

## **AGREED BOARD ORDER**

### **LOUISVILLE METRO AIR POLLUTION CONTROL BOARD**

#### **University of Louisville Pollution Reduction Operating Plan**

This Order is issued by the Louisville Metro Air Pollution Control Board (“Board”) pursuant to Kentucky Revised Statutes Chapter 77. This Agreement is made by and between the Board and the University of Louisville.

**COMPANY:** University of Louisville  
511 South Floyd Street  
Louisville, Kentucky 40202-1825

#### **REGULATIONS INVOLVED:**

- 1.08 Administrative Procedures
- 2.03 Permit Requirements – Non-Title V Construction and Operating Permits and Demolition/Renovation Permits
- 2.09 Causes for Permit Modification, Revocation, or Suspension
- 2.16 Title V Operating Permits

#### **BACKGROUND AND DISCUSSION:**

The University of Louisville seeks to invest approximately \$2,000,000 in a new energy efficient natural gas boiler. This new boiler will replace the University’s aging natural gas boiler, giving the University the ability to use natural gas as its primary fuel source and allowing it to use coal as a back-up fuel only.

In order to install the natural gas boiler, District Regulation 2.03 requires that the University obtain a construction permit. In identifying the regulatory requirements that the University will have to satisfy in order to obtain the construction permit, District officials discovered that the current particulate-matter (PM) limit of 0.26 lb/MMBTU, which has been set forth in the University’s operating permit since 1997, is incorrect. Pursuant to District Regulations 2.09 and 7.06, District officials determined that a more stringent PM limit of 0.1 lb/MMBTU must be applied to any permit issued to the University.

The University has proposed a Pollution Reduction Operating Plan (Plan, or PROP) that will result in compliance with the more stringent PM limit no later than December 31, 2015, with the following steps:

1. First, the University will replace “Boiler #1,” an aging natural gas fired boiler, with a new, more energy efficient natural-gas boiler. The new boiler, which will increase the University’s natural gas heating capacity by 64% over the aging boiler, will allow the University to use natural gas as its primary source of heat.

The University estimates that natural gas will generate a majority of the steam needed to serve the Belknap campus.

2. Second, the University will operate “Boiler # 2,” which uses both fuel oil and coal, as its secondary heat source.
3. The University will operate “Boiler #2” with fuel oil primarily, limiting the use of coal as a back-up heat source.
4. The University will limit of the use of “Boiler #3,” a coal-fired boiler, to back-up use only, and will keep this boiler on standby mode.
5. The University will use its coal-fired boilers as back-up, that is, only when additional steam is needed due to weather conditions, equipment malfunction, part replacement, or fuel supply problems.
6. “Boiler #3” will be replaced with a more energy efficient and higher capacity natural-gas boiler when funding becomes available for design and construction, but no later than December 31, 2015.
7. At that time, U of L will permanently disable the coal-firing capability of “Boiler #2” and keep that boiler as a backup with fuel-oil-only capability.

On June 16, 2010, a public hearing was held before the Board on this proposed Order. Based upon the information presented at that hearing, the Board determines that the proposed resolution and requirements contained in this Order are reasonable under the circumstances.

**NOW, THEREFORE, IT IS ORDERED THAT:**

1. The University shall complete each step in the PROP by the corresponding date set forth in Section 6 of this Order.
2. For each step that is due during the semiannual reporting period as set forth in the University’s Title V permit, the University shall report the date the step was completed.
3. Except in cases of emergency as defined in Section 1.13 of District Regulation 2.16, the University shall notify the District of its intention to use coal. Notice shall include a statement of the circumstances requiring the use of coal, the amount of time the University expects to use coal, and the boiler that will be used. Such notice shall be provided no less than 72 hours in advance.
4. In the case of emergency coal use, the University shall comply with District Regulation 1.07.

5. As a result of this Plan, the University will only use coal as a back-up heat source beginning immediately.

6. The use of coal to fire the boilers will be phased out as soon as possible, but no later than December 31, 2015, pursuant to the following schedule:

**A. Replace Aging Natural Gas Boiler #1**

Step 1	U of L submits complete application for construction permit for natural gas boiler	
Step 2	District issues construction permit	
Step 3	Removal of old gas boiler completed	10/01/10
Step 4	Complete new gas boiler installation	1/31/11
Step 5	Complete commissioning and begin operation	3/15/11

**B. PROP Schedule – Boiler #2 Coal with Fuel Oil Backup (Switch to Fuel Oil as Primary Fuel and Coal as backup)**

Step 1	Operate boiler on fuel oil as primary fuel, coal as backup	Immediately
Step 2	Permanently disconnect coal firing capability of Boiler #2	12/31/15

**C. PROP Schedule – Boiler #3 Coal Only (Replace with New Gas/Fuel Oil Boiler)**

Step 1	Put Boiler # 3 on standby as third energy source behind Boilers 1 & 2	3/15/11
Step 2	Receive internal funding for engineering/design services	1/05/14
Step 3	Release RFP for engineering /design services	1/05/14
Step 4	Review bids & award engineering/design services contract	2/01/14
Step 5	Approve engineering design plan & bid specs	7/01/14
Step 6	Secure state funding for construction/installation	7/01/14
Step 7	Review & award construction & installation contract	9/01/14
Step 8	Begin construction	4/01/15

Step 9 Complete construction and installation	11/01/15
Step 10 Complete commissioning and begin operation	12/31/15

Dated this 16th day of June, 2010.

Louisville Metro Air Pollution Control Board

University of Louisville

By: \_\_\_\_\_  
Robert W. Powell, M.D.  
Chair

By: \_\_\_\_\_

Louisville Metro Air Pollution Control District

By: \_\_\_\_\_  
Paul Aud  
Engineering Manager

Approved as to form and legality:

By: \_\_\_\_\_  
Stacy Fritze Dott  
Assistant County Attorney