State of Rhode Island Department of Environmental Management Office of Air Resources

NOTICE OF PUBLIC COMMENT PERIOD

The Office of Air Resources offers an opportunity for public comment regarding its proposal to issue a revised Emissions Cap for the following stationary source:

Roger Williams University, One Old Ferry Rd, Bristol, RI 02809

Emissions Cap No. 36-2016 for the Roger Williams University is being revised to include new fuel burning equipment and change the allowed sulfur content in #2 fuel oil from 0.05% to 0.0015% by weight as specified in "Sulfur Content of Fuels"250-RICR-120-05.8.6(A)(1). Emissions Cap 36-2016 was issued 12 April 2016.

"Operating Permits" 250-RICR-120-05-29 contains provisions to allow sources to apply for an emissions cap. An emissions cap must be federally enforceable and include some combination of production and/or operational limitations to ensure that emissions are limited by quantifiable and enforceable means. An emissions cap relieves the stationary source from the requirement to obtain an operating permit.

The public comment period for the revised emissions cap will begin today and continue until 2 July 2020. A virtual public hearing for interested persons will be held if requested by 10 or more persons, or by a governmental subdivision or agency or by an association having not less than 10 members. Any interested person may request that a public hearing be held.

Written comments to be considered part of the record must be submitted during the public comment period. Written comments or requests for a hearing may be sent to the Office of Air Resources at the address below until 4:00 PM, 2 July 2020, at which time the public comment period will close.

The draft emissions cap is available for inspection at the Office of Air Resources, 235 Promenade Street, Providence RI from 8:30am to 4:00pm. For more information, contact either David DelSesto or Brianna Seltzer at (401)222-2808 (toll free 1-800-752-8088, TTY 711).

Signed this 1^{st} day of June 2020.

Laurie Grandchamp, P.E., Chief Office of Air Resources



STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR RESOURCES

EMISSIONS CAP PERMIT

ROGER WILLIAMS UNIVERSITY

EMISSIONS CAP NO. 36-2020

Pursuant to the provisions of "<u>Operating Permits</u>" 250-RICR-120-05-29, this emissions cap permit is issued to:

Roger Williams University One Old Ferry Road Bristol, RI 02809

This emissions cap permit shall be effective from the date of its issuance and shall remain in effect until revoked by or surrendered to the Department.

This emissions cap permit does not relieve *Roger Williams University* from compliance with applicable state and federal air pollution control rules and regulations. The design, construction and operation of this facility shall be subject to the attached operating requirements and conditions.

This emission cap shall be considered an enforceable document as the term is used in "General Definitions Regulation" 250-RICR-120-0(A)(17).

Laurie Grandchamp, P.E., Chief Office of Air Resources Date of Issuance: XX/XX/XXXX

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR RESOURCES

Operating Requirements and Conditions

ROGER WILLIAMS UNIVERSITY

Emissions Cap No. 36-2020 (Revised June 2020)

- A. Emissions Limitations
 - 1. All distillate fuel burned in the boilers and emergency generators shall contain no more than 0.0015 percent sulfur by weight (15 ppm).

B. Operating Requirements

- 1. The combined quantity of natural gas equivalents combusted at this facility, excluding the emergency generators, shall be limited to 300,000,000 standard cubic feet (SCF) of natural gas equivalents or less for any consecutive 12-month period. For purposes of this limitation, each gallon of distillate fuel oil combusted shall be considered equivalent to 180 SCF of natural gas.
- 2. Each emergency generator, excluding all permitted emergency generators, shall not operate more than 400 hours in any consecutive 12-month period.
- 3. All permitted emergency generators shall not operate more than 500 hours each in any consecutive 12-month period.
- 4. Each emergency generator at the facility shall be used only during emergencies or for maintenance or testing purposes. Emergency means an electrical power outage dur to a failure of the electrical grid, on-site disaster, local equipment failure, or public service emergencies such as flood, fire, or natural disaster.
- 5. The emergency generators at the facility shall not be operated in conjunction with any voluntary demand-reduction program or any other interruptible power supply arrangement with a utility, other market participant, or system operator.

C. Monitoring

1. Each emergency generator shall be equipped with a non-resettable elapsed time meter to indicate, in cumulative hours, the elapsed engine operating time for the unit.

D. Fuel Oil Testing

- 1. Compliance with the diesel fuel sulfur limit shall be determined backed on a certification from the fuel supplier. Fuel supplier certification shall include the following information:
 - a. The name of the fuel supplier.
 - b. The sulfur content of the fuel from which the shipment came or the shipment itself.
 - c. The location of the fuel when the sample was drawn for analysis to determine the sulfur content of the fuel, specifically including whether the fuel was sampled as delivered to this facility or whether the sample was drawn from fuel in storage at the fuel supplier's facility or another location.
 - d. The method used to determine the sulfur content of the fuel.
- 2. As an alternative to fuel supplier certification, the owner/operator may elect to sample the fuel prior to combustion. Sampling and analysis shall be conducted for the fuel in this initial tank(s) of fuel to be fired in the engine and after each new shipment of fuel is received. Samples shall be collected form the fuel tank immediately after the fuel tank is filled and before any fuel is combusted.
- E. Recordkeeping and Recording
 - 1. The owner/operator shall, on a monthly basis, no later than 15 days after the first of the month, determine the fuel use for the entire facility, excluding the emergency generators, for the previous 12-months. The owner/operator shall keep records of this determination and provide such records of the Office of Air Resources upon request. This provision shall become effective immediately upon issuance of the emissions cap.
 - 2. The owner/operator shall, on a monthly basis, no later than 15 days after the first of the month, determine the hours of operation for all the emergency generators for the previous 12-months. The owner/operator shall keep record of this determination and provide such records to the Office of Air Resources upon request. This provision shall become effective immediately upon issuance of the emissions cap.
 - 3. The owner/operator shall notify the Office of Air Resources in writing within 30-days, whenever its fuel usage for all fuel burning equipment for the entire facility, excluding the emergency generators for any 12-month period exceeds 300,000,000 SCF of natural gas equivalents.

- 4. The owner/operator shall notify the Office of Air Resources in writing within 30-days, whenever any emergency generator, excluding the permitted emergency generators, operates more than 400 hours in any 12-month period.
- 5. The owner/operator shall notify the Office of Air Resources in writing within 30-days, whenever any permitted emergency generators operates more than 500 hours in any 12-month period.
- 6. The owner/operator shall maintain copies of all fuel supplier certifications of fuel oil analysis and these copies shall be made accessible for review by the Office of Air Resources of its authorized representatives and USEPA.
- 7. The owner/operator shall notify the Office of Air Resources in writing of any planned physical or operational change to any equipment that would:
 - a. Change the representation of the facility in the application.
 - b. Alter the applicability of any state or federal air pollution rules or regulations.
 - c. Result in the violation of any terms or conditions of this permit.
 - d. Qualify as a modification under "Air Pollution Control Permits" 250-RICR-120-05-9.

Such notification shall include:

- Information describing the nature of the change.
- Information describing the effect of the change on the emissions of any air contaminant.
- The scheduled completion date of the planned change.

Any such change shall be consistent with the appropriate regulations and have the prior approval of the Director.

- 8. The owner/operator shall notify the Office of Air Resources of any anticipated noncompliance with the terms of this emissions cap or any other applicable air pollution control rules or regulations.
- 9. All records required in this permit shall be maintained at a minimum of five years after the date of each record and shall be made available to representatives of the Office of Air Resources upon request.

F. Other Conditions

- 1. Employees of the Office of Air Resources and its authorized representatives shall be allowed to enter the facility at all reasonable times for the purpose of inspecting any air pollution sources, investigating any condition it believes may be causing air pollution or examining any records required to be maintained by the Office of Air Resources.
- 2. The operating restrictions in Conditions B.1, B.2, and B.3 were established to ensure that emissions from this facility do not exceed any of the applicability thresholds in "Control of Nitrogen Oxide Emissions" 250-RICR-120-05-27 and "Operating Permits" 250-RICR-120-05-29. The following emissions factors were used to establish these operating restrictions:
 - a. Natural Gas Firing

The emission factor for nitrogen oxides discharged to the atmosphere from the natural gas combusting units (except emergency generators) with a heat input capacity less than or equal to 0.3 MMBtu/hr: 94 lbs/10⁶ cf natural gas.

The emission factor for nitrogen oxides discharged to the atmosphere from the natural gas combusting units (except emergency generators) with a heat input capacity of greater than or equal to 0.3 MMBtu/hr but less than 100 MMBtu/hr: 100 lbs/ 10^6 cf natural gas.

b. Diesel Oil Firing

The emission factor for nitrogen oxides discharged to the atmosphere from emergency generators combusting diesel fuel oil are from AP-42 and manufacturer's specifications. See attached Table 1.

The emission factor for sulfur dioxide discharged to the atmosphere from emergency generators combusting diesel fuel oil: 0.216 lbs per 1000 gallons burned.

c. Distillate Oil Firing

The emission factor for nitrogen oxides discharged to the atmosphere from the Utica Radiator boiler located at Bridgehouse: 23.80 lbs per 1000 gallons burned.

The emission factor for sulfur dioxide discharged to the atmosphere from the boilers: 0.216 lbs per 1000 gallons burned.

- 3. The Office may reopen and revise this emissions cap if it determines that:
 - a. A material mistake was made in establishing the operating restriction; or
 - b. Inaccurate emissions factors were used in establishing the operating restrictions; or
 - c. This emissions cap may be revised to ensure that emissions from this facility do not exceed any of the applicable thresholds in 250-RICR-120-05-27, and 250-RICR-120-05-29.

Table 1									
ID No.	BUILDING	MANUFACTURER	MODEL NUMBER	SERIAL NUMBER	FUEL TYPE	Heat Input Capacity (MMBtu/hr)	Run Time (hrs/yr)	NOx Emission Factor (lb/MMBtu)	Lb/hr
G001	ADMIN	Superior	15R121	0541573	ULSD	0.2658	400	4.41	1.17
G002	ARCH (SAAHP)	Superior	75R131	0187572	ULSD	0.8494	400	4.41	3.75
G004	CEDAR	Superior	115R131	06041580	ULSD	1.1782	400	4.41	5.20
G005*	CEDAR SEWER	Superior	40R131	08121914	ULSD	0.435	500	0.953	0.41
G006	DINING	Superior	400R161	04061695	ULSD	4.521	400	4.41	19.94
G007	FACILITIES	Superior	240R131	12051672	ULSD	2.2769	400	4.41	10.04
G008	FCAS/SECCM	Superior	75R431	08991280	Nat. Gas	0.97	400	2.21	2.14
G009	GABELLI DATA	Superior	200R131	02071761	ULSD	1.9344	400	4.41	8.53
G010	GABELLI	Kohler	50RZ282	361812	Nat. Gas	0.92	400	2.21	2.03
G011*	GLOBAL HH	Caterpillar	SR43 (G3406)	CBM00232	Nat. Gas	2.894	500	0.91	2.63
G012*	GUARD / GATE	Superior	50R161	09071795	ULSD	0.6028	500	1.37	0.83
G013	LAW	Superior	250R161	02931030	ULSD	2.9044	400	4.41	12.81
G014%	LIBRARY	Generac	SD250	2101282	ULSD	2.5071	500	0.769	1.93
G015	MAPLE	Superior	150R161	01051607	ULSD	1.3289	400	4.41	5.86
G016	MNS	Caterpillar	SR4-200KW	7BF00826	ULSD	2.1098	400	4.41	9.30
G017	NORTH CLASS	Kohler	100R081	461491	ULSD	1.1124	400	4.41	4.91
G018*	NORTH RES - GPEG-147	Superior	250R161	04091854	ULSD	2.414	500	0.172	0.41
G019	NORTH SEWER	Superior	55R431	02091851	Nat. Gas	1.03	500	2.21	2.28
G020	PERFORMING ARTS	Superior	60R131	09041590	ULSD	0.7261	400	4.41	3.20
G021	PORTABLE #01	Superior	175R131/161	030516016	ULSD	1.8632	400	4.41	8.22
G022*	PORTABLE #02 - GPEG-144	Superior	125R131	08121912	ULSD	1.296	500	0.851	1.10
G023*	PORTABLE #03 - GPEG-145	Superior	125R131	08121913	ULSD	1.296	500	0.851	1.10
G024	PRESIDENT RES.	Superior	25R421	11001374	Nat. Gas	0.31	400	2.21	0.69
G025	REC CENTER	Superior	150R161	01031508	ULSD	1.6303	400	4.41	7.19
G026	STONEWALL	Superior	100R431	07011407	Nat. Gas	1.42	400	2.21	3.14
G027	STUDENT DEV	Superior	R30/161	12941085	Nat. Gas	0.38	400	2.21	0.84
G028	WILLOW	Kohler	175R0Z81	130744	ULSD	1.8495	400	4.41	8.16
G029*	BAYSIDE 400 - GPEG-362	Caterpillar	DG60-2	CAT0DG60KT3700298	Nat. Gas	0.774	500	0.0039	0.003
G030*	SECCM LABS - GPEG-416	Caterpillar	С9		ULSD	2.658	500	1.03	2.74
G031*	BAYSIDE EAST - GPEG-427	Caterpillar	C4.4		ULSD	0.507	500	0.927	0.47

% Permitted under Verizon Wireless GPEG-24

* Emission factor from manufacturer

All other emission factors are from AP-42

ULSD = Ultra low sulfur diesel