20. TYK America, Inc. - Large Plant is a synthetic minor

source for volatile organic compounds (VOC) and hazardous air pollutants (HAPs), as defined in Article XXI, section 2101.20.

**EMISSION SOURCES:**

| ID          | SOURCE DESCRIPTION                         | CONTROL DEVICE           | MAXIMUM CAPACITY  | FUEL/RAW MATERIAL  | STACK ID     |
|-------------|--|--------------------------|---|--|--------------|
| P001        | Materials Weighing (P001)                  | Baghouses #2 and #6      | 15,573 tons per year of refractory materials and phenolic resin | bauxite, graphite, silicon carbide, metallic silicon, glass frit, magnesium oxide, calcined or fused magnesite and graphite, metallic aluminum, metallic magnesium, mono-aluminum phosphate, phenolic resin, water | BH02, 06     |
| P002        | Materials Transfer - Skip Hoists (P002)    | Baghouses #2 and #6      |   |  | BH02, 06     |
| P003        | Materials Mixing (P003)                    | Baghouses #2, #3, and #6 |   |  | BH02, 03, 06 |
| P004        | Materials Transfer - Bags (P004)           | None                     |   |  | -            |
| P005        | Materials Transfer - Feeders (P005)        | Baghouses #1 and #4      |   |  | BH01, 04     |
| P006        | Brick Presses (P006)                       | Baghouses #1 and #4      |   |  | BH01, 04     |
| P007        | Brick Curing Ovens 1 - 8 (P007)            | Afterburners             |   |  | S001 - S008  |
| P008        | Materials Weighing (P008)                  | Baghouse #5              | 467 tons per year of refractory materials                       | BH05   |              |
| P009        | Materials Mixing (P009)                    | Baghouse #5              |   | BH05   |              |
| P010        | Materials Transfer to Molds/Buckets (P010) | None                     |   | -  |              |
| C001 - C008 | Brick Curing Oven Burners                  | None                     | 2.0 MMBtu/hr each   | Natural gas  | S001 - S008  |
| C009        | Drying Oven Burner                         | None                     | 2.0 MMBtu/hr  | Natural gas  | S009         |
| C010 - C017 | Afterburners                               | -                        | 1.5 MMBtu/hr each   | Natural gas  | S001 - S008  |
| H001        | Space Heaters                              | None                     | Total 0.48 MMBtu/hr   | Natural gas  | H001         |
| Weld        | Welding Operations                         | None                     | 0.13 pounds per hour  | Welding rod  | -            |

**Miscellaneous Emission Sources:**

TYK America, Inc. - Large Plant has a paved parking lot with vehicle traffic.

**Emission Controls**

The particulate emissions from Materials Weighing (P001), Materials Transfer - Skip Hoists (P002), Materials Mixing (P003), Materials Transfer - Feeders (P005), and Brick Presses (P006) are controlled with baghouses. VOC and HAP emissions from the Brick Curing Ovens 1 - 8 (P007) are controlled with afterburners (C010 - C017). The particulate emissions from Materials Weighing (P008) and Materials Mixing (P009) are controlled with baghouses. The particulate emissions from Materials Transfer - Bags

(P004) and Materials Transfer to Molds/Buckets (P010) are uncontrolled. Combustion emissions from the Brick Curing Oven Burners (C001 - C008), Drying Oven Burner (C009), the Afterburners (C010 - C017), and the Space Heaters (H001) are uncontrolled. Particulate emissions from the roadways and parking lot are negligible.

**EMISSION CALCULATIONS:**

**Materials Handling Operations (Weighing (P001), Skip Hoists (P002), Mixing (P003), Bags (P004), Feeders (P005), Brick Presses (P006), Weighing (P008), Mixing (P009), and Molds/Buckets (P010):**

Potential and limited particulate emissions are provided in Appendix A, page 2 to this document for the materials handling, weighing, transferring, mixing, and pressing operations. Estimates for particulate emissions from the materials handling, weighing, transferring, mixing, and pressing operations (P001 - P006 and P008 - P010) are from AP 42, Section 11.19 Crushed Stone Processing and Pulverized Mineral Processing, Table 11.19.2-2. A 15% adjustment factor was added to emissions to account for operational variability of equipment. Estimates of the maximum potential emissions for PM and PM<sub>10</sub> after controls (baghouses) for the materials handling, weighing, transferring, mixing, and pressing operations (P001 - P003, P005 - P006, and P008 - P009) are shown in Appendix A, page 2 to this document. These estimates are based on the estimated capture efficiencies and the control specifications of the baghouses. Particulate emissions from Materials Transfer - Bags (P004) and Materials Transfer to Molds/Buckets (P010) are uncontrolled. Particulate emissions from these operations are limited by Article XXI, §2104.02.b - Particulate Mass Emissions - Processes - General. However, the particulate emission limits in §2104.02.b far exceed the particulate emission estimates as calculated using AP 42 emission factors. The following table shows the maximum potential particulate emissions from the materials handling, weighing, transferring, mixing, and pressing operations (P001 - P006, P008 - P010).

**Maximum Potential Emissions**

| <b>Emission Unit (ID#)</b>                 | <b>HOURLY PM/PM<sub>10</sub> EMISSION LIMITS (lbs/hr)<sup>1</sup></b> |        | <b>ANNUAL PM/PM<sub>10</sub> EMISSIONS (tons/year)<sup>2,3</sup></b> |        |
|--|---|--------|--|--------|
| Materials Weighing (P001)                  | 2.2E-3  | 8.2E-4 | 9.8E-3   | 3.6E-3 |
| Materials Transfer - Skip Hoists (P002)    | 2.2E-3  | 8.2E-4 | 9.8E-3   | 3.6E-3 |
| Materials Mixing (P003)                    | 2.2E-3  | 8.2E-4 | 9.8E-3   | 3.6E-3 |
| Materials Transfer - Bags (P004)           | 6.1E-3  | 2.2E-3 | 2.7E-2   | 9.8E-3 |
| Materials Transfer - Feeders (P005)        | 2.2E-3  | 8.2E-4 | 9.8E-3   | 3.6E-3 |
| Brick Presses (P006)                       | 2.2E-3  | 8.2E-4 | 9.8E-3   | 3.6E-3 |
| Materials Weighing (P008)                  | 7E-5  | 2E-5   | 3E-4   | 1.1E-4 |
| Materials Mixing (P009)                    | 7E-5  | 2E-5   | 3E-4   | 1.1E-4 |
| Materials Transfer to Molds/Buckets (P010) | 1.8E-4  | 7E-5   | 8.1E-4   | 3E-4   |

<sup>1</sup> Hourly PM and PM<sub>10</sub> emission limits are based on the potential to emit after controls of these facilities.

<sup>2</sup> A year is defined as any consecutive 12-month period.

<sup>3</sup> Annual PM and PM<sub>10</sub> emission limits are based on the potential to emit after controls of these facilities. See page 3 of Appendix A to this document.

**Brick Curing Ovens 1 - 8 (P007):**

Potential and limited particulate, VOC and HAP emissions from the brick curing ovens (P007) are provided in Appendix A, pages 2 and 3 to this document. Estimates for particulate emissions from the brick curing ovens are from AP 42, Chapter 11.5 - Refractory Manufacturing, Table 11.5-5. Estimates for VOC and HAP emissions from the brick curing ovens (P007) before controls are based on material balance (refractory mix (resin/matrix) usage times the emission factor for the VOC and HAP in the resin).

The VOC and HAP control efficiency of the afterburners is reported by the source to be 95% and is based on manufacturer's specifications. Estimates for VOC and HAP emissions from the brick curing ovens (P007) after controls is based on 95% control efficiency. Conditions in the permit require that the destruction efficiency be tested every five years. A 15% adjustment factor was added to PM/PM10 emissions to account for operational variability of equipment. The following table shows the maximum potential emissions after controls for these operations.

**Maximum Potential Emissions**

| POLLUTANT        | HOURLY EMISSION LIMIT (lbs/hr) |           | ANNUAL EMISSION LIMIT (tons/year) <sup>1</sup> |           |
|------------------|--------------------------------|-----------|--|-----------|
|                  | Each Oven                      | All Ovens | Each Oven                                      | All Ovens |
| PM               | 0.21                           | 1.68      | 0.92   | 7.34      |
| PM <sub>10</sub> | 0.18                           | 1.41      | 0.77   | 6.18      |
| VOC              | 0.23                           | 1.81      | 0.99   | 7.94      |
| Phenol           | 0.03                           | 0.27      | 0.15   | 1.17      |
| Ethylene Glycol  | 0.23                           | 1.87      | 1.02   | 8.18      |
| Total HAPs       | 0.27                           | 2.13      | 1.17   | 9.34      |

<sup>1</sup> A year is defined as any consecutive 12-month period.

**Brick Curing Oven Burners (C001 - C008), Drying Oven Burner (C009), Afterburners (C010 - C017), Space Heaters (H001):**

Emission calculations are provided in Appendix A, page 4 to this document for the combustion emissions from the natural gas-fired oven burners, drying oven burner, afterburners, and space heaters. Emission calculations (potential to emit) for the natural gas-fired oven burners, drying oven burner, afterburners, and space heaters are based on U.S. EPA AP 42 Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3 and 1.4-4 (7/98). With the exception of PM and PM<sub>10</sub>, a 15% adjustment factor was added to emissions calculated using these AP 42 emission factor to account for operational variability of equipment. Pursuant to §2104.02.a.1, particulate matter (PM and PM<sub>10</sub>) is limited to 0.008 lb/MMBtu of heat input for the equipment (C001-C008, C009, C010-C017) with heat input capacity greater than 0.5 MMBtu/hr. The space heaters (H001) have heat input capacity less than 0.5 MMBtu/hr. The following tables show the maximum potential emissions for this equipment.

**Maximum Potential Emissions - Brick Curing Oven Burners (C001 - C008)**

| Emission Unit ID | Units   | PM   | PM <sub>10</sub> | SO <sub>2</sub> | NO <sub>x</sub> | VOC   | CO    |
|------------------|---------|------|------------------|-----------------|-----------------|-------|-------|
| C001 - C008      | lb/hr   | 0.13 | 0.13             | 0.011           | 1.80            | 0.099 | 1.515 |
|                  | tons/yr | 0.56 | 0.56             | 0.047           | 7.90            | 0.435 | 6.637 |

**Maximum Potential Emissions - Drying Oven Burner (C009)**

| Emission Unit ID | Units   | PM    | PM <sub>10</sub> | SO <sub>2</sub> | NO <sub>x</sub> | VOC   | CO    |
|------------------|---------|-------|------------------|-----------------|-----------------|-------|-------|
| C009             | lb/hr   | 0.016 | 0.016            | 0.001           | 0.225           | 0.012 | 0.189 |
|                  | tons/yr | 0.070 | 0.070            | 0.006           | 0.988           | 0.054 | 0.830 |

**Maximum Potential Emissions - Afterburners (C010 - C017)**

| Emission Unit ID | Units   | PM    | PM <sub>10</sub> | SO <sub>2</sub> | NO <sub>x</sub> | VOC   | CO    |
|------------------|---------|-------|------------------|-----------------|-----------------|-------|-------|
| C010 - C017      | lb/hr   | 0.096 | 0.096            | 0.008           | 1.353           | 0.074 | 1.136 |
|                  | tons/yr | 0.420 | 0.420            | 0.036           | 5.926           | 0.326 | 4.978 |

**Maximum Potential Emissions - Space Heaters (H001)**

| Emission Unit ID | Units   | PM    | PM <sub>10</sub> | SO <sub>2</sub> | NO <sub>x</sub> | VOC   | CO   |
|------------------|---------|-------|------------------|-----------------|-----------------|-------|------|
| H001             | lb/hr   | 0.004 | 0.004            | 0.0003          | 0.03            | 0.005 | 0.03 |
|                  | tons/yr | 0.02  | 0.02             | 0.001           | 0.24            | 0.013 | 0.20 |

**Welding Operations (Weld):**

Emissions from the welding operations (Weld) are provided in Appendix A, page 5 to this document. Estimates for emissions from the welding operations are from AP 42, Chapter 12-19, Tables 12-19.1 and 12-19.2. The following tables show the maximum potential emissions for this equipment.

**Maximum Potential Emissions - Welding Operations (Weld)**

| Emission Unit ID | Units   | PM       | PM <sub>10</sub> | Chromium | Cobalt   | Manganese | Nickel   |
|------------------|---------|----------|------------------|----------|----------|-----------|----------|
| Weld             | tons/yr | 1.01E-02 | 1.01E-02         | 3.29E-06 | 5.48E-07 | 5.64E-04  | 1.10E-06 |

**EMISSIONS SUMMARY (Entire Source):**

| POLLUTANT                    | ANNUAL EMISSION LIMIT<br>(tons/year) <sup>1</sup> |
|------------------------------|---|
| PM                           | 8.50  |
| PM <sub>10</sub>             | 7.29  |
| SO <sub>2</sub>              | 0.09  |
| NO <sub>x</sub>              | 15.1  |
| VOC                          | 8.8   |
| CO                           | 12.6  |
| Single HAP (Ethylene Glycol) | 8.18  |
| Total HAPs                   | 9.62  |

<sup>1</sup> A year is defined as any consecutive 12-month period.

**OPERATING PERMIT APPLICATION COMPONENTS:**

1. Installation Permit No. 87-I-0037-P, issued on February 9, 1988.
2. Installation Permit No. 87-I-0038-P, issued on February 9, 1988.
3. Operating Permit No. 7024494-000-29900, issued on July 8, 1988.
4. Operating Permit No. 7024494-000-26900, issued on July 8, 1988.
5. Installation Permit No. 88-I-0044-P, issued on February 24, 1989.
6. Operating Permit No. 7024494-000-29901, issued on September 25, 1989.
7. Operating Permit No. 7024494-000-26901, issued on December 6, 1989.
8. Operating Permit Application No. 0312, dated June 3, 1996.
9. Operating Permit Application Update No. 0312, dated June 5, 2008.

**REGULATORY APPLICABILITY:**

1. **Article XXI Requirements for Issuance:**

The following Article XXI requirements apply to this facility:

§2103.12.a.2.B (Standards for Issuance: RACT): Existing sources, where no limits have been established under Article XXI, are subject to Reasonably Available Control Technology (RACT) requirements.

- (a) The Department has determined that RACT for the materials handling, weighing, transferring, mixing, and pressing operations (P001 - P006 and P008 - P010) is:
  - (1) Control emissions from the materials handling, weighing, transferring, mixing, and pressing operations (P001 - P003, P005 - P006, and P008 - P009) with baghouses;
  - (2) Emissions shall be limited to the potential to emit as shown in Appendix A, page 2. Particulate limitations have been established by §2104.02.a.1; and
  - (3) The materials handling, weighing, transferring, mixing, and pressing operations (P001 - P003, P005 - P006, and P008 - P009) and baghouses shall be properly maintained and operated in accordance with manufacturer's specifications and good engineering practices.
  
- (b) The Department has determined that RACT for the brick curing ovens (P007) is:
  - (1) The Permittee shall not operate or allow to be operated the brick curing ovens (P007) unless oven emissions are exhausted through an afterburner;
  - (2) The afterburners shall be properly maintained and operated in accordance with manufacturer's specifications and good engineering practices; and
  - (3) Emissions shall be limited to the potential to emit as shown in Appendix A, pages 2 and 3.
  
- (c) The Department has determined that RACT for the natural gas-fired oven burners (C001-C008), drying oven burner (C009), afterburners (C010-C017), and space heaters (H001) is:
  - (1) Burn natural gas only;
  - (2) Operate and maintain the oven burners, drying oven burner, afterburners, and space heaters in accordance with manufacturer's specifications and good engineering practices; and
  - (3) Emissions shall be limited to the potential to emit as shown in Appendix A, page 4.
  
- (d) The Department has determined that RACT for the welding operations (Weld) is:
  - (1) Operate the equipment in accordance with manufacturer's specifications and good engineering practices.
  - (2) Emissions shall be limited to the potential to emit as shown in Appendix A, page 5.

§2103.20.b.4 (Synthetic Minors): This rule applies because in order to stay below the minor source thresholds for VOC and a single HAP, TYK America, Inc. has accepted limits on the emissions of VOC and HAPs.

- (a) Emissions of VOC and HAPs from the brick curing ovens (P007), brick curing oven burners (C001-C008), and the afterburners (C010-C017) shall be limited as shown in the table below.

| POLLUTANT       | HOURLY EMISSION LIMIT (lb/hr) | ANNUAL EMISSION LIMIT (tons/year) <sup>1</sup> |
|-----------------|-------------------------------|--|
| VOC             | 1.81                          | 7.94   |
| Phenol          | 0.27                          | 1.17   |
| Ethylene Glycol | 1.87                          | 8.18   |
| Other HAPs      | 0.064                         | 0.28   |
| Total HAPs      | 2.13                          | 9.34   |

<sup>1</sup> A year is defined as any consecutive 12-month period.

- (b) The input of VOC and HAP-containing materials to the brick curing ovens shall be limited as follows:
  - 1) Input of resin shall be limited to 467.2 tons per twelve consecutive month period;
  - 2) The VOC content of the resin shall be limited to 34% VOC or less, by weight.
  - 3) The ethylene glycol content of the resin shall be limited to 35% ethylene glycol or less, by weight.
  - 4) The phenol content of the resin shall be limited to 5.0% phenol or less, by weight.
- (c) Operate the afterburners at the minimum temperature at which 95% VOC destruction efficiency or better was demonstrated during the most recent stack test.

§2104.02.a.1 (Particulate Mass Emissions): This rule applies to fuel burning or combustion equipment where the actual heat input to such equipment is greater than 0.50 MMBtu per hour. Pursuant to this rule, particulate emissions from the brick curing ovens, drying oven, and the burners for the afterburners shall not exceed 0.008 lbs/MMBtu of actual heat input at any time while combusting natural gas. The space heaters are exempt from this rule because the burners on each of the heaters has a capacity less than 0.5 MMBtu per hour.

§2104.02.b (Particulate Mass Emissions - General): This rule applies the materials handling, weighing, transferring, mixing, and pressing operations (P001 - P006 and P008 - P010). Pursuant to this rule, particulate emissions from these processes shall not exceed 7 pounds per hour or 100 pounds per 24-hour period.

§2104.03 (Sulfur Oxide Emissions): This rule applies to fuel burning or combustion equipment. Pursuant to this rule, sulfur oxide emissions from the brick curing oven burners, drying oven burner, and afterburners shall not exceed the potential to emit because each of the units only burns natural gas.

§2105.30 (Incinerators): This rule applies to incinerators. According to the definition in §2101.20, the afterburners are considered to be incinerators.

- (a) The afterburners shall have a residence time of at least 0.50 seconds at a temperature of at least 250°F above the auto-ignition temperature of any chemical refuse.
- (b) The opacity of visible emissions from the afterburners, excluding uncombined water, shall not equal or exceed an opacity of 20% at any time.
- (c) Particulate matter emissions from the afterburners shall not exceed the rate of 0.1250 pounds per 100 pounds per hour of actual charge rate.

Phenol (worst-case VOC) has an auto-ignition temperature of 1,319 degrees Fahrenheit. Pursuant to this rule, the permittee shall operate the afterburners for the brick curing ovens at a temperature of at least 1,569 degrees Fahrenheit.

§2105.48 (Areas Subject to §2105.40 through §2105.47 ): TYK America, Inc. is located outside of the area specified in Article XXI, Section 2105.48.a. Therefore, the requirements of Article XXI, Sections §2105.40 through §2105.47 do not apply to this source.

2. **Testing Requirements:**

Emissions testing on the afterburners (C001 - C008) shall be performed every five years in accordance with the Site Level Condition entitled “Emissions Testing Requirements” to determine the afterburner destruction efficiency for VOC to assure compliance with the terms and conditions of Operating Permit No. 0312.

3. **New Source Review (NSR) and Prevention of Significant Deterioration (PSD):**

NSR and PSD do not apply. The source has accepted limits on emissions of VOC such that the entire source is a minor source for all criteria pollutants.

4. **New Source Performance Standards**

There are no NSPS requirements for the facilities at this source.

5. **National Emission Standards For Hazardous Air Pollutants**

40 CFR 63, Subpart JJJJJ - National Emission Standards for Hazardous Air Pollutants for Brick and Structural Clay Products Manufacturing: This source is not a brick and structural clay products manufacturing source, as that term is defined in 40 CFR 63.8581. Therefore, the rule does not apply.

40 CFR 63, Subpart KKKKK - National Emission Standards for Hazardous Air Pollutants for Clay Ceramics Manufacturing: This source is not a clay ceramics manufacturing facility, as that term is defined in 40 CFR 63.8665. Therefore, the rule does not apply.

40 CFR 63, Subpart SSSSS - National Emission Standards for Hazardous Air Pollutants for Refractory Products Manufacturing: This source is a refractory products manufacturing facility, as defined in 40 CFR 63.9824. However, this source has accepted limits (467.2 tons/year phenolic resin) on emissions of a single HAP and a combination of HAPs such that this source is a minor source of hazardous air pollutants, as defined in 40 CFR 63.2. Therefore, the rule does not apply.

6. **Risk Management Plan; CAA Section 112(r):**

The source is not required to have a risk management plan at this time because none of the regulated chemicals exceed the thresholds in the regulation.

**METHOD OF DEMONSTRATING COMPLIANCE:**

Compliance with the emission standards set in this permit will be demonstrated by:

- (a) Recording the amount and VOC and HAP content of the refractory materials used in production processes;
- (b) Calculating VOC and HAP emissions on a monthly basis;

- (c) Monitoring and recording the operating temperature of the afterburners controlling the brick curing ovens;
- (d) Performing visible emissions observations and inspections on the materials handling, weighing, transferring, mixing, and pressing operations (P001-P006, P008-P010) and the baghouses controlling these processes; and
- (e) Operating and maintaining the materials handling, weighing, transferring, mixing, and pressing operations (P001 - P006, and P008 - P010), brick curing ovens (P007), oven burners (C001-C008), drying oven burner (C009), and afterburners (C010-C017) in accordance with the manufacturers' specification and good engineering practices.

See Operating Permit No. 0312, for the specific conditions for determining compliance with the applicable requirements.

**RECOMMENDATION:**

All applicable Federal, State and County regulations have been addressed in the permit application. The operating permit application for TYK America, Inc. - Large Plant should be approved with the emission limitations and terms and conditions in Operating Permit No. 0312.