Commonwealth of Kentucky
Energy and Environment Cabinet
Department for Environmental Protection
Division for Air Quality
300 Sower Boulevard, 2<sup>nd</sup> Floor
Frankfort, Kentucky 40601
(502) 564-3999

## **FINAL**

## AIR QUALITY PERMIT Issued under 401 KAR 52:030

Permittee Name:

Western Kentucky University

**Mailing Address:** 

1906 College Heights Blvd., Bowling Green, KY

42101

Source Name: Mailing Address:

Western Kentucky University 1906 College Heights Blvd.

Bowling Green, KY 42101

**Source Location:** 

Across from E. A. Diddle Arena

Permit ID:

F-18-018

Agency Interest #:

11402

Activity ID:

APE20170007, APE20180003 Conditional Major, Operating

Review Type: Source ID:

21-227-00012

Regional Office:

**Bowling Green Regional Office** 

2642 Russellville Road Bowling Green, KY 42101

(270) 746-7475

County:

Warren

**Application** 

Complete Date:

May 24, 2018

**Issuance Date:** 

**December 23, 2018** 

**Expiration Date:** 

December 23, 2023

Melissa Duff, Director Division for Air Quality

Bick Shewekah For

Version 10/16/13

#### TABLE OF CONTENTS

SECTION	ISSUANCE	PAGE
A. PERMIT AUTHORIZATION	Renewal	2
B. EMISSION POINTS, EMISSION UNITS, APPLICABLE	Renewal	3
REGULATIONS, AND OPERATING CONDITIONS		
C. INSIGNIFICANT ACTIVITIES	Renewal	29
D. SOURCE EMISSION LIMITATIONS AND TESTING	Renewal	31
REQUIREMENTS		
E. SOURCE CONTROL EQUIPMENT REQUIREMENTS	Renewal	32
F. MONITORING, RECORDKEEPING, AND REPORTING	Renewal	33
REQUIREMENTS		
G. GENERAL PROVISIONS	Renewal	37

	Permit type	Activity#	Complete Date	Issuance Date	Summary of Action
F-18-018	Renewal, Minor Revision	APE20170007. APE20180003	5/24/18, 9/6/18	12/23/18	Adding and removing boilers and engines

Version: 9/5/18

#### **SECTION A - PERMIT AUTHORIZATION**

Pursuant to a duly submitted application the Kentucky Energy and Environment Cabinet (Cabinet) hereby authorizes the operation of the equipment described herein in accordance with the terms and conditions of this permit. This permit has been issued under the provisions of Kentucky Revised Statutes (KRS) Chapter 224 and regulations promulgated pursuant thereto.

The permittee shall not construct, reconstruct, or modify any affected facilities without first submitting a complete application and receiving a permit for the planned activity from the permitting authority, except as provided in this permit or in 401 KAR 52:030, Federally-enforceable permits for non-major sources.

Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by the Cabinet or any other federal, state, or local agency.

Permit Number: F-18-018 Page 3 of 42

#### SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITION

Emission Unit 04 and 05:

Natural Gas Fired Indirect Heat Exchangers

#### **Description:**

EU 04

Maximum Rating:

48.8 MMBtu/hr

Construction Commenced: September 2009

EU 05

Maximum Rating:

96.8 MMBtu/hr

Construction Commenced:

May 2011

Control Equipment:

Low NO<sub>v</sub> Burners, FGR

#### **APPLICABLE REGULATIONS:**

**401 KAR 59:015**, New indirect heat exchangers

401 KAR 60:005, Section 2(2)(d) 40 C.F.R. 60.40c to 60.48c (Subpart Dc), Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units

#### 1. Operating Limitations:

- a. The permittee shall comply with 401 KAR 50:055. Section 2(5) [401 KAR 59:015 Section 7(1)(a)].
- b. The frequency and duration of startup periods or shutdown periods shall be minimized by the affected facility [401 KAR 59:015 Section 7(1)(b)].
- c. All reasonable steps shall be taken by the permittee to minimize the impact of emissions on ambient air quality from the affected facility during startup periods and shutdown periods [401 KAR 59:015 Section 7(1)(c)].
- d. Startups and shutdowns shall be conducted according to either [401 KAR 59:015 Section
  - i. The manufacturer's recommended procedures or [401 KAR 59:015 Section 7(1)(e)(1)].
  - ii. Recommended procedures for a unit of similar design, for which manufacturer's recommended procedures are available, as approved by the Cabinet based on documentation provided by the permittee [401 KAR 59:015 Section 7(1)(e)(2)];

#### Compliance Demonstration:

Compliance shall be demonstrated according to 5. Specific Recordkeeping Requirements (b).

#### 2. Emission Limitations:

a. Particulate matter emissions from each unit shall not exceed 0.10 lb/MMBtu [401 KAR 59:015, Section 4(1)(b)].

- b. Visible emissions shall not exceed 20 percent opacity except: [401 KAR 59:015, Section 4(2)]
  - i. A maximum of 27 percent opacity shall be permissible for not more than one 6-minute period in any 60 consecutive minutes [401 KAR 59:015, Section 4(2)(a)].
  - ii. Emissions from an indirect heat exchanger during building a new fire for the period required to bring the boiler up to operating conditions, provided the method used is that recommended by the manufacturer and the time does not exceed the manufacturer's recommendations [401 KAR 59:015, Section 4(2)(b)].
- c. Emissions of sulfur dioxide from each unit shall not exceed 0.8 lb/MMBtu [401 KAR 59:015, Section 5(1)(b)1.].

#### Compliance Demonstration:

These units are assumed to be in compliance with the applicable 401 KAR 59:015 particulate matter, sulfur dioxide, and opacity standards while burning natural gas. [401 KAR 50:045, Section 4(3)(c)1.]

d. See Section D, Source Emission Limitations and Testing Requirements.

#### 3. Testing Requirements:

Testing shall be conducted at such times as may be requested by the Cabinet [401 KAR 50:045, Section 4 and 401 KAR 59:005, Section 2(2)].

#### 4. Specific Monitoring Requirements:

The permittee shall monitor natural gas usage (MMscf) source-wide, and for each emission unit, on a monthly basis [401 KAR 52:030, Section 10 and 40 CFR 60.48c(g)(2)].

#### 5. Specific Recordkeeping Requirements:

- a. The permittee shall maintain records of natural gas usage (MMscf) source-wide, and for each emission unit, on a monthly basis [401 KAR 52:030, Section 10 and 40 CFR 60.48c(g)(2)].
- b. The actions, including duration of the startup period, of the permittee during startup periods and shutdown periods, shall be documented by signed, contemporaneous logs or other relevant evidence [401 KAR 59:015 Section 7(1)(d)].

#### 6. Specific Reporting Requirements:

See Section F, Monitoring, Recordkeeping, and Reporting Requirements.

Emission Unit 06 & 09:

**Indirect Heat Exchangers** 

#### Description:

EU 06

Forty-Nine (49) Natural Gas Fired Indirect Heat Exchangers rated less than 10 MMBtu/hr and greater than or equal to 1 MMBtu/hr (Total Heat Input Capacity = 89.33 MMBtu/hr)

6F       2017       3.35         6A       1992       1.27         6C       1992       3.35         6AC       1993       3.35         6E       1996       3.2         South Campus # 1       2017       2.0         South Campus # 2       1997       1.0         6J       1998       1.6         6X       1998       1.68         6B       2001       3.2         6O       2001       1.69         6P       2001       1.69         6Q       2001       1.69         6R       2001       1.69         6S       2001       1.69         6T       2001       1.69         6V       2001       1.69         6AI       2001       1.60         6AI       2001       1.60         6AI       2001       1.00	ut hr)
6C       1992       3.35         6AC       1993       3.35         6E       1996       3.2         South Campus # 1       2017       2.0         South Campus # 2       1997       1.0         6J       1998       1.6         6X       1998       1.68         6B       2001       3.2         6O       2001       1.69         6P       2001       1.69         6Q       2001       1.69         6R       2001       1.69         6S       2001       1.69         6T       2001       1.69         6V       2001       1.69         6V       2001       1.69         6AI       2001       1.69 <td></td>	
6AC       1993       3.35         6E       1996       3.2         South Campus # 1       2017       2.0         South Campus # 2       1997       1.0         6J       1998       1.6         6X       1998       1.68         6B       2001       3.2         6O       2001       1.69         6P       2001       1.69         6Q       2001       1.69         6R       2001       1.69         6S       2001       1.69         6T       2001       1.69         6U       2001       1.69         6V       2001       1.69         6AI       2001       1.69         6AI       2001       1.6         6AJ       2013       1.0         6N       2013       1.0         6N       2013       1.0         6AE       2002       2.07         6AH       2002       1.8         6W       2003       2.8         6AM       2014       2.5         3G1       2007       1.5	
6AC       1993       3.35         6E       1996       3.2         South Campus # 1       2017       2.0         South Campus # 2       1997       1.0         6J       1998       1.6         6X       1998       1.68         6B       2001       3.2         6O       2001       1.69         6P       2001       1.69         6Q       2001       1.69         6R       2001       1.69         6S       2001       1.69         6T       2001       1.69         6U       2001       1.69         6V       2001       1.69         6AI       2001       1.69         6AI       2001       1.6         6AJ       2013       1.0         6N       2013       1.0         6N       2013       1.0         6AE       2002       2.07         6AH       2002       1.8         6W       2003       2.8         6AM       2014       2.5         3G1       2007       1.5	
6E       1996       3.2         South Campus # 1       2017       2.0         South Campus # 2       1997       1.0         6J       1998       1.6         6X       1998       1.68         6B       2001       3.2         6O       2001       1.69         6P       2001       1.69         6Q       2001       1.69         6R       2001       1.69         6S       2001       1.69         6T       2001       1.69         6U       2001       1.69         6V       2001       1.69         6AI       2001       1.6         6AJ       2013       1.0         6N       2013       1.0         6N       2013       1.0         6AE       2002       2.07         6AH       2002       1.8         6W       2003       2.8         6AM       2014       2.5         3G1       2007       1.5	
South Campus # 1         2017         2.0           South Campus # 2         1997         1.0           6J         1998         1.6           6X         1998         1.68           6B         2001         3.2           6O         2001         1.69           6P         2001         1.69           6Q         2001         1.69           6R         2001         1.69           6S         2001         1.69           6T         2001         1.69           6V         2001         1.69           6AI         2001         1.69           6AJ         2001         1.6           6AJ         2013         1.0           6N         2013         1.0           6N         2013         1.0           6AE         2002         2.07           6AH         2002         1.8           6W         2003         2.8           6AM         2014         2.5           3G1         2007         1.5           3G2         2007         1.5	
South Campus # 2       1997       1.0         6J       1998       1.6         6X       1998       1.68         6B       2001       3.2         6O       2001       1.69         6P       2001       1.69         6Q       2001       1.69         6R       2001       1.69         6S       2001       1.69         6T       2001       1.69         6U       2001       1.69         6V       2001       1.69         6AI       2001       1.6         6AJ       2013       1.0         6N       2013       1.0         6N       2013       1.0         6AE       2002       2.07         6AH       2002       1.8         6W       2003       2.8         6AM       2014       2.5         3G1       2007       1.5         3G2       2007       1.5	
6J       1998       1.6         6X       1998       1.68         6B       2001       3.2         6O       2001       1.69         6P       2001       1.69         6Q       2001       1.69         6R       2001       1.69         6S       2001       1.69         6T       2001       1.69         6U       2001       1.69         6V       2001       1.69         6AI       2001       1.6         6AJ       2013       1.0         6N       2013       1.0         6N       2013       1.0         6AE       2002       2.07         6AH       2002       1.8         6W       2003       2.8         6AM       2014       2.5         3G1       2007       1.5         3G2       2007       1.5	
6X       1998       1.68         6B       2001       3.2         6O       2001       1.69         6P       2001       1.69         6Q       2001       1.69         6R       2001       1.69         6S       2001       1.69         6T       2001       1.69         6U       2001       1.69         6V       2001       1.69         6A1       2001       1.6         6AJ       2013       1.0         6N       2013       1.0         6N       2013       1.0         Mass Media & Tech       2003       1.0         6AE       2002       2.07         6AH       2002       1.8         6W       2003       2.8         6AM       2014       2.5         3G1       2007       1.5	
6B       2001       3.2         6O       2001       1.69         6P       2001       1.69         6Q       2001       1.69         6R       2001       1.69         6S       2001       1.69         6T       2001       1.69         6U       2001       1.69         6V       2001       1.69         6A1       2001       1.6         6AJ       2016       1.67         6N       2013       1.0         Mass Media & Tech       2003       1.0         6AE       2002       2.07         6AH       2002       1.8         6W       2003       2.8         6AM       2014       2.5         3G1       2007       1.5	
6O       2001       1.69         6P       2001       1.69         6Q       2001       1.69         6R       2001       1.69         6S       2001       1.69         6T       2001       1.69         6U       2001       1.69         6V       2001       1.69         6A1       2001       1.6         6AJ       2013       1.0         6N       2013       1.0         6N       2013       1.0         Mass Media & Tech       2003       1.0         6AE       2002       2.07         6AH       2002       1.8         6W       2003       2.8         6AM       2014       2.5         3G1       2007       1.5	
6P       2001       1.69         6Q       2001       1.69         6R       2001       1.69         6S       2001       1.69         6T       2001       1.69         6U       2001       1.69         6V       2001       1.69         6A1       2001       1.6         6AJ       2016       1.67         6N       2013       1.0         6N       2013       1.0         Mass Media & Tech       2003       1.0         6AE       2002       2.07         6AH       2002       1.8         6W       2003       2.8         6AM       2014       2.5         3G1       2007       1.5         3G2       2007       1.5	
6Q       2001       1.69         6R       2001       1.69         6S       2001       1.69         6T       2001       1.69         6U       2001       1.69         6V       2001       1.69         6A1       2001       1.6         6AJ       2016       1.67         6N       2013       1.0         6N       2013       1.0         Mass Media & Tech       2003       1.0         6AE       2002       2.07         6AH       2002       1.8         6W       2003       2.8         6AM       2014       2.5         3G1       2007       1.5         3G2       2007       1.5	
6R       2001       1.69         6S       2001       1.69         6T       2001       1.69         6U       2001       1.69         6V       2001       1.69         6A1       2001       1.6         6AJ       2016       1.67         6N       2013       1.0         6N       2013       1.0         Mass Media & Tech       2003       1.0         6AE       2002       2.07         6AH       2002       1.8         6W       2003       2.8         6AM       2014       2.5         3G1       2007       1.5         3G2       2007       1.5	
6S       2001       1.69         6T       2001       1.69         6U       2001       1.69         6V       2001       1.69         6A1       2001       1.6         6AJ       2016       1.67         6N       2013       1.0         6N       2013       1.0         Mass Media & Tech       2003       1.0         6AE       2002       2.07         6AH       2002       1.8         6W       2003       2.8         6AM       2014       2.5         3G1       2007       1.5         3G2       2007       1.5	
6T       2001       1.69         6U       2001       1.69         6V       2001       1.69         6A1       2001       1.6         6AJ       2016       1.67         6N       2013       1.0         6N       2013       1.0         Mass Media & Tech       2003       1.0         6AE       2002       2.07         6AH       2002       1.8         6W       2003       2.8         6AM       2014       2.5         3G1       2007       1.5         3G2       2007       1.5	
6U     2001     1.69       6V     2001     1.69       6AI     2001     1.6       6AJ     2016     1.67       6N     2013     1.0       6N     2013     1.0       Mass Media & Tech     2003     1.0       6AE     2002     2.07       6AH     2002     1.8       6W     2003     2.8       6AM     2014     2.5       3G1     2007     1.5       3G2     2007     1.5	
6V     2001     1.69       6A1     2001     1.6       6AJ     2016     1.67       6N     2013     1.0       6N     2013     1.0       Mass Media & Tech     2003     1.0       6AE     2002     2.07       6AH     2002     1.8       6W     2003     2.8       6AM     2014     2.5       3G1     2007     1.5       3G2     2007     1.5	
6A1       2001       1.6         6AJ       2016       1.67         6N       2013       1.0         6N       2013       1.0         Mass Media & Tech       2003       1.0         6AE       2002       2.07         6AH       2002       1.8         6W       2003       2.8         6AM       2014       2.5         3G1       2007       1.5         3G2       2007       1.5	
6AJ       2016       1.67         6N       2013       1.0         6N       2013       1.0         Mass Media & Tech       2003       1.0         6AE       2002       2.07         6AH       2002       1.8         6W       2003       2.8         6AM       2014       2.5         3G1       2007       1.5         3G2       2007       1.5	
6N       2013       1.0         6N       2013       1.0         Mass Media & Tech       2003       1.0         6AE       2002       2.07         6AH       2002       1.8         6W       2003       2.8         6AM       2014       2.5         3G1       2007       1.5         3G2       2007       1.5	
6N       2013       1.0         Mass Media & Tech       2003       1.0         6AE       2002       2.07         6AH       2002       1.8         6W       2003       2.8         6AM       2014       2.5         3G1       2007       1.5         3G2       2007       1.5	
Mass Media & Tech       2003       1.0         6AE       2002       2.07         6AH       2002       1.8         6W       2003       2.8         6AM       2014       2.5         3G1       2007       1.5         3G2       2007       1.5	
6AE     2002     2.07       6AH     2002     1.8       6W     2003     2.8       6AM     2014     2.5       3G1     2007     1.5       3G2     2007     1.5	
6AH     2002     1.8       6W     2003     2.8       6AM     2014     2.5       3G1     2007     1.5       3G2     2007     1.5	·
6W     2003     2.8       6AM     2014     2.5       3G1     2007     1.5       3G2     2007     1.5	
6AM     2014     2.5       3G1     2007     1.5       3G2     2007     1.5	
3G1     2007     1.5       3G2     2007     1.5	
3G2 2007 1.5	
6L1 2007 1.5	
6L2 2007 1.5	
3J1 2007 1.5	
3J2 2007 1.5	
6AO 2007 2.0	
6AD 2002 2.07	
6AP 2007 2.0	

Emission Point	Construction Commenced	Heat Input (MMBtu/hr)
6AQ	2007	2.0
6AS	2007	1.1
6AK	2008	1.8
6AL	2008	1.8
6AR	2018	2.0
Smith Stadium East	2008	1.0
College of Education	2009	1.0
College of Education	2009	1.0
Van Meter Hall	2009	1.0
Snell Hall	2014	1.8
Hilltopper Hall B10A	2017	1.3
Hilltopper Hall B10B	2017	4.0
Thompson Complex Central Wing	2018	1.5

#### EU 09

Six (6) Natural Gas Fired Indirect Heat Exchangers (Total Heat Input Capacity = 9.0 MMBtu/hr)

Emission Point	Construction Commenced	Heat Input (MMBtu/hr)
6M1	2008	1.5
6M2	2008	1.5
6K1	2009	1.5
6K2	2009	1.5
6G1	2009	1.5
6G2	2009	1.5

#### **APPLICABLE REGULATIONS:**

**401 KAR 59:015**, New indirect heat exchangers

#### 1. Operating Limitations:

- a. The permittee shall comply with 401 KAR 50:055, Section 2(5) [401 KAR 59:015 Section 7(1)(a)].
- b. The frequency and duration of startup periods or shutdown periods shall be minimized by the affected facility [401 KAR 59:015 Section 7(1)(b)].
- c. All reasonable steps shall be taken by the permittee to minimize the impact of emissions on ambient air quality from the affected facility during startup periods and shutdown periods [401 KAR 59:015 Section 7(1)(c)].
- d. Startups and shutdowns shall be conducted according to either [401 KAR 59:015 Section 7(1)(e)]:
  - i. The manufacturer's recommended procedures or [401 KAR 59:015 Section 7(1)(e)(1)];

ii. Recommended procedures for a unit of similar design, for which manufacturer's recommended procedures are available, as approved by the Cabinet based on documentation provided by the permittee [401 KAR 59:015 Section 7(1)(e)(2)]:

#### Compliance Demonstration:

Compliance shall be demonstrated according to 5. Specific Recordkeeping Requirements (b).

#### 2. Emission Limitations:

- a. Particulate matter emissions from each unit's stack shall not exceed 0.10 lb/MMBtu [401 KAR 59:015, Section 4(1)(b)].
- b. Visible emissions shall not exceed 20 percent opacity except: [401 KAR 59:015, Section 4(2)]
  - i. A maximum of 27 percent opacity shall be permissible for not more than one 6-minute period in any 60 consecutive minutes [401 KAR 59:015, Section 4(2)(a)].
  - ii. Emissions from an indirect heat exchanger during building a new fire for the period required to bring the boiler up to operating conditions, provided the method used is that recommended by the manufacturer and the time does not exceed the manufacturer's recommendations [401 KAR 59:015, Section 4(2)(b)].
- c. Sulfur dioxide emissions from each unit's stack shall not exceed 0.8 lb/MMBtu, based on a twenty-four (24)-hour average [401 KAR 59:015, Section 5(1)(b)1.].

#### Compliance Demonstration:

These units are assumed to be in compliance with the applicable 401 KAR 59:015 particulate matter, sulfur dioxide, and opacity standards while burning natural gas. [401 KAR 50:045, Section 4(3)(c)1.]

d. See Section D, Source Emission Limitations and Testing Requirements.

#### 3. Testing Requirements:

Testing shall be conducted at such times as may be requested by the Cabinet [401 KAR 50:045, Section 4 and 401 KAR 59:005, Section 2(2)].

#### 4. Specific Monitoring Requirements:

The permittee shall monitor source-wide natural gas usage (MMscf) source-wide on a monthly basis [401 KAR 52:030, Section 10].

#### 5. Specific Recordkeeping Requirements:

- a. The permittee shall maintain records of fuel usage (MMscf) source-wide on a monthly basis [401 KAR 52:030, Section 10].
- b. The actions, including duration of the startup period, of the permittee during startup periods and shutdown periods, shall be documented by signed, contemporaneous logs or other relevant evidence [401 KAR 59:015 Section 7(1)(d)].

6. Specific Reporting Requirements:

See Section F, Monitoring, Recordkeeping, and Reporting Requirements.

Permit Number: F-18-018 Page 9 of 42

#### SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITION (CONTINUED)

Emission Unit 07:

**Indirect Heat Exchanger** 

#### Description:

Natural Gas Fired Indirect Heat Exchanger Maximum Rating: 20.1 MMBtu/hr

Construction Commenced: 1992

#### APPLICABLE REGULATIONS:

**401 KAR 59:015**, New indirect heat exchangers

401 KAR 60:005, Section 2(2)(d) 40 C.F.R. 60.40c to 60.48c (Subpart Dc). Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units

#### 1. Operating Limitations:

- a. The permittee shall comply with 401 KAR 50:055, Section 2(5) [401 KAR 59:015 Section 7(1)(a)].
- b. The frequency and duration of startup periods or shutdown periods shall be minimized by the affected facility [401 KAR 59:015 Section 7(1)(b)].
- c. All reasonable steps shall be taken by the permittee to minimize the impact of emissions on ambient air quality from the affected facility during startup periods and shutdown periods [401 KAR 59:015 Section 7(1)(c)].
- d. Startups and shutdowns shall be conducted according to either [401 KAR 59:015 Section
  - i. The manufacturer's recommended procedures or [401 KAR 59:015 Section 7(1)(e)(1)]:
  - ii. Recommended procedures for a unit of similar design, for which manufacturer's recommended procedures are available, as approved by the Cabinet based on documentation provided by the permittee [401 KAR 59:015 Section 7(1)(e)(2)];

#### Compliance Demonstration:

Compliance shall be demonstrated according to 5. Specific Recordkeeping Requirements (b).

#### 2. Emission Limitations:

- a. Particulate matter emissions from the stack shall not exceed 0.10 lb/MMBtu [401 KAR 59:015, Section 4(1)(b)].
- b. Visible emissions shall not exceed 20 percent opacity except: [401 KAR 59:015, Section 4(2)1
  - i. A maximum of 27 percent opacity shall be permissible for not more than one 6-minute period in any 60 consecutive minutes [401 KAR 59:015, Section 4(2)(a)]
  - ii. Emissions from an indirect heat exchanger during building a new fire for the period required to bring the boiler up to operating conditions, provided the method used is that

recommended by the manufacturer and the time does not exceed the manufacturer's recommendations [401 KAR 59:015. Section 4(2)(b)].

c. Sulfur dioxide emissions from the stack shall not exceed 0.8 lb/MMBtu [401 KAR 59:015, Section 5(1)(b)1.].

#### <u>Compliance Demonstration:</u>

This unit is assumed to be in compliance with the applicable 401 KAR 59:015 particulate matter, sulfur dioxide, and opacity standards while burning natural gas. [401 KAR 50:045, Section 4(3)(c)1.]

d. See Section D, Source Emission Limitations and Testing Requirements.

#### 3. Testing Requirements:

Testing shall be conducted at such times as may be requested by the Cabinet [401 KAR 50:045, Section 4 and 401 KAR 59:005, Section 2(2)].

#### 4. Specific Monitoring Requirements:

The permittee shall monitor fuel usage (MMscf) source-wide, and for this emission unit, on a monthly basis [401 KAR 52:030, Section 10 and 40 CFR 60.48c(g)(2)].].

#### 5. Specific Recordkeeping Requirements:

- a. The permittee shall maintain records of fuel usage (MMscf) source-wide, and for this emission unit, on a monthly basis [401 KAR 52:030, Section 10 and 40 CFR 60.48c(g)(2)].].
- b. The actions, including duration of the startup period, of the permittee during startup periods and shutdown periods, shall be documented by signed, contemporaneous logs or other relevant evidence [401 KAR 59:015 Section 7(1)(d)].

#### 6. Specific Reporting Requirements:

See Section F, Monitoring, Recordkeeping, and Reporting Requirements.

**Emission Unit 10:** 

Eleven (11) Natural Gas Fired Engines

#### Description:

Eleven (11) natural gas fired emergency generator engines rated between 25 kW and 300 kW (Total Power Capacity = 1.582 kW)

Location	Manufacture Date	Construction Commenced	Power Output (kW)
Downing/University Center	-	2006	206
Industrial Ed Bldg.	-	2006	25
Parking & Transportation	-	2006	45
Health Services	-	2007	50
Schneider Hall	-	2007	36
South Campus – CC	-	2007	70
Academic Complex	09/2007	11/2007	200
Mass Media & Tech	12/2007	12/2008	300
Snell Hall #1	08/2008	02/2009	250
Snell Hall #2	08/2008	02/2009	250
Van Meter Hall	12/2008	05/2009	150

#### **APPLICABLE REGULATIONS:**

**401 KAR 63:002**, Section 2(4)(eeee) 40 C.F.R. 63.6580 to 63.6675, Tables 1a to 8, and Appendix A (**Subpart ZZZZ**), National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

Note: D.C. Circuit Court [Delaware v. EPA, 785 F. 3d 1 (D.C. Cir. 2015)] has vacated the provisions in 40 CFR 63, Subpart ZZZZ that contain the 100-hour exemption for operation of emergency engines for purposes of emergency demand response under 40 CFR 63.6640(f)(2)(ii)-(iii). The D.C. Circuit Court issued the mandate for the vacatur on May 4, 2016.

#### 1. Operating Limitations:

- a. The permittee shall be in compliance with the emission limitations and operating limitations that apply at all times [40 CFR 63.6605(a)].
- b. The permittee shall minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup in 40 CFR 63. Subpart ZZZZ, Tables 1a, 2a, 2c, and 2d apply [40 CFR 63.6625(h)].
- c. The permittee shall operate each of the emergency stationary RICE according to the requirements in paragraphs (f) (1) through (4) of 40 CFR 63.6640. In order for the engine to be considered an emergency stationary RICE under 40 CFR 63, Subpart ZZZZ, any

operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in paragraphs (f)(1) through (4) of 40 CFR 63.6640, is prohibited. If the permittee does not operate the engine according to the requirements in paragraphs (f)(1) through (4) of 40 CFR 63.6640, the engine will not be considered an emergency engine under 40 CFR 63, Subpart ZZZZ and shall meet all requirements for non-emergency engines [40 CFR 63.6640 (f)].

- i. There is no time limit on the use of emergency stationary RICE in emergency situations [40 CFR 63.6640 (f)(1)].
- ii. The permittee may operate the emergency stationary RICE for any combination of the purposes specified in 40 CFR 63.6640(f)(2)(i) through (iii) for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraphs (f)(3) and (4) of 40 CFR 63.6640 counts as part of the 100 hours per calendar year allowed by this paragraph (f)(2) [40 CFR 63.6640 (f)(2)].
  - A. Emergency stationary RICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The permittee may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the permittee maintains records indicating that federal, state, or local standards require maintenance and testing of emergency RICE beyond 100 hours per calendar year [40 CFR 63.6640 (f)(2)(i)].
- iii. Emergency stationary RICE located at area sources of HAP may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in paragraph (f)(2) of 40 CFR 63.6640. Except as provided in paragraphs (f)(4)(i) and (ii) of 40 CFR 63.6640, the 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity [40 CFR 63.6640 (f)(4)].
  - A. The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met [40 CFR 63.6640 (f)(4)(ii)]:
    - 1. The engine is dispatched by the local balancing authority or local transmission and distribution system operator [40 CFR 63.6640 (f)(4)(ii)(A)].
    - 2. The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region [40 CFR 63.6640 (f)(4)(ii)(B)].

Permit Number: <u>F-18-018</u> Page 13 of 42

## SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITION (CONTINUED)

- 3. The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines [40 CFR 63.6640 (f)(4)(ii)(C)].
- 4. The power is provided only to the facility itself or to support the local transmission and distribution system [40 CFR 63.6640 (f)(4)(ii)(D)].
- 5. The owner or operator identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the engine permittee [40 CFR 63.6640 (f)(4)(ii)(E)].

#### 2. Emission Limitations:

N/A

#### 3. Testing Requirements:

Testing shall be conducted at such times as may be requested by the Cabinet [401 KAR 50:045. Section 4].

#### 4. Specific Monitoring Requirements:

- a. The permittee shall install a non-resettable hour meter upon startup of the emergency engine [40 CFR 60.4237(c)].
- b. The permittee shall monitor fuel usage (MMscf) source-wide on a monthly basis [KAR 52:030, Section 10].
- c. The permittee shall monitor the hours of operation of each engine on a monthly basis. [401 KAR 52:030, Section 10]

#### 5. Specific Recordkeeping Requirements:

- a. The permittee shall keep records of each notification and report that is submitted, the occurrence and duration of each malfunction of operation or the air pollution control and monitoring equipment, records of performance tests and performance evaluations as required in 40 CFR 63.10(b)(2)(viii), records of all required maintenance performed on the air pollution control and monitoring equipment, and records of actions taken during periods of malfunction to minimize emissions in accordance with 40 CFR 63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation [40 CFR 63.6655(a)]
- b. The permittee shall maintain records of the maintenance conducted on the engine in order to demonstrate that the engine was operated and maintained, including any after-treatment control device, according to the maintenance plan for the engine, [40 CFR 63.6655(e)].
- c. If an engine is not certified to the standards applicable to non-emergency engines, the permittee shall keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The permittee shall document how many hours are spent

for emergency operation; including, what classified the operation as emergency and how many hours are spent for non-emergency operation. If the engine is used for demand response, records shall be kept of the notification of the emergency situation, and the time the engine was operated as part of demand response. [40 CFR 63.6655(f)(1)]

d. The permittee shall record the amount of natural gas (MMscf) source-wide and hours of operation for each engine on a monthly basis [401 KAR 52:020, Section 10].

#### 6. Specific Reporting Requirements:

- a. The permittee shall report each instance in which the operating limitations in 1. Operating Limitations have not been met. These instances are deviations from the emission and operating limitation in 40 CFR 63 Subpart ZZZZ and shall be reported according to 40 CFR 63.6650. [40 CFR 63.6640(b)]
- b. The permittee shall report each instance in which the requirements of Table 8 to 40 CFR 63, Subpart ZZZZ, that apply, have not been met [40 CFR 63.6640(e)]. The notifications listed in 40 CFR 63.7(b) and (c), 40 CFR 63.8(e), (f) (4) and (f) (6), 40 CFR 63.9(b) through (e), and (g) are not required [40 CFR 63.6645(a) (5)].
- c. The permittee shall submit each report in Table 7 to 40 CFR 63, Subpart ZZZZ, as applicable, and according to 40 CFR 63.6650 [40 CFR 63.6650(a)].
- d. See Section F, Monitoring, Recordkeeping, and Reporting Requirements.

**Emission Unit 11:** 

Thirteen (13) Natural Gas Fired Engines

#### **Description:**

Thirteen (13) natural gas fired emergency generator engines purchased in 2009 or later (Total Power Capacity = 1,035 kW)

Emission Point	Manufacture Date	Construction Commenced	Power Output (kW)
Music Hall/Ivan Wilson Hall	-	2011	70
Kentucky Building	-	2012	25
Downing/University Center	2012	2013	150
Honors/International Center	8/2013	2015	100
Jones-Jagger (Propane)	-	2017	30
Parking Structure #3	7/2017	2017	60
Ogden Hall	2017	2017	200
Hilltopper Hall	-	2017	60
Meredith/Zacharias Hall	1/2009	04/2009	60
Science & Tech	03/2009	07/2009	150
College of Education and Behavioral Sciences	8/11/2009	3/3/2010	75
Keen Hall	-	06/2010	25
McCormack Hall	_	08/2010	30

#### **APPLICABLE REGULATIONS:**

**401 KAR 60:005**, Section 2(2)(eeee) 40 C.F.R. 60.4230 to 60.4248, Tables 1 to 4 (**Subpart JJJJ**), Standards of Performance for Stationary Spark Ignition Internal Combustion Engines

Note: D.C. Circuit Court [Delaware v. EPA, 785 F. 3d I (D.C. Cir. 2015)] has vacated the provisions in 40 CFR 60, Subpart JJJJ that contain the 100-hour exemption for operation of emergency engines for purposes of emergency demand response under 40 CFR 60.4243(d)(2)(ii)-(iii). The D.C. Circuit Court issued the mandate for the vacatur on May 4, 2016.

**401 KAR 63:**002, Section 2(4)(eeee) 40 C.F.R. 63.6580 to 63.6675, Tables Ia to 8, and Appendix A (**Subpart ZZZZ**), National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

Note: D.C. Circuit Court [Delaware v. EPA. 785 F. 3d 1 (D.C. Cir. 2015)] has vacated the provisions in 40 CFR 63, Subpart ZZZZ that contain the 100-hour exemption for operation of emergency engines for purposes of emergency demand response under 40 CFR 63.6640(f)(2)(ii)-(iii). The D.C. Circuit Court issued the mandate for the vacatur on May 4. 2016.

#### 1. Operating Limitations:

- a. The permittee shall meet the requirements of 40 CFR Part 63 by meeting the requirements of 40 CFR 60. Subpart JJJJ. No further requirements apply under 40 CFR Part 63. [40 CFR 63.6590(c) and 63.6590(c)(1)]
- b. The permittee shall operate the emergency stationary ICE according to the requirements in 40 CFR 60.4243(d)(1) through (3). In order for the engine to be considered an emergency

stationary ICE under 40 CFR 60. Subpart JJJJ, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in 40 CFR 60.4243(d)(1) through (3), is prohibited. If the permittee does not operate the engine according to the requirements in 40 CFR 60.4243(d)(1) through (3), the engine will not be considered an emergency engine under 40 CFR 60, Subpart JJJJ and shall meet all requirements for non-emergency engines [40 CFR 60.4243(d)].

- i. There is no time limit on the use of emergency stationary ICE in emergency situations. [40 CFR 60.4243(d)(1)]
- ii. The permittee may operate the emergency stationary ICE for any combination of the purposes specified in 40 CFR 60.4243(d)(2)(i) for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed in 40 CFR 60.4243(d)(3) counts as part of the 100 hours per calendar year allowed in 40 CFR 60.4243(d)(2). Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The permittee may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the permittee maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year. [40 CFR 60.4243(d)(2) and 60.4243(d)(2)(i)]
- iii. Emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in 40 CFR 60.4243(d)(2). Except as provided in 40 CFR 60.4243(d)(3)(i), the 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity. The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met: [40 CFR 60.4243(d)(3) and 60.4243(d)(3)(i)]
  - A. The engine is dispatched by the local balancing authority or local transmission and distribution system operator; [40 CFR 60.4243(d)(3)(i)(A)]
  - B. The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region. [40 CFR 60.4243(d)(3)(i)(B)]
  - C. The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines. [40 CFR 60.4243(d)(3)(i)(C)]

- D. The power is provided only to the facility itself or to support the local transmission and distribution system. [40 CFR 60.4243(d)(3)(i)(D)]
- E. The permittee identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the engine permittee. [40 CFR 60.4243(d)(3)(i)(E)]
- c. The permittee shall operate and maintain stationary SI ICE that achieve the emission standards as required in 40 CFR 60.4233 over the entire life of the engine [40 CFR 60.4234]
- d. If the permittee purchases a non-certified engine or does not operate and maintain the certified stationary S1 internal combustion engine and control device according to the manufacturer's written emission-related instructions, the permittee is required to perform initial performance testing as directed in 3. <u>Testing Requirements</u> (b) and (c), but is not required to conduct subsequent performance testing unless the stationary engine is rebuilt or undergoes major repair or maintenance [40 CFR 60.4243(f)].

#### 2. Emission Limitations:

a. The permittee shall comply with the emission limitations in 40 CFR 60, Subpart JJJJ, Table 1 [40 CFR 60.4233(d)].

#### Compliance Demonstration:

The permittee shall demonstrate compliance by purchasing these engines certified according to procedures specified in 40 CFR 60. Subpart JJJJ, and operating and maintaining the engines and control devices according to the manufacturer's emission-related written instructions, and keeping records of conducted maintenance [40 CFR 60.4243(b)(1)].

b. See Section D, Source Emission Limitations and Testing Requirements.

#### 3. Testing Requirements:

- a. Testing shall be conducted at such times as may be requested by the Cabinet [401 KAR 50:045, Section 4].
- b. If the permittee is required to conduct performance testing the permittee shall following the following procedures listed section 40 CFR 60.4244 (a) thru (f) [40 CFR 60.4244 (a) thru (f)].
- c. If the permittee chooses to measure VOC emissions using either Method 18 of 40 CFR Part 60, appendix A. or Method 320 of 40 CFR Part 63, appendix A, then it has the option of correcting the measured VOC emissions to account for the potential differences in measured values between these methods and Method 25A. The results from Method 18 and Method 320 can be corrected for response factor differences using Equations 4 and 5 of section 40 CFR 60.4244 (g). The corrected VOC concentration can then be placed on a propane basis using Equation 6 of 40 CFR 60.4244 (g) [40 CFR 60.4244(g)].

Permit Number: <u>F-18-018</u> Page 18 of 42

## SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITION (CONTINUED)

#### 4. Specific Monitoring Requirements:

- a. The permittee shall install a non-resettable hour meter upon startup of the emergency engine [40 CFR 60.4237(c)].
- b. The permittee shall monitor fuel usage (MMscf) source-wide on a monthly basis [KAR 52:030, Section 10].
- c. The permittee shall monitor the hours of operation of each engine on a monthly basis. [401 KAR 52:030, Section 10]

#### 5. Specific Recordkeeping Requirements:

- a. The permittee shall maintain records of fuel usage (MMscf) source-wide on a monthly basis [401 KAR 52:030, Section 10].
- b. The permittee shall maintain records of maintenance performed on these units [40 CFR 60.4243(b)(1)].
- c. The permittee shall keep records of the information listed below [40 CFR 60.4245(a)]:
  - i. All notifications submitted to comply with 40 CFR 60, Subpart JJJJ and all documentation supporting any notification. [40 CFR 60.4245(a)(1)]
  - ii. Maintenance conducted on the engine. [40 CFR 60.4245(a)(2)]
  - iii. If the stationary SI internal combustion engine is a certified engine, documentation from the manufacturer that the engine is certified to meet the emission standards and information as required in 40 CFR parts 90, 1048, 1054, and 1060, as applicable. [40 CFR 60.4245(a)(3)]
  - iv. If the stationary SI internal combustion engine is not a certified engine or is a certified engine operating in a non-certified manner and subject to 40 CFR 60.4243(a)(2), documentation that the engine meets the emission standards. [40 CFR 60.4245(a)(5)]
  - v. For stationary SI ICE that are subject to performance testing, the permittee shall submit a copy of each performance test as conducted in 40 CFR 60.4244 within 60 days after the test has been completed [40 CFR 60.4245(d)].
- d. The permittee shall document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. [401 KAR 52:030, Section 10]

#### 6. Specific Reporting Requirements:

- a. If the permittee operates for the purposes specified in 40 CFR 60.4243(d)(3)(i), the permittee shall submit an annual report according to the requirements in 40 CFR 60.4245(e)(1) through (3) [40 CFR 60.4245(e)].
  - i. The report shall contain the following information: [40 CFR 60.4245(e)(1)]
    - A. Company name and address where the engine is located. [40 CFR 60.4245(e)(1)(i)]

- B. Date of the report and beginning and ending dates of the reporting period. [40 CFR 60.4245(e)(1)(ii)]
- C. Engine site rating and model year. [40 CFR 60.4245(e)(1)(iii)]
- D. Latitude and longitude of the engine in decimal degrees reported to the fifth decimal place. [40 CFR 60.4245(e)(1)(iv)]
- E. Hours spent for operation for the purposes specified in 40 CFR 60.4243(d)(3)(i), including the date, start time, and end time for engine operation for the purposes specified in 40 CFR 60.4243(d)(3)(i). The report shall also identify the entity that dispatched the engine and the situation that necessitated the dispatch of the engine. [40 CFR 60.4245(e)(1)(vii)]
- ii. The first annual report shall cover the calendar year 2015 and shall be submitted no later than March 31, 2016. Subsequent annual reports for each calendar year shall be submitted no later than March 31 of the following calendar year. [40 CFR 60.4245(e)(2)]
- iii. The annual report shall be submitted electronically using the Subpart specific reporting form in the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) (www.epa.gov/cdx). However, if the reporting form specific to 40 CFR 60 Subpart JJJJ is not available in CEDRI at the time that the report is due, the written report shall be submitted to the Administrator at the appropriate address listed in 40 CFR 60.4. [40 CFR 60.4245(e)(3)]
- b. See Section F, Monitoring, Recordkeeping, and Reporting Requirements.

**Emission Unit 12:** 

**Eight (8) Diesel-fired Engines** 

Description:

<u>Eight (8) Diesel-Fired Emergency Generator Engines (Total power output = 1,925 kW)</u>

Emission Point	Manufacture Date	Construction Commenced	Power Output (kW)
Agricultural Exposition Center	•	1979	125
Central Steam Plant A	-	1981	300
Central Steam Plant B		1995	150
Diddle Arena	•	2002	600
Pearce-Ford Tower	-	2004	150
Barnes-Campbell Hall	-	2005	200
Bemis-Lawrence Hall	Prior to April 1, 2006	2006	200
Minton Hall	Prior to April 1, 2006	2006	200

#### **STATE-ORIGIN REQUIREMENTS**

401 KAR 63:020, Potentially hazardous matter or toxic substances

#### PRECLUDED REGULATIONS

401 KAR 63:002, Section 2(4)(eeee), 40 C.F.R. 63.6580 to 63.6675, Tables 1a to 8, and Appendix A (Subpart ZZZZ), National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

Note: D.C. Circuit Court [Delaware v. EPA, 785 F. 3d 1 (D.C. Cir. 2015)] has vacated the provisions in 40 CFR 63, Subpart ZZZZ that contain the 100-hour exemption for operation of emergency engines for purposes of emergency demand response under 40 CFR 63.6640(f)(2)(ii)-(iii). The D.C. Circuit Court issued the mandate for the vacatur on May 4, 2016.

#### 1. Operating Limitations:

- a. The permittee shall operate these units according to the following requirements to ensure that they meet the definition of "emergency stationary RICE" in 40 CFR 63.6675 in order to be considered emergency stationary RICE. [40 CFR 63.6585(f)(3); 63.6675; and 63.6640(f)]
- b. There is no time limit on the use of emergency stationary RICE emergency situations [40 CFR 63.6640(f)(1)].
- c. The permittee may operate each of the engines for a maximum of 100 hours per calendar year for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require

maintenance and testing of emergency RICE beyond 100 hours per calendar year. [40 CFR 63.6640(f)(2)]

d. The permittee may be operate each of the engines for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing provided in 40 CFR 63.6640(f)(2). The 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity. [40 CFR 63.6585(f)(3) and 40 CFR 63.6640(f)(4)]

#### 2. Emission Limitations:

- a. Based upon the emission rates of toxics and hazardous air pollutants determined by the Cabinet using information provided in the application and supplemental information submitted by the source, the Cabinet determines the affected facility to be in compliance with 401 KAR 63:020.
- b. See Section D, Source Emission Limitations and Testing Requirements.

#### 3. <u>Testing Requirements:</u>

Testing shall be conducted at such times as may be requested by the Cabinet [401 KAR 50:045, Section 4].

#### 4. Specific Monitoring Requirements:

- a. The permittee shall monitor fuel usage (gallons) source-wide, and for this emission unit on a monthly basis [401 KAR 52:030, Section 10].
- b. The permittee shall monitor the hours of operation of each engine on a monthly basis. [401 KAR 52:030, Section 10]

#### 5. Specific Recordkeeping Requirements:

- a. The permittee shall maintain records of fuel usage (gallons) source-wide, and for this emission unit on a monthly basis [401 KAR 52:030, Section 10].
- b. The permittee shall maintain records of hours of operation of each engine on a monthly basis. The permittee shall document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours were spent for non-emergency operation. [401 KAR 52:030, Section 10]

#### 6. Specific Reporting Requirements

See Section F, Monitoring, Recordkeeping, and Reporting Requirements.

**Emission Unit 13:** 

Seven (7) Diesel-fired Engines

Description:

Seven (7) Diesel-fired Emergency Generator Engines (Total power output = 2,928 kW)

<b>Emission Point</b>	Manufacture Date	Construction Commenced	Power Output (kW)
Poland Hall		2007	200
Rodes-Harlin		2007	200
Data Center #1	2011	2011	804
Data Center #2	2011	2011	804
Center for Research and Dev.	2010	2015	250
Smith Stadium West	07/2007	08/2008	350
South Ave. (Portable #2)	01/2009	07/2009	320

#### **APPLICABLE REGULATIONS:**

401 KAR 63:002, Section 2(4)(eeee) 40 C.F.R. 63.6580 to 63.6675, Tables 1a to 8, and Appendix A (Subpart ZZZZ), National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

Note: D.C. Circuit Court [Delaware v. EPA, 785 F. 3d 1 (D.C. Cir. 2015)] has vacated the provisions in 40 CFR 63, Subpart ZZZZ that contain the 100-hour exemption for operation of emergency engines for purposes of emergency demand response under 40 CFR 63.6640(f)(2)(ii)-(iii). The D.C. Circuit Court issued the mandate for the vacatur on May 4, 2016.

401 KAR 60:005, Section 2(2)(dddd) 40 C.F.R. 60.4200 to 60.4219, Tables 1 to 8 (Subpart IIII), Standards of Performance for Stationary Compression Ignition Internal Combustion Engines

Note: D.C. Circuit Court [Delaware v. EPA, 785 F. 3d 1 (D.C. Cir. 2015)] has vacated the provisions in 40 CFR 60, Subpart IIII that contain the 100-hour exemption for operation of emergency engines for purposes of emergency demand response under 40 CFR 60.4211(f)(2)(ii)-(iii). The D.C. Circuit Court issued the mandate for the vacatur on May 4, 2016.

#### 1. Operating Limitations:

- a. The permittee shall meet the requirements of 40 CFR Part 63 by meeting the requirements of 40 CFR 60, Subpart IIII. No further requirements apply under 40 CFR Part 63. [40 CFR 63.6590(c) and 63.6590(c)(1)]
- b. The permittee shall use diesel fuel that meets the requirements of 40 CFR 80.510(b) [40 CFR 60.4207(b)].
- c. The permittee shall operate and maintain the stationary C1 internal combustion engine and control device according to the manufacturer's emission-related written instructions; change only those emission-related settings that are permitted by the manufacturer; and meet the requirements of 40 CFR parts 89, 94 and/or 1068, as they apply [40 CFR 60.4211(a)].

- d. The permittee shall operate the emergency stationary ICE according to the requirements in 40 CFR 60.4211(f)(1) through (3). In order for the engine to be considered an emergency stationary ICE under 40 CFR 60, Subpart IIII, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in 40 CFR 60.4211(f)(1) through (3), is prohibited. If the engine is not operated according to the requirements in 40 CFR 60.4211(f)(1) through (3), the engine will not be considered an emergency engine under 40 CFR 60 Subpart IIII and shall meet all requirements for non-emergency engines. [40 CFR 60.4211(f)]
  - i. There is no time limit on the use of emergency stationary ICE in emergency situations. [40 CFR 60.4211(f)(1)]
  - ii. The permittee may operate the emergency stationary ICE for any combination of the purposes specified in 40 CFR 60.4211(f)(2)(i) for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by 40 CFR 60.4211(f)(3) counts as part of the 100 hours per calendar year allowed by 40 CFR 60.4211(f)(2). Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The permittee may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the permittee maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year. [40 CFR 60.4211(f)(2) and 60.4211(f)(2)(i)]
  - iii. Emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in 40 CFR 60.4211(f)(2). Except as provided in 40 CFR 60.4211(f)(3)(i), the 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity. The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met: [40 CFR 60.4211(f)(3) and 60.4211(f)(3)(i)]
    - A. The engine is dispatched by the local balancing authority or local transmission and distribution system operator; [40 CFR 60.4211(f)(3)(i)(A)]
    - B. The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region. [40 CFR 60.4211(f)(3)(i)(B)]
    - C. The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines. [40 CFR 60.4211(f)(3)(i)(C)]

- D. The power is provided only to the facility itself or to support the local transmission and distribution system. [40 CFR 60.4211(f)(3)(i)(D)]
- E. The permittee identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the engine's permittee. [40 CFR 60.4211(f)(3)(i)(E)]

#### 2. Emission Limitations:

a. The permittee shall comply with the emission standards for new nonroad Cl engines in 60.4202, for all pollutants, for the same model year and maximum engine power [40 CFR 60.4205(b)].

#### Compliance Demonstration:

The permittee shall comply by purchasing an engine certified to the emission standards in 40 CFR 60.4205(b) for the same model year and maximum engine power. The engine must be installed and configured according to the manufacturer's specifications [40 CFR 60.4211(c)].

- b. See Section D, Source Emission Limitations and Testing Requirements.
- c. The permittee shall meet the emission standards over the life of the engine [40 CFR 60.4206].

#### 3. Testing Requirements:

Testing shall be conducted at such times as may be requested by the Cabinet [401 KAR 50:045. Section 4].

#### 4. Specific Monitoring Requirements:

- a. The permittee shall monitor hours of operation and fuel usage (gallons) source-wide, and for this emission unit [401 KAR 52:030, Section 10].
- b. If any of these engines is equipped with a particulate matter filter, the permittee shall also install a backpressure monitor that notifies the permittee when the high backpressure limit of the engine is approached [40 CFR 60.4209(b)].
- c. The permittee shall install non-resettable hour meters prior to startup of the engines [40 CFR 60.4209(a)].

#### 5. Specific Recordkeeping Requirements:

- a. The permittee shall maintain records of hours of operation and fuel usage (gallons) sourcewide, and for this emission unit [401 KAR 52:030, Section 10].
- b. The permittee is not required to submit an initial notification. However, records of the operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter shall be kept. The permittee shall record the time of operation of the engine and the reason the engine was in operation during that time [40 CFR 60.4214(b)].

- c. If the engine operates for the purposes specified in 40 CFR 60.4211(f)(3)(i), the permittee shall submit an annual report according to the requirements in 40 CFR 60.4214(d)(1) through (3) [40 CFR 60.4214(d)].
  - i. The report shall contain the following information: [40 CFR 60.4214(d)(1)]
    - A. Company name and address where the engine is located. [40 CFR 60.4214(d)(1)(i)]
    - B. Date of the report and beginning and ending dates of the reporting period. [40 CFR 60.4214(d)(1)(ii)]
    - C. Engine site rating and model year. [40 CFR 60.4214(d)(1)(iii)]
    - D. Latitude and longitude of the engine in decimal degrees reported to the fifth decimal place. [40 CFR 60.4214(d)(1)(iv)]
    - E. Hours spent for operation for the purposes specified in 40 CFR 60.4211(f)(3)(i), including the date, start time, and end time for engine operation for the purposes specified in 40 CFR 60.4211(f)(3)(i). The report shall also identify the entity that dispatched the engine and the situation that necessitated the dispatch of the engine. [40 CFR 60.4214(d)(1)(vii)]
  - ii. The first annual report shall cover the calendar year 2015 and shall be submitted no later than March 31, 2016. Subsequent annual reports for each calendar year shall be submitted no later than March 31 of the following calendar year. [40 CFR 60.4214(d)(2)]
  - iii. The annual report shall be submitted electronically using the Subpart specific reporting form in the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) (www.epa.gov/cdx). However, if the reporting form specific to 40 CFR 60 Subpart IIII is not available in CEDRI at the time that the report is due, the written report shall be submitted to the Administrator at the appropriate address listed in 40 CFR 60.4. [40 CFR 60.4214(d)(3)]

#### 6. Specific Reporting Requirements:

See Section F, Monitoring, Recordkeeping, and Reporting Requirements

**Emission Unit 14:** 

Twenty (20) Natural Gas Fired Engines

#### **Description:**

Twenty (20) Natural gas fired existing emergency generator engines (Total Power Capacity = 1,604 kW)

Emission Point	Construction Commenced	Power Output (kW)
Tate Page Hall	1970	25
Cravens Graduate Center	1971	75
Enviro Science & Tech Bldg.	1975	15
Potter Hall	1991	20
Preston Health & Activities	1992	60
Helm Library	1998	25
Gilbert Hall	1999	19
Wetherby Admin. Bldg	1999	100
University Police	2000	25
Grise Hall	2001	20
North Hall	2001	30
South Hall	2001	30
McLean Hall	2002	19
Bates-Runner Hall	2002	20
Eng & Bio Science	2003	350
Institute for Combustion Science	2004	175
Pearce-Ford Tower	2004	100
Center for Research	2005	175
Cherry Hall	2005	15
Parking Structure #2	2005	30

#### **STATE-ORIGIN REQUIREMENTS**

401 KAR 63:020, Potentially hazardous matter or toxic substances

#### PRECLUDED REGULATIONS:

**401 KAR 63:002, Section 2(4)(eeee)**, 40 C.F.R. 63.6580 to 63.6675, Tables 1a to 8, and Appendix A (**Subpart ZZZZ**), National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

Note: D.C. Circuit Court [Delaware v. EPA, 785 F. 3d 1 (D.C. Cir. 2015)] has vacated the provisions in 40 CFR 63, Subpart ZZZZ that contain the 100-hour exemption for operation of emergency engines for purposes of emergency demand response under 40 CFR 63.6640(f)(2)(ii)-(iii). The D.C. Circuit Court issued the mandate for the vacatur on May 4, 2016.

#### 1. Operating Limitations:

a. The permittee shall operate these units according to the following requirements to ensure that they meet the definition of "emergency stationary RICE" in 40 CFR 63.6675 in order to be considered emergency stationary RICE. [40 CFR 63.6585(f)(3): 63.6675; and 63.6640(f)]

- b. There is no time limit on the use of emergency stationary RICE emergency situations [40 CFR 63.6640(f)(1)].
- c. The permittee may operate each of the engines for a maximum of 100 hours per calendar year for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency RICE beyond 100 hours per calendar year. [40 CFR 63.6640(f)(2)]
- d. The permittee may be operate each of the engines for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing provided in 40 CFR 63.6640(f)(2). The 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity. [40 CFR 63.6585(f)(3) and 40 CFR 63.6640(f)(4)]

#### 2. Emission Limitations:

- a. Based upon the emission rates of toxics and hazardous air pollutants determined by the Cabinet using information provided in the application and supplemental information submitted by the source, the Cabinet determines the affected facility to be in compliance with 401 KAR 63:020.
- b. See Section D, Source Emission Limitations and Testing Requirements.

#### 3. Testing Requirements:

Testing shall be conducted at such times as may be requested by the Cabinet [401 KAR 50:045, Section 4].

#### 4. Specific Monitoring Requirements:

- a. The permittee shall monitor fuel usage (MMscf) source-wide on a monthly basis [401 KAR 52:030, Section 10].
- b. The permittee shall monitor the hours of operation of each engine on a monthly basis. [401 KAR 52:030, Section 10]

#### 5. Specific Recordkeeping Requirements:

- a. The permittee shall maintain records of fuel usage (MMscf) source-wide on a monthly basis [401 KAR 52:030, Section 10].
- b. The permittee shall maintain records of hours of operation of each engine on a monthly basis. The permittee shall document how many hours are spent for emergency operation,

including what classified the operation as emergency and how many hours were spent for non-emergency operation. [401 KAR 52:030, Section 10]

#### 6. Specific Reporting Requirements:

See Section F, Monitoring, Recordkeeping, and Reporting Requirements.

#### **SECTION C - INSIGNIFICANT ACTIVITIES**

The following listed activities have been determined to be insignificant activities for this source pursuant to 401 KAR 52:030, Section 6. Although these activities are designated as insignificant the permittee must comply with the applicable regulation. Process and emission control equipment at each insignificant activity subject to an opacity standard shall be inspected monthly and a qualitative visible emissions evaluation made. Results of the inspection, evaluation, and any corrective action shall be recorded in a log.

Description 1. Dark Rooms	Generally Applicable Regulation N/A
2. Wood Shop	401 KAR 59:010
3. Print Shop	401 KAR 59:010
4. Lab Hoods	N/A
5. Degreaser	401 KAR 59:185
6. Ceramic Burner	401 KAR 63:020
7. 2 Sculpture Burners	401 KAR 63:020
8. Diesel Storage Tanks	401 KAR 63:010
9. Paint Spray Booth	401 KAR 59:010
10. Biodiesel Pilot Lab	401 KAR 59:010 & 401 KAR 63:020
11. Ceramics Studio Spray Booth	401 KAR 59:010
12. Wood Kiln	401 KAR 59:010
13. Thirty-Two (32) Natural Gas Fired Indirect Heat Exchangers rated < 1 MMBtu/hr (Total Heat Input Capacity = 13.60 MMBtu/hr)	N/A

Location	Construction Commenced	Heat Input (MMBtu/hr)
Helm Library	2001	0.075
The Visitor Center	1989	0,076
Thompson North Wing	2007	0.076
J.T. Gilbert Hall	2000	0.8
Health Services	2007	0.065
Health Services	2007	0.065
South Campus	2007	0.75
Schneider Hall	2007	0.4
Schneider Hall	2007	0.4

## SECTION C - INSIGNIFICANT ACTIVITIES (CONTINUED)

Location	Construction Commenced	Heat Input (MMBtu/hr)
Baseball Clubhouse #1	2009	0.1
Baseball Clubhouse #2	2009	0.1
Baseball Clubhouse #3	2009	0.1
Music Hall Humidifier	2011	0.42
Music Hall Boiler	2011	0.5
Music Hall Water Heater	2011	0.125
WKU Farm	2011	0.25
Downing Univ. Center	2013	0.8
Downing Univ. Center	2013	0.8
Honors/International Center	2015	0.8
Honors/International Center	2015	0.8
Honors/International Center	2015	0.8
Meredith Hall	2017	0.75
Ogden Hall	2017	0.2
Ogden Hall	2017	0.2
Ogden Hall	2017	0.2
Schneider Hall	2016	0.5
Schneider Hall	2016	0.5
Engineering & Biological Sciences BLDG	2016	0.2
Zacharias Hall	2017	0.75
South Campus #3	2017	0.9
South Campus #4	2017	0.9
6AN	2016	0.2

## SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS

- 1. As required by Section 1b of the Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources incorporated by reference in 401 KAR 52:030, Section 26: compliance with annual emissions and processing limitations contained in this permit, shall be based on emissions and processing rates for any twelve (12) consecutive months.
- 2. Particulate matter, opacity, and sulfur dioxide emissions, measured by applicable reference methods, or an equivalent or alternative method specified in 40 C.F.R. Chapter I, or by a test method specified in the state implementation plan shall not exceed the respective limitations specified herein.
- 3. Total source-wide emissions of nitrogen oxides shall not exceed 90 tons per year, based on a twelve-month rolling total [to preclude 401 KAR 52:020 and 401 KAR 51:017].
- 4. Total source-wide emissions of carbon monoxide shall not exceed 90 tons per year, based on a twelve-month rolling total [to preclude 401 KAR 52:020 and 401 KAR 51:017].

#### Compliance Demonstration:

To demonstrate compliance with the source-wide operating limitations on nitrogen oxides, and carbon monoxide, total source-wide usage of natural gas shall not exceed 750 MMscf per year, based on a consecutive twelve (12)-month rolling total. The permittee shall monitor and maintain records of source-wide natural gas usage on a monthly basis. To demonstrate compliance with this emission limitation, the twelve (12)-month rolling total of natural gas usage shall be calculated monthly and reported quarterly (see Section F).

#### **SECTION E - SOURCE CONTROL EQUIPMENT REQUIREMENTS**

Pursuant to 401 KAR 50:055, Section 2(5), at all times, including periods of startup, shutdown and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Division which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

Permit Number: F-18-018 Page 33 of 42

## SECTION F - MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS

- 1. Pursuant to Section 1b-IV-1 of the Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources incorporated by reference in 401 KAR 52:030 Section 26, when continuing compliance is demonstrated by periodic testing or instrumental monitoring, the permittee shall compile records of required monitoring information that include:
  - a. Date, place (as defined in this permit), and time of sampling or measurements:
  - b. Analyses performance dates;
  - c. Company or entity that performed analyses;
  - d. Analytical techniques or methods used;
  - e. Analyses results; and
  - f. Operating conditions during time of sampling or measurement.
- 2. Records of all required monitoring data and support information, including calibrations, maintenance records, and original strip chart recordings, and copies of all reports required by the Division for Air Quality, shall be retained by the permittee for a period of five (5) years and shall be made available for inspection upon request by any duly authorized representative of the Division for Air Quality [401 KAR 52:030, Section 3(1)(f)1a, and Section 1a-7 of the Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources incorporated by reference in 401 KAR 52:030, Section 26].
- 3. In accordance with the requirements of 401 KAR 52:030, Section 3(1)f, the permittee shall allow authorized representatives of the Cabinet to perform the following during reasonable times:
  - a. Enter upon the premises to inspect any facility, equipment (including air pollution control equipment), practice, or operation;
  - b. To access and copy any records required by the permit;
  - c. Sample or monitor, at reasonable times, substances or parameters to assure compliance with the permit or any applicable requirements.
    - i. Reasonable times are defined as during all hours of operation, during normal office hours; or during an emergency.
- 4. No person shall obstruct, hamper, or interfere with any Cabinet employee or authorized representative while in the process of carrying out official duties. Refusal of entry or access may constitute grounds for permit revocation and assessment of civil penalties.
- 5. Summary reports of any monitoring required by this permit shall be submitted to the Regional Office listed on the front of this permit at least every six (6) months during the life of this permit, unless otherwise stated in this permit. For emission units that were still under construction or which had not commenced operation at the end of

## SECTION F - MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS (CONTINUED)

the 6-month period covered by the report and are subject to monitoring requirements in this permit, the report shall indicate that no monitoring was performed during the previous six months because the emission unit was not in operation [Sections 1b-V-1 of the Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources incorporated by reference in 401 KAR 52:030, Section 26].

- 6. The semi-annual reports are due by January 30th and July 30th of each year. All reports shall be certified by a responsible official pursuant to 401 KAR 52:030, Section 22. If continuous emission and opacity monitors are required by regulation or this permit, data shall be reported in accordance with the requirements of 401 KAR 59:005, General Provisions, Section 3(3). All deviations from permit requirements shall be clearly identified in the reports.
- 7. In accordance with the provisions of 401 KAR 50:055, Section 1, the owner or operator shall notify the Regional Office listed on the front of this permit concerning startups, shutdowns, or malfunctions as follows:
  - a. When emissions during any planned shutdowns and ensuing startups will exceed the standards, notification shall be made no later than three (3) days before the planned shutdown, or immediately following the decision to shut down, if the shutdown is due to events which could not have been foreseen three (3) days before the shutdown.
  - b. When emissions due to malfunctions, unplanned shutdowns and ensuing startups are or may be in excess of the standards, notification shall be made as promptly as possible by telephone (or other electronic media) and shall be submitted in writing upon request.
- 8. The permittee shall promptly report deviations from permit requirements, including those attributable to upset conditions as defined in the permit, the probable cause of such deviations, and any corrective actions or preventive measures taken shall be submitted to the Regional Office listed on the front of this permit. Where the underlying applicable requirement contains a definition of prompt or otherwise specifies a time frame for reporting deviations, that definition or time frame shall govern. Where the underlying applicable requirement does not identify a specific time frame for reporting deviations, prompt reporting, as required by Sections 1b-V. 3 and 4 of the Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources incorporated by reference in 401 KAR 52:030. Section 26 shall be defined as follows:
  - a. For emissions of a hazardous air pollutant or a toxic air pollutant (as identified in an applicable regulation) that continue for more than an hour in excess of permit requirements, the report must be made within 24 hours of the occurrence.
  - b. For emissions of any regulated air pollutant, excluding those listed in F.8.a., that continue for more than two hours in excess of permit requirements, the report must be made within 48 hours.
  - c. All deviations from permit requirements, including those previously reported, shall be included in the semiannual report required by F.6.

Permit Number: <u>F-18-018</u> Page 35 of 42

## SECTION F - MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS (CONTINUED)

- 9. Pursuant to 401 KAR 52:030, Section 21, the permittee shall annually certify compliance with the terms and conditions contained in this permit by completing and returning a Compliance Certification Form (DEP 7007CC) (or an alternative approved by the regional office) to the Regional Office listed on the front of this permit in accordance with the following requirements:
  - a. Identification of each term or condition:
  - b. Compliance status of each term or condition of the permit;
  - c. Whether compliance was continuous or intermittent:
  - d. The method used for determining the compliance status for the source, currently and over the reporting period.
  - e. For an emissions unit that was still under construction or which has not commenced operation at the end of the 12-month period covered by the annual compliance certification, the permittee shall indicate that the unit is under construction and that compliance with any applicable requirements will be demonstrated within the timeframes specified in the permit.
  - f. The certification shall be submitted by January 30th of each year. Annual compliance certifications shall be sent to the following addresses: Division for Air Quality, Bowling Green Regional Office, 2642 Russellville Rd., Bowling Green, KY 42101.
- 10. In accordance with 401KAR 52:030, Section 3(1)(d), the permittee shall provide the Division with all information necessary to determine its subject emissions within 30 days of the date the Kentucky Emissions Inventory System (KYEIS) emissions survey is mailed to the permittee. If a KYEIS emissions survey is not mailed to the permittee, then the permittee shall comply with all other emissions reporting requirements in this permit.
- 11. The Cabinet may authorize the temporary use of an emission unit to replace a similar unit that is taken off-line for maintenance, if the following conditions are met:
  - a. The owner or operator shall submit to the Cabinet, at least ten (10) days in advance of replacing a unit, the appropriate Forms DEP7007A1 to DD that show:
    - i. The size and location of both the original and replacement units; and
    - ii. Any resulting change in emissions:
  - b. The potential to emit (PTE) of the replacement unit shall not exceed that of the original unit by more than twenty-five (25) percent of a major source threshold, and the emissions from the unit shall not cause the source to exceed the emissions allowable under the permit:
  - c. The PTE of the replacement unit or the resulting PTE of the source shall not subject the source to a new applicable requirement:
  - d. The replacement unit shall comply with all applicable requirements; and

## SECTION F - MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS (CONTINUED)

- e. The source shall notify Regional office of all shutdowns and start-ups.
- f. Within six (6) months after installing the replacement unit, the owner or operator shall:
  - i. Re-install the original unit and remove or dismantle the replacement unit; or
  - ii. Submit an application to permit the replacement unit as a permanent change.

Permit Number: <u>F-18-018</u> Page 37 of 42

#### **SECTION G - GENERAL PROVISIONS**

#### 1. General Compliance Requirements

a. The permittee shall comply with all conditions of this permit. A noncompliance shall be a violation of 401 KAR 52:030, Section 3(1)(b), and a violation of Federal Statute 42 USC 7401 through 7671q (the Clean Air Act). Noncompliance with this permit is grounds for enforcement action including but not limited to the termination, revocation and reissuance, revision, or denial of a permit [Section 1a-2 of the Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources incorporated by reference in 401 KAR 52:030, Section 26].

- b. The filing of a request by the permittee for any permit revision, revocation, reissuance, or termination, or of a notification of a planned change or anticipated noncompliance, shall not stay any permit condition [Section 1a-5 of the Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources incorporated by reference in 401 KAR 52:030, Section 26].
- c. This permit may be revised, revoked, reopened and reissued, or terminated for cause in accordance with 401 KAR 52:030. Section 18. The permit will be reopened for cause and revised accordingly under the following circumstances:
  - i. If additional applicable requirements become applicable to the source and the remaining permit term is three (3) years or longer. In this case, the reopening shall be completed no later than eighteen (18) months after promulgation of the applicable requirement. A reopening shall not be required if compliance with the applicable requirement is not required until after the date on which the permit is due to expire, unless this permit or any of its terms and conditions have been extended pursuant to 401 KAR 52:030, Section 12;
  - ii. The Cabinet or the United States Environmental Protection Agency (U. S. EPA) determines that the permit must be revised or revoked to assure compliance with the applicable requirements;
  - iii. The Cabinet or the U. S. EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.

Proceedings to reopen and reissue a permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of the permit for which cause to reopen exists. Reopenings shall be made as expeditiously as practicable. Reopenings shall not be initiated before a notice of intent to reopen is provided to the source by the Division, at least thirty (30) days in advance of the date the permit is to be reopened, except that the Division may provide a shorter time period in the case of an emergency.

d. The permittee shall furnish information upon request of the Cabinet to determine if cause exists for modifying, revoking and reissuing, or terminating the permit; or to determine compliance with the conditions of this permit [Sections 1a- 6 and 7 of the Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources incorporated by reference in 401 KAR 52:030, Section 26].

Permit Number: <u>F-18-018</u> Page 38 of 42

#### **SECTION G - GENERAL PROVISIONS (CONTINUED)**

e. Emission units described in this permit shall demonstrate compliance with applicable requirements if requested by the Division [401 KAR 52:030, Section 3(1)(c)].

- f. The permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to the permitting authority [401 KAR 52:030, Section 7(1)].
- g. Any condition or portion of this permit which becomes suspended or is ruled invalid as a result of any legal or other action shall not invalidate any other portion or condition of this permit [Section 1a-11 of the Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources incorporated by reference in 401 KAR 52:030, Section 26].
- h. The permittee shall not use as a defense in an enforcement action the contention that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance [Section 1a-3 of the Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources incorporated by reference in 401 KAR 52:030, Section 26].
- i. All emission limitations and standards contained in this permit shall be enforceable as a practical matter. All emission limitations and standards contained in this permit are enforceable by the U.S. EPA and citizens except for those specifically identified in this permit as state-origin requirements. [Section 1a-12 of the Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources incorporated by reference in 401 KAR 52:030, Section 26].
- j. This permit shall be subject to suspension if the permittee fails to pay all emissions fees within ninety (90) days after the date of notice as specified in 401 KAR 50:038, Section 3(6) [Section 1a-9 of the Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources incorporated by reference in 401 KAR 52:030, Section 26].
- k. Nothing in this permit shall alter or affect the liability of the permittee for any violation of applicable requirements prior to or at the time of permit issuance [401 KAR 52:030, Section 11(3)].
- 1. This permit does not convey property rights or exclusive privileges [Section 1a-8 of the Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources incorporated by reference in 401 KAR 52:030, Section 26].
- m. Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by the Cabinet or any other federal, state, or local agency.
- n. Nothing in this permit shall alter or affect the authority of U.S. EPA to obtain information pursuant to Federal Statute 42 USC 7414, Inspections, monitoring, and entry.

Permit Number: <u>F-18-018</u> Page 39 of 42

#### **SECTION G - GENERAL PROVISIONS (CONTINUED)**

o. Nothing in this permit shall alter or affect the authority of U.S. EPA to impose emergency orders pursuant to Federal Statute 42 USC 7603, Emergency orders.

- p. This permit consolidates the authority of any previously issued PSD, NSR, or Synthetic Minor source preconstruction permit terms and conditions for various emission units and incorporates all requirements of those existing permits into one single permit for this source.
- q. Pursuant to 401 KAR 52:030, Section 11, a permit shield shall not protect the owner or operator from enforcement actions for violating an applicable requirement prior to or at the time of permit issuance. Compliance with the conditions of this permit shall be considered compliance with:
  - i. Applicable requirements that are included and specifically identified in this permit; and
  - ii. Non-applicable requirements expressly identified in this permit.

#### 2. Permit Expiration and Reapplication Requirements

- a. This permit shall remain in effect for a fixed term of five (5) years following the original date of issue. Permit expiration shall terminate the source's right to operate unless a timely and complete renewal application has been submitted to the Division at least six (6) months prior to the expiration date of the permit. Upon a timely and complete submittal, the authorization to operate within the terms and conditions of this permit, including any permit shield, shall remain in effect beyond the expiration date, until the renewal permit is issued or denied by the Division [401 KAR 52:030, Section 12].
- b. The authority to operate granted through this permit shall cease to apply if the source fails to submit additional information requested by the Division after the completeness determination has been made on any application, by whatever deadline the Division sets [401 KAR 52:030, Section 8(2)].

#### 3. Permit Revisions

- a. Minor permit revision procedures specified in 401 KAR 52:030, Section 14(3), may be used for permit revisions involving the use of economic incentive, marketable permit, emission trading, and other similar approaches, to the extent that these minor permit revision procedures are explicitly provided for in the State Implementation Plan (SIP) or in applicable requirements and meet the relevant requirements of 401 KAR 52:030, Section 14(2).
- b. This permit is not transferable by the permittee. Future owners and operators shall obtain a new permit from the Division for Air Quality. The new permit may be processed as an administrative amendment if no other change in this permit is necessary, and provided that a written agreement containing a specific date for transfer of permit responsibility coverage and liability between the current and new permittee has been submitted to the permitting authority within ten (10) days following the transfer.

#### **SECTION G - GENERAL PROVISIONS (CONTINUED)**

#### 4. Construction. Start-Up, and Initial Compliance Demonstration Requirements

No construction is authorized by this permit (F-18-018).

#### 5. <u>Testing Requirements</u>

- a. Pursuant to 401 KAR 50:045, Section 2, a source required to conduct a performance test shall submit a completed Compliance Test Protocol form, DEP form 6028, or a test protocol a source has developed for submission to other regulatory agencies, in a format approved by the cabinet, to the Division's Frankfort Central Office a minimum of sixty (60) days prior to the scheduled test date. Pursuant to 401 KAR 50:045, Section 7, the Division shall be notified of the actual test date at least Thirty (30) days prior to the test.
- b. Pursuant to 401 KAR 50:045, Section 5, in order to demonstrate that a source is capable of complying with a standard at all times, any required performance test shall be conducted under normal conditions that are representative of the source's operations and create the highest rate of emissions. If [When] the maximum production rate represents a source's highest emissions rate and a performance test is conducted at less than the maximum production rate, a source shall be limited to a production rate of no greater than 110 percent of the average production rate during the performance tests. If and when the facility is capable of operation at the rate specified in the application, the source may retest to demonstrate compliance at the new production rate. The Division for Air Quality may waive these requirements on a case-by-case basis if the source demonstrates to the Division's satisfaction that the source is in compliance with all applicable requirements.
- c. Results of performance test(s) required by the permit shall be submitted to the Division by the source or its representative within forty-five days or sooner if required by an applicable standard, after the completion of the fieldwork.

#### 6. Acid Rain Program Requirements

If an applicable requirement of Federal Statute 42 USC 7401 through 7671q (the Clean Air Act) is more stringent than an applicable requirement promulgated pursuant to Federal Statute 42 USC 7651 through 7651o (Title IV of the Act), both provisions shall apply, and both shall be state and federally enforceable.

#### 7. Emergency Provisions

- a. Pursuant to 401 KAR 52:030, Section 23(1), an emergency shall constitute an affirmative defense to an action brought for noncompliance with the technology-based emission limitations if the permittee demonstrates through properly signed contemporaneous operating logs or other relevant evidence that:
  - i. An emergency occurred and the permittee can identify the cause of the emergency;
  - ii. The permitted facility was at the time being properly operated:

Permit Number: <u>F-18-018</u> Page 41 of 42

#### **SECTION G - GENERAL PROVISIONS (CONTINUED)**

iii. During an emergency, the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements in the permit; and,

- iv. The permittee notified the Division as promptly as possible and submitted written notice of the emergency to the Division within two (2) working days of the time when emission limitations were exceeded due to an emergency. The notice shall include a description of the emergency, steps taken to mitigate emissions, and the corrective actions taken.
- v. Notification of the Division does not relieve the source of any other local, state or federal notification requirements.
- b. Emergency conditions listed in General Provision G.7.a above are in addition to any emergency or upset provision(s) contained in an applicable requirement [401 KAR 52:030, Section 23(3)].
- c. In an enforcement proceeding, the permittee seeking to establish the occurrence of an emergency shall have the burden of proof [401 KAR 52:030, Section 23(2)].

#### 8. Ozone depleting substances

- a. The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR 82. Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in Subpart B:
  - i. Persons opening appliances for maintenance, service, repair, or disposal shall comply with the required practices contained in 40 CFR 82.156.
  - Equipment used during the maintenance, service, repair, or disposal of appliances shall comply with the standards for recycling and recovery equipment contained in 40 CFR 82.158.
  - iii. Persons performing maintenance, service, repair, or disposal of appliances shall be certified by an approved technician certification program pursuant to 40 CFR 82.161.
  - iv. Persons disposing of small appliances, MVACs, and MVAC-like appliances (as defined at 40 CFR 82.152) shall comply with the recordkeeping requirements pursuant to 40 CFR 82.166.
  - v. Persons owning commercial or industrial process refrigeration equipment shall comply with the leak repair requirements pursuant to 40 CFR 82.156.
  - vi. Owners/operators of appliances normally containing 50 or more pounds of refrigerant shall keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR 82.166.
- b. If the permittee performs service on motor (fleet) vehicle air conditioners containing ozone-depleting substances, the source shall comply with all applicable requirements as specified in 40 CFR 82, Subpart B, Servicing of Motor Vehicle Air Conditioners.

Permit Number: F-18-018 Page 42 of 42

### **SECTION G - GENERAL PROVISIONS (CONTINUED)**

#### 9. Risk Management Provisions

a. The permittee shall comply with all applicable requirements of 401 KAR Chapter 68, Chemical Accident Prevention, which incorporates by reference 40 CFR Part 68, Risk Management Plan provisions. If required, the permittee shall comply with the Risk Management Program and submit a Risk Management Plan to:

RMP Reporting Center P.O. Box 10162 Fairfax, VA 22038

b. If requested, submit additional relevant information to the Division or the U.S. EPA.

Commonwealth of Kentucky Division for Air Quality 300 Sower Boulevard, 2<sup>nd</sup> Floor Frankfort, KY 40601

## FINAL PERMIT DETERMINATION

Conditional Major, Operating Permit: F-18-018

ATTACHMENT D - COPY OF NEWSPAPER PUBLIC NOTICE

A.I.: 11402

APE 2017 6007/180004

Bowling Green, KY

Wednesday, October 31, 2018

Daily News, Bowling Green, Kentucky

# AIR QUALITY PERMIT NOTICE

Look For Min "C" Section

Daily CROSSWOR HALLOWEEN

By Timothy E. Partner 1 Sign of an old

14 Cosmetics Ingre-5 Hunts and gathers 10 Turidsh big wheel Gent

15 Active, as "the 17 Oz fover's Hallow 18 Walk heavily Dame

een outfir?

20 Foe 21 Gilbert of TV 22 Word separating business hours 23 Dress for many 26 One with will 28 Bark but good 31 Santa Claus' shav-hig mishap? 33 Test 5-Down 34 Spirited Jones 36 "So long" in Italy

41 Lovingly potty train

a boy? 44 Slow-moving tree 45 Romando flower

46 9

setem Kentucky, University has applied to the Kentucky Division for Air Quai

Plant ID: 21-227-00012 - Agency Interest: 11402

Western Kentucky University Operating Permit F-18-018

Oraft Federally Enforceabla/Conditional Major

5 If must be thed to go 6 Allen mover 7 Highs? No, U-tum 8 Not tonion 46 Do Huntington

STA ARG

by for a permit to operate a center of learning facility at 1806 Colage Heights Shrd., Bowing Green, KY 42101. The plaint is destribed as a Conditional Major the gateway Ly, gowld Search Search A. saper. Official copies of the chalt per-nit and relevant apporting information are available for trapection by the pubable Inhibitions to restrict this source is potential emissions to less then a major prefer than a major source threshold. This permit contains federally enforce 2042 Russelville Road, Bowling Green, KY 42101, Phone (270) 746-7475; and Division for Alt Quality, 300 Sover Boulevard, 2nd Floor, Frankfurt, KY 40801, Phone (502) 782-6977; Dhèsion for Alf Quality Bowling Green Repired Office the Wernen County Public Library, 1225 State Street, Bowling Green, XY 42(0). An electronic copy of the draft permit should shortly become evallable at http: source due to potential emissions of non-hierardous negulated air, polisees to during normal business hours at the following locations: **Fourte threshold** 24 쁗 3 3 98 23 8 30 11 8 3 2 28

and afford the opportunity for a public hearing. The first day of the 30 day period ress or e-mel shawn,holeneon-Brygott. Any person who requests a public desing must state the Issues to be resed at the hearing. If the Division finds that a hearing will contribute to the decision-making process by clarifying sig-influent issues affecting the draft permit, a hearing will be announced. At rel-evant comments will be considered in lessing the final permit. Further fritomsis the day after the publication of this notice. Comments and/or public hearing equests should be sent to Afr. Shawn Hokenson at the above Frandont ad-For a period of 30 days the DAAsion will accept comments on the clieft permi Ton can be obtained by calling Mr. Zachary Bitner of (602) 782-6566.
The Commonwealth of Kantucky does not decembers on the basis of nea, color, national origin, sax, religion, age or distribity in employment or the provi-2898, Phone (270) 781-4884,

aion of services and provides, upon request, neednable accommodation inportunity to participate in all programs and activities. Materials will be prochuling sealisty aides and services necessary to afford individuals an equal vided in elternate format upon request,

Help Wanted